

# ANTHONY NOLAN RESEARCH INSTITUTE

## EXON IDENTITY AND AMBIGUOUS TYPING COMBINATIONS

12<sup>TH</sup> JULY 2012

James Robinson

Jason A Halliwell

Steven GE Marsh

The use of Sequence Based Typing (SBT) as a method for defining the HLA type is well documented, most SBT typing strategies currently employed use the exon 2 and exon 3 sequences for HLA class I analysis and exon 2 alone for HLA class II analysis. Due to the heterozygous nature of the SBT analysis the combinations of many pairs of alleles may give an ambiguous typing result. This document includes a list of all alleles which are identical over exons 2+3 for HLA class I and exon 2 for HLA class II, in addition all ambiguous results obtained when using all alleles in the current release.

From 01 April 2010, all groups of HLA alleles that have identical nucleotide sequences across the exons encoding the peptide binding domains (exon 2 and 3 for HLA class I and exon 2 only for HLA class II alleles) are designated by an upper case 'G' which follows the three-field allele designation of the lowest numbered allele in the group.

The algorithm used to generate the G groups does include alleles that contain unsequenced regions. For these alleles the sequence of an alternate allele has been used to extend the sequence over this region. Where possible a genomic or silent variant of the unsequenced allele is used. When this is not possible an alternate allele from within the same first field group is used and only used when there is a high probability that the sequence used would be shown to be correct if the region was fully sequenced. The list of alleles containing unsequenced regions and the alternate alleles used to infer the missing sequence are detailed in this document. We recognise that future sequencing of unsequenced regions may reveal disparity between the predicted sequence and the newly sequenced region. We therefore welcome any further information, which will help improve analysis of these regions.

The generation of G groups and ambiguous combinations of DRB alleles has been extended to include the complete sequences of exon 2. Previous versions contained only the sequence from nucleotides 101 to 356 due to a polymorphism at position 357 that could not be accurately predicted. Phylogenetic analysis of the increased number of DRB exon 2 sequences has been used to allow us to predict this position in alleles that are unsequenced for position 357. The extension of the sequence analysed has meant that a number of G groups previously assigned are no longer present in the output due to polymorphisms found between nucleotides 357 to 370. The following groups are no longer listed in the DRB tables as they now contain only a single allele. The identification of new alleles may cause these groups to be included in the tables again at a later date.

|                 |                 |                 |                 |                 |
|-----------------|-----------------|-----------------|-----------------|-----------------|
| DRB1*01:01:01G, | DRB1*03:05:01G, | DRB1*04:03:01G, | DRB1*04:05:01G, | DRB1*04:17:01G, |
| DRB1*08:02:01G, | DRB1*08:04:01G, | DRB1*08:04:02G, | DRB1*11:01:03G, | DRB1*11:04:01G, |
| DRB1*11:08:01G, | DRB1*11:10:01G, | DRB1*11:14:01G, | DRB1*11:65:01G, | DRB1*13:03:01G, |
| DRB1*13:05:01G, | DRB1*13:12:01G, | DRB1*13:14:01G, | DRB1*13:21:01G, | DRB1*13:23:01G, |
| DRB1*13:33:02G, | DRB1*13:66:01G, | DRB1*14:06:01G, | DRB1*14:07:01G, | DRB1*14:12:01G, |
| DRB1*15:02:02G, |                 |                 |                 |                 |

Previous versions of this analysis also omitted DQB1\*06:06 from the analysis. This allele is now included into the analysis, following phylogenetic and sequence analysis to aid in predicting the unsequenced regions.

# HLA-A Ambiguities, Release 3.9.0

## Sequences identical over exons 2+3

| Code in table | Allele 1      | Allele 2       | Allele 3      | Allele 4    | Allele 5   | Allele 6    | Allele 7   | Allele 8   | Allele 9   | Allele 10  |
|---------------|---------------|----------------|---------------|-------------|------------|-------------|------------|------------|------------|------------|
| A*01:01:01G   | A*01:01:01:01 | A*01:01:01:02N | A*01:01:38L   | A*01:04N    | A*01:22N   | A*01:32     | A*01:37    | A*01:45    | A*01:56N   | A*01:81    |
| A*02:01:01G   | A*01:87N      | A*01:103       | A*01:107      | A*01:109    |            |             |            |            |            |            |
|               | A*02:01:01:01 | A*02:01:01:02L | A*02:01:01:03 | A*02:01:08  | A*02:01:11 | A*02:01:14Q | A*02:01:15 | A*02:01:21 | A*02:01:48 | A*02:01:50 |
|               | A*02:01:79    | A*02:01:80     | A*02:09       | A*02:43N    | A*02:66    | A*02:75     | A*02:83N   | A*02:89    | A*02:97:01 | A*02:97:02 |
|               | A*02:132      | A*02:134       | A*02:140      | A*02:241    | A*02:252   | A*02:256    | A*02:266   | A*02:291   | A*02:294   | A*02:305N  |
|               | A*02:327      | A*02:329       | A*02:356N     | A*02:357    |            |             |            |            |            |            |
| A*02:03:01G   | A*02:03:01    | A*02:253       | A*02:264      | A*02:370    |            |             |            |            |            |            |
| A*02:05:01G   | A*02:05:01    | A*02:179       | A*02:324      |             |            |             |            |            |            |            |
| A*02:06:01G   | A*02:06:01    | A*02:06:13     | A*02:126      |             |            |             |            |            |            |            |
| A*02:07:01G   | A*02:07:01    | A*02:07:02     | A*02:15N      | A*02:265    |            |             |            |            |            |            |
| A*02:11:01G   | A*02:11:01    | A*02:69        |               |             |            |             |            |            |            |            |
| A*02:16:01G   | A*02:16       | A*02:131       |               |             |            |             |            |            |            |            |
| A*02:17:01G   | A*02:17:01    | A*02:17:02     |               |             |            |             |            |            |            |            |
| A*02:22:01G   | A*02:22:01    | A*02:104       |               |             |            |             |            |            |            |            |
| A*02:81:01G   | A*02:81       | A*02:124       |               |             |            |             |            |            |            |            |
| A*03:01:01G   | A*03:01:01:01 | A*03:01:01:02N | A*03:01:01:03 | A*03:01:07  | A*03:01:27 | A*03:20     | A*03:21N   | A*03:26    | A*03:37    | A*03:45    |
|               | A*03:78       | A*03:112       | A*03:118      | A*03:129N   | A*03:132   | A*03:134    |            |            |            |            |
| A*11:01:01G   | A*11:01:01    | A*11:21N       | A*11:69N      | A*11:86     | A*11:100   | A*11:102    | A*11:108   | A*11:120   | A*11:124   | A*11:126   |
|               | A*11:129      |                |               |             |            |             |            |            |            |            |
| A*11:02:01G   | A*11:02:01    | A*11:02:03     | A*11:77       | A*11:110    |            |             |            |            |            |            |
| A*23:01:01G   | A*23:01:01    | A*23:01:05     | A*23:07N      | A*23:17     | A*23:18    | A*23:20     |            |            |            |            |
| A*24:02:01G   | A*24:02:01:01 | A*24:02:01:02L | A*24:02:01:03 | A*24:02:03Q | A*24:02:10 | A*24:02:13  | A*24:02:31 | A*24:02:40 | A*24:02:43 | A*24:02:44 |
|               | A*24:02:56    | A*24:09N       | A*24:11N      | A*24:40N    | A*24:76    | A*24:79     | A*24:83N   | A*24:144   | A*24:150   | A*24:153   |
|               | A*24:154      | A*24:155N      | A*24:163N     | A*24:183N   |            |             |            |            |            |            |
| A*24:03:01G   | A*24:03:01    | A*24:33        |               |             |            |             |            |            |            |            |
| A*24:05:01G   | A*24:05       | A*24:199       |               |             |            |             |            |            |            |            |
| A*25:01:01G   | A*25:01:01    | A*25:07        |               |             |            |             |            |            |            |            |
| A*26:01:01G   | A*26:01:01    | A*26:01:07     | A*26:01:25    | A*26:24     | A*26:26    | A*26:56     |            |            |            |            |
| A*29:01:01G   | A*29:01:01:01 | A*29:01:01:02N |               |             |            |             |            |            |            |            |
| A*29:02:01G   | A*29:02:01:01 | A*29:02:01:02  | A*29:02:07    | A*29:26     |            |             |            |            |            |            |
| A*30:01:01G   | A*30:01:01    | A*30:01:02     | A*30:24       |             |            |             |            |            |            |            |
| A*30:02:01G   | A*30:02:01    | A*30:02:02     | A*30:33       |             |            |             |            |            |            |            |
| A*31:01:02G   | A*31:01:02    | A*31:01:13     | A*31:14N      | A*31:23     | A*31:46    | A*31:48     | A*31:55    | A*31:56    | A*31:59    |            |
| A*32:01:01G   | A*32:01:01    | A*32:01:02     |               |             |            |             |            |            |            |            |
| A*33:01:01G   | A*33:01:01    | A*33:38        |               |             |            |             |            |            |            |            |
| A*33:03:01G   | A*33:03:01    | A*33:03:03Q    | A*33:15       | A*33:25     | A*33:31    | A*33:39     | A*33:44    |            |            |            |
| A*66:01:01G   | A*66:01       | A*66:08        | A*66:17       |             |            |             |            |            |            |            |
| A*68:01:01G   | A*68:01:01:01 | A*68:01:01:02  | A*68:01:07    |             |            |             |            |            |            |            |
| A*68:01:02G   | A*68:01:02    | A*68:11N       | A*68:33       |             |            |             |            |            |            |            |
| A*68:02:01G   | A*68:02:01:01 | A*68:02:01:02  | A*68:02:01:03 |             |            |             |            |            |            |            |
| A*74:01:01G   | A*74:01       | A*74:02:01:01  | A*74:02:01:02 |             |            |             |            |            |            |            |

## Alleles extended due to unsequenced regions

The following alleles do not contain the complete exon 2 + 3 sequence. For these alleles, the sequence of an alternate allele has been used to extend the sequence to cover this region.

| Incomplete allele | Sequence extended with |
|-------------------|------------------------|
| None              |                        |

## Alleles removed from analysis due to insertions or deletions

| Allele    |
|-----------|
| A*01:15N  |
| A*01:16N  |
| A*02:94N  |
| A*02:125N |
| A*02:250N |
| A*02:301N |
| A*03:03N  |
| A*03:36N  |
| A*11:52Q  |
| A*11:78N  |
| A*11:99N  |
| A*23:11N  |
| A*23:38N  |
| A*24:36N  |
| A*24:45N  |
| A*24:86N  |
| A*24:158N |
| A*26:11N  |
| A*26:25N  |
| A*68:18N  |
| A*74:12N  |

## Ambiguous typing combinations over exon 2 + 3

| Combination 1           | Combination 2          | Combination 3         | Combination 4       | Combination 5     |
|-------------------------|------------------------|-----------------------|---------------------|-------------------|
| A*01:01:01G+A*01:13     | A*01:17+A*01:28        |                       |                     |                   |
| A*01:01:01G+A*01:20     | A*01:02+A*01:66        |                       |                     |                   |
| A*01:01:01G+A*02:01:01G | A*01:01:13+A*02:01:02  | A*01:01:21+A*02:01:09 | A*01:14+A*02:101:01 | A*01:30+A*02:246  |
|                         | A*01:66+A*02:338       | A*01:98+A*02:262      | A*01:100+A*02:346   | A*01:104+A*02:90  |
|                         | A*02:36+A*36:04        |                       |                     |                   |
| A*01:01:01G+A*02:01:04  | A*01:01:10+A*02:01:01G |                       |                     |                   |
| A*01:01:01G+A*02:01:17  | A*01:01:10+A*02:01:52  |                       |                     |                   |
| A*01:01:01G+A*02:01:18  | A*01:01:03+A*02:01:01G |                       |                     |                   |
| A*01:01:01G+A*02:01:25  | A*01:01:40+A*02:01:01G |                       |                     |                   |
| A*01:01:01G+A*02:01:29  | A*01:01:33+A*02:01:01G |                       |                     |                   |
| A*01:01:01G+A*02:01:36  | A*01:01:26+A*02:01:01G |                       |                     |                   |
| A*01:01:01G+A*02:01:38  | A*01:01:29+A*02:01:01G |                       |                     |                   |
| A*01:01:01G+A*02:01:41  | A*01:01:19+A*02:01:01G |                       |                     |                   |
| A*01:01:01G+A*02:01:43  | A*01:01:37+A*02:01:01G |                       |                     |                   |
| A*01:01:01G+A*02:01:49  | A*01:01:04+A*02:01:01G |                       |                     |                   |
| A*01:01:01G+A*02:01:54  | A*01:01:46+A*02:01:01G |                       |                     |                   |
| A*01:01:01G+A*02:03:04  | A*01:01:03+A*02:03:01G |                       |                     |                   |
| A*01:01:01G+A*02:05:01G | A*01:01:21+A*02:05:05  | A*01:14+A*02:154      | A*01:43+A*02:02     |                   |
| A*01:01:01G+A*02:06:01G | A*01:01:13+A*02:06:09  | A*01:01:21+A*02:06:07 | A*01:43+A*02:01:01G | A*01:104+A*02:331 |
| A*01:01:01G+A*02:06:02  | A*01:01:04+A*02:06:01G | A*01:43+A*02:01:49    |                     |                   |
| A*01:01:01G+A*02:06:03  | A*01:01:27+A*02:06:01G |                       |                     |                   |
| A*01:01:01G+A*02:06:04  | A*01:43+A*02:01:22     |                       |                     |                   |
| A*01:01:01G+A*02:06:06  | A*01:01:25+A*02:06:01G |                       |                     |                   |
| A*01:01:01G+A*02:06:07  | A*01:43+A*02:01:09     |                       |                     |                   |
| A*01:01:01G+A*02:06:09  | A*01:43+A*02:01:02     |                       |                     |                   |
| A*01:01:01G+A*02:06:10  | A*01:01:14+A*02:06:01G |                       |                     |                   |
| A*01:01:01G+A*02:06:12  | A*01:43+A*02:01:52     |                       |                     |                   |
| A*01:01:01G+A*02:07:01G | A*02:255+A*36:04       |                       |                     |                   |
| A*01:01:01G+A*02:10     | A*01:43+A*02:242       |                       |                     |                   |
| A*01:01:01G+A*02:11:01G | A*01:01:21+A*02:11:02  |                       |                     |                   |
| A*01:01:01G+A*02:11:03  | A*01:01:03+A*02:11:01G |                       |                     |                   |
| A*01:01:01G+A*02:12     | A*01:25+A*02:49        | A*02:37+A*36:04       |                     |                   |
| A*01:01:01G+A*02:22:02  | A*01:01:07+A*02:22:01G |                       |                     |                   |
| A*01:01:01G+A*02:34     | A*01:17+A*02:01:01G    | A*01:104+A*02:35:01   |                     |                   |
| A*01:01:01G+A*02:35:01  | A*01:01:21+A*02:35:03  | A*01:13+A*02:146      | A*01:17+A*02:90     |                   |
| A*01:01:01G+A*02:41     | A*01:43+A*02:289       |                       |                     |                   |
| A*01:01:01G+A*02:51     | A*01:43+A*02:40:01     |                       |                     |                   |
| A*01:01:01G+A*02:54     | A*01:43+A*02:37        |                       |                     |                   |
| A*01:01:01G+A*02:56:02  | A*01:17+A*02:195       |                       |                     |                   |
| A*01:01:01G+A*02:58     | A*01:73+A*02:338       | A*01:89+A*02:245      |                     |                   |
| A*01:01:01G+A*02:62     | A*01:17+A*02:20:01     |                       |                     |                   |
| A*01:01:01G+A*02:67     | A*01:76+A*02:01:01G    |                       |                     |                   |
| A*01:01:01G+A*02:72     | A*01:43+A*02:275       |                       |                     |                   |
| A*01:01:01G+A*02:74:02  | A*01:86+A*02:01:01G    |                       |                     |                   |
| A*01:01:01G+A*02:79:01  | A*01:43+A*02:86        |                       |                     |                   |
| A*01:01:01G+A*02:79:02  | A*01:01:26+A*02:79:01  |                       |                     |                   |
| A*01:01:01G+A*02:87     | A*01:95+A*02:146       |                       |                     |                   |
| A*01:01:01G+A*02:90     | A*01:28+A*02:146       |                       |                     |                   |
| A*01:01:01G+A*02:91     | A*01:43+A*02:322       |                       |                     |                   |
| A*01:01:01G+A*02:93     | A*01:30+A*02:279       | A*01:66+A*02:156      |                     |                   |
| A*01:01:01G+A*02:95     | A*01:30+A*02:114       |                       |                     |                   |
| A*01:01:01G+A*02:99     | A*01:43+A*02:26        |                       |                     |                   |
| A*01:01:01G+A*02:106    | A*01:43+A*02:145       |                       |                     |                   |
| A*01:01:01G+A*02:108    | A*01:43+A*02:17:01G    |                       |                     |                   |
| A*01:01:01G+A*02:113N   | A*01:31N+A*02:01:01G   |                       |                     |                   |
| A*01:01:01G+A*02:122    | A*01:43+A*02:50        |                       |                     |                   |
| A*01:01:01G+A*02:127    | A*01:43+A*02:16        |                       |                     |                   |
| A*01:01:01G+A*02:133    | A*01:80+A*02:01:01G    |                       |                     |                   |
| A*01:01:01G+A*02:137    | A*01:43+A*02:24:01     |                       |                     |                   |
| A*01:01:01G+A*02:142    | A*01:43+A*02:12        | A*02:54+A*36:04       |                     |                   |
| A*01:01:01G+A*02:144    | A*01:43+A*02:205       |                       |                     |                   |
| A*01:01:01G+A*02:16     | A*01:44+A*02:01:01G    |                       |                     |                   |
| A*01:01:01G+A*02:16     | A*01:67+A*02:01:01G    |                       |                     |                   |
| A*01:01:01G+A*02:16     | A*01:43+A*02:195       |                       |                     |                   |
| A*01:01:01G+A*02:170    | A*01:43+A*02:364       |                       |                     |                   |
| A*01:01:01G+A*02:174    | A*01:61+A*02:01:01G    |                       |                     |                   |
| A*01:01:01G+A*02:178    | A*01:43+A*02:64        |                       |                     |                   |
| A*01:01:01G+A*02:183    | A*01:41+A*02:01:01G    |                       |                     |                   |
| A*01:01:01G+A*02:190    | A*01:61+A*02:118       |                       |                     |                   |
| A*01:01:01G+A*02:197    | A*01:101+A*02:01:01G   |                       |                     |                   |
| A*01:01:01G+A*02:211:01 | A*01:91+A*02:01:01G    |                       |                     |                   |
| A*01:01:01G+A*02:213    | A*01:46+A*02:01:01G    |                       |                     |                   |
| A*01:01:01G+A*02:214    | A*01:84+A*02:01:01G    |                       |                     |                   |
| A*01:01:01G+A*02:226N   | A*01:25+A*02:22:01G    |                       |                     |                   |
| A*01:01:01G+A*02:259    | A*01:96+A*02:06:01G    |                       |                     |                   |
| A*01:01:01G+A*02:280    | A*01:14+A*02:38        |                       |                     |                   |
| A*01:01:01G+A*02:295    | A*01:43+A*02:123       |                       |                     |                   |
| A*01:01:01G+A*02:300    | A*01:43+A*02:110       |                       |                     |                   |
| A*01:01:01G+A*02:310    | A*01:43+A*02:42        |                       |                     |                   |
| A*01:01:01G+A*02:315    | A*01:62+A*02:03:01G    |                       |                     |                   |
| A*01:01:01G+A*02:328    | A*01:43+A*02:273       |                       |                     |                   |
| A*01:01:01G+A*02:330    | A*01:33+A*02:06:01G    |                       |                     |                   |
| A*01:01:01G+A*02:331    | A*01:43+A*02:90        |                       |                     |                   |
| A*01:01:01G+A*02:334    | A*01:03+A*02:338       |                       |                     |                   |
| A*01:01:01G+A*02:355    | A*01:43+A*02:03:01G    |                       |                     |                   |
| A*01:01:01G+A*02:358    | A*01:43+A*02:92        |                       |                     |                   |
| A*01:01:01G+A*02:363    | A*01:54+A*02:01:01G    |                       |                     |                   |
| A*01:01:01G+A*03:01:01G | A*01:17+A*03:08        | A*01:28+A*03:57       | A*01:98+A*03:150    | A*01:100+A*03:63  |
|                         | A*03:97+A*36:04        |                       |                     |                   |
| A*01:01:01G+A*03:01:10  | A*01:105+A*03:01:01G   |                       |                     |                   |
| A*01:01:01G+A*03:01:12  | A*01:01:13+A*03:01:01G |                       |                     |                   |
| A*01:01:01G+A*03:01:14  | A*01:01:16+A*03:01:01G |                       |                     |                   |
| A*01:01:01G+A*03:01:16  | A*01:01:27+A*03:01:01G |                       |                     |                   |
| A*01:01:01G+A*03:01:30  | A*01:01:23+A*03:01:01G |                       |                     |                   |
| A*01:01:01G+A*03:04:01  | A*01:86+A*03:01:01G    |                       |                     |                   |
| A*01:01:01G+A*03:05:01  | A*03:122+A*36:04       |                       |                     |                   |
| A*01:01:01G+A*03:09     | A*01:17+A*03:108       | A*01:104+A*03:01:01G  |                     |                   |
| A*01:01:01G+A*03:12     | A*01:43+A*03:01:01G    |                       |                     |                   |
| A*01:01:01G+A*03:17:02  | A*01:88+A*03:01:01G    |                       |                     |                   |

|                         |                        |                     |                    |                  |
|-------------------------|------------------------|---------------------|--------------------|------------------|
| A*01:01:01G+A*03:19     | A*01:30+A*03:15        |                     |                    |                  |
| A*01:01:01G+A*03:22:01  | A*01:61+A*03:01:01G    |                     |                    |                  |
| A*01:01:01G+A*03:22:02  | A*01:61+A*03:01:18     |                     |                    |                  |
| A*01:01:01G+A*03:44     | A*01:44+A*03:01:01G    |                     |                    |                  |
| A*01:01:01G+A*03:63     | A*01:13+A*03:41        |                     |                    |                  |
| A*01:01:01G+A*03:65     | A*01:25+A*03:66        |                     |                    |                  |
| A*01:01:01G+A*03:69N    | A*01:25+A*03:50        |                     |                    |                  |
| A*01:01:01G+A*03:70     | A*01:47+A*03:01:01G    |                     |                    |                  |
| A*01:01:01G+A*03:77     | A*01:35+A*03:01:01G    |                     |                    |                  |
| A*01:01:01G+A*03:85     | A*01:62+A*03:01:01G    |                     |                    |                  |
| A*01:01:01G+A*03:87     | A*01:101+A*03:01:01G   |                     |                    |                  |
| A*01:01:01G+A*03:95     | A*01:66+A*03:01:01G    |                     |                    |                  |
| A*01:01:01G+A*03:99     | A*01:91+A*03:56        |                     |                    |                  |
| A*01:01:01G+A*03:108    | A*01:104+A*03:08       |                     |                    |                  |
| A*01:01:01G+A*03:124    | A*01:112+A*03:01:01G   |                     |                    |                  |
| A*01:01:01G+A*03:136    | A*01:80+A*03:01:01G    |                     |                    |                  |
| A*01:01:01G+A*11:01:01G | A*01:13+A*11:40        | A*01:17+A*11:19     | A*01:25+A*11:44    | A*01:98+A*11:112 |
|                         | A*11:39+A*36:04        |                     |                    |                  |
| A*01:01:01G+A*11:01:02  | A*01:01:25+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:01:05  | A*01:01:10+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:01:06  | A*01:01:40+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:01:07  | A*01:01:26+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:01:11  | A*01:01:45+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:01:17  | A*01:01:27+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:01:25  | A*01:01:46+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:01:26  | A*01:01:05+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:01:30  | A*01:01:07+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:01:34  | A*01:01:13+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:01:36  | A*01:01:35+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:01:37  | A*01:01:39+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:01:39  | A*01:01:16+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:01:40  | A*01:01:33+A*11:01:01G |                     |                    |                  |
| A*01:01:01G+A*11:02:01G | A*11:38+A*36:04        |                     |                    |                  |
| A*01:01:01G+A*11:04     | A*01:14+A*11:01:01G    | A*11:27+A*36:04     | A*11:39+A*36:01    |                  |
| A*01:01:01G+A*11:06     | A*01:104+A*11:01:01G   |                     |                    |                  |
| A*01:01:01G+A*11:12     | A*01:100+A*11:01:01G   |                     |                    |                  |
| A*01:01:01G+A*11:19     | A*01:28+A*11:40        |                     |                    |                  |
| A*01:01:01G+A*11:20     | A*01:25+A*11:08        |                     |                    |                  |
| A*01:01:01G+A*11:22     | A*01:79+A*11:01:01G    |                     |                    |                  |
| A*01:01:01G+A*11:26     | A*01:03+A*11:117       |                     |                    |                  |
| A*01:01:01G+A*11:27     | A*01:14+A*11:39        |                     |                    |                  |
| A*01:01:01G+A*11:30     | A*01:101+A*11:01:01G   |                     |                    |                  |
| A*01:01:01G+A*11:33:01  | A*01:01:26+A*11:33:02  | A*01:61+A*11:01:07  |                    |                  |
| A*01:01:01G+A*11:33:02  | A*01:61+A*11:01:01G    |                     |                    |                  |
| A*01:01:01G+A*11:40     | A*01:23+A*11:17        |                     |                    |                  |
| A*01:01:01G+A*11:48     | A*01:41+A*11:01:01G    |                     |                    |                  |
| A*01:01:01G+A*11:84     | A*01:62+A*11:01:01G    |                     |                    |                  |
| A*01:01:01G+A*11:118    | A*01:03+A*11:01:01G    |                     |                    |                  |
| A*01:01:01G+A*23:01:01G | A*01:14+A*23:10        | A*01:30+A*23:53     | A*01:61+A*23:14:02 |                  |
| A*01:01:01G+A*23:01:02  | A*01:01:29+A*23:01:01G |                     |                    |                  |
| A*01:01:01G+A*23:01:09  | A*01:01:14+A*23:01:01G |                     |                    |                  |
| A*01:01:01G+A*23:04     | A*23:01:01G+A*36:04    | A*23:10+A*36:01     |                    |                  |
| A*01:01:01G+A*23:12     | A*01:104+A*23:01:01G   |                     |                    |                  |
| A*01:01:01G+A*23:13     | A*01:17+A*23:01:01G    |                     |                    |                  |
| A*01:01:01G+A*23:25     | A*01:86+A*23:01:01G    |                     |                    |                  |
| A*01:01:01G+A*23:33     | A*01:90+A*23:01:01G    |                     |                    |                  |
| A*01:01:01G+A*24:02:01G | A*01:01:26+A*24:02:02  | A*01:14+A*24:46     | A*01:25+A*24:87    | A*01:26+A*24:136 |
|                         | A*01:30+A*24:17        | A*01:89+A*24:120    | A*01:95+A*24:04    | A*01:98+A*24:160 |
| A*01:01:01G+A*24:02:06  | A*01:01:21+A*24:02:01G |                     |                    |                  |
| A*01:01:01G+A*24:02:09  | A*01:01:16+A*24:02:01G |                     |                    |                  |
| A*01:01:01G+A*24:02:11  | A*01:01:39+A*24:02:01G |                     |                    |                  |
| A*01:01:01G+A*24:02:12  | A*01:01:04+A*24:02:01G |                     |                    |                  |
| A*01:01:01G+A*24:02:14  | A*01:01:27+A*24:02:01G |                     |                    |                  |
| A*01:01:01G+A*24:02:18  | A*01:01:03+A*24:02:01G |                     |                    |                  |
| A*01:01:01G+A*24:02:20  | A*01:01:11+A*24:02:01G |                     |                    |                  |
| A*01:01:01G+A*24:02:22  | A*01:01:43+A*24:02:01G |                     |                    |                  |
| A*01:01:01G+A*24:02:26  | A*01:01:19+A*24:02:01G |                     |                    |                  |
| A*01:01:01G+A*24:02:35  | A*01:01:10+A*24:02:01G |                     |                    |                  |
| A*01:01:01G+A*24:02:46  | A*01:01:09+A*24:02:01G |                     |                    |                  |
| A*01:01:01G+A*24:02:53  | A*01:01:46+A*24:02:01G |                     |                    |                  |
| A*01:01:01G+A*24:02:58  | A*01:01:13+A*24:02:01G |                     |                    |                  |
| A*01:01:01G+A*24:03:01G | A*01:14+A*24:10        | A*24:02:01G+A*36:04 | A*24:46+A*36:01    |                  |
| A*01:01:01G+A*24:03:02  | A*01:01:03+A*24:03:01G | A*24:02:18+A*36:04  |                    |                  |
| A*01:01:01G+A*24:04     | A*01:100+A*24:109      |                     |                    |                  |
| A*01:01:01G+A*24:05:01G | A*01:61+A*24:02:01G    |                     |                    |                  |
| A*01:01:01G+A*24:07     | A*01:17+A*24:02:01G    |                     |                    |                  |
| A*01:01:01G+A*24:10     | A*24:46+A*36:04        |                     |                    |                  |
| A*01:01:01G+A*24:15     | A*01:03+A*24:51        |                     |                    |                  |
| A*01:01:01G+A*24:19     | A*01:13+A*24:109       | A*01:17+A*24:44     |                    |                  |
| A*01:01:01G+A*24:21:02  | A*01:01:06+A*24:21:01  |                     |                    |                  |
| A*01:01:01G+A*24:23     | A*01:72+A*24:02:01G    |                     |                    |                  |
| A*01:01:01G+A*24:26     | A*01:39+A*24:02:01G    |                     |                    |                  |
| A*01:01:01G+A*24:30     | A*01:104+A*24:02:01G   |                     |                    |                  |
| A*01:01:01G+A*24:44     | A*01:28+A*24:109       |                     |                    |                  |
| A*01:01:01G+A*24:50     | A*01:43+A*24:104       |                     |                    |                  |
| A*01:01:01G+A*24:51     | A*01:89+A*24:92        |                     |                    |                  |
| A*01:01:01G+A*24:53     | A*01:89+A*24:57        |                     |                    |                  |
| A*01:01:01G+A*24:112    | A*01:24+A*24:07        |                     |                    |                  |
| A*01:01:01G+A*24:139    | A*01:82+A*24:02:01G    |                     |                    |                  |
| A*01:01:01G+A*24:167    | A*01:98+A*24:22        | A*24:06+A*36:04     |                    |                  |
| A*01:01:01G+A*24:172    | A*01:96+A*24:02:01G    |                     |                    |                  |
| A*01:01:01G+A*24:176    | A*01:67+A*24:02:01G    |                     |                    |                  |
| A*01:01:01G+A*24:186    | A*01:74+A*24:02:01G    |                     |                    |                  |
| A*01:01:01G+A*24:207    | A*24:13:01+A*36:04     |                     |                    |                  |
| A*01:01:01G+A*25:01:01G | A*01:43+A*25:03        |                     |                    |                  |
| A*01:01:01G+A*25:01:04  | A*01:01:37+A*25:01:01G |                     |                    |                  |
| A*01:01:01G+A*25:01:06  | A*01:01:03+A*25:01:01G |                     |                    |                  |
| A*01:01:01G+A*25:01:07  | A*01:01:13+A*25:01:01G |                     |                    |                  |
| A*01:01:01G+A*25:02     | A*01:17+A*25:01:01G    |                     |                    |                  |
| A*01:01:01G+A*25:06     | A*01:14+A*25:01:01G    |                     |                    |                  |
| A*01:01:01G+A*25:11     | A*01:104+A*25:01:01G   |                     |                    |                  |
| A*01:01:01G+A*25:12N    | A*01:53N+A*25:01:01G   |                     |                    |                  |
| A*01:01:01G+A*25:13     | A*01:100+A*25:01:01G   |                     |                    |                  |
| A*01:01:01G+A*26:01:01G | A*01:01:26+A*26:01:17  | A*01:23+A*26:62     | A*01:51+A*26:72    | A*26:49+A*36:04  |
| A*01:01:01G+A*26:01:03  | A*01:01:03+A*26:01:01G |                     |                    |                  |



|                         |                        |                      |                 |                 |
|-------------------------|------------------------|----------------------|-----------------|-----------------|
| A*01:01:01G+A*26:01:09  | A*01:01:33+A*26:01:01G |                      |                 |                 |
| A*01:01:01G+A*26:01:11  | A*01:01:17+A*26:01:01G |                      |                 |                 |
| A*01:01:01G+A*26:01:12  | A*01:01:27+A*26:01:01G |                      |                 |                 |
| A*01:01:01G+A*26:01:19  | A*01:01:40+A*26:01:01G |                      |                 |                 |
| A*01:01:01G+A*26:03:01  | A*01:28+A*26:36        | A*01:104+A*66:05     |                 |                 |
| A*01:01:01G+A*26:07:01  | A*01:83+A*26:72        |                      |                 |                 |
| A*01:01:01G+A*26:09     | A*01:14+A*26:01:01G    | A*26:49+A*36:01      |                 |                 |
| A*01:01:01G+A*26:13     | A*01:17+A*26:01:01G    |                      |                 |                 |
| A*01:01:01G+A*26:15     | A*26:29+A*36:04        |                      |                 |                 |
| A*01:01:01G+A*26:30     | A*01:100+A*26:03:01    |                      |                 |                 |
| A*01:01:01G+A*26:34     | A*01:08+A*26:01:01G    |                      |                 |                 |
| A*01:01:01G+A*26:36     | A*01:104+A*26:01:01G   |                      |                 |                 |
| A*01:01:01G+A*26:64     | A*01:47+A*26:01:01G    |                      |                 |                 |
| A*01:01:01G+A*26:65     | A*01:100+A*26:01:01G   |                      |                 |                 |
| A*01:01:01G+A*26:74     | A*01:96+A*26:01:01G    |                      |                 |                 |
| A*01:01:01G+A*29:01:01G | A*01:17+A*29:20        |                      |                 |                 |
| A*01:01:01G+A*29:02:01G | A*01:01:26+A*29:02:11  | A*01:17+A*29:34      | A*01:61+A*29:09 | A*29:03+A*36:04 |
| A*01:01:01G+A*29:02:05  | A*01:01:34+A*29:02:01G |                      |                 |                 |
| A*01:01:01G+A*29:02:06  | A*01:01:43+A*29:02:01G |                      |                 |                 |
| A*01:01:01G+A*29:02:10  | A*01:01:27+A*29:02:01G |                      |                 |                 |
| A*01:01:01G+A*30:01:01G | A*01:61+A*30:54        |                      |                 |                 |
| A*01:01:01G+A*30:01:06  | A*01:01:25+A*30:01:01G |                      |                 |                 |
| A*01:01:01G+A*30:01:07  | A*01:01:16+A*30:01:01G |                      |                 |                 |
| A*01:01:01G+A*30:02:06  | A*01:01:06+A*30:02:01G |                      |                 |                 |
| A*01:01:01G+A*30:04:01  | A*01:01:21+A*30:04:02  |                      |                 |                 |
| A*01:01:01G+A*30:16     | A*01:17+A*30:44        | A*01:104+A*30:01:01G |                 |                 |
| A*01:01:01G+A*30:25     | A*01:17+A*30:02:01G    |                      |                 |                 |
| A*01:01:01G+A*30:37     | A*01:96+A*30:01:01G    |                      |                 |                 |
| A*01:01:01G+A*30:59N    | A*01:57N+A*30:01:01G   |                      |                 |                 |
| A*01:01:01G+A*31:01:02G | A*01:69:01+A*31:35     | A*31:05+A*36:04      |                 |                 |
| A*01:01:01G+A*31:01:03  | A*01:01:25+A*31:01:02G |                      |                 |                 |
| A*01:01:01G+A*31:01:06  | A*01:01:04+A*31:01:02G |                      |                 |                 |
| A*01:01:01G+A*31:01:11  | A*01:01:43+A*31:01:02G |                      |                 |                 |
| A*01:01:01G+A*31:04     | A*01:100+A*31:03       |                      |                 |                 |
| A*01:01:01G+A*31:17     | A*01:108+A*31:01:02G   |                      |                 |                 |
| A*01:01:01G+A*31:40     | A*01:80+A*31:01:02G    |                      |                 |                 |
| A*01:01:01G+A*31:45     | A*01:67+A*31:01:02G    |                      |                 |                 |
| A*01:01:01G+A*31:58     | A*01:49+A*31:01:02G    |                      |                 |                 |
| A*01:01:01G+A*32:01:01G | A*01:23+A*32:24        | A*32:13+A*36:04      |                 |                 |
| A*01:01:01G+A*32:01:07  | A*01:01:06+A*32:01:01G |                      |                 |                 |
| A*01:01:01G+A*32:01:09  | A*01:01:33+A*32:01:01G |                      |                 |                 |
| A*01:01:01G+A*32:01:13  | A*01:01:36+A*32:01:01G |                      |                 |                 |
| A*01:01:01G+A*32:08     | A*01:104+A*32:01:01G   |                      |                 |                 |
| A*01:01:01G+A*32:15     | A*01:51+A*32:24        |                      |                 |                 |
| A*01:01:01G+A*32:17     | A*01:17+A*32:01:01G    |                      |                 |                 |
| A*01:01:01G+A*32:21     | A*01:67+A*32:01:01G    |                      |                 |                 |
| A*01:01:01G+A*32:34     | A*01:77+A*32:01:01G    |                      |                 |                 |
| A*01:01:01G+A*32:46     | A*01:96+A*32:01:01G    |                      |                 |                 |
| A*01:01:01G+A*33:01:01G | A*01:03+A*33:49        | A*01:61+A*33:34      |                 |                 |
| A*01:01:01G+A*33:01:03  | A*01:01:44+A*33:01:01G |                      |                 |                 |
| A*01:01:01G+A*33:01:04  | A*01:01:39+A*33:01:01G |                      |                 |                 |
| A*01:01:01G+A*33:03:01G | A*01:14+A*33:61        | A*33:10+A*36:04      |                 |                 |
| A*01:01:01G+A*33:03:06  | A*01:01:35+A*33:03:01G |                      |                 |                 |
| A*01:01:01G+A*33:03:08  | A*01:01:02+A*33:03:01G |                      |                 |                 |
| A*01:01:01G+A*33:11     | A*01:28+A*33:48        |                      |                 |                 |
| A*01:01:01G+A*33:16     | A*01:67+A*33:01:01G    |                      |                 |                 |
| A*01:01:01G+A*33:24     | A*01:104+A*33:11       |                      |                 |                 |
| A*01:01:01G+A*33:32:02  | A*01:88+A*33:01:01G    |                      |                 |                 |
| A*01:01:01G+A*33:36     | A*01:74+A*33:03:01G    |                      |                 |                 |
| A*01:01:01G+A*33:40     | A*01:91+A*33:03:01G    |                      |                 |                 |
| A*01:01:01G+A*33:48     | A*01:100+A*33:13       |                      |                 |                 |
| A*01:01:01G+A*33:55     | A*01:97+A*33:03:01G    |                      |                 |                 |
| A*01:01:01G+A*34:02:01  | A*01:43+A*34:08        |                      |                 |                 |
| A*01:01:01G+A*34:09     | A*01:100+A*34:02:01    |                      |                 |                 |
| A*01:01:01G+A*36:01     | A*01:14+A*36:04        |                      |                 |                 |
| A*01:01:01G+A*66:01:01G | A*01:13+A*26:01:01G    | A*01:17+A*66:05      | A*01:28+A*26:13 | A*36:04+A*66:10 |
| A*01:01:01G+A*66:02     | A*01:17+A*66:03        | A*01:26+A*66:16      |                 |                 |
| A*01:01:01G+A*66:05     | A*01:28+A*26:01:01G    |                      |                 |                 |
| A*01:01:01G+A*66:07     | A*01:99+A*66:01:01G    |                      |                 |                 |
| A*01:01:01G+A*66:09     | A*01:13+A*26:22        |                      |                 |                 |
| A*01:01:01G+A*66:10     | A*01:13+A*26:49        |                      |                 |                 |
| A*01:01:01G+A*66:12     | A*01:13+A*26:65        | A*01:100+A*66:01:01G |                 |                 |
| A*01:01:01G+A*68:01:01G | A*01:17+A*68:03:03     | A*01:43+A*68:71      |                 |                 |
| A*01:01:01G+A*68:01:02G | A*01:17+A*68:03:01     | A*01:26+A*68:41      | A*01:28+A*68:84 | A*36:04+A*68:65 |
| A*01:01:01G+A*68:01:03  | A*01:01:46+A*68:01:01G |                      |                 |                 |
| A*01:01:01G+A*68:01:04  | A*01:01:03+A*68:01:01G |                      |                 |                 |
| A*01:01:01G+A*68:01:05  | A*01:01:26+A*68:01:01G |                      |                 |                 |
| A*01:01:01G+A*68:01:06  | A*01:01:33+A*68:01:02G |                      |                 |                 |
| A*01:01:01G+A*68:01:08  | A*01:01:08+A*68:01:01G |                      |                 |                 |
| A*01:01:01G+A*68:01:10  | A*01:01:16+A*68:01:01G |                      |                 |                 |
| A*01:01:01G+A*68:01:11  | A*01:01:21+A*68:01:01G |                      |                 |                 |
| A*01:01:01G+A*68:02:01G | A*01:17+A*68:31        |                      |                 |                 |
| A*01:01:01G+A*68:02:02  | A*01:01:03+A*68:02:01G |                      |                 |                 |
| A*01:01:01G+A*68:03:02  | A*01:01:13+A*68:03:01  |                      |                 |                 |
| A*01:01:01G+A*68:05     | A*01:104+A*68:03:01    |                      |                 |                 |
| A*01:01:01G+A*68:15     | A*01:104+A*68:31       |                      |                 |                 |
| A*01:01:01G+A*68:21:01  | A*01:86+A*68:01:02G    |                      |                 |                 |
| A*01:01:01G+A*68:36     | A*01:95+A*68:84        |                      |                 |                 |
| A*01:01:01G+A*68:44     | A*01:55+A*68:02:01G    |                      |                 |                 |
| A*01:01:01G+A*68:47     | A*01:40+A*68:01:02G    |                      |                 |                 |
| A*01:01:01G+A*68:52     | A*01:38+A*68:01:02G    |                      |                 |                 |
| A*01:01:01G+A*68:54     | A*01:14+A*68:61        |                      |                 |                 |
| A*01:01:01G+A*68:76     | A*01:91+A*68:01:02G    |                      |                 |                 |
| A*01:01:01G+A*68:78     | A*01:80+A*68:02:01G    |                      |                 |                 |
| A*01:01:01G+A*68:87     | A*01:82+A*68:01:01G    |                      |                 |                 |
| A*01:01:01G+A*68:89     | A*01:47+A*68:01:01G    |                      |                 |                 |
| A*01:01:01G+A*74:06     | A*01:104+A*74:01:01G   |                      |                 |                 |
| A*01:01:01G+A*74:09     | A*01:29+A*74:01:01G    |                      |                 |                 |
| A*01:01:01G+A*74:13     | A*01:17+A*74:01:01G    |                      |                 |                 |
| A*01:01:02+A*33:03:06   | A*01:01:35+A*33:03:08  |                      |                 |                 |
| A*01:01:02+A*33:36      | A*01:74+A*33:03:08     |                      |                 |                 |
| A*01:01:02+A*33:40      | A*01:91+A*33:03:08     |                      |                 |                 |
| A*01:01:02+A*33:55      | A*01:97+A*33:03:08     |                      |                 |                 |
| A*01:01:03+A*02:01:04   | A*01:01:10+A*02:01:18  |                      |                 |                 |
| A*01:01:03+A*02:01:25   | A*01:01:40+A*02:01:18  |                      |                 |                 |

|                        |                       |
|------------------------|-----------------------|
| A*01:01:03+A*02:01:29  | A*01:01:33+A*02:01:18 |
| A*01:01:03+A*02:01:36  | A*01:01:26+A*02:01:18 |
| A*01:01:03+A*02:01:38  | A*01:01:29+A*02:01:18 |
| A*01:01:03+A*02:01:41  | A*01:01:19+A*02:01:18 |
| A*01:01:03+A*02:01:43  | A*01:01:37+A*02:01:18 |
| A*01:01:03+A*02:01:49  | A*01:01:04+A*02:01:18 |
| A*01:01:03+A*02:01:54  | A*01:01:46+A*02:01:18 |
| A*01:01:03+A*02:06:01G | A*01:43+A*02:01:18    |
| A*01:01:03+A*02:34     | A*01:17+A*02:01:18    |
| A*01:01:03+A*02:67     | A*01:76+A*02:01:18    |
| A*01:01:03+A*02:74:02  | A*01:86+A*02:01:18    |
| A*01:01:03+A*02:113N   | A*01:31N+A*02:01:18   |
| A*01:01:03+A*02:133    | A*01:80+A*02:01:18    |
| A*01:01:03+A*02:16     | A*01:44+A*02:01:18    |
| A*01:01:03+A*02:16     | A*01:67+A*02:01:18    |
| A*01:01:03+A*02:174    | A*01:61+A*02:01:18    |
| A*01:01:03+A*02:183    | A*01:41+A*02:01:18    |
| A*01:01:03+A*02:197    | A*01:101+A*02:01:18   |
| A*01:01:03+A*02:211:01 | A*01:91+A*02:01:18    |
| A*01:01:03+A*02:213    | A*01:46+A*02:01:18    |
| A*01:01:03+A*02:214    | A*01:84+A*02:01:18    |
| A*01:01:03+A*02:315    | A*01:62+A*02:03:04    |
| A*01:01:03+A*02:355    | A*01:43+A*02:03:04    |
| A*01:01:03+A*02:363    | A*01:54+A*02:01:18    |
| A*01:01:03+A*24:02:06  | A*01:01:21+A*24:02:18 |
| A*01:01:03+A*24:02:09  | A*01:01:16+A*24:02:18 |
| A*01:01:03+A*24:02:11  | A*01:01:39+A*24:02:18 |
| A*01:01:03+A*24:02:12  | A*01:01:04+A*24:02:18 |
| A*01:01:03+A*24:02:14  | A*01:01:27+A*24:02:18 |
| A*01:01:03+A*24:02:20  | A*01:01:11+A*24:02:18 |
| A*01:01:03+A*24:02:22  | A*01:01:43+A*24:02:18 |
| A*01:01:03+A*24:02:26  | A*01:01:19+A*24:02:18 |
| A*01:01:03+A*24:02:35  | A*01:01:10+A*24:02:18 |
| A*01:01:03+A*24:02:46  | A*01:01:09+A*24:02:18 |
| A*01:01:03+A*24:02:53  | A*01:01:46+A*24:02:18 |
| A*01:01:03+A*24:02:58  | A*01:01:13+A*24:02:18 |
| A*01:01:03+A*24:05:01G | A*01:61+A*24:02:18    |
| A*01:01:03+A*24:07     | A*01:17+A*24:02:18    |
| A*01:01:03+A*24:23     | A*01:72+A*24:02:18    |
| A*01:01:03+A*24:26     | A*01:39+A*24:02:18    |
| A*01:01:03+A*24:30     | A*01:104+A*24:02:18   |
| A*01:01:03+A*24:139    | A*01:82+A*24:02:18    |
| A*01:01:03+A*24:172    | A*01:96+A*24:02:18    |
| A*01:01:03+A*24:176    | A*01:67+A*24:02:18    |
| A*01:01:03+A*24:186    | A*01:74+A*24:02:18    |
| A*01:01:03+A*25:01:04  | A*01:01:37+A*25:01:06 |
| A*01:01:03+A*25:01:07  | A*01:01:13+A*25:01:06 |
| A*01:01:03+A*25:02     | A*01:17+A*25:01:06    |
| A*01:01:03+A*25:06     | A*01:14+A*25:01:06    |
| A*01:01:03+A*25:11     | A*01:104+A*25:01:06   |
| A*01:01:03+A*25:12N    | A*01:53N+A*25:01:06   |
| A*01:01:03+A*25:13     | A*01:100+A*25:01:06   |
| A*01:01:03+A*26:01:09  | A*01:01:33+A*26:01:03 |
| A*01:01:03+A*26:01:11  | A*01:01:17+A*26:01:03 |
| A*01:01:03+A*26:01:12  | A*01:01:27+A*26:01:03 |
| A*01:01:03+A*26:01:19  | A*01:01:40+A*26:01:03 |
| A*01:01:03+A*26:09     | A*01:14+A*26:01:03    |
| A*01:01:03+A*26:13     | A*01:17+A*26:01:03    |
| A*01:01:03+A*26:34     | A*01:08+A*26:01:03    |
| A*01:01:03+A*26:36     | A*01:104+A*26:01:03   |
| A*01:01:03+A*26:64     | A*01:47+A*26:01:03    |
| A*01:01:03+A*26:65     | A*01:100+A*26:01:03   |
| A*01:01:03+A*26:74     | A*01:96+A*26:01:03    |
| A*01:01:03+A*66:01:01G | A*01:13+A*26:01:03    |
| A*01:01:03+A*66:05     | A*01:28+A*26:01:03    |
| A*01:01:03+A*68:01:03  | A*01:01:46+A*68:01:04 |
| A*01:01:03+A*68:01:05  | A*01:01:26+A*68:01:04 |
| A*01:01:03+A*68:01:08  | A*01:01:08+A*68:01:04 |
| A*01:01:03+A*68:01:10  | A*01:01:16+A*68:01:04 |
| A*01:01:03+A*68:01:11  | A*01:01:21+A*68:01:04 |
| A*01:01:03+A*68:44     | A*01:55+A*68:02:02    |
| A*01:01:03+A*68:78     | A*01:80+A*68:02:02    |
| A*01:01:03+A*68:87     | A*01:82+A*68:01:04    |
| A*01:01:03+A*68:89     | A*01:47+A*68:01:04    |
| A*01:01:04+A*02:01:04  | A*01:01:10+A*02:01:49 |
| A*01:01:04+A*02:01:25  | A*01:01:40+A*02:01:49 |
| A*01:01:04+A*02:01:29  | A*01:01:33+A*02:01:49 |
| A*01:01:04+A*02:01:36  | A*01:01:26+A*02:01:49 |
| A*01:01:04+A*02:01:38  | A*01:01:29+A*02:01:49 |
| A*01:01:04+A*02:01:41  | A*01:01:19+A*02:01:49 |
| A*01:01:04+A*02:01:43  | A*01:01:37+A*02:01:49 |
| A*01:01:04+A*02:01:54  | A*01:01:46+A*02:01:49 |
| A*01:01:04+A*02:06:03  | A*01:01:27+A*02:06:02 |
| A*01:01:04+A*02:06:06  | A*01:01:25+A*02:06:02 |
| A*01:01:04+A*02:06:10  | A*01:01:14+A*02:06:02 |
| A*01:01:04+A*02:34     | A*01:17+A*02:01:49    |
| A*01:01:04+A*02:67     | A*01:76+A*02:01:49    |
| A*01:01:04+A*02:74:02  | A*01:86+A*02:01:49    |
| A*01:01:04+A*02:113N   | A*01:31N+A*02:01:49   |
| A*01:01:04+A*02:133    | A*01:80+A*02:01:49    |
| A*01:01:04+A*02:16     | A*01:44+A*02:01:49    |
| A*01:01:04+A*02:16     | A*01:67+A*02:01:49    |
| A*01:01:04+A*02:174    | A*01:61+A*02:01:49    |
| A*01:01:04+A*02:183    | A*01:41+A*02:01:49    |
| A*01:01:04+A*02:197    | A*01:101+A*02:01:49   |
| A*01:01:04+A*02:211:01 | A*01:91+A*02:01:49    |
| A*01:01:04+A*02:213    | A*01:46+A*02:01:49    |
| A*01:01:04+A*02:214    | A*01:84+A*02:01:49    |
| A*01:01:04+A*02:259    | A*01:96+A*02:06:02    |
| A*01:01:04+A*02:330    | A*01:33+A*02:06:02    |
| A*01:01:04+A*02:363    | A*01:54+A*02:01:49    |
| A*01:01:04+A*24:02:06  | A*01:01:21+A*24:02:12 |
| A*01:01:04+A*24:02:09  | A*01:01:16+A*24:02:12 |
| A*01:01:04+A*24:02:11  | A*01:01:39+A*24:02:12 |
| A*01:01:04+A*24:02:14  | A*01:01:27+A*24:02:12 |

|                        |                       |
|------------------------|-----------------------|
| A*01:01:04+A*24:02:20  | A*01:01:11+A*24:02:12 |
| A*01:01:04+A*24:02:22  | A*01:01:43+A*24:02:12 |
| A*01:01:04+A*24:02:26  | A*01:01:19+A*24:02:12 |
| A*01:01:04+A*24:02:35  | A*01:01:10+A*24:02:12 |
| A*01:01:04+A*24:02:46  | A*01:01:09+A*24:02:12 |
| A*01:01:04+A*24:02:53  | A*01:01:46+A*24:02:12 |
| A*01:01:04+A*24:02:58  | A*01:01:13+A*24:02:12 |
| A*01:01:04+A*24:03:01G | A*24:02:12+A*36:04    |
| A*01:01:04+A*24:05:01G | A*01:61+A*24:02:12    |
| A*01:01:04+A*24:07     | A*01:17+A*24:02:12    |
| A*01:01:04+A*24:23     | A*01:72+A*24:02:12    |
| A*01:01:04+A*24:26     | A*01:39+A*24:02:12    |
| A*01:01:04+A*24:30     | A*01:104+A*24:02:12   |
| A*01:01:04+A*24:139    | A*01:82+A*24:02:12    |
| A*01:01:04+A*24:172    | A*01:96+A*24:02:12    |
| A*01:01:04+A*24:176    | A*01:67+A*24:02:12    |
| A*01:01:04+A*24:186    | A*01:74+A*24:02:12    |
| A*01:01:04+A*31:01:03  | A*01:01:25+A*31:01:06 |
| A*01:01:04+A*31:01:11  | A*01:01:43+A*31:01:06 |
| A*01:01:04+A*31:17     | A*01:108+A*31:01:06   |
| A*01:01:04+A*31:40     | A*01:80+A*31:01:06    |
| A*01:01:04+A*31:45     | A*01:67+A*31:01:06    |
| A*01:01:04+A*31:58     | A*01:49+A*31:01:06    |
| A*01:01:05+A*11:01:02  | A*01:01:25+A*11:01:26 |
| A*01:01:05+A*11:01:05  | A*01:01:10+A*11:01:26 |
| A*01:01:05+A*11:01:06  | A*01:01:40+A*11:01:26 |
| A*01:01:05+A*11:01:07  | A*01:01:26+A*11:01:26 |
| A*01:01:05+A*11:01:11  | A*01:01:45+A*11:01:26 |
| A*01:01:05+A*11:01:17  | A*01:01:27+A*11:01:26 |
| A*01:01:05+A*11:01:25  | A*01:01:46+A*11:01:26 |
| A*01:01:05+A*11:01:30  | A*01:01:07+A*11:01:26 |
| A*01:01:05+A*11:01:34  | A*01:01:13+A*11:01:26 |
| A*01:01:05+A*11:01:36  | A*01:01:35+A*11:01:26 |
| A*01:01:05+A*11:01:37  | A*01:01:39+A*11:01:26 |
| A*01:01:05+A*11:01:39  | A*01:01:16+A*11:01:26 |
| A*01:01:05+A*11:01:40  | A*01:01:33+A*11:01:26 |
| A*01:01:05+A*11:04     | A*01:14+A*11:01:26    |
| A*01:01:05+A*11:06     | A*01:104+A*11:01:26   |
| A*01:01:05+A*11:12     | A*01:100+A*11:01:26   |
| A*01:01:05+A*11:22     | A*01:79+A*11:01:26    |
| A*01:01:05+A*11:30     | A*01:101+A*11:01:26   |
| A*01:01:05+A*11:33:02  | A*01:61+A*11:01:26    |
| A*01:01:05+A*11:48     | A*01:41+A*11:01:26    |
| A*01:01:05+A*11:84     | A*01:62+A*11:01:26    |
| A*01:01:05+A*11:118    | A*01:03+A*11:01:26    |
| A*01:01:06+A*30:25     | A*01:17+A*30:02:06    |
| A*01:01:06+A*32:01:09  | A*01:01:33+A*32:01:07 |
| A*01:01:06+A*32:01:13  | A*01:01:36+A*32:01:07 |
| A*01:01:06+A*32:08     | A*01:104+A*32:01:07   |
| A*01:01:06+A*32:17     | A*01:17+A*32:01:07    |
| A*01:01:06+A*32:21     | A*01:67+A*32:01:07    |
| A*01:01:06+A*32:34     | A*01:77+A*32:01:07    |
| A*01:01:06+A*32:46     | A*01:96+A*32:01:07    |
| A*01:01:07+A*02:226N   | A*01:25+A*02:22:02    |
| A*01:01:07+A*11:01:02  | A*01:01:25+A*11:01:30 |
| A*01:01:07+A*11:01:05  | A*01:01:10+A*11:01:30 |
| A*01:01:07+A*11:01:06  | A*01:01:40+A*11:01:30 |
| A*01:01:07+A*11:01:07  | A*01:01:26+A*11:01:30 |
| A*01:01:07+A*11:01:11  | A*01:01:45+A*11:01:30 |
| A*01:01:07+A*11:01:17  | A*01:01:27+A*11:01:30 |
| A*01:01:07+A*11:01:25  | A*01:01:46+A*11:01:30 |
| A*01:01:07+A*11:01:34  | A*01:01:13+A*11:01:30 |
| A*01:01:07+A*11:01:36  | A*01:01:35+A*11:01:30 |
| A*01:01:07+A*11:01:37  | A*01:01:39+A*11:01:30 |
| A*01:01:07+A*11:01:39  | A*01:01:16+A*11:01:30 |
| A*01:01:07+A*11:01:40  | A*01:01:33+A*11:01:30 |
| A*01:01:07+A*11:04     | A*01:14+A*11:01:30    |
| A*01:01:07+A*11:06     | A*01:104+A*11:01:30   |
| A*01:01:07+A*11:12     | A*01:100+A*11:01:30   |
| A*01:01:07+A*11:22     | A*01:79+A*11:01:30    |
| A*01:01:07+A*11:30     | A*01:101+A*11:01:30   |
| A*01:01:07+A*11:33:02  | A*01:61+A*11:01:30    |
| A*01:01:07+A*11:48     | A*01:41+A*11:01:30    |
| A*01:01:07+A*11:84     | A*01:62+A*11:01:30    |
| A*01:01:07+A*11:118    | A*01:03+A*11:01:30    |
| A*01:01:08+A*68:01:03  | A*01:01:46+A*68:01:08 |
| A*01:01:08+A*68:01:05  | A*01:01:26+A*68:01:08 |
| A*01:01:08+A*68:01:10  | A*01:01:16+A*68:01:08 |
| A*01:01:08+A*68:01:11  | A*01:01:21+A*68:01:08 |
| A*01:01:08+A*68:87     | A*01:82+A*68:01:08    |
| A*01:01:08+A*68:89     | A*01:47+A*68:01:08    |
| A*01:01:09+A*24:02:06  | A*01:01:21+A*24:02:46 |
| A*01:01:09+A*24:02:09  | A*01:01:16+A*24:02:46 |
| A*01:01:09+A*24:02:11  | A*01:01:39+A*24:02:46 |
| A*01:01:09+A*24:02:14  | A*01:01:27+A*24:02:46 |
| A*01:01:09+A*24:02:20  | A*01:01:11+A*24:02:46 |
| A*01:01:09+A*24:02:22  | A*01:01:43+A*24:02:46 |
| A*01:01:09+A*24:02:26  | A*01:01:19+A*24:02:46 |
| A*01:01:09+A*24:02:35  | A*01:01:10+A*24:02:46 |
| A*01:01:09+A*24:02:53  | A*01:01:46+A*24:02:46 |
| A*01:01:09+A*24:02:58  | A*01:01:13+A*24:02:46 |
| A*01:01:09+A*24:03:01G | A*24:02:46+A*36:04    |
| A*01:01:09+A*24:05:01G | A*01:61+A*24:02:46    |
| A*01:01:09+A*24:07     | A*01:17+A*24:02:46    |
| A*01:01:09+A*24:23     | A*01:72+A*24:02:46    |
| A*01:01:09+A*24:26     | A*01:39+A*24:02:46    |
| A*01:01:09+A*24:30     | A*01:104+A*24:02:46   |
| A*01:01:09+A*24:139    | A*01:82+A*24:02:46    |
| A*01:01:09+A*24:172    | A*01:96+A*24:02:46    |
| A*01:01:09+A*24:176    | A*01:67+A*24:02:46    |
| A*01:01:09+A*24:186    | A*01:74+A*24:02:46    |
| A*01:01:10+A*02:01:25  | A*01:01:40+A*02:01:04 |
| A*01:01:10+A*02:01:29  | A*01:01:33+A*02:01:04 |
| A*01:01:10+A*02:01:36  | A*01:01:26+A*02:01:04 |
| A*01:01:10+A*02:01:38  | A*01:01:29+A*02:01:04 |

|                        |                       |
|------------------------|-----------------------|
| A*01:01:10+A*02:01:41  | A*01:01:19+A*02:01:04 |
| A*01:01:10+A*02:01:43  | A*01:01:37+A*02:01:04 |
| A*01:01:10+A*02:01:54  | A*01:01:46+A*02:01:04 |
| A*01:01:10+A*02:06:01G | A*01:43+A*02:01:04    |
| A*01:01:10+A*02:06:12  | A*01:43+A*02:01:17    |
| A*01:01:10+A*02:34     | A*01:17+A*02:01:04    |
| A*01:01:10+A*02:67     | A*01:76+A*02:01:04    |
| A*01:01:10+A*02:74:02  | A*01:86+A*02:01:04    |
| A*01:01:10+A*02:113N   | A*01:31N+A*02:01:04   |
| A*01:01:10+A*02:133    | A*01:80+A*02:01:04    |
| A*01:01:10+A*02:16     | A*01:44+A*02:01:04    |
| A*01:01:10+A*02:16     | A*01:67+A*02:01:04    |
| A*01:01:10+A*02:174    | A*01:61+A*02:01:04    |
| A*01:01:10+A*02:183    | A*01:41+A*02:01:04    |
| A*01:01:10+A*02:197    | A*01:101+A*02:01:04   |
| A*01:01:10+A*02:211:01 | A*01:91+A*02:01:04    |
| A*01:01:10+A*02:213    | A*01:46+A*02:01:04    |
| A*01:01:10+A*02:214    | A*01:84+A*02:01:04    |
| A*01:01:10+A*02:363    | A*01:54+A*02:01:04    |
| A*01:01:10+A*11:01:02  | A*01:01:25+A*11:01:05 |
| A*01:01:10+A*11:01:06  | A*01:01:40+A*11:01:05 |
| A*01:01:10+A*11:01:07  | A*01:01:26+A*11:01:05 |
| A*01:01:10+A*11:01:11  | A*01:01:45+A*11:01:05 |
| A*01:01:10+A*11:01:17  | A*01:01:27+A*11:01:05 |
| A*01:01:10+A*11:01:25  | A*01:01:46+A*11:01:05 |
| A*01:01:10+A*11:01:34  | A*01:01:13+A*11:01:05 |
| A*01:01:10+A*11:01:36  | A*01:01:35+A*11:01:05 |
| A*01:01:10+A*11:01:37  | A*01:01:39+A*11:01:05 |
| A*01:01:10+A*11:01:39  | A*01:01:16+A*11:01:05 |
| A*01:01:10+A*11:01:40  | A*01:01:33+A*11:01:05 |
| A*01:01:10+A*11:04     | A*01:14+A*11:01:05    |
| A*01:01:10+A*11:06     | A*01:104+A*11:01:05   |
| A*01:01:10+A*11:12     | A*01:100+A*11:01:05   |
| A*01:01:10+A*11:22     | A*01:79+A*11:01:05    |
| A*01:01:10+A*11:30     | A*01:101+A*11:01:05   |
| A*01:01:10+A*11:33:02  | A*01:61+A*11:01:05    |
| A*01:01:10+A*11:48     | A*01:41+A*11:01:05    |
| A*01:01:10+A*11:84     | A*01:62+A*11:01:05    |
| A*01:01:10+A*11:118    | A*01:03+A*11:01:05    |
| A*01:01:10+A*24:02:06  | A*01:01:21+A*24:02:35 |
| A*01:01:10+A*24:02:09  | A*01:01:16+A*24:02:35 |
| A*01:01:10+A*24:02:11  | A*01:01:39+A*24:02:35 |
| A*01:01:10+A*24:02:14  | A*01:01:27+A*24:02:35 |
| A*01:01:10+A*24:02:20  | A*01:01:11+A*24:02:35 |
| A*01:01:10+A*24:02:22  | A*01:01:43+A*24:02:35 |
| A*01:01:10+A*24:02:26  | A*01:01:19+A*24:02:35 |
| A*01:01:10+A*24:02:53  | A*01:01:46+A*24:02:35 |
| A*01:01:10+A*24:02:58  | A*01:01:13+A*24:02:35 |
| A*01:01:10+A*24:03:01G | A*24:02:35+A*36:04    |
| A*01:01:10+A*24:05:01G | A*01:61+A*24:02:35    |
| A*01:01:10+A*24:07     | A*01:17+A*24:02:35    |
| A*01:01:10+A*24:23     | A*01:72+A*24:02:35    |
| A*01:01:10+A*24:26     | A*01:39+A*24:02:35    |
| A*01:01:10+A*24:30     | A*01:104+A*24:02:35   |
| A*01:01:10+A*24:139    | A*01:82+A*24:02:35    |
| A*01:01:10+A*24:172    | A*01:96+A*24:02:35    |
| A*01:01:10+A*24:176    | A*01:67+A*24:02:35    |
| A*01:01:10+A*24:186    | A*01:74+A*24:02:35    |
| A*01:01:11+A*24:02:06  | A*01:01:21+A*24:02:20 |
| A*01:01:11+A*24:02:09  | A*01:01:16+A*24:02:20 |
| A*01:01:11+A*24:02:11  | A*01:01:39+A*24:02:20 |
| A*01:01:11+A*24:02:14  | A*01:01:27+A*24:02:20 |
| A*01:01:11+A*24:02:22  | A*01:01:43+A*24:02:20 |
| A*01:01:11+A*24:02:26  | A*01:01:19+A*24:02:20 |
| A*01:01:11+A*24:02:53  | A*01:01:46+A*24:02:20 |
| A*01:01:11+A*24:02:58  | A*01:01:13+A*24:02:20 |
| A*01:01:11+A*24:03:01G | A*24:02:20+A*36:04    |
| A*01:01:11+A*24:05:01G | A*01:61+A*24:02:20    |
| A*01:01:11+A*24:07     | A*01:17+A*24:02:20    |
| A*01:01:11+A*24:23     | A*01:72+A*24:02:20    |
| A*01:01:11+A*24:26     | A*01:39+A*24:02:20    |
| A*01:01:11+A*24:30     | A*01:104+A*24:02:20   |
| A*01:01:11+A*24:139    | A*01:82+A*24:02:20    |
| A*01:01:11+A*24:172    | A*01:96+A*24:02:20    |
| A*01:01:11+A*24:176    | A*01:67+A*24:02:20    |
| A*01:01:11+A*24:186    | A*01:74+A*24:02:20    |
| A*01:01:13+A*03:01:10  | A*01:105+A*03:01:12   |
| A*01:01:13+A*03:01:14  | A*01:01:16+A*03:01:12 |
| A*01:01:13+A*03:01:16  | A*01:01:27+A*03:01:12 |
| A*01:01:13+A*03:01:30  | A*01:01:23+A*03:01:12 |
| A*01:01:13+A*03:04:01  | A*01:86+A*03:01:12    |
| A*01:01:13+A*03:09     | A*01:104+A*03:01:12   |
| A*01:01:13+A*03:12     | A*01:43+A*03:01:12    |
| A*01:01:13+A*03:17:02  | A*01:88+A*03:01:12    |
| A*01:01:13+A*03:22:01  | A*01:61+A*03:01:12    |
| A*01:01:13+A*03:44     | A*01:44+A*03:01:12    |
| A*01:01:13+A*03:70     | A*01:47+A*03:01:12    |
| A*01:01:13+A*03:77     | A*01:35+A*03:01:12    |
| A*01:01:13+A*03:85     | A*01:62+A*03:01:12    |
| A*01:01:13+A*03:87     | A*01:101+A*03:01:12   |
| A*01:01:13+A*03:95     | A*01:66+A*03:01:12    |
| A*01:01:13+A*03:124    | A*01:112+A*03:01:12   |
| A*01:01:13+A*03:136    | A*01:80+A*03:01:12    |
| A*01:01:13+A*11:01:02  | A*01:01:25+A*11:01:34 |
| A*01:01:13+A*11:01:06  | A*01:01:40+A*11:01:34 |
| A*01:01:13+A*11:01:07  | A*01:01:26+A*11:01:34 |
| A*01:01:13+A*11:01:11  | A*01:01:45+A*11:01:34 |
| A*01:01:13+A*11:01:17  | A*01:01:27+A*11:01:34 |
| A*01:01:13+A*11:01:25  | A*01:01:46+A*11:01:34 |
| A*01:01:13+A*11:01:36  | A*01:01:35+A*11:01:34 |
| A*01:01:13+A*11:01:37  | A*01:01:39+A*11:01:34 |
| A*01:01:13+A*11:01:39  | A*01:01:16+A*11:01:34 |
| A*01:01:13+A*11:01:40  | A*01:01:33+A*11:01:34 |
| A*01:01:13+A*11:04     | A*01:14+A*11:01:34    |
| A*01:01:13+A*11:06     | A*01:104+A*11:01:34   |

|                        |                       |
|------------------------|-----------------------|
| A*01:01:13+A*11:12     | A*01:100+A*11:01:34   |
| A*01:01:13+A*11:22     | A*01:79+A*11:01:34    |
| A*01:01:13+A*11:30     | A*01:101+A*11:01:34   |
| A*01:01:13+A*11:33:02  | A*01:61+A*11:01:34    |
| A*01:01:13+A*11:48     | A*01:41+A*11:01:34    |
| A*01:01:13+A*11:84     | A*01:62+A*11:01:34    |
| A*01:01:13+A*11:118    | A*01:03+A*11:01:34    |
| A*01:01:13+A*24:02:06  | A*01:01:21+A*24:02:58 |
| A*01:01:13+A*24:02:09  | A*01:01:16+A*24:02:58 |
| A*01:01:13+A*24:02:11  | A*01:01:39+A*24:02:58 |
| A*01:01:13+A*24:02:14  | A*01:01:27+A*24:02:58 |
| A*01:01:13+A*24:02:22  | A*01:01:43+A*24:02:58 |
| A*01:01:13+A*24:02:26  | A*01:01:19+A*24:02:58 |
| A*01:01:13+A*24:02:53  | A*01:01:46+A*24:02:58 |
| A*01:01:13+A*24:03:01G | A*24:02:58+A*36:04    |
| A*01:01:13+A*24:05:01G | A*01:61+A*24:02:58    |
| A*01:01:13+A*24:07     | A*01:17+A*24:02:58    |
| A*01:01:13+A*24:23     | A*01:72+A*24:02:58    |
| A*01:01:13+A*24:26     | A*01:39+A*24:02:58    |
| A*01:01:13+A*24:30     | A*01:104+A*24:02:58   |
| A*01:01:13+A*24:139    | A*01:82+A*24:02:58    |
| A*01:01:13+A*24:172    | A*01:96+A*24:02:58    |
| A*01:01:13+A*24:176    | A*01:67+A*24:02:58    |
| A*01:01:13+A*24:186    | A*01:74+A*24:02:58    |
| A*01:01:13+A*25:01:04  | A*01:01:37+A*25:01:07 |
| A*01:01:13+A*25:02     | A*01:17+A*25:01:07    |
| A*01:01:13+A*25:06     | A*01:14+A*25:01:07    |
| A*01:01:13+A*25:11     | A*01:104+A*25:01:07   |
| A*01:01:13+A*25:12N    | A*01:53N+A*25:01:07   |
| A*01:01:13+A*25:13     | A*01:100+A*25:01:07   |
| A*01:01:13+A*26:01:01G | A*01:43+A*26:20       |
| A*01:01:13+A*68:01:02G | A*01:17+A*68:03:02    |
| A*01:01:13+A*68:05     | A*01:104+A*68:03:02   |
| A*01:01:14+A*02:06:03  | A*01:01:27+A*02:06:10 |
| A*01:01:14+A*02:06:06  | A*01:01:25+A*02:06:10 |
| A*01:01:14+A*02:259    | A*01:96+A*02:06:10    |
| A*01:01:14+A*02:330    | A*01:33+A*02:06:10    |
| A*01:01:14+A*23:01:02  | A*01:01:29+A*23:01:09 |
| A*01:01:14+A*23:04     | A*23:01:09+A*36:04    |
| A*01:01:14+A*23:12     | A*01:104+A*23:01:09   |
| A*01:01:14+A*23:13     | A*01:17+A*23:01:09    |
| A*01:01:14+A*23:25     | A*01:86+A*23:01:09    |
| A*01:01:14+A*23:33     | A*01:90+A*23:01:09    |
| A*01:01:16+A*03:01:10  | A*01:105+A*03:01:14   |
| A*01:01:16+A*03:01:16  | A*01:01:27+A*03:01:14 |
| A*01:01:16+A*03:01:30  | A*01:01:23+A*03:01:14 |
| A*01:01:16+A*03:04:01  | A*01:86+A*03:01:14    |
| A*01:01:16+A*03:09     | A*01:104+A*03:01:14   |
| A*01:01:16+A*03:12     | A*01:43+A*03:01:14    |
| A*01:01:16+A*03:17:02  | A*01:88+A*03:01:14    |
| A*01:01:16+A*03:22:01  | A*01:61+A*03:01:14    |
| A*01:01:16+A*03:44     | A*01:44+A*03:01:14    |
| A*01:01:16+A*03:70     | A*01:47+A*03:01:14    |
| A*01:01:16+A*03:77     | A*01:35+A*03:01:14    |
| A*01:01:16+A*03:85     | A*01:62+A*03:01:14    |
| A*01:01:16+A*03:87     | A*01:101+A*03:01:14   |
| A*01:01:16+A*03:95     | A*01:66+A*03:01:14    |
| A*01:01:16+A*03:124    | A*01:112+A*03:01:14   |
| A*01:01:16+A*03:136    | A*01:80+A*03:01:14    |
| A*01:01:16+A*11:01:02  | A*01:01:25+A*11:01:39 |
| A*01:01:16+A*11:01:06  | A*01:01:40+A*11:01:39 |
| A*01:01:16+A*11:01:07  | A*01:01:26+A*11:01:39 |
| A*01:01:16+A*11:01:11  | A*01:01:45+A*11:01:39 |
| A*01:01:16+A*11:01:17  | A*01:01:27+A*11:01:39 |
| A*01:01:16+A*11:01:25  | A*01:01:46+A*11:01:39 |
| A*01:01:16+A*11:01:36  | A*01:01:35+A*11:01:39 |
| A*01:01:16+A*11:01:37  | A*01:01:39+A*11:01:39 |
| A*01:01:16+A*11:01:40  | A*01:01:33+A*11:01:39 |
| A*01:01:16+A*11:04     | A*01:14+A*11:01:39    |
| A*01:01:16+A*11:06     | A*01:104+A*11:01:39   |
| A*01:01:16+A*11:12     | A*01:100+A*11:01:39   |
| A*01:01:16+A*11:22     | A*01:79+A*11:01:39    |
| A*01:01:16+A*11:30     | A*01:101+A*11:01:39   |
| A*01:01:16+A*11:33:02  | A*01:61+A*11:01:39    |
| A*01:01:16+A*11:48     | A*01:41+A*11:01:39    |
| A*01:01:16+A*11:84     | A*01:62+A*11:01:39    |
| A*01:01:16+A*11:118    | A*01:03+A*11:01:39    |
| A*01:01:16+A*24:02:06  | A*01:01:21+A*24:02:09 |
| A*01:01:16+A*24:02:11  | A*01:01:39+A*24:02:09 |
| A*01:01:16+A*24:02:14  | A*01:01:27+A*24:02:09 |
| A*01:01:16+A*24:02:22  | A*01:01:43+A*24:02:09 |
| A*01:01:16+A*24:02:26  | A*01:01:19+A*24:02:09 |
| A*01:01:16+A*24:02:53  | A*01:01:46+A*24:02:09 |
| A*01:01:16+A*24:03:01G | A*24:02:09+A*36:04    |
| A*01:01:16+A*24:05:01G | A*01:61+A*24:02:09    |
| A*01:01:16+A*24:07     | A*01:17+A*24:02:09    |
| A*01:01:16+A*24:23     | A*01:72+A*24:02:09    |
| A*01:01:16+A*24:26     | A*01:39+A*24:02:09    |
| A*01:01:16+A*24:30     | A*01:104+A*24:02:09   |
| A*01:01:16+A*24:139    | A*01:82+A*24:02:09    |
| A*01:01:16+A*24:172    | A*01:96+A*24:02:09    |
| A*01:01:16+A*24:176    | A*01:67+A*24:02:09    |
| A*01:01:16+A*24:186    | A*01:74+A*24:02:09    |
| A*01:01:16+A*30:01:06  | A*01:01:25+A*30:01:07 |
| A*01:01:16+A*30:16     | A*01:104+A*30:01:07   |
| A*01:01:16+A*30:37     | A*01:96+A*30:01:07    |
| A*01:01:16+A*30:59N    | A*01:57N+A*30:01:07   |
| A*01:01:16+A*68:01:03  | A*01:01:46+A*68:01:10 |
| A*01:01:16+A*68:01:05  | A*01:01:26+A*68:01:10 |
| A*01:01:16+A*68:01:11  | A*01:01:21+A*68:01:10 |
| A*01:01:16+A*68:87     | A*01:82+A*68:01:10    |
| A*01:01:16+A*68:89     | A*01:47+A*68:01:10    |
| A*01:01:17+A*26:01:09  | A*01:01:33+A*26:01:11 |
| A*01:01:17+A*26:01:12  | A*01:01:27+A*26:01:11 |
| A*01:01:17+A*26:01:19  | A*01:01:40+A*26:01:11 |

|                        |                       |
|------------------------|-----------------------|
| A*01:01:17+A*26:09     | A*01:14+A*26:01:11    |
| A*01:01:17+A*26:13     | A*01:17+A*26:01:11    |
| A*01:01:17+A*26:34     | A*01:08+A*26:01:11    |
| A*01:01:17+A*26:36     | A*01:104+A*26:01:11   |
| A*01:01:17+A*26:64     | A*01:47+A*26:01:11    |
| A*01:01:17+A*26:65     | A*01:100+A*26:01:11   |
| A*01:01:17+A*26:74     | A*01:96+A*26:01:11    |
| A*01:01:17+A*66:01:01G | A*01:13+A*26:01:11    |
| A*01:01:17+A*66:05     | A*01:28+A*26:01:11    |
| A*01:01:19+A*02:01:25  | A*01:01:40+A*02:01:41 |
| A*01:01:19+A*02:01:29  | A*01:01:33+A*02:01:41 |
| A*01:01:19+A*02:01:36  | A*01:01:26+A*02:01:41 |
| A*01:01:19+A*02:01:38  | A*01:01:29+A*02:01:41 |
| A*01:01:19+A*02:01:43  | A*01:01:37+A*02:01:41 |
| A*01:01:19+A*02:01:54  | A*01:01:46+A*02:01:41 |
| A*01:01:19+A*02:06:01G | A*01:43+A*02:01:41    |
| A*01:01:19+A*02:34     | A*01:17+A*02:01:41    |
| A*01:01:19+A*02:67     | A*01:76+A*02:01:41    |
| A*01:01:19+A*02:74:02  | A*01:86+A*02:01:41    |
| A*01:01:19+A*02:113N   | A*01:31N+A*02:01:41   |
| A*01:01:19+A*02:133    | A*01:80+A*02:01:41    |
| A*01:01:19+A*02:16     | A*01:44+A*02:01:41    |
| A*01:01:19+A*02:16     | A*01:67+A*02:01:41    |
| A*01:01:19+A*02:174    | A*01:61+A*02:01:41    |
| A*01:01:19+A*02:183    | A*01:41+A*02:01:41    |
| A*01:01:19+A*02:197    | A*01:101+A*02:01:41   |
| A*01:01:19+A*02:211:01 | A*01:91+A*02:01:41    |
| A*01:01:19+A*02:213    | A*01:46+A*02:01:41    |
| A*01:01:19+A*02:214    | A*01:84+A*02:01:41    |
| A*01:01:19+A*02:363    | A*01:54+A*02:01:41    |
| A*01:01:19+A*24:02:06  | A*01:01:21+A*24:02:26 |
| A*01:01:19+A*24:02:11  | A*01:01:39+A*24:02:26 |
| A*01:01:19+A*24:02:14  | A*01:01:27+A*24:02:26 |
| A*01:01:19+A*24:02:22  | A*01:01:43+A*24:02:26 |
| A*01:01:19+A*24:02:53  | A*01:01:46+A*24:02:26 |
| A*01:01:19+A*24:03:01G | A*24:02:26+A*36:04    |
| A*01:01:19+A*24:05:01G | A*01:61+A*24:02:26    |
| A*01:01:19+A*24:07     | A*01:17+A*24:02:26    |
| A*01:01:19+A*24:23     | A*01:72+A*24:02:26    |
| A*01:01:19+A*24:26     | A*01:39+A*24:02:26    |
| A*01:01:19+A*24:30     | A*01:104+A*24:02:26   |
| A*01:01:19+A*24:139    | A*01:82+A*24:02:26    |
| A*01:01:19+A*24:172    | A*01:96+A*24:02:26    |
| A*01:01:19+A*24:176    | A*01:67+A*24:02:26    |
| A*01:01:19+A*24:186    | A*01:74+A*24:02:26    |
| A*01:01:21+A*24:02:11  | A*01:01:39+A*24:02:06 |
| A*01:01:21+A*24:02:14  | A*01:01:27+A*24:02:06 |
| A*01:01:21+A*24:02:22  | A*01:01:43+A*24:02:06 |
| A*01:01:21+A*24:02:53  | A*01:01:46+A*24:02:06 |
| A*01:01:21+A*24:03:01G | A*24:02:06+A*36:04    |
| A*01:01:21+A*24:05:01G | A*01:61+A*24:02:06    |
| A*01:01:21+A*24:07     | A*01:17+A*24:02:06    |
| A*01:01:21+A*24:23     | A*01:72+A*24:02:06    |
| A*01:01:21+A*24:26     | A*01:39+A*24:02:06    |
| A*01:01:21+A*24:30     | A*01:104+A*24:02:06   |
| A*01:01:21+A*24:139    | A*01:82+A*24:02:06    |
| A*01:01:21+A*24:172    | A*01:96+A*24:02:06    |
| A*01:01:21+A*24:176    | A*01:67+A*24:02:06    |
| A*01:01:21+A*24:186    | A*01:74+A*24:02:06    |
| A*01:01:21+A*30:01:01G | A*01:02+A*30:55       |
| A*01:01:21+A*68:01:03  | A*01:01:46+A*68:01:11 |
| A*01:01:21+A*68:01:05  | A*01:01:26+A*68:01:11 |
| A*01:01:21+A*68:87     | A*01:82+A*68:01:11    |
| A*01:01:21+A*68:89     | A*01:47+A*68:01:11    |
| A*01:01:23+A*03:01:10  | A*01:105+A*03:01:30   |
| A*01:01:23+A*03:01:16  | A*01:01:27+A*03:01:30 |
| A*01:01:23+A*03:04:01  | A*01:86+A*03:01:30    |
| A*01:01:23+A*03:09     | A*01:104+A*03:01:30   |
| A*01:01:23+A*03:12     | A*01:43+A*03:01:30    |
| A*01:01:23+A*03:17:02  | A*01:88+A*03:01:30    |
| A*01:01:23+A*03:22:01  | A*01:61+A*03:01:30    |
| A*01:01:23+A*03:44     | A*01:44+A*03:01:30    |
| A*01:01:23+A*03:70     | A*01:47+A*03:01:30    |
| A*01:01:23+A*03:77     | A*01:35+A*03:01:30    |
| A*01:01:23+A*03:85     | A*01:62+A*03:01:30    |
| A*01:01:23+A*03:87     | A*01:101+A*03:01:30   |
| A*01:01:23+A*03:95     | A*01:66+A*03:01:30    |
| A*01:01:23+A*03:124    | A*01:112+A*03:01:30   |
| A*01:01:23+A*03:136    | A*01:80+A*03:01:30    |
| A*01:01:25+A*02:06:03  | A*01:01:27+A*02:06:06 |
| A*01:01:25+A*02:259    | A*01:96+A*02:06:06    |
| A*01:01:25+A*02:330    | A*01:33+A*02:06:06    |
| A*01:01:25+A*11:01:06  | A*01:01:40+A*11:01:02 |
| A*01:01:25+A*11:01:07  | A*01:01:26+A*11:01:02 |
| A*01:01:25+A*11:01:11  | A*01:01:45+A*11:01:02 |
| A*01:01:25+A*11:01:17  | A*01:01:27+A*11:01:02 |
| A*01:01:25+A*11:01:25  | A*01:01:46+A*11:01:02 |
| A*01:01:25+A*11:01:36  | A*01:01:35+A*11:01:02 |
| A*01:01:25+A*11:01:37  | A*01:01:39+A*11:01:02 |
| A*01:01:25+A*11:01:40  | A*01:01:33+A*11:01:02 |
| A*01:01:25+A*11:04     | A*01:14+A*11:01:02    |
| A*01:01:25+A*11:06     | A*01:104+A*11:01:02   |
| A*01:01:25+A*11:12     | A*01:100+A*11:01:02   |
| A*01:01:25+A*11:22     | A*01:79+A*11:01:02    |
| A*01:01:25+A*11:30     | A*01:101+A*11:01:02   |
| A*01:01:25+A*11:33:02  | A*01:61+A*11:01:02    |
| A*01:01:25+A*11:48     | A*01:41+A*11:01:02    |
| A*01:01:25+A*11:84     | A*01:62+A*11:01:02    |
| A*01:01:25+A*11:118    | A*01:03+A*11:01:02    |
| A*01:01:25+A*30:16     | A*01:104+A*30:01:06   |
| A*01:01:25+A*30:37     | A*01:96+A*30:01:06    |
| A*01:01:25+A*30:59N    | A*01:57N+A*30:01:06   |
| A*01:01:25+A*31:01:11  | A*01:01:43+A*31:01:03 |
| A*01:01:25+A*31:17     | A*01:108+A*31:01:03   |
| A*01:01:25+A*31:40     | A*01:80+A*31:01:03    |

|                        |                        |
|------------------------|------------------------|
| A*01:01:25+A*31:45     | A*01:67+A*31:01:03     |
| A*01:01:25+A*31:58     | A*01:49+A*31:01:03     |
| A*01:01:26+A*02:01:25  | A*01:01:40+A*02:01:36  |
| A*01:01:26+A*02:01:29  | A*01:01:33+A*02:01:36  |
| A*01:01:26+A*02:01:38  | A*01:01:29+A*02:01:36  |
| A*01:01:26+A*02:01:43  | A*01:01:37+A*02:01:36  |
| A*01:01:26+A*02:01:54  | A*01:01:46+A*02:01:36  |
| A*01:01:26+A*02:06:01G | A*01:43+A*02:01:36     |
| A*01:01:26+A*02:34     | A*01:17+A*02:01:36     |
| A*01:01:26+A*02:67     | A*01:76+A*02:01:36     |
| A*01:01:26+A*02:74:02  | A*01:86+A*02:01:36     |
| A*01:01:26+A*02:113N   | A*01:31N+A*02:01:36    |
| A*01:01:26+A*02:133    | A*01:80+A*02:01:36     |
| A*01:01:26+A*02:16     | A*01:44+A*02:01:36     |
| A*01:01:26+A*02:16     | A*01:67+A*02:01:36     |
| A*01:01:26+A*02:174    | A*01:61+A*02:01:36     |
| A*01:01:26+A*02:183    | A*01:41+A*02:01:36     |
| A*01:01:26+A*02:197    | A*01:101+A*02:01:36    |
| A*01:01:26+A*02:211:01 | A*01:91+A*02:01:36     |
| A*01:01:26+A*02:213    | A*01:46+A*02:01:36     |
| A*01:01:26+A*02:214    | A*01:84+A*02:01:36     |
| A*01:01:26+A*02:363    | A*01:54+A*02:01:36     |
| A*01:01:26+A*11:01:06  | A*01:01:40+A*11:01:07  |
| A*01:01:26+A*11:01:11  | A*01:01:45+A*11:01:07  |
| A*01:01:26+A*11:01:17  | A*01:01:27+A*11:01:07  |
| A*01:01:26+A*11:01:25  | A*01:01:46+A*11:01:07  |
| A*01:01:26+A*11:01:36  | A*01:01:35+A*11:01:07  |
| A*01:01:26+A*11:01:37  | A*01:01:39+A*11:01:07  |
| A*01:01:26+A*11:01:40  | A*01:01:33+A*11:01:07  |
| A*01:01:26+A*11:04     | A*01:14+A*11:01:07     |
| A*01:01:26+A*11:06     | A*01:104+A*11:01:07    |
| A*01:01:26+A*11:12     | A*01:100+A*11:01:07    |
| A*01:01:26+A*11:22     | A*01:79+A*11:01:07     |
| A*01:01:26+A*11:30     | A*01:101+A*11:01:07    |
| A*01:01:26+A*11:48     | A*01:41+A*11:01:07     |
| A*01:01:26+A*11:84     | A*01:62+A*11:01:07     |
| A*01:01:26+A*11:118    | A*01:03+A*11:01:07     |
| A*01:01:26+A*68:01:03  | A*01:01:46+A*68:01:05  |
| A*01:01:26+A*68:87     | A*01:82+A*68:01:05     |
| A*01:01:26+A*68:89     | A*01:47+A*68:01:05     |
| A*01:01:27+A*02:259    | A*01:96+A*02:06:03     |
| A*01:01:27+A*02:330    | A*01:33+A*02:06:03     |
| A*01:01:27+A*03:01:10  | A*01:105+A*03:01:16    |
| A*01:01:27+A*03:04:01  | A*01:86+A*03:01:16     |
| A*01:01:27+A*03:09     | A*01:104+A*03:01:16    |
| A*01:01:27+A*03:12     | A*01:43+A*03:01:16     |
| A*01:01:27+A*03:17:02  | A*01:88+A*03:01:16     |
| A*01:01:27+A*03:22:01  | A*01:61+A*03:01:16     |
| A*01:01:27+A*03:44     | A*01:44+A*03:01:16     |
| A*01:01:27+A*03:70     | A*01:47+A*03:01:16     |
| A*01:01:27+A*03:77     | A*01:35+A*03:01:16     |
| A*01:01:27+A*03:85     | A*01:62+A*03:01:16     |
| A*01:01:27+A*03:87     | A*01:101+A*03:01:16    |
| A*01:01:27+A*03:95     | A*01:66+A*03:01:16     |
| A*01:01:27+A*03:124    | A*01:112+A*03:01:16    |
| A*01:01:27+A*03:136    | A*01:80+A*03:01:16     |
| A*01:01:27+A*11:01:06  | A*01:01:40+A*11:01:17  |
| A*01:01:27+A*11:01:11  | A*01:01:45+A*11:01:17  |
| A*01:01:27+A*11:01:25  | A*01:01:46+A*11:01:17  |
| A*01:01:27+A*11:01:36  | A*01:01:35+A*11:01:17  |
| A*01:01:27+A*11:01:37  | A*01:01:39+A*11:01:17  |
| A*01:01:27+A*11:01:40  | A*01:01:33+A*11:01:17  |
| A*01:01:27+A*11:04     | A*01:14+A*11:01:17     |
| A*01:01:27+A*11:06     | A*01:104+A*11:01:17    |
| A*01:01:27+A*11:12     | A*01:100+A*11:01:17    |
| A*01:01:27+A*11:22     | A*01:79+A*11:01:17     |
| A*01:01:27+A*11:30     | A*01:101+A*11:01:17    |
| A*01:01:27+A*11:33:02  | A*01:61+A*11:01:17     |
| A*01:01:27+A*11:48     | A*01:41+A*11:01:17     |
| A*01:01:27+A*11:84     | A*01:62+A*11:01:17     |
| A*01:01:27+A*11:118    | A*01:03+A*11:01:17     |
| A*01:01:27+A*24:02:11  | A*01:01:39+A*24:02:14  |
| A*01:01:27+A*24:02:22  | A*01:01:43+A*24:02:14  |
| A*01:01:27+A*24:02:53  | A*01:01:46+A*24:02:14  |
| A*01:01:27+A*24:03:01G | A*24:02:14+A*36:04     |
| A*01:01:27+A*24:05:01G | A*01:61+A*24:02:14     |
| A*01:01:27+A*24:07     | A*01:17+A*24:02:14     |
| A*01:01:27+A*24:23     | A*01:72+A*24:02:14     |
| A*01:01:27+A*24:26     | A*01:39+A*24:02:14     |
| A*01:01:27+A*24:30     | A*01:104+A*24:02:14    |
| A*01:01:27+A*24:139    | A*01:82+A*24:02:14     |
| A*01:01:27+A*24:172    | A*01:96+A*24:02:14     |
| A*01:01:27+A*24:176    | A*01:67+A*24:02:14     |
| A*01:01:27+A*24:186    | A*01:74+A*24:02:14     |
| A*01:01:27+A*26:01:09  | A*01:01:33+A*26:01:12  |
| A*01:01:27+A*26:01:19  | A*01:01:40+A*26:01:12  |
| A*01:01:27+A*26:09     | A*01:14+A*26:01:12     |
| A*01:01:27+A*26:13     | A*01:17+A*26:01:12     |
| A*01:01:27+A*26:34     | A*01:08+A*26:01:12     |
| A*01:01:27+A*26:36     | A*01:104+A*26:01:12    |
| A*01:01:27+A*26:64     | A*01:47+A*26:01:12     |
| A*01:01:27+A*26:65     | A*01:100+A*26:01:12    |
| A*01:01:27+A*26:74     | A*01:96+A*26:01:12     |
| A*01:01:27+A*29:02:05  | A*01:01:34+A*29:02:10  |
| A*01:01:27+A*29:02:06  | A*01:01:43+A*29:02:10  |
| A*01:01:27+A*29:02:08  | A*01:01:31+A*29:02:01G |
| A*01:01:27+A*31:01:09  | A*01:01:31+A*31:01:02G |
| A*01:01:27+A*66:01:01G | A*01:13+A*26:01:12     |
| A*01:01:27+A*66:05     | A*01:28+A*26:01:12     |
| A*01:01:27+A*68:02:03  | A*01:01:31+A*68:02:01G |
| A*01:01:29+A*02:01:25  | A*01:01:40+A*02:01:38  |
| A*01:01:29+A*02:01:29  | A*01:01:33+A*02:01:38  |
| A*01:01:29+A*02:01:43  | A*01:01:37+A*02:01:38  |
| A*01:01:29+A*02:01:54  | A*01:01:46+A*02:01:38  |
| A*01:01:29+A*02:06:01G | A*01:43+A*02:01:38     |

|                        |                       |
|------------------------|-----------------------|
| A*01:01:29+A*02:34     | A*01:17+A*02:01:38    |
| A*01:01:29+A*02:67     | A*01:76+A*02:01:38    |
| A*01:01:29+A*02:74:02  | A*01:86+A*02:01:38    |
| A*01:01:29+A*02:113N   | A*01:31N+A*02:01:38   |
| A*01:01:29+A*02:133    | A*01:80+A*02:01:38    |
| A*01:01:29+A*02:16     | A*01:44+A*02:01:38    |
| A*01:01:29+A*02:16     | A*01:67+A*02:01:38    |
| A*01:01:29+A*02:174    | A*01:61+A*02:01:38    |
| A*01:01:29+A*02:183    | A*01:41+A*02:01:38    |
| A*01:01:29+A*02:197    | A*01:101+A*02:01:38   |
| A*01:01:29+A*02:211:01 | A*01:91+A*02:01:38    |
| A*01:01:29+A*02:213    | A*01:46+A*02:01:38    |
| A*01:01:29+A*02:214    | A*01:84+A*02:01:38    |
| A*01:01:29+A*02:363    | A*01:54+A*02:01:38    |
| A*01:01:29+A*23:04     | A*23:01:02+A*36:04    |
| A*01:01:29+A*23:12     | A*01:104+A*23:01:02   |
| A*01:01:29+A*23:13     | A*01:17+A*23:01:02    |
| A*01:01:29+A*23:25     | A*01:86+A*23:01:02    |
| A*01:01:29+A*23:33     | A*01:90+A*23:01:02    |
| A*01:01:33+A*02:01:25  | A*01:01:40+A*02:01:29 |
| A*01:01:33+A*02:01:43  | A*01:01:37+A*02:01:29 |
| A*01:01:33+A*02:01:54  | A*01:01:46+A*02:01:29 |
| A*01:01:33+A*02:06:01G | A*01:43+A*02:01:29    |
| A*01:01:33+A*02:34     | A*01:17+A*02:01:29    |
| A*01:01:33+A*02:67     | A*01:76+A*02:01:29    |
| A*01:01:33+A*02:74:02  | A*01:86+A*02:01:29    |
| A*01:01:33+A*02:113N   | A*01:31N+A*02:01:29   |
| A*01:01:33+A*02:133    | A*01:80+A*02:01:29    |
| A*01:01:33+A*02:16     | A*01:44+A*02:01:29    |
| A*01:01:33+A*02:16     | A*01:67+A*02:01:29    |
| A*01:01:33+A*02:174    | A*01:61+A*02:01:29    |
| A*01:01:33+A*02:183    | A*01:41+A*02:01:29    |
| A*01:01:33+A*02:197    | A*01:101+A*02:01:29   |
| A*01:01:33+A*02:211:01 | A*01:91+A*02:01:29    |
| A*01:01:33+A*02:213    | A*01:46+A*02:01:29    |
| A*01:01:33+A*02:214    | A*01:84+A*02:01:29    |
| A*01:01:33+A*02:363    | A*01:54+A*02:01:29    |
| A*01:01:33+A*11:01:06  | A*01:01:40+A*11:01:40 |
| A*01:01:33+A*11:01:11  | A*01:01:45+A*11:01:40 |
| A*01:01:33+A*11:01:25  | A*01:01:46+A*11:01:40 |
| A*01:01:33+A*11:01:36  | A*01:01:35+A*11:01:40 |
| A*01:01:33+A*11:01:37  | A*01:01:39+A*11:01:40 |
| A*01:01:33+A*11:04     | A*01:14+A*11:01:40    |
| A*01:01:33+A*11:06     | A*01:104+A*11:01:40   |
| A*01:01:33+A*11:12     | A*01:100+A*11:01:40   |
| A*01:01:33+A*11:22     | A*01:79+A*11:01:40    |
| A*01:01:33+A*11:30     | A*01:101+A*11:01:40   |
| A*01:01:33+A*11:33:02  | A*01:61+A*11:01:40    |
| A*01:01:33+A*11:48     | A*01:41+A*11:01:40    |
| A*01:01:33+A*11:84     | A*01:62+A*11:01:40    |
| A*01:01:33+A*11:118    | A*01:03+A*11:01:40    |
| A*01:01:33+A*26:01:19  | A*01:01:40+A*26:01:09 |
| A*01:01:33+A*26:09     | A*01:14+A*26:01:09    |
| A*01:01:33+A*26:13     | A*01:17+A*26:01:09    |
| A*01:01:33+A*26:34     | A*01:08+A*26:01:09    |
| A*01:01:33+A*26:36     | A*01:104+A*26:01:09   |
| A*01:01:33+A*26:64     | A*01:47+A*26:01:09    |
| A*01:01:33+A*26:65     | A*01:100+A*26:01:09   |
| A*01:01:33+A*26:74     | A*01:96+A*26:01:09    |
| A*01:01:33+A*32:01:13  | A*01:01:36+A*32:01:09 |
| A*01:01:33+A*32:08     | A*01:104+A*32:01:09   |
| A*01:01:33+A*32:17     | A*01:17+A*32:01:09    |
| A*01:01:33+A*32:21     | A*01:67+A*32:01:09    |
| A*01:01:33+A*32:34     | A*01:77+A*32:01:09    |
| A*01:01:33+A*32:46     | A*01:96+A*32:01:09    |
| A*01:01:33+A*66:01:01G | A*01:13+A*26:01:09    |
| A*01:01:33+A*66:05     | A*01:28+A*26:01:09    |
| A*01:01:33+A*68:21:01  | A*01:86+A*68:01:06    |
| A*01:01:33+A*68:47     | A*01:40+A*68:01:06    |
| A*01:01:33+A*68:52     | A*01:38+A*68:01:06    |
| A*01:01:33+A*68:76     | A*01:91+A*68:01:06    |
| A*01:01:34+A*29:02:06  | A*01:01:43+A*29:02:05 |
| A*01:01:35+A*11:01:06  | A*01:01:40+A*11:01:36 |
| A*01:01:35+A*11:01:11  | A*01:01:45+A*11:01:36 |
| A*01:01:35+A*11:01:25  | A*01:01:46+A*11:01:36 |
| A*01:01:35+A*11:01:37  | A*01:01:39+A*11:01:36 |
| A*01:01:35+A*11:04     | A*01:14+A*11:01:36    |
| A*01:01:35+A*11:06     | A*01:104+A*11:01:36   |
| A*01:01:35+A*11:12     | A*01:100+A*11:01:36   |
| A*01:01:35+A*11:22     | A*01:79+A*11:01:36    |
| A*01:01:35+A*11:30     | A*01:101+A*11:01:36   |
| A*01:01:35+A*11:33:02  | A*01:61+A*11:01:36    |
| A*01:01:35+A*11:48     | A*01:41+A*11:01:36    |
| A*01:01:35+A*11:84     | A*01:62+A*11:01:36    |
| A*01:01:35+A*11:118    | A*01:03+A*11:01:36    |
| A*01:01:35+A*33:36     | A*01:74+A*33:03:06    |
| A*01:01:35+A*33:40     | A*01:91+A*33:03:06    |
| A*01:01:35+A*33:55     | A*01:97+A*33:03:06    |
| A*01:01:36+A*32:08     | A*01:104+A*32:01:13   |
| A*01:01:36+A*32:17     | A*01:17+A*32:01:13    |
| A*01:01:36+A*32:21     | A*01:67+A*32:01:13    |
| A*01:01:36+A*32:34     | A*01:77+A*32:01:13    |
| A*01:01:36+A*32:46     | A*01:96+A*32:01:13    |
| A*01:01:37+A*02:01:25  | A*01:01:40+A*02:01:43 |
| A*01:01:37+A*02:01:54  | A*01:01:46+A*02:01:43 |
| A*01:01:37+A*02:06:01G | A*01:43+A*02:01:43    |
| A*01:01:37+A*02:34     | A*01:17+A*02:01:43    |
| A*01:01:37+A*02:67     | A*01:76+A*02:01:43    |
| A*01:01:37+A*02:74:02  | A*01:86+A*02:01:43    |
| A*01:01:37+A*02:113N   | A*01:31N+A*02:01:43   |
| A*01:01:37+A*02:133    | A*01:80+A*02:01:43    |
| A*01:01:37+A*02:16     | A*01:44+A*02:01:43    |
| A*01:01:37+A*02:16     | A*01:67+A*02:01:43    |
| A*01:01:37+A*02:174    | A*01:61+A*02:01:43    |
| A*01:01:37+A*02:183    | A*01:41+A*02:01:43    |



|                        |                       |
|------------------------|-----------------------|
| A*01:01:37+A*02:197    | A*01:101+A*02:01:43   |
| A*01:01:37+A*02:211:01 | A*01:91+A*02:01:43    |
| A*01:01:37+A*02:213    | A*01:46+A*02:01:43    |
| A*01:01:37+A*02:214    | A*01:84+A*02:01:43    |
| A*01:01:37+A*02:363    | A*01:54+A*02:01:43    |
| A*01:01:37+A*25:02     | A*01:17+A*25:01:04    |
| A*01:01:37+A*25:06     | A*01:14+A*25:01:04    |
| A*01:01:37+A*25:11     | A*01:104+A*25:01:04   |
| A*01:01:37+A*25:12N    | A*01:53N+A*25:01:04   |
| A*01:01:37+A*25:13     | A*01:100+A*25:01:04   |
| A*01:01:39+A*11:01:06  | A*01:01:40+A*11:01:37 |
| A*01:01:39+A*11:01:11  | A*01:01:45+A*11:01:37 |
| A*01:01:39+A*11:01:25  | A*01:01:46+A*11:01:37 |
| A*01:01:39+A*11:04     | A*01:14+A*11:01:37    |
| A*01:01:39+A*11:06     | A*01:104+A*11:01:37   |
| A*01:01:39+A*11:12     | A*01:100+A*11:01:37   |
| A*01:01:39+A*11:22     | A*01:79+A*11:01:37    |
| A*01:01:39+A*11:30     | A*01:101+A*11:01:37   |
| A*01:01:39+A*11:33:02  | A*01:61+A*11:01:37    |
| A*01:01:39+A*11:48     | A*01:41+A*11:01:37    |
| A*01:01:39+A*11:84     | A*01:62+A*11:01:37    |
| A*01:01:39+A*11:118    | A*01:03+A*11:01:37    |
| A*01:01:39+A*24:02:22  | A*01:01:43+A*24:02:11 |
| A*01:01:39+A*24:02:53  | A*01:01:46+A*24:02:11 |
| A*01:01:39+A*24:03:01G | A*24:02:11+A*36:04    |
| A*01:01:39+A*24:05:01G | A*01:61+A*24:02:11    |
| A*01:01:39+A*24:07     | A*01:17+A*24:02:11    |
| A*01:01:39+A*24:23     | A*01:72+A*24:02:11    |
| A*01:01:39+A*24:26     | A*01:39+A*24:02:11    |
| A*01:01:39+A*24:30     | A*01:104+A*24:02:11   |
| A*01:01:39+A*24:139    | A*01:82+A*24:02:11    |
| A*01:01:39+A*24:172    | A*01:96+A*24:02:11    |
| A*01:01:39+A*24:176    | A*01:67+A*24:02:11    |
| A*01:01:39+A*24:186    | A*01:74+A*24:02:11    |
| A*01:01:39+A*33:01:03  | A*01:01:44+A*33:01:04 |
| A*01:01:39+A*33:16     | A*01:67+A*33:01:04    |
| A*01:01:39+A*33:32:02  | A*01:88+A*33:01:04    |
| A*01:01:40+A*02:01:54  | A*01:01:46+A*02:01:25 |
| A*01:01:40+A*02:06:01G | A*01:43+A*02:01:25    |
| A*01:01:40+A*02:34     | A*01:17+A*02:01:25    |
| A*01:01:40+A*02:67     | A*01:76+A*02:01:25    |
| A*01:01:40+A*02:74:02  | A*01:86+A*02:01:25    |
| A*01:01:40+A*02:113N   | A*01:31N+A*02:01:25   |
| A*01:01:40+A*02:133    | A*01:80+A*02:01:25    |
| A*01:01:40+A*02:16     | A*01:44+A*02:01:25    |
| A*01:01:40+A*02:16     | A*01:67+A*02:01:25    |
| A*01:01:40+A*02:174    | A*01:61+A*02:01:25    |
| A*01:01:40+A*02:183    | A*01:41+A*02:01:25    |
| A*01:01:40+A*02:197    | A*01:101+A*02:01:25   |
| A*01:01:40+A*02:211:01 | A*01:91+A*02:01:25    |
| A*01:01:40+A*02:213    | A*01:46+A*02:01:25    |
| A*01:01:40+A*02:214    | A*01:84+A*02:01:25    |
| A*01:01:40+A*02:363    | A*01:54+A*02:01:25    |
| A*01:01:40+A*11:01:11  | A*01:01:45+A*11:01:06 |
| A*01:01:40+A*11:01:25  | A*01:01:46+A*11:01:06 |
| A*01:01:40+A*11:04     | A*01:14+A*11:01:06    |
| A*01:01:40+A*11:06     | A*01:104+A*11:01:06   |
| A*01:01:40+A*11:12     | A*01:100+A*11:01:06   |
| A*01:01:40+A*11:22     | A*01:79+A*11:01:06    |
| A*01:01:40+A*11:30     | A*01:101+A*11:01:06   |
| A*01:01:40+A*11:33:02  | A*01:61+A*11:01:06    |
| A*01:01:40+A*11:48     | A*01:41+A*11:01:06    |
| A*01:01:40+A*11:84     | A*01:62+A*11:01:06    |
| A*01:01:40+A*11:118    | A*01:03+A*11:01:06    |
| A*01:01:40+A*26:09     | A*01:14+A*26:01:19    |
| A*01:01:40+A*26:13     | A*01:17+A*26:01:19    |
| A*01:01:40+A*26:34     | A*01:08+A*26:01:19    |
| A*01:01:40+A*26:36     | A*01:104+A*26:01:19   |
| A*01:01:40+A*26:64     | A*01:47+A*26:01:19    |
| A*01:01:40+A*26:65     | A*01:100+A*26:01:19   |
| A*01:01:40+A*26:74     | A*01:96+A*26:01:19    |
| A*01:01:40+A*66:01:01G | A*01:13+A*26:01:19    |
| A*01:01:40+A*66:05     | A*01:28+A*26:01:19    |
| A*01:01:43+A*24:02:53  | A*01:01:46+A*24:02:22 |
| A*01:01:43+A*24:03:01G | A*24:02:22+A*36:04    |
| A*01:01:43+A*24:05:01G | A*01:61+A*24:02:22    |
| A*01:01:43+A*24:07     | A*01:17+A*24:02:22    |
| A*01:01:43+A*24:23     | A*01:72+A*24:02:22    |
| A*01:01:43+A*24:26     | A*01:39+A*24:02:22    |
| A*01:01:43+A*24:30     | A*01:104+A*24:02:22   |
| A*01:01:43+A*24:139    | A*01:82+A*24:02:22    |
| A*01:01:43+A*24:172    | A*01:96+A*24:02:22    |
| A*01:01:43+A*24:176    | A*01:67+A*24:02:22    |
| A*01:01:43+A*24:186    | A*01:74+A*24:02:22    |
| A*01:01:43+A*31:17     | A*01:108+A*31:01:11   |
| A*01:01:43+A*31:40     | A*01:80+A*31:01:11    |
| A*01:01:43+A*31:45     | A*01:67+A*31:01:11    |
| A*01:01:43+A*31:58     | A*01:49+A*31:01:11    |
| A*01:01:44+A*33:16     | A*01:67+A*33:01:03    |
| A*01:01:44+A*33:32:02  | A*01:88+A*33:01:03    |
| A*01:01:45+A*11:01:25  | A*01:01:46+A*11:01:11 |
| A*01:01:45+A*11:04     | A*01:14+A*11:01:11    |
| A*01:01:45+A*11:06     | A*01:104+A*11:01:11   |
| A*01:01:45+A*11:12     | A*01:100+A*11:01:11   |
| A*01:01:45+A*11:22     | A*01:79+A*11:01:11    |
| A*01:01:45+A*11:30     | A*01:101+A*11:01:11   |
| A*01:01:45+A*11:33:02  | A*01:61+A*11:01:11    |
| A*01:01:45+A*11:48     | A*01:41+A*11:01:11    |
| A*01:01:45+A*11:84     | A*01:62+A*11:01:11    |
| A*01:01:45+A*11:118    | A*01:03+A*11:01:11    |
| A*01:01:46+A*02:06:01G | A*01:43+A*02:01:54    |
| A*01:01:46+A*02:34     | A*01:17+A*02:01:54    |
| A*01:01:46+A*02:67     | A*01:76+A*02:01:54    |
| A*01:01:46+A*02:74:02  | A*01:86+A*02:01:54    |
| A*01:01:46+A*02:113N   | A*01:31N+A*02:01:54   |

|                        |                     |                      |
|------------------------|---------------------|----------------------|
| A*01:01:46+A*02:133    | A*01:80+A*02:01:54  |                      |
| A*01:01:46+A*02:16     | A*01:44+A*02:01:54  |                      |
| A*01:01:46+A*02:16     | A*01:67+A*02:01:54  |                      |
| A*01:01:46+A*02:174    | A*01:61+A*02:01:54  |                      |
| A*01:01:46+A*02:183    | A*01:41+A*02:01:54  |                      |
| A*01:01:46+A*02:197    | A*01:101+A*02:01:54 |                      |
| A*01:01:46+A*02:211:01 | A*01:91+A*02:01:54  |                      |
| A*01:01:46+A*02:213    | A*01:46+A*02:01:54  |                      |
| A*01:01:46+A*02:214    | A*01:84+A*02:01:54  |                      |
| A*01:01:46+A*02:363    | A*01:54+A*02:01:54  |                      |
| A*01:01:46+A*11:04     | A*01:14+A*11:01:25  |                      |
| A*01:01:46+A*11:06     | A*01:104+A*11:01:25 |                      |
| A*01:01:46+A*11:12     | A*01:100+A*11:01:25 |                      |
| A*01:01:46+A*11:22     | A*01:79+A*11:01:25  |                      |
| A*01:01:46+A*11:30     | A*01:101+A*11:01:25 |                      |
| A*01:01:46+A*11:33:02  | A*01:61+A*11:01:25  |                      |
| A*01:01:46+A*11:48     | A*01:41+A*11:01:25  |                      |
| A*01:01:46+A*11:84     | A*01:62+A*11:01:25  |                      |
| A*01:01:46+A*11:118    | A*01:03+A*11:01:25  |                      |
| A*01:01:46+A*24:03:01G | A*24:02:53+A*36:04  |                      |
| A*01:01:46+A*24:05:01G | A*01:61+A*24:02:53  |                      |
| A*01:01:46+A*24:07     | A*01:17+A*24:02:53  |                      |
| A*01:01:46+A*24:23     | A*01:72+A*24:02:53  |                      |
| A*01:01:46+A*24:26     | A*01:39+A*24:02:53  |                      |
| A*01:01:46+A*24:30     | A*01:104+A*24:02:53 |                      |
| A*01:01:46+A*24:139    | A*01:82+A*24:02:53  |                      |
| A*01:01:46+A*24:172    | A*01:96+A*24:02:53  |                      |
| A*01:01:46+A*24:176    | A*01:67+A*24:02:53  |                      |
| A*01:01:46+A*24:186    | A*01:74+A*24:02:53  |                      |
| A*01:01:46+A*68:87     | A*01:82+A*68:01:03  |                      |
| A*01:01:46+A*68:89     | A*01:47+A*68:01:03  |                      |
| A*01:02+A*02:01:01G    | A*01:20+A*02:338    |                      |
| A*01:02+A*02:93        | A*01:20+A*02:156    |                      |
| A*01:02+A*03:95        | A*01:20+A*03:01:01G |                      |
| A*01:03+A*02:01:01G    | A*01:66+A*02:334    |                      |
| A*01:03+A*02:58        | A*01:73+A*02:334    |                      |
| A*01:03+A*11:04        | A*01:14+A*11:118    |                      |
| A*01:03+A*11:06        | A*01:104+A*11:118   |                      |
| A*01:03+A*11:12        | A*01:100+A*11:118   |                      |
| A*01:03+A*11:22        | A*01:79+A*11:118    |                      |
| A*01:03+A*11:30        | A*01:101+A*11:118   |                      |
| A*01:03+A*11:33:02     | A*01:61+A*11:118    |                      |
| A*01:03+A*11:48        | A*01:41+A*11:118    |                      |
| A*01:03+A*11:84        | A*01:62+A*11:118    |                      |
| A*01:03+A*24:52        | A*01:73+A*24:120    |                      |
| A*01:03+A*26:22        | A*01:66+A*26:70     |                      |
| A*01:03+A*29:22        | A*01:66+A*29:02:01G |                      |
| A*01:03+A*33:22        | A*01:66+A*33:03:01G |                      |
| A*01:06+A*02:49        | A*01:98+A*02:01:01G |                      |
| A*01:06+A*03:66        | A*01:98+A*03:01:01G |                      |
| A*01:06+A*11:08        | A*01:98+A*11:25     |                      |
| A*01:06+A*11:44        | A*01:98+A*11:24:02  |                      |
| A*01:06+A*11:112       | A*01:25+A*11:24:02  |                      |
| A*01:06+A*24:87        | A*01:98+A*24:13:01  |                      |
| A*01:06+A*24:160       | A*01:25+A*24:13:01  |                      |
| A*01:08+A*26:09        | A*01:14+A*26:34     |                      |
| A*01:08+A*26:13        | A*01:17+A*26:34     |                      |
| A*01:08+A*26:36        | A*01:104+A*26:34    |                      |
| A*01:08+A*26:64        | A*01:47+A*26:34     |                      |
| A*01:08+A*26:65        | A*01:100+A*26:34    |                      |
| A*01:08+A*26:74        | A*01:96+A*26:34     |                      |
| A*01:08+A*66:01:01G    | A*01:13+A*26:34     |                      |
| A*01:08+A*66:05        | A*01:28+A*26:34     |                      |
| A*01:10+A*11:02:01G    | A*01:26+A*11:14     |                      |
| A*01:12+A*11:94        | A*01:21+A*11:27     |                      |
| A*01:12+A*31:20        | A*01:19+A*31:01:02G |                      |
| A*01:13+A*02:01:01G    | A*01:28+A*02:34     |                      |
| A*01:13+A*02:20:01     | A*01:28+A*02:62     |                      |
| A*01:13+A*02:87        | A*01:95+A*02:35:01  |                      |
| A*01:13+A*02:90        | A*01:28+A*02:35:01  |                      |
| A*01:13+A*02:195       | A*01:28+A*02:56:02  |                      |
| A*01:13+A*03:08        | A*01:28+A*03:01:01G |                      |
| A*01:13+A*03:57        | A*01:17+A*03:01:01G |                      |
| A*01:13+A*03:108       | A*01:28+A*03:09     |                      |
| A*01:13+A*11:19        | A*01:28+A*11:01:01G |                      |
| A*01:13+A*23:01:01G    | A*01:28+A*23:13     |                      |
| A*01:13+A*24:02:01G    | A*01:28+A*24:07     |                      |
| A*01:13+A*24:04        | A*01:100+A*24:19    |                      |
| A*01:13+A*24:44        | A*01:28+A*24:19     |                      |
| A*01:13+A*25:01:01G    | A*01:28+A*25:02     |                      |
| A*01:13+A*26:09        | A*01:14+A*66:01:01G | A*36:01+A*66:10      |
| A*01:13+A*26:13        | A*01:17+A*66:01:01G |                      |
| A*01:13+A*26:36        | A*01:17+A*26:03:01  | A*01:104+A*66:01:01G |
| A*01:13+A*26:64        | A*01:47+A*66:01:01G |                      |
| A*01:13+A*26:74        | A*01:96+A*66:01:01G |                      |
| A*01:13+A*29:20        | A*01:28+A*29:01:01G |                      |
| A*01:13+A*29:34        | A*01:28+A*29:02:01G |                      |
| A*01:13+A*30:02:01G    | A*01:28+A*30:25     |                      |
| A*01:13+A*30:44        | A*01:28+A*30:16     |                      |
| A*01:13+A*32:01:01G    | A*01:28+A*32:17     |                      |
| A*01:13+A*32:03        | A*01:95+A*74:13     |                      |
| A*01:13+A*33:48        | A*01:17+A*33:11     |                      |
| A*01:13+A*66:03        | A*01:28+A*66:02     |                      |
| A*01:13+A*66:05        | A*01:28+A*66:01:01G |                      |
| A*01:13+A*68:03:01     | A*01:28+A*68:01:02G |                      |
| A*01:13+A*68:03:03     | A*01:28+A*68:01:01G |                      |
| A*01:13+A*68:31        | A*01:28+A*68:02:01G |                      |
| A*01:13+A*68:84        | A*01:17+A*68:01:02G |                      |
| A*01:13+A*74:01:01G    | A*01:28+A*74:13     |                      |
| A*01:14+A*02:01:01G    | A*02:36+A*36:01     |                      |
| A*01:14+A*02:07:01G    | A*02:255+A*36:01    |                      |
| A*01:14+A*02:12        | A*02:37+A*36:01     |                      |
| A*01:14+A*02:142       | A*02:54+A*36:01     |                      |
| A*01:14+A*03:01:01G    | A*03:97+A*36:01     |                      |
| A*01:14+A*03:05:01     | A*03:122+A*36:01    |                      |

|                     |                      |
|---------------------|----------------------|
| A*01:14+A*03:75     | A*03:97+A*36:03      |
| A*01:14+A*11:02:01G | A*11:38+A*36:01      |
| A*01:14+A*11:04     | A*11:27+A*36:01      |
| A*01:14+A*11:06     | A*01:104+A*11:04     |
| A*01:14+A*11:12     | A*01:100+A*11:04     |
| A*01:14+A*11:22     | A*01:79+A*11:04      |
| A*01:14+A*11:30     | A*01:101+A*11:04     |
| A*01:14+A*11:33:02  | A*01:61+A*11:04      |
| A*01:14+A*11:48     | A*01:41+A*11:04      |
| A*01:14+A*11:84     | A*01:62+A*11:04      |
| A*01:14+A*23:04     | A*23:01:01G+A*36:01  |
| A*01:14+A*24:03:01G | A*24:02:01G+A*36:01  |
| A*01:14+A*24:03:02  | A*24:02:18+A*36:01   |
| A*01:14+A*24:167    | A*24:06+A*36:01      |
| A*01:14+A*24:204    | A*24:160+A*36:02     |
| A*01:14+A*24:207    | A*24:13:01+A*36:01   |
| A*01:14+A*25:02     | A*01:17+A*25:06      |
| A*01:14+A*25:11     | A*01:104+A*25:06     |
| A*01:14+A*25:12N    | A*01:53N+A*25:06     |
| A*01:14+A*25:13     | A*01:100+A*25:06     |
| A*01:14+A*26:13     | A*01:17+A*26:09      |
| A*01:14+A*26:15     | A*26:29+A*36:01      |
| A*01:14+A*26:36     | A*01:104+A*26:09     |
| A*01:14+A*26:64     | A*01:47+A*26:09      |
| A*01:14+A*26:65     | A*01:100+A*26:09     |
| A*01:14+A*26:74     | A*01:96+A*26:09      |
| A*01:14+A*29:02:01G | A*29:03+A*36:01      |
| A*01:14+A*31:01:02G | A*31:05+A*36:01      |
| A*01:14+A*32:01:01G | A*32:13+A*36:01      |
| A*01:14+A*33:03:01G | A*33:10+A*36:01      |
| A*01:14+A*66:05     | A*01:28+A*26:09      |
| A*01:14+A*68:01:02G | A*36:01+A*68:65      |
| A*01:17+A*02:01:09  | A*01:104+A*02:35:03  |
| A*01:17+A*02:01:52  | A*01:104+A*02:35:02  |
| A*01:17+A*02:06:01G | A*01:43+A*02:34      |
| A*01:17+A*02:67     | A*01:76+A*02:34      |
| A*01:17+A*02:74:02  | A*01:86+A*02:34      |
| A*01:17+A*02:113N   | A*01:31N+A*02:34     |
| A*01:17+A*02:133    | A*01:80+A*02:34      |
| A*01:17+A*02:16     | A*01:44+A*02:34      |
| A*01:17+A*02:16     | A*01:67+A*02:34      |
| A*01:17+A*02:16     | A*01:43+A*02:56:02   |
| A*01:17+A*02:174    | A*01:61+A*02:34      |
| A*01:17+A*02:183    | A*01:41+A*02:34      |
| A*01:17+A*02:197    | A*01:101+A*02:34     |
| A*01:17+A*02:211:01 | A*01:91+A*02:34      |
| A*01:17+A*02:213    | A*01:46+A*02:34      |
| A*01:17+A*02:214    | A*01:84+A*02:34      |
| A*01:17+A*02:331    | A*01:43+A*02:35:01   |
| A*01:17+A*02:363    | A*01:54+A*02:34      |
| A*01:17+A*11:18     | A*01:100+A*11:06     |
| A*01:17+A*23:04     | A*23:13+A*36:04      |
| A*01:17+A*23:12     | A*01:104+A*23:13     |
| A*01:17+A*23:25     | A*01:86+A*23:13      |
| A*01:17+A*23:33     | A*01:90+A*23:13      |
| A*01:17+A*24:03:01G | A*24:07+A*36:04      |
| A*01:17+A*24:05:01G | A*01:61+A*24:07      |
| A*01:17+A*24:23     | A*01:72+A*24:07      |
| A*01:17+A*24:26     | A*01:39+A*24:07      |
| A*01:17+A*24:30     | A*01:104+A*24:07     |
| A*01:17+A*24:139    | A*01:82+A*24:07      |
| A*01:17+A*24:172    | A*01:96+A*24:07      |
| A*01:17+A*24:176    | A*01:67+A*24:07      |
| A*01:17+A*24:186    | A*01:74+A*24:07      |
| A*01:17+A*25:11     | A*01:104+A*25:02     |
| A*01:17+A*25:12N    | A*01:53N+A*25:02     |
| A*01:17+A*25:13     | A*01:100+A*25:02     |
| A*01:17+A*26:30     | A*01:104+A*66:12     |
| A*01:17+A*26:36     | A*01:104+A*26:13     |
| A*01:17+A*26:64     | A*01:47+A*26:13      |
| A*01:17+A*26:65     | A*01:100+A*26:13     |
| A*01:17+A*26:74     | A*01:96+A*26:13      |
| A*01:17+A*30:46     | A*01:104+A*30:17     |
| A*01:17+A*32:08     | A*01:104+A*32:17     |
| A*01:17+A*32:21     | A*01:67+A*32:17      |
| A*01:17+A*32:34     | A*01:77+A*32:17      |
| A*01:17+A*32:46     | A*01:96+A*32:17      |
| A*01:17+A*68:05     | A*01:104+A*68:01:02G |
| A*01:17+A*68:15     | A*01:104+A*68:02:01G |
| A*01:17+A*74:06     | A*01:104+A*74:13     |
| A*01:17+A*74:09     | A*01:29+A*74:13      |
| A*01:21+A*02:27     | A*01:26+A*02:12      |
| A*01:21+A*03:127    | A*01:26+A*03:07      |
| A*01:21+A*11:24:02  | A*01:26+A*11:31      |
| A*01:21+A*24:59     | A*01:26+A*24:02:01G  |
| A*01:21+A*24:190    | A*01:26+A*24:71      |
| A*01:21+A*31:43     | A*01:26+A*31:01:02G  |
| A*01:23+A*02:01:52  | A*01:83+A*02:195     |
| A*01:23+A*02:06:12  | A*01:83+A*02:16      |
| A*01:23+A*02:34     | A*01:83+A*02:56:01   |
| A*01:23+A*02:55     | A*01:51+A*02:195     |
| A*01:23+A*03:23:01  | A*01:83+A*03:01:03   |
| A*01:23+A*03:23:02  | A*01:83+A*03:01:01G  |
| A*01:23+A*03:24     | A*01:51+A*03:01:01G  |
| A*01:23+A*03:107    | A*01:100+A*03:41     |
| A*01:23+A*11:10     | A*01:51+A*11:01:01G  |
| A*01:23+A*24:67     | A*01:51+A*24:191     |
| A*01:23+A*32:15     | A*01:51+A*32:01:01G  |
| A*01:23+A*68:01:02G | A*01:51+A*68:66      |
| A*01:28+A*02:87     | A*01:95+A*02:90      |
| A*01:28+A*24:04     | A*01:100+A*24:44     |
| A*01:28+A*24:30     | A*01:95+A*24:28      |
| A*01:28+A*24:42     | A*01:95+A*24:89      |
| A*01:28+A*26:64     | A*01:47+A*66:05      |
| A*01:28+A*26:65     | A*01:100+A*66:05     |

A\*01:104+A\*11:12

|                      |                      |
|----------------------|----------------------|
| A*01:28+A*26:74      | A*01:96+A*66:05      |
| A*01:28+A*31:10      | A*01:95+A*31:66      |
| A*01:28+A*32:03      | A*01:95+A*74:01:01G  |
| A*01:28+A*68:36      | A*01:95+A*68:01:02G  |
| A*01:28+A*80:01      | A*01:108+A*80:02     |
| A*01:29+A*74:06      | A*01:104+A*74:09     |
| A*01:31N+A*02:06:01G | A*01:43+A*02:113N    |
| A*01:31N+A*02:67     | A*01:76+A*02:113N    |
| A*01:31N+A*02:74:02  | A*01:86+A*02:113N    |
| A*01:31N+A*02:133    | A*01:80+A*02:113N    |
| A*01:31N+A*02:16     | A*01:44+A*02:113N    |
| A*01:31N+A*02:16     | A*01:67+A*02:113N    |
| A*01:31N+A*02:174    | A*01:61+A*02:113N    |
| A*01:31N+A*02:183    | A*01:41+A*02:113N    |
| A*01:31N+A*02:197    | A*01:101+A*02:113N   |
| A*01:31N+A*02:211:01 | A*01:91+A*02:113N    |
| A*01:31N+A*02:213    | A*01:46+A*02:113N    |
| A*01:31N+A*02:214    | A*01:84+A*02:113N    |
| A*01:31N+A*02:363    | A*01:54+A*02:113N    |
| A*01:33+A*02:259     | A*01:96+A*02:330     |
| A*01:35+A*03:01:10   | A*01:105+A*03:77     |
| A*01:35+A*03:04:01   | A*01:86+A*03:77      |
| A*01:35+A*03:09      | A*01:104+A*03:77     |
| A*01:35+A*03:12      | A*01:43+A*03:77      |
| A*01:35+A*03:17:02   | A*01:88+A*03:77      |
| A*01:35+A*03:22:01   | A*01:61+A*03:77      |
| A*01:35+A*03:44      | A*01:44+A*03:77      |
| A*01:35+A*03:70      | A*01:47+A*03:77      |
| A*01:35+A*03:85      | A*01:62+A*03:77      |
| A*01:35+A*03:87      | A*01:101+A*03:77     |
| A*01:35+A*03:95      | A*01:66+A*03:77      |
| A*01:35+A*03:124     | A*01:112+A*03:77     |
| A*01:35+A*03:136     | A*01:80+A*03:77      |
| A*01:38+A*68:21:01   | A*01:86+A*68:52      |
| A*01:38+A*68:47      | A*01:40+A*68:52      |
| A*01:38+A*68:76      | A*01:91+A*68:52      |
| A*01:39+A*24:03:01G  | A*24:26+A*36:04      |
| A*01:39+A*24:05:01G  | A*01:61+A*24:26      |
| A*01:39+A*24:23      | A*01:72+A*24:26      |
| A*01:39+A*24:30      | A*01:104+A*24:26     |
| A*01:39+A*24:139     | A*01:82+A*24:26      |
| A*01:39+A*24:172     | A*01:96+A*24:26      |
| A*01:39+A*24:176     | A*01:67+A*24:26      |
| A*01:39+A*24:186     | A*01:74+A*24:26      |
| A*01:40+A*68:21:01   | A*01:86+A*68:47      |
| A*01:40+A*68:76      | A*01:91+A*68:47      |
| A*01:41+A*02:06:01G  | A*01:43+A*02:183     |
| A*01:41+A*02:67      | A*01:76+A*02:183     |
| A*01:41+A*02:74:02   | A*01:86+A*02:183     |
| A*01:41+A*02:133     | A*01:80+A*02:183     |
| A*01:41+A*02:16      | A*01:44+A*02:183     |
| A*01:41+A*02:16      | A*01:67+A*02:183     |
| A*01:41+A*02:174     | A*01:61+A*02:183     |
| A*01:41+A*02:197     | A*01:101+A*02:183    |
| A*01:41+A*02:211:01  | A*01:91+A*02:183     |
| A*01:41+A*02:213     | A*01:46+A*02:183     |
| A*01:41+A*02:214     | A*01:84+A*02:183     |
| A*01:41+A*02:363     | A*01:54+A*02:183     |
| A*01:41+A*11:06      | A*01:104+A*11:48     |
| A*01:41+A*11:12      | A*01:100+A*11:48     |
| A*01:41+A*11:22      | A*01:79+A*11:48      |
| A*01:41+A*11:30      | A*01:101+A*11:48     |
| A*01:41+A*11:33:02   | A*01:61+A*11:48      |
| A*01:41+A*11:84      | A*01:62+A*11:48      |
| A*01:43+A*02:56:01   | A*01:104+A*02:78     |
| A*01:43+A*02:67      | A*01:76+A*02:06:01G  |
| A*01:43+A*02:74:02   | A*01:86+A*02:06:01G  |
| A*01:43+A*02:133     | A*01:80+A*02:06:01G  |
| A*01:43+A*02:16      | A*01:44+A*02:06:01G  |
| A*01:43+A*02:16      | A*01:67+A*02:06:01G  |
| A*01:43+A*02:174     | A*01:61+A*02:06:01G  |
| A*01:43+A*02:197     | A*01:101+A*02:06:01G |
| A*01:43+A*02:211:01  | A*01:91+A*02:06:01G  |
| A*01:43+A*02:213     | A*01:46+A*02:06:01G  |
| A*01:43+A*02:214     | A*01:84+A*02:06:01G  |
| A*01:43+A*02:315     | A*01:62+A*02:355     |
| A*01:43+A*02:363     | A*01:54+A*02:06:01G  |
| A*01:43+A*03:01:10   | A*01:105+A*03:12     |
| A*01:43+A*03:04:01   | A*01:86+A*03:12      |
| A*01:43+A*03:09      | A*01:104+A*03:12     |
| A*01:43+A*03:17:02   | A*01:88+A*03:12      |
| A*01:43+A*03:22:01   | A*01:61+A*03:12      |
| A*01:43+A*03:44      | A*01:44+A*03:12      |
| A*01:43+A*03:56      | A*01:100+A*03:88     |
| A*01:43+A*03:70      | A*01:47+A*03:12      |
| A*01:43+A*03:85      | A*01:62+A*03:12      |
| A*01:43+A*03:87      | A*01:101+A*03:12     |
| A*01:43+A*03:95      | A*01:66+A*03:12      |
| A*01:43+A*03:124     | A*01:112+A*03:12     |
| A*01:43+A*03:136     | A*01:80+A*03:12      |
| A*01:44+A*02:67      | A*01:76+A*02:16      |
| A*01:44+A*02:74:02   | A*01:86+A*02:16      |
| A*01:44+A*02:133     | A*01:80+A*02:16      |
| A*01:44+A*02:16      | A*01:67+A*02:16      |
| A*01:44+A*02:174     | A*01:61+A*02:16      |
| A*01:44+A*02:197     | A*01:101+A*02:16     |
| A*01:44+A*02:211:01  | A*01:91+A*02:16      |
| A*01:44+A*02:213     | A*01:46+A*02:16      |
| A*01:44+A*02:214     | A*01:84+A*02:16      |
| A*01:44+A*02:363     | A*01:54+A*02:16      |
| A*01:44+A*03:01:10   | A*01:105+A*03:44     |
| A*01:44+A*03:04:01   | A*01:86+A*03:44      |
| A*01:44+A*03:09      | A*01:104+A*03:44     |
| A*01:44+A*03:17:02   | A*01:88+A*03:44      |
| A*01:44+A*03:22:01   | A*01:61+A*03:44      |

|                     |                      |
|---------------------|----------------------|
| A*01:44+A*03:70     | A*01:47+A*03:44      |
| A*01:44+A*03:85     | A*01:62+A*03:44      |
| A*01:44+A*03:87     | A*01:101+A*03:44     |
| A*01:44+A*03:95     | A*01:66+A*03:44      |
| A*01:44+A*03:124    | A*01:112+A*03:44     |
| A*01:44+A*03:136    | A*01:80+A*03:44      |
| A*01:46+A*02:67     | A*01:76+A*02:213     |
| A*01:46+A*02:74:02  | A*01:86+A*02:213     |
| A*01:46+A*02:133    | A*01:80+A*02:213     |
| A*01:46+A*02:16     | A*01:67+A*02:213     |
| A*01:46+A*02:174    | A*01:61+A*02:213     |
| A*01:46+A*02:197    | A*01:101+A*02:213    |
| A*01:46+A*02:211:01 | A*01:91+A*02:213     |
| A*01:46+A*02:214    | A*01:84+A*02:213     |
| A*01:46+A*02:363    | A*01:54+A*02:213     |
| A*01:47+A*03:01:10  | A*01:105+A*03:70     |
| A*01:47+A*03:04:01  | A*01:86+A*03:70      |
| A*01:47+A*03:09     | A*01:104+A*03:70     |
| A*01:47+A*03:17:02  | A*01:88+A*03:70      |
| A*01:47+A*03:22:01  | A*01:61+A*03:70      |
| A*01:47+A*03:85     | A*01:62+A*03:70      |
| A*01:47+A*03:87     | A*01:101+A*03:70     |
| A*01:47+A*03:95     | A*01:66+A*03:70      |
| A*01:47+A*03:124    | A*01:112+A*03:70     |
| A*01:47+A*03:136    | A*01:80+A*03:70      |
| A*01:47+A*26:36     | A*01:104+A*26:64     |
| A*01:47+A*26:65     | A*01:100+A*26:64     |
| A*01:47+A*26:74     | A*01:96+A*26:64      |
| A*01:47+A*68:87     | A*01:82+A*68:89      |
| A*01:49+A*31:17     | A*01:108+A*31:58     |
| A*01:49+A*31:40     | A*01:80+A*31:58      |
| A*01:49+A*31:45     | A*01:67+A*31:58      |
| A*01:51+A*02:01:52  | A*01:83+A*02:55      |
| A*01:51+A*02:122    | A*01:83+A*68:15      |
| A*01:51+A*03:23:02  | A*01:83+A*03:24      |
| A*01:51+A*26:07:01  | A*01:83+A*26:01:01G  |
| A*01:53N+A*25:11    | A*01:104+A*25:12N    |
| A*01:53N+A*25:13    | A*01:100+A*25:12N    |
| A*01:54+A*02:67     | A*01:76+A*02:363     |
| A*01:54+A*02:74:02  | A*01:86+A*02:363     |
| A*01:54+A*02:133    | A*01:80+A*02:363     |
| A*01:54+A*02:16     | A*01:67+A*02:363     |
| A*01:54+A*02:174    | A*01:61+A*02:363     |
| A*01:54+A*02:197    | A*01:101+A*02:363    |
| A*01:54+A*02:211:01 | A*01:91+A*02:363     |
| A*01:54+A*02:214    | A*01:84+A*02:363     |
| A*01:55+A*68:78     | A*01:80+A*68:44      |
| A*01:57N+A*30:16    | A*01:104+A*30:59N    |
| A*01:57N+A*30:37    | A*01:96+A*30:59N     |
| A*01:61+A*02:67     | A*01:76+A*02:174     |
| A*01:61+A*02:74:02  | A*01:86+A*02:174     |
| A*01:61+A*02:133    | A*01:80+A*02:174     |
| A*01:61+A*02:16     | A*01:67+A*02:174     |
| A*01:61+A*02:197    | A*01:101+A*02:174    |
| A*01:61+A*02:211:01 | A*01:91+A*02:174     |
| A*01:61+A*02:214    | A*01:84+A*02:174     |
| A*01:61+A*03:01:10  | A*01:105+A*03:22:01  |
| A*01:61+A*03:04:01  | A*01:86+A*03:22:01   |
| A*01:61+A*03:09     | A*01:104+A*03:22:01  |
| A*01:61+A*03:17:02  | A*01:88+A*03:22:01   |
| A*01:61+A*03:85     | A*01:62+A*03:22:01   |
| A*01:61+A*03:87     | A*01:101+A*03:22:01  |
| A*01:61+A*03:95     | A*01:66+A*03:22:01   |
| A*01:61+A*03:124    | A*01:112+A*03:22:01  |
| A*01:61+A*03:136    | A*01:80+A*03:22:01   |
| A*01:61+A*11:06     | A*01:104+A*11:33:02  |
| A*01:61+A*11:12     | A*01:100+A*11:33:02  |
| A*01:61+A*11:22     | A*01:79+A*11:33:02   |
| A*01:61+A*11:30     | A*01:101+A*11:33:02  |
| A*01:61+A*11:84     | A*01:62+A*11:33:02   |
| A*01:61+A*24:03:01G | A*24:05:01G+A*36:04  |
| A*01:61+A*24:23     | A*01:72+A*24:05:01G  |
| A*01:61+A*24:30     | A*01:104+A*24:05:01G |
| A*01:61+A*24:139    | A*01:82+A*24:05:01G  |
| A*01:61+A*24:172    | A*01:96+A*24:05:01G  |
| A*01:61+A*24:176    | A*01:67+A*24:05:01G  |
| A*01:61+A*24:186    | A*01:74+A*24:05:01G  |
| A*01:62+A*03:01:10  | A*01:105+A*03:85     |
| A*01:62+A*03:04:01  | A*01:86+A*03:85      |
| A*01:62+A*03:09     | A*01:104+A*03:85     |
| A*01:62+A*03:17:02  | A*01:88+A*03:85      |
| A*01:62+A*03:87     | A*01:101+A*03:85     |
| A*01:62+A*03:95     | A*01:66+A*03:85      |
| A*01:62+A*03:124    | A*01:112+A*03:85     |
| A*01:62+A*03:136    | A*01:80+A*03:85      |
| A*01:62+A*11:06     | A*01:104+A*11:84     |
| A*01:62+A*11:12     | A*01:100+A*11:84     |
| A*01:62+A*11:22     | A*01:79+A*11:84      |
| A*01:62+A*11:30     | A*01:101+A*11:84     |
| A*01:66+A*02:17:01G | A*01:73+A*02:268     |
| A*01:66+A*02:58     | A*01:73+A*02:01:01G  |
| A*01:66+A*03:01:10  | A*01:105+A*03:95     |
| A*01:66+A*03:04:01  | A*01:86+A*03:95      |
| A*01:66+A*03:09     | A*01:104+A*03:95     |
| A*01:66+A*03:17:02  | A*01:88+A*03:95      |
| A*01:66+A*03:87     | A*01:101+A*03:95     |
| A*01:66+A*03:124    | A*01:112+A*03:95     |
| A*01:66+A*03:136    | A*01:80+A*03:95      |
| A*01:66+A*24:02:01G | A*01:73+A*24:93      |
| A*01:67+A*02:67     | A*01:76+A*02:16      |
| A*01:67+A*02:74:02  | A*01:86+A*02:16      |
| A*01:67+A*02:133    | A*01:80+A*02:16      |
| A*01:67+A*02:197    | A*01:101+A*02:16     |
| A*01:67+A*02:211:01 | A*01:91+A*02:16      |
| A*01:67+A*02:214    | A*01:84+A*02:16      |

|                         |                        |
|-------------------------|------------------------|
| A*01:67+A*24:03:01G     | A*24:176+A*36:04       |
| A*01:67+A*24:23         | A*01:72+A*24:176       |
| A*01:67+A*24:30         | A*01:104+A*24:176      |
| A*01:67+A*24:139        | A*01:82+A*24:176       |
| A*01:67+A*24:172        | A*01:96+A*24:176       |
| A*01:67+A*24:186        | A*01:74+A*24:176       |
| A*01:67+A*31:17         | A*01:108+A*31:45       |
| A*01:67+A*31:40         | A*01:80+A*31:45        |
| A*01:67+A*32:08         | A*01:104+A*32:21       |
| A*01:67+A*32:34         | A*01:77+A*32:21        |
| A*01:67+A*32:46         | A*01:96+A*32:21        |
| A*01:67+A*33:32:02      | A*01:88+A*33:16        |
| A*01:69:01+A*02:01:01G  | A*01:69:02+A*02:01:52  |
| A*01:69:01+A*02:01:04   | A*01:69:02+A*02:01:17  |
| A*01:69:01+A*02:05:01G  | A*01:69:02+A*02:05:03  |
| A*01:69:01+A*02:06:01G  | A*01:69:02+A*02:06:12  |
| A*01:69:01+A*02:35:01   | A*01:69:02+A*02:35:02  |
| A*01:69:01+A*02:56:01   | A*01:69:02+A*02:56:02  |
| A*01:69:01+A*03:01:03   | A*01:69:02+A*03:01:01G |
| A*01:69:01+A*03:23:01   | A*01:69:02+A*03:23:02  |
| A*01:69:01+A*26:07:02   | A*01:69:02+A*26:07:01  |
| A*01:69:01+A*33:01:02   | A*01:69:02+A*33:01:01G |
| A*01:72+A*24:03:01G     | A*24:23+A*36:04        |
| A*01:72+A*24:30         | A*01:104+A*24:23       |
| A*01:72+A*24:139        | A*01:82+A*24:23        |
| A*01:72+A*24:172        | A*01:96+A*24:23        |
| A*01:72+A*24:186        | A*01:74+A*24:23        |
| A*01:72+A*30:02:01G     | A*30:45+A*36:04        |
| A*01:73+A*02:156        | A*01:89+A*02:73        |
| A*01:74+A*24:03:01G     | A*24:186+A*36:04       |
| A*01:74+A*24:30         | A*01:104+A*24:186      |
| A*01:74+A*24:139        | A*01:82+A*24:186       |
| A*01:74+A*24:172        | A*01:96+A*24:186       |
| A*01:74+A*33:40         | A*01:91+A*33:36        |
| A*01:74+A*33:55         | A*01:97+A*33:36        |
| A*01:76+A*02:74:02      | A*01:86+A*02:67        |
| A*01:76+A*02:133        | A*01:80+A*02:67        |
| A*01:76+A*02:197        | A*01:101+A*02:67       |
| A*01:76+A*02:211:01     | A*01:91+A*02:67        |
| A*01:76+A*02:214        | A*01:84+A*02:67        |
| A*01:77+A*32:08         | A*01:104+A*32:34       |
| A*01:77+A*32:46         | A*01:96+A*32:34        |
| A*01:79+A*11:06         | A*01:104+A*11:22       |
| A*01:79+A*11:12         | A*01:100+A*11:22       |
| A*01:79+A*11:30         | A*01:101+A*11:22       |
| A*01:80+A*02:74:02      | A*01:86+A*02:133       |
| A*01:80+A*02:197        | A*01:101+A*02:133      |
| A*01:80+A*02:211:01     | A*01:91+A*02:133       |
| A*01:80+A*02:214        | A*01:84+A*02:133       |
| A*01:80+A*03:01:10      | A*01:105+A*03:136      |
| A*01:80+A*03:04:01      | A*01:86+A*03:136       |
| A*01:80+A*03:09         | A*01:104+A*03:136      |
| A*01:80+A*03:17:02      | A*01:88+A*03:136       |
| A*01:80+A*03:87         | A*01:101+A*03:136      |
| A*01:80+A*03:124        | A*01:112+A*03:136      |
| A*01:80+A*31:17         | A*01:108+A*31:40       |
| A*01:82+A*24:03:01G     | A*24:139+A*36:04       |
| A*01:82+A*24:30         | A*01:104+A*24:139      |
| A*01:82+A*24:172        | A*01:96+A*24:139       |
| A*01:84+A*02:74:02      | A*01:86+A*02:214       |
| A*01:84+A*02:197        | A*01:101+A*02:214      |
| A*01:84+A*02:211:01     | A*01:91+A*02:214       |
| A*01:86+A*02:197        | A*01:101+A*02:74:02    |
| A*01:86+A*02:211:01     | A*01:91+A*02:74:02     |
| A*01:86+A*03:01:10      | A*01:105+A*03:04:01    |
| A*01:86+A*03:09         | A*01:104+A*03:04:01    |
| A*01:86+A*03:17:02      | A*01:88+A*03:04:01     |
| A*01:86+A*03:87         | A*01:101+A*03:04:01    |
| A*01:86+A*03:124        | A*01:112+A*03:04:01    |
| A*01:86+A*23:04         | A*23:25+A*36:04        |
| A*01:86+A*23:12         | A*01:104+A*23:25       |
| A*01:86+A*23:33         | A*01:90+A*23:25        |
| A*01:86+A*68:76         | A*01:91+A*68:21:01     |
| A*01:88+A*03:01:10      | A*01:105+A*03:17:02    |
| A*01:88+A*03:09         | A*01:104+A*03:17:02    |
| A*01:88+A*03:87         | A*01:101+A*03:17:02    |
| A*01:88+A*03:124        | A*01:112+A*03:17:02    |
| A*01:90+A*23:04         | A*23:33+A*36:04        |
| A*01:90+A*23:12         | A*01:104+A*23:33       |
| A*01:91+A*02:197        | A*01:101+A*02:211:01   |
| A*01:91+A*33:55         | A*01:97+A*33:40        |
| A*01:96+A*24:03:01G     | A*24:172+A*36:04       |
| A*01:96+A*24:30         | A*01:104+A*24:172      |
| A*01:96+A*26:36         | A*01:104+A*26:74       |
| A*01:96+A*26:65         | A*01:100+A*26:74       |
| A*01:96+A*30:16         | A*01:104+A*30:37       |
| A*01:96+A*32:08         | A*01:104+A*32:46       |
| A*01:98+A*24:204        | A*24:46+A*36:02        |
| A*01:99+A*66:12         | A*01:100+A*66:07       |
| A*01:100+A*11:30        | A*01:101+A*11:12       |
| A*01:100+A*25:11        | A*01:104+A*25:13       |
| A*01:100+A*26:36        | A*01:104+A*26:65       |
| A*01:101+A*03:01:10     | A*01:105+A*03:87       |
| A*01:101+A*03:09        | A*01:104+A*03:87       |
| A*01:101+A*03:124       | A*01:112+A*03:87       |
| A*01:101+A*11:06        | A*01:104+A*11:30       |
| A*01:104+A*03:01:10     | A*01:105+A*03:09       |
| A*01:104+A*03:124       | A*01:112+A*03:09       |
| A*01:104+A*23:04        | A*23:12+A*36:04        |
| A*01:104+A*24:03:01G    | A*24:30+A*36:04        |
| A*01:105+A*03:124       | A*01:112+A*03:01:10    |
| A*02:01:01G+A*02:01:17  | A*02:01:04+A*02:01:52  |
| A*02:01:01G+A*02:03:01G | A*02:22:01G+A*02:17:02 |
| A*02:01:01G+A*02:03:03  | A*02:01:10+A*02:03:01G |
| A*02:01:01G+A*02:03:04  | A*02:01:18+A*02:03:01G |

A\*02:25+A\*02:323

|                         |                         |                       |                       |                     |
|-------------------------|-------------------------|-----------------------|-----------------------|---------------------|
| A*02:01:01G+A*02:05:01G | A*02:02+A*02:06:01G     | A*02:14+A*02:22:01G   |                       |                     |
| A*02:01:01G+A*02:05:02  | A*02:01:72+A*02:05:01G  |                       |                       |                     |
| A*02:01:01G+A*02:05:03  | A*02:01:52+A*02:05:01G  | A*02:02+A*02:06:12    |                       |                     |
| A*02:01:01G+A*02:05:05  | A*02:01:09+A*02:05:01G  | A*02:02+A*02:06:07    |                       |                     |
| A*02:01:01G+A*02:06:02  | A*02:01:49+A*02:06:01G  |                       |                       |                     |
| A*02:01:01G+A*02:06:04  | A*02:01:22+A*02:06:01G  |                       |                       |                     |
| A*02:01:01G+A*02:06:07  | A*02:01:09+A*02:06:01G  |                       |                       |                     |
| A*02:01:01G+A*02:06:09  | A*02:01:02+A*02:06:01G  |                       |                       |                     |
| A*02:01:01G+A*02:06:12  | A*02:01:52+A*02:06:01G  |                       |                       |                     |
| A*02:01:01G+A*02:08     | A*02:05:01G+A*02:20:01  |                       |                       |                     |
| A*02:01:01G+A*02:10     | A*02:06:01G+A*02:242    |                       |                       |                     |
| A*02:01:01G+A*02:11:02  | A*02:01:09+A*02:11:01G  |                       |                       |                     |
| A*02:01:01G+A*02:11:03  | A*02:01:18+A*02:11:01G  |                       |                       |                     |
| A*02:01:01G+A*02:12     | A*02:01:22+A*02:226N    |                       |                       |                     |
| A*02:01:01G+A*02:13     | A*02:12+A*02:26         |                       |                       |                     |
| A*02:01:01G+A*02:16:01G | A*02:16+A*02:354        |                       |                       |                     |
| A*02:01:01G+A*02:17:01G | A*02:58+A*02:268        |                       |                       |                     |
| A*02:01:01G+A*02:35:01  | A*02:34+A*02:90         |                       |                       |                     |
| A*02:01:01G+A*02:35:02  | A*02:01:52+A*02:35:01   |                       |                       |                     |
| A*02:01:01G+A*02:35:03  | A*02:01:09+A*02:35:01   |                       |                       |                     |
| A*02:01:01G+A*02:37     | A*02:12+A*02:36         |                       |                       |                     |
| A*02:01:01G+A*02:38     | A*02:101:01+A*02:280    |                       |                       |                     |
| A*02:01:01G+A*02:40:02  | A*02:01:22+A*02:40:01   |                       |                       |                     |
| A*02:01:01G+A*02:41     | A*02:06:01G+A*02:289    |                       |                       |                     |
| A*02:01:01G+A*02:45     | A*02:92+A*02:217:02     |                       |                       |                     |
| A*02:01:01G+A*02:46     | A*02:70+A*02:92         |                       |                       |                     |
| A*02:01:01G+A*02:49     | A*02:01:22+A*02:22:01G  |                       |                       |                     |
| A*02:01:01G+A*02:51     | A*02:06:01G+A*02:40:01  |                       |                       |                     |
| A*02:01:01G+A*02:54     | A*02:06:01G+A*02:37     | A*02:36+A*02:142      |                       |                     |
| A*02:01:01G+A*02:56:01  | A*02:45+A*02:62         |                       |                       |                     |
| A*02:01:01G+A*02:56:02  | A*02:01:52+A*02:56:01   | A*02:34+A*02:195      |                       |                     |
| A*02:01:01G+A*02:62     | A*02:20:01+A*02:34      |                       |                       |                     |
| A*02:01:01G+A*02:72     | A*02:06:01G+A*02:275    |                       |                       |                     |
| A*02:01:01G+A*02:73     | A*02:93+A*02:245        |                       |                       |                     |
| A*02:01:01G+A*02:78     | A*02:56:01+A*02:331     |                       |                       |                     |
| A*02:01:01G+A*02:79:01  | A*02:06:01G+A*02:86     |                       |                       |                     |
| A*02:01:01G+A*02:79:02  | A*02:01:36+A*02:79:01   |                       |                       |                     |
| A*02:01:01G+A*02:91     | A*02:06:01G+A*02:322    |                       |                       |                     |
| A*02:01:01G+A*02:99     | A*02:06:01G+A*02:26     |                       |                       |                     |
| A*02:01:01G+A*02:103    | A*02:07:01G+A*02:56:02  |                       |                       |                     |
| A*02:01:01G+A*02:106    | A*02:06:01G+A*02:145    |                       |                       |                     |
| A*02:01:01G+A*02:108    | A*02:06:01G+A*02:17:01G |                       |                       |                     |
| A*02:01:01G+A*02:110    | A*02:17:01G+A*02:95     |                       |                       |                     |
| A*02:01:01G+A*02:112    | A*02:07:01G+A*02:87     |                       |                       |                     |
| A*02:01:01G+A*02:114    | A*02:95+A*02:246        |                       |                       |                     |
| A*02:01:01G+A*02:117    | A*02:03:01G+A*02:304    |                       |                       |                     |
| A*02:01:01G+A*02:122    | A*02:06:01G+A*02:50     |                       |                       |                     |
| A*02:01:01G+A*02:127    | A*02:06:01G+A*02:16     |                       |                       |                     |
| A*02:01:01G+A*02:128    | A*02:11:01G+A*02:20:01  |                       |                       |                     |
| A*02:01:01G+A*02:130    | A*02:07:01G+A*02:40:01  |                       |                       |                     |
| A*02:01:01G+A*02:136    | A*02:22:01G+A*02:87     |                       |                       |                     |
| A*02:01:01G+A*02:137    | A*02:06:01G+A*02:24:01  |                       |                       |                     |
| A*02:01:01G+A*02:142    | A*02:06:01G+A*02:12     | A*02:06:04+A*02:226N  |                       |                     |
| A*02:01:01G+A*02:144    | A*02:06:01G+A*02:205    |                       |                       |                     |
| A*02:01:01G+A*02:149    | A*02:86+A*02:190        |                       |                       |                     |
| A*02:01:01G+A*02:154    | A*02:05:01G+A*02:101:01 |                       |                       |                     |
| A*02:01:01G+A*02:156    | A*02:93+A*02:338        |                       |                       |                     |
| A*02:01:01G+A*02:16     | A*02:06:01G+A*02:195    |                       |                       |                     |
| A*02:01:01G+A*02:170    | A*02:06:01G+A*02:364    |                       |                       |                     |
| A*02:01:01G+A*02:171:01 | A*02:01:22+A*02:171:02  |                       |                       |                     |
| A*02:01:01G+A*02:171:02 | A*02:25+A*02:26         |                       |                       |                     |
| A*02:01:01G+A*02:178    | A*02:06:01G+A*02:64     |                       |                       |                     |
| A*02:01:01G+A*02:188    | A*02:64+A*02:151        |                       |                       |                     |
| A*02:01:01G+A*02:190    | A*02:118+A*02:174       |                       |                       |                     |
| A*02:01:01G+A*02:191    | A*02:07:01G+A*02:22:01G |                       |                       |                     |
| A*02:01:01G+A*02:244    | A*02:10+A*02:109        |                       |                       |                     |
| A*02:01:01G+A*02:255    | A*02:07:01G+A*02:36     |                       |                       |                     |
| A*02:01:01G+A*02:271    | A*02:12+A*02:14         |                       |                       |                     |
| A*02:01:01G+A*02:279    | A*02:93+A*02:246        |                       |                       |                     |
| A*02:01:01G+A*02:280    | A*02:12+A*02:171:02     | A*02:13+A*02:25       | A*02:171:01+A*02:226N |                     |
| A*02:01:01G+A*02:282    | A*02:07:01G+A*02:95     |                       |                       |                     |
| A*02:01:01G+A*02:295    | A*02:06:01G+A*02:123    |                       |                       |                     |
| A*02:01:01G+A*02:300    | A*02:06:01G+A*02:110    | A*02:57+A*02:242      | A*02:95+A*02:108      |                     |
| A*02:01:01G+A*02:304    | A*02:80+A*02:95         |                       |                       |                     |
| A*02:01:01G+A*02:308    | A*02:11:01G+A*02:311    |                       |                       |                     |
| A*02:01:01G+A*02:310    | A*02:06:01G+A*02:42     |                       |                       |                     |
| A*02:01:01G+A*02:319    | A*02:07:01G+A*02:76:01  |                       |                       |                     |
| A*02:01:01G+A*02:323    | A*02:22:01G+A*02:26     |                       |                       |                     |
| A*02:01:01G+A*02:328    | A*02:06:01G+A*02:273    |                       |                       |                     |
| A*02:01:01G+A*02:331    | A*02:06:01G+A*02:90     |                       |                       |                     |
| A*02:01:01G+A*02:334    | A*02:04+A*02:245        |                       |                       |                     |
| A*02:01:01G+A*02:355    | A*02:03:01G+A*02:06:01G |                       |                       |                     |
| A*02:01:01G+A*02:358    | A*02:06:01G+A*02:92     |                       |                       |                     |
| A*02:01:01G+A*02:369    | A*02:07:01G+A*02:92     |                       |                       |                     |
| A*02:01:01G+A*03:01:01G | A*02:01:02+A*03:01:12   | A*02:01:52+A*03:01:03 | A*02:24:01+A*03:17:01 | A*02:26+A*03:07     |
|                         | A*02:34+A*03:08         | A*02:35:01+A*03:108   | A*02:86+A*03:123      | A*02:90+A*03:09     |
|                         | A*02:195+A*03:23:01     | A*02:237+A*03:05:01   | A*02:338+A*03:95      |                     |
| A*02:01:01G+A*03:01:02  | A*02:01:22+A*03:01:01G  | A*02:237+A*03:05:02   |                       |                     |
| A*02:01:01G+A*03:01:04  | A*02:01:13+A*03:01:01G  |                       |                       |                     |
| A*02:01:01G+A*03:01:09  | A*02:01:12+A*03:01:01G  |                       |                       |                     |
| A*02:01:01G+A*03:01:15  | A*02:01:60+A*03:01:01G  |                       |                       |                     |
| A*02:01:01G+A*03:01:18  | A*02:24:02+A*03:17:01   |                       |                       |                     |
| A*02:01:01G+A*03:01:20  | A*02:01:35+A*03:01:01G  |                       |                       |                     |
| A*02:01:01G+A*03:01:23  | A*02:01:55+A*03:01:01G  |                       |                       |                     |
| A*02:01:01G+A*03:01:26  | A*02:01:59+A*03:01:01G  |                       |                       |                     |
| A*02:01:01G+A*03:01:28  | A*02:01:57+A*03:01:01G  |                       |                       |                     |
| A*02:01:01G+A*03:01:29  | A*02:01:63+A*03:01:01G  |                       |                       |                     |
| A*02:01:01G+A*03:02:01  | A*02:12+A*03:07         | A*02:237+A*03:10      |                       |                     |
| A*02:01:01G+A*03:04:01  | A*02:74:02+A*03:01:01G  |                       |                       |                     |
| A*02:01:01G+A*03:04:02  | A*02:74:01+A*03:01:01G  |                       |                       |                     |
| A*02:01:01G+A*03:05:02  | A*02:01:22+A*03:05:01   |                       |                       |                     |
| A*02:01:01G+A*03:08     | A*02:90+A*03:108        |                       |                       |                     |
| A*02:01:01G+A*03:09     | A*02:34+A*03:108        |                       |                       |                     |
| A*02:01:01G+A*03:12     | A*02:06:01G+A*03:01:01G | A*02:06:09+A*03:01:12 | A*02:06:12+A*03:01:03 | A*02:79:01+A*03:123 |
|                         | A*02:99+A*03:07         | A*02:137+A*03:17:01   | A*02:16+A*03:23:01    | A*02:331+A*03:09    |

|                         |                         |                        |                       |                      |
|-------------------------|-------------------------|------------------------|-----------------------|----------------------|
| A*02:01:01G+A*03:15     | A*02:246+A*03:19        |                        |                       |                      |
| A*02:01:01G+A*03:16     | A*02:341+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:22:01  | A*02:174+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:22:02  | A*02:174+A*03:01:18     |                        |                       |                      |
| A*02:01:01G+A*03:23:02  | A*02:01:52+A*03:23:01   |                        |                       |                      |
| A*02:01:01G+A*03:24     | A*02:55+A*03:23:01      |                        |                       |                      |
| A*02:01:01G+A*03:30     | A*02:46+A*03:23:02      |                        |                       |                      |
| A*02:01:01G+A*03:44     | A*02:16+A*03:01:01G     |                        |                       |                      |
| A*02:01:01G+A*03:50     | A*02:22:01G+A*03:01:01G | A*02:323+A*03:07       |                       |                      |
| A*02:01:01G+A*03:54     | A*02:145+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:57     | A*02:146+A*03:09        |                        |                       |                      |
| A*02:01:01G+A*03:59     | A*02:352+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:63     | A*02:346+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:65     | A*02:01:22+A*03:69N     | A*02:12+A*03:01:01G    | A*02:13+A*03:07       | A*02:26+A*03:02:01   |
|                         | A*02:226N+A*03:01:02    |                        |                       |                      |
| A*02:01:01G+A*03:66     | A*02:01:22+A*03:50      | A*02:22:01G+A*03:01:02 | A*02:49+A*03:01:01G   |                      |
| A*02:01:01G+A*03:69N    | A*02:226N+A*03:01:01G   |                        |                       |                      |
| A*02:01:01G+A*03:72     | A*02:76:01+A*03:01:01G  |                        |                       |                      |
| A*02:01:01G+A*03:79     | A*02:85+A*03:01:01G     |                        |                       |                      |
| A*02:01:01G+A*03:84     | A*02:349+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:87     | A*02:197+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:93     | A*02:119+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:94     | A*02:322+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:97     | A*02:36+A*03:01:01G     | A*02:237+A*03:122      |                       |                      |
| A*02:01:01G+A*03:99     | A*02:211:01+A*03:56     |                        |                       |                      |
| A*02:01:01G+A*03:101    | A*02:306+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:104    | A*02:332+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:105    | A*02:101:02+A*03:01:01G |                        |                       |                      |
| A*02:01:01G+A*03:122    | A*02:36+A*03:05:01      |                        |                       |                      |
| A*02:01:01G+A*03:126    | A*02:198+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:128    | A*02:116+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:133    | A*02:40:01+A*03:07      |                        |                       |                      |
| A*02:01:01G+A*03:136    | A*02:133+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*03:150    | A*02:262+A*03:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:01:01G | A*02:01:02+A*11:01:34   | A*02:12+A*11:24:02     | A*02:24:01+A*11:119   | A*02:27+A*11:31      |
|                         | A*02:34+A*11:19         | A*02:45+A*11:70        | A*02:56:02+A*11:121   | A*02:86+A*11:73      |
|                         | A*02:90+A*11:06         | A*02:92+A*11:103       | A*02:101:01+A*11:104  | A*02:226N+A*11:24:01 |
|                         | A*02:346+A*11:12        |                        |                       |                      |
| A*02:01:01G+A*11:01:05  | A*02:01:04+A*11:01:01G  |                        |                       |                      |
| A*02:01:01G+A*11:01:06  | A*02:01:25+A*11:01:01G  |                        |                       |                      |
| A*02:01:01G+A*11:01:07  | A*02:01:36+A*11:01:01G  |                        |                       |                      |
| A*02:01:01G+A*11:01:12  | A*02:01:45+A*11:01:01G  |                        |                       |                      |
| A*02:01:01G+A*11:01:15  | A*02:01:69+A*11:01:01G  |                        |                       |                      |
| A*02:01:01G+A*11:01:20  | A*02:01:66+A*11:01:01G  |                        |                       |                      |
| A*02:01:01G+A*11:01:25  | A*02:01:54+A*11:01:01G  |                        |                       |                      |
| A*02:01:01G+A*11:01:40  | A*02:01:29+A*11:01:01G  |                        |                       |                      |
| A*02:01:01G+A*11:01:43  | A*02:01:10+A*11:01:01G  |                        |                       |                      |
| A*02:01:01G+A*11:01:44  | A*02:101:02+A*11:04     |                        |                       |                      |
| A*02:01:01G+A*11:02:01G | A*02:86+A*11:16         |                        |                       |                      |
| A*02:01:01G+A*11:03     | A*02:26+A*11:60         | A*02:40:01+A*11:20     |                       |                      |
| A*02:01:01G+A*11:08     | A*02:49+A*11:25         |                        |                       |                      |
| A*02:01:01G+A*11:12     | A*02:35:01+A*11:18      |                        |                       |                      |
| A*02:01:01G+A*11:15:01  | A*02:202+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:16     | A*02:118+A*11:57        |                        |                       |                      |
| A*02:01:01G+A*11:19     | A*02:195+A*11:121       |                        |                       |                      |
| A*02:01:01G+A*11:20     | A*02:12+A*11:25         | A*02:13+A*11:31        |                       |                      |
| A*02:01:01G+A*11:23     | A*02:182+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:24:01  | A*02:01:22+A*11:24:02   |                        |                       |                      |
| A*02:01:01G+A*11:25     | A*02:26+A*11:31         |                        |                       |                      |
| A*02:01:01G+A*11:27     | A*02:36+A*11:04         |                        |                       |                      |
| A*02:01:01G+A*11:30     | A*02:197+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:32     | A*02:121+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:33:01  | A*02:01:36+A*11:33:02   | A*02:174+A*11:01:07    |                       |                      |
| A*02:01:01G+A*11:33:02  | A*02:174+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:34     | A*02:153+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:36     | A*02:07:01G+A*11:01:01G | A*02:103+A*11:121      | A*02:369+A*11:103     |                      |
| A*02:01:01G+A*11:38     | A*02:36+A*11:02:01G     |                        |                       |                      |
| A*02:01:01G+A*11:39     | A*02:36+A*11:01:01G     | A*02:37+A*11:24:02     | A*02:101:01+A*11:27   |                      |
| A*02:01:01G+A*11:41     | A*02:273+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:44     | A*02:22:01G+A*11:24:01  | A*02:49+A*11:24:02     |                       |                      |
| A*02:01:01G+A*11:48     | A*02:183+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:72     | A*02:364+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:79     | A*02:109+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:82     | A*02:313+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:87     | A*02:173+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:90     | A*02:16:01G+A*11:04     |                        |                       |                      |
| A*02:01:01G+A*11:96     | A*02:292+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:101    | A*02:194+A*11:02:01G    |                        |                       |                      |
| A*02:01:01G+A*11:103    | A*02:217:02+A*11:70     |                        |                       |                      |
| A*02:01:01G+A*11:111    | A*02:184+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:112    | A*02:262+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:123    | A*02:159+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:125    | A*02:312+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*11:128    | A*02:362+A*11:01:01G    |                        |                       |                      |
| A*02:01:01G+A*23:01:01G | A*02:36+A*23:04         | A*02:90+A*23:12        | A*02:174+A*23:14:02   |                      |
| A*02:01:01G+A*23:01:02  | A*02:01:38+A*23:01:01G  |                        |                       |                      |
| A*02:01:01G+A*23:02     | A*02:22:01G+A*23:01:01G |                        |                       |                      |
| A*02:01:01G+A*23:03:01  | A*02:24:02+A*23:01:01G  |                        |                       |                      |
| A*02:01:01G+A*23:03:02  | A*02:24:01+A*23:01:01G  |                        |                       |                      |
| A*02:01:01G+A*23:05     | A*02:352+A*23:01:01G    |                        |                       |                      |
| A*02:01:01G+A*23:06     | A*02:257+A*23:01:01G    |                        |                       |                      |
| A*02:01:01G+A*23:08N    | A*02:82N+A*23:01:01G    |                        |                       |                      |
| A*02:01:01G+A*23:10     | A*02:101:01+A*23:01:01G |                        |                       |                      |
| A*02:01:01G+A*23:13     | A*02:34+A*23:01:01G     | A*02:35:01+A*23:12     |                       |                      |
| A*02:01:01G+A*23:14:01  | A*02:01:22+A*23:14:02   | A*02:40:01+A*24:13:02  | A*02:40:02+A*24:13:01 |                      |
| A*02:01:01G+A*23:14:02  | A*02:40:01+A*24:13:01   |                        |                       |                      |
| A*02:01:01G+A*23:24     | A*02:145+A*23:01:01G    |                        |                       |                      |
| A*02:01:01G+A*23:25     | A*02:74:02+A*23:01:01G  |                        |                       |                      |
| A*02:01:01G+A*23:28     | A*02:217:02+A*23:01:01G |                        |                       |                      |
| A*02:01:01G+A*23:41     | A*02:221+A*23:01:01G    |                        |                       |                      |
| A*02:01:01G+A*23:44     | A*02:187+A*23:01:01G    |                        |                       |                      |
| A*02:01:01G+A*23:47     | A*02:121+A*23:01:01G    |                        |                       |                      |
| A*02:01:01G+A*23:50     | A*02:109+A*23:01:01G    |                        |                       |                      |
| A*02:01:01G+A*23:53     | A*02:246+A*23:01:01G    |                        |                       |                      |
| A*02:01:01G+A*24:02:01G | A*02:01:02+A*24:02:58   | A*02:01:09+A*24:02:06  | A*02:01:36+A*24:02:02 | A*02:04+A*24:52      |



|                         |                         |                         |                      |                        |
|-------------------------|-------------------------|-------------------------|----------------------|------------------------|
|                         | A*02:12+A*24:13:01      | A*02:36+A*24:03:01G     | A*02:37+A*24:207     | A*02:58+A*24:93        |
|                         | A*02:70+A*24:29         | A*02:76:01+A*24:104     | A*02:87+A*24:28      | A*02:90+A*24:30        |
|                         | A*02:110+A*24:14        | A*02:226N+A*24:13:02    |                      |                        |
| A*02:01:01G+A*24:02:12  | A*02:01:49+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:15  | A*02:01:51+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:17  | A*02:01:76+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:18  | A*02:01:18+A*24:02:01G  | A*02:36+A*24:03:02      |                      |                        |
| A*02:01:01G+A*24:02:25  | A*02:01:44+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:26  | A*02:01:41+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:27  | A*02:01:31+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:29  | A*02:01:35+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:32  | A*02:01:63+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:35  | A*02:01:04+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:36  | A*02:01:56+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:39  | A*02:01:05+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:48  | A*02:01:28+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:50  | A*02:01:65+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:53  | A*02:01:54+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:02:54  | A*02:01:69+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:03:01G | A*02:12+A*24:207        |                         |                      |                        |
| A*02:01:01G+A*24:03:02  | A*02:01:18+A*24:03:01G  |                         |                      |                        |
| A*02:01:01G+A*24:04     | A*02:146+A*24:28        |                         |                      |                        |
| A*02:01:01G+A*24:05:01G | A*02:174+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:06     | A*02:22:01G+A*24:13:01  | A*02:36+A*24:167        |                      |                        |
| A*02:01:01G+A*24:07     | A*02:34+A*24:02:01G     | A*02:35:01+A*24:30      | A*02:86+A*24:131     |                        |
| A*02:01:01G+A*24:10     | A*02:101:01+A*24:03:01G |                         |                      |                        |
| A*02:01:01G+A*24:13:01  | A*02:36+A*24:207        |                         |                      |                        |
| A*02:01:01G+A*24:13:02  | A*02:01:22+A*24:13:01   |                         |                      |                        |
| A*02:01:01G+A*24:17     | A*02:246+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:19     | A*02:34+A*24:44         |                         |                      |                        |
| A*02:01:01G+A*24:20     | A*02:46+A*24:08         | A*02:76:01+A*24:88      |                      |                        |
| A*02:01:01G+A*24:21:01  | A*02:24:01+A*24:02:01G  |                         |                      |                        |
| A*02:01:01G+A*24:22     | A*02:262+A*24:167       |                         |                      |                        |
| A*02:01:01G+A*24:25     | A*02:352+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:28     | A*02:46+A*24:89         |                         |                      |                        |
| A*02:01:01G+A*24:30     | A*02:46+A*24:42         |                         |                      |                        |
| A*02:01:01G+A*24:32     | A*02:81:01G+A*24:28     |                         |                      |                        |
| A*02:01:01G+A*24:34     | A*02:11:01G+A*24:30     |                         |                      |                        |
| A*02:01:01G+A*24:46     | A*02:36+A*24:10         | A*02:101:01+A*24:02:01G |                      |                        |
| A*02:01:01G+A*24:47     | A*02:205+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:50     | A*02:06:01G+A*24:104    |                         |                      |                        |
| A*02:01:01G+A*24:55     | A*02:16:01G+A*24:02:01G |                         |                      |                        |
| A*02:01:01G+A*24:56     | A*02:13+A*24:13:01      | A*02:26+A*24:02:01G     |                      |                        |
| A*02:01:01G+A*24:58     | A*02:107+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:59     | A*02:27+A*24:13:01      |                         |                      |                        |
| A*02:01:01G+A*24:60N    | A*02:366N+A*24:02:01G   |                         |                      |                        |
| A*02:01:01G+A*24:62     | A*02:80+A*24:02:01G     |                         |                      |                        |
| A*02:01:01G+A*24:71     | A*02:12+A*23:14:02      | A*02:40:01+A*24:02:01G  | A*02:226N+A*23:14:01 |                        |
| A*02:01:01G+A*24:72     | A*02:145+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:73     | A*02:147+A*24:02:01G    | A*02:151+A*24:157       |                      |                        |
| A*02:01:01G+A*24:77     | A*02:217:02+A*24:02:01G |                         |                      |                        |
| A*02:01:01G+A*24:82     | A*02:243+A*24:104       |                         |                      |                        |
| A*02:01:01G+A*24:87     | A*02:01:22+A*24:06      | A*02:22:01G+A*24:13:02  | A*02:49+A*24:13:01   |                        |
| A*02:01:01G+A*24:90N    | A*02:88N+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:91     | A*02:68+A*24:02:01G     |                         |                      |                        |
| A*02:01:01G+A*24:92     | A*02:156+A*24:14        |                         |                      |                        |
| A*02:01:01G+A*24:96     | A*02:60:01+A*24:146     | A*02:254+A*24:02:01G    |                      |                        |
| A*02:01:01G+A*24:99     | A*02:25+A*24:02:01G     |                         |                      |                        |
| A*02:01:01G+A*24:109    | A*02:346+A*24:04        |                         |                      |                        |
| A*02:01:01G+A*24:117    | A*02:296+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:118    | A*02:361+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:119    | A*02:158+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:120    | A*02:245+A*24:93        |                         |                      |                        |
| A*02:01:01G+A*24:121    | A*02:64+A*24:02:01G     |                         |                      |                        |
| A*02:01:01G+A*24:125    | A*02:299+A*24:03:01G    |                         |                      |                        |
| A*02:01:01G+A*24:133    | A*02:182+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:145    | A*02:20:01+A*24:02:01G  | A*02:70+A*24:156        |                      |                        |
| A*02:01:01G+A*24:156    | A*02:20:01+A*24:29      |                         |                      |                        |
| A*02:01:01G+A*24:160    | A*02:262+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:165    | A*02:353+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:167    | A*02:22:01G+A*24:207    |                         |                      |                        |
| A*02:01:01G+A*24:169    | A*02:119+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:174    | A*02:151+A*24:121       | A*02:188+A*24:02:01G    |                      |                        |
| A*02:01:01G+A*24:176    | A*02:16+A*24:02:01G     |                         |                      |                        |
| A*02:01:01G+A*24:177    | A*02:13+A*23:14:02      | A*02:26+A*24:71         | A*02:40:01+A*24:56   |                        |
| A*02:01:01G+A*24:180    | A*02:16+A*24:02:01G     |                         |                      |                        |
| A*02:01:01G+A*24:181    | A*02:236+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:187    | A*02:111+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:190    | A*02:27+A*23:14:02      | A*02:40:01+A*24:59      |                      |                        |
| A*02:01:01G+A*24:191    | A*02:217:02+A*24:156    |                         |                      |                        |
| A*02:01:01G+A*24:192    | A*02:312+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:197    | A*02:85+A*24:02:01G     |                         |                      |                        |
| A*02:01:01G+A*24:198    | A*02:203+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:204    | A*02:237+A*24:03:01G    |                         |                      |                        |
| A*02:01:01G+A*24:206    | A*02:362+A*24:02:01G    |                         |                      |                        |
| A*02:01:01G+A*24:207    | A*02:118+A*24:94        |                         |                      |                        |
| A*02:01:01G+A*24:208    | A*02:24:02+A*24:17      |                         |                      |                        |
| A*02:01:01G+A*25:01:01G | A*02:01:02+A*25:01:07   | A*02:06:01G+A*25:03     | A*02:22:01G+A*25:19  | A*02:25+A*25:09        |
|                         | A*02:81:01G+A*26:03:01  | A*02:90+A*25:11         | A*02:101:01+A*25:06  | A*02:118+A*25:05       |
|                         | A*02:346+A*25:13        |                         |                      |                        |
| A*02:01:01G+A*25:01:04  | A*02:01:43+A*25:01:01G  |                         |                      |                        |
| A*02:01:01G+A*25:01:06  | A*02:01:18+A*25:01:01G  |                         |                      |                        |
| A*02:01:01G+A*25:02     | A*02:34+A*25:01:01G     | A*02:35:01+A*25:11      |                      |                        |
| A*02:01:01G+A*25:04     | A*02:12+A*25:19         |                         |                      |                        |
| A*02:01:01G+A*25:08     | A*02:85+A*25:01:01G     |                         |                      |                        |
| A*02:01:01G+A*25:13     | A*02:81:01G+A*26:30     |                         |                      |                        |
| A*02:01:01G+A*25:15     | A*02:70+A*25:01:01G     |                         |                      |                        |
| A*02:01:01G+A*26:01:01G | A*02:01:36+A*26:01:17   | A*02:06:09+A*26:20      | A*02:20:01+A*26:69   | A*02:22:01G+A*26:43:01 |
|                         | A*02:24:01+A*26:10      | A*02:25+A*26:14         | A*02:26+A*26:12      | A*02:55+A*26:07:02     |
|                         | A*02:90+A*26:36         | A*02:101:01+A*26:09     | A*02:118+A*26:54     | A*02:146+A*26:03:01    |
|                         | A*02:245+A*26:22        | A*02:346+A*26:65        |                      |                        |
| A*02:01:01G+A*26:01:03  | A*02:01:18+A*26:01:01G  |                         |                      |                        |
| A*02:01:01G+A*26:01:08  | A*02:01:71+A*26:01:01G  |                         |                      |                        |
| A*02:01:01G+A*26:01:09  | A*02:01:29+A*26:01:01G  |                         |                      |                        |
| A*02:01:01G+A*26:01:10  | A*02:01:45+A*26:01:01G  |                         |                      |                        |

|                         |                         |                        |                      |                      |
|-------------------------|-------------------------|------------------------|----------------------|----------------------|
| A*02:01:01G+A*26:01:18  | A*02:01:26+A*26:01:01G  |                        |                      |                      |
| A*02:01:01G+A*26:01:19  | A*02:01:25+A*26:01:01G  |                        |                      |                      |
| A*02:01:01G+A*26:01:21  | A*02:101:02+A*26:09     |                        |                      |                      |
| A*02:01:01G+A*26:01:24  | A*02:01:07+A*26:01:01G  |                        |                      |                      |
| A*02:01:01G+A*26:01:26  | A*02:01:32+A*26:01:01G  |                        |                      |                      |
| A*02:01:01G+A*26:03:01  | A*02:346+A*26:30        |                        |                      |                      |
| A*02:01:01G+A*26:05     | A*02:247+A*26:03:01     |                        |                      |                      |
| A*02:01:01G+A*26:07:01  | A*02:01:52+A*26:07:02   |                        |                      |                      |
| A*02:01:01G+A*26:08     | A*02:12+A*26:43:01      | A*02:20:01+A*26:48     | A*02:226N+A*26:43:02 |                      |
| A*02:01:01G+A*26:13     | A*02:34+A*26:01:01G     | A*02:35:01+A*26:36     | A*02:62+A*26:69      |                      |
| A*02:01:01G+A*26:23     | A*02:284N+A*26:01:01G   |                        |                      |                      |
| A*02:01:01G+A*26:27     | A*02:68+A*26:01:01G     |                        |                      |                      |
| A*02:01:01G+A*26:28     | A*02:26+A*26:18         | A*02:40:01+A*26:14     |                      |                      |
| A*02:01:01G+A*26:29     | A*02:36+A*26:15         |                        |                      |                      |
| A*02:01:01G+A*26:41     | A*02:187+A*26:01:01G    |                        |                      |                      |
| A*02:01:01G+A*26:43:02  | A*02:01:22+A*26:43:01   |                        |                      |                      |
| A*02:01:01G+A*26:47     | A*02:85+A*26:01:01G     |                        |                      |                      |
| A*02:01:01G+A*26:49     | A*02:36+A*26:01:01G     |                        |                      |                      |
| A*02:01:01G+A*26:50     | A*02:210+A*26:01:01G    |                        |                      |                      |
| A*02:01:01G+A*26:52     | A*02:25+A*26:28         | A*02:40:01+A*26:01:01G | A*02:171:02+A*26:18  |                      |
| A*02:01:01G+A*26:63     | A*02:236+A*26:01:01G    |                        |                      |                      |
| A*02:01:01G+A*26:65     | A*02:146+A*26:30        |                        |                      |                      |
| A*02:01:01G+A*26:67     | A*02:235+A*26:08        |                        |                      |                      |
| A*02:01:01G+A*26:70     | A*02:04+A*26:01:01G     | A*02:334+A*26:22       |                      |                      |
| A*02:01:01G+A*26:75     | A*02:153+A*26:01:01G    |                        |                      |                      |
| A*02:01:01G+A*29:01:01G | A*02:34+A*29:20         | A*02:204+A*29:02:01G   |                      |                      |
| A*02:01:01G+A*29:02:01G | A*02:01:36+A*29:02:11   | A*02:34+A*29:34        | A*02:174+A*29:09     | A*02:334+A*29:22     |
| A*02:01:01G+A*29:03     | A*02:36+A*29:02:01G     |                        |                      |                      |
| A*02:01:01G+A*29:04     | A*02:29+A*29:02:01G     |                        |                      |                      |
| A*02:01:01G+A*29:06     | A*02:121+A*29:02:01G    |                        |                      |                      |
| A*02:01:01G+A*29:07     | A*02:17:01G+A*29:22     |                        |                      |                      |
| A*02:01:01G+A*29:12     | A*02:107+A*29:01:01G    |                        |                      |                      |
| A*02:01:01G+A*29:15     | A*02:221+A*29:01:01G    |                        |                      |                      |
| A*02:01:01G+A*29:20     | A*02:204+A*29:34        |                        |                      |                      |
| A*02:01:01G+A*29:28     | A*02:22:01G+A*29:01:01G |                        |                      |                      |
| A*02:01:01G+A*29:29     | A*02:362+A*29:02:01G    |                        |                      |                      |
| A*02:01:01G+A*29:30     | A*02:351+A*29:02:01G    |                        |                      |                      |
| A*02:01:01G+A*29:34     | A*02:146+A*29:19        |                        |                      |                      |
| A*02:01:01G+A*29:41     | A*02:181+A*29:02:01G    |                        |                      |                      |
| A*02:01:01G+A*30:01:01G | A*02:35:01+A*30:44      | A*02:90+A*30:16        | A*02:174+A*30:54     |                      |
| A*02:01:01G+A*30:02:01G | A*02:24:01+A*30:61      | A*02:245+A*30:47       | A*02:247+A*30:13     |                      |
| A*02:01:01G+A*30:02:05  | A*02:01:22+A*30:02:01G  |                        |                      |                      |
| A*02:01:01G+A*30:04:01  | A*02:247+A*30:46        |                        |                      |                      |
| A*02:01:01G+A*30:04:02  | A*02:01:09+A*30:04:01   |                        |                      |                      |
| A*02:01:01G+A*30:16     | A*02:34+A*30:44         |                        |                      |                      |
| A*02:01:01G+A*30:17     | A*02:35:01+A*30:46      |                        |                      |                      |
| A*02:01:01G+A*30:18     | A*02:76:01+A*30:55      |                        |                      |                      |
| A*02:01:01G+A*30:25     | A*02:34+A*30:02:01G     |                        |                      |                      |
| A*02:01:01G+A*30:28     | A*02:224+A*30:02:01G    |                        |                      |                      |
| A*02:01:01G+A*30:31     | A*02:351+A*30:01:01G    |                        |                      |                      |
| A*02:01:01G+A*30:34     | A*02:74:01+A*30:02:01G  |                        |                      |                      |
| A*02:01:01G+A*30:36     | A*02:71+A*30:01:01G     |                        |                      |                      |
| A*02:01:01G+A*30:39     | A*02:202+A*30:01:01G    |                        |                      |                      |
| A*02:01:01G+A*30:51     | A*02:121+A*30:02:01G    |                        |                      |                      |
| A*02:01:01G+A*30:57     | A*02:146+A*30:13        |                        |                      |                      |
| A*02:01:01G+A*30:65     | A*02:116+A*30:01:01G    |                        |                      |                      |
| A*02:01:01G+A*31:01:02G | A*02:20:01+A*31:02      | A*02:40:01+A*31:41     | A*02:243+A*31:21     |                      |
| A*02:01:01G+A*31:01:05  | A*02:01:22+A*31:01:02G  | A*02:40:02+A*31:41     |                      |                      |
| A*02:01:01G+A*31:01:06  | A*02:01:49+A*31:01:02G  |                        |                      |                      |
| A*02:01:01G+A*31:01:14  | A*02:01:66+A*31:01:02G  |                        |                      |                      |
| A*02:01:01G+A*31:01:16  | A*02:01:26+A*31:01:02G  |                        |                      |                      |
| A*02:01:01G+A*31:03     | A*02:346+A*31:04        |                        |                      |                      |
| A*02:01:01G+A*31:05     | A*02:36+A*31:01:02G     |                        |                      |                      |
| A*02:01:01G+A*31:10     | A*02:20:01+A*31:07      |                        |                      |                      |
| A*02:01:01G+A*31:11     | A*02:202+A*31:01:02G    |                        |                      |                      |
| A*02:01:01G+A*31:13     | A*02:251+A*31:01:02G    |                        |                      |                      |
| A*02:01:01G+A*31:15     | A*02:351+A*31:01:02G    |                        |                      |                      |
| A*02:01:01G+A*31:16     | A*02:107+A*31:01:02G    |                        |                      |                      |
| A*02:01:01G+A*31:25     | A*02:101:02+A*31:01:02G |                        |                      |                      |
| A*02:01:01G+A*31:28     | A*02:139+A*31:01:02G    |                        |                      |                      |
| A*02:01:01G+A*31:30     | A*02:22:01G+A*31:01:02G |                        |                      |                      |
| A*02:01:01G+A*31:31     | A*02:275+A*31:01:02G    |                        |                      |                      |
| A*02:01:01G+A*31:36     | A*02:257+A*31:01:02G    |                        |                      |                      |
| A*02:01:01G+A*31:40     | A*02:133+A*31:01:02G    |                        |                      |                      |
| A*02:01:01G+A*31:45     | A*02:16+A*31:01:02G     |                        |                      |                      |
| A*02:01:01G+A*31:50     | A*02:307+A*31:01:02G    |                        |                      |                      |
| A*02:01:01G+A*31:51     | A*02:121+A*31:01:02G    |                        |                      |                      |
| A*02:01:01G+A*31:63     | A*02:273+A*31:01:02G    |                        |                      |                      |
| A*02:01:01G+A*31:64     | A*02:157+A*31:01:02G    |                        |                      |                      |
| A*02:01:01G+A*32:01:01G | A*02:20:01+A*32:31      | A*02:24:02+A*32:28     | A*02:40:01+A*32:06   | A*02:81:01G+A*74:06  |
|                         | A*02:90+A*32:08         | A*02:92+A*32:39        |                      |                      |
| A*02:01:01G+A*32:01:04  | A*02:01:56+A*32:01:01G  |                        |                      |                      |
| A*02:01:01G+A*32:01:05  | A*02:01:63+A*32:01:01G  |                        |                      |                      |
| A*02:01:01G+A*32:01:06  | A*02:01:22+A*32:01:01G  | A*02:40:02+A*32:06     |                      |                      |
| A*02:01:01G+A*32:01:08  | A*02:01:26+A*32:01:01G  |                        |                      |                      |
| A*02:01:01G+A*32:01:09  | A*02:01:29+A*32:01:01G  |                        |                      |                      |
| A*02:01:01G+A*32:01:12  | A*02:24:01+A*32:28      |                        |                      |                      |
| A*02:01:01G+A*32:02     | A*02:12+A*32:06         |                        |                      |                      |
| A*02:01:01G+A*32:03     | A*02:87+A*74:06         |                        |                      |                      |
| A*02:01:01G+A*32:04     | A*02:81:01G+A*03:108    |                        |                      |                      |
| A*02:01:01G+A*32:05     | A*02:70+A*32:31         |                        |                      |                      |
| A*02:01:01G+A*32:07     | A*02:76:01+A*32:01:01G  |                        |                      |                      |
| A*02:01:01G+A*32:09     | A*02:233+A*32:01:01G    |                        |                      |                      |
| A*02:01:01G+A*32:10     | A*02:323+A*32:06        |                        |                      |                      |
| A*02:01:01G+A*32:12     | A*02:121+A*32:01:01G    |                        |                      |                      |
| A*02:01:01G+A*32:13     | A*02:36+A*32:01:01G     |                        |                      |                      |
| A*02:01:01G+A*32:17     | A*02:34+A*32:01:01G     | A*02:35:01+A*32:08     | A*02:62+A*32:31      |                      |
| A*02:01:01G+A*32:21     | A*02:16+A*32:01:01G     |                        |                      |                      |
| A*02:01:01G+A*32:22     | A*02:12+A*32:01:01G     | A*02:40:01+A*32:02     | A*02:226N+A*32:01:06 |                      |
| A*02:01:01G+A*32:26     | A*02:101:02+A*32:01:01G |                        |                      |                      |
| A*02:01:01G+A*32:37     | A*02:119+A*32:01:01G    |                        |                      |                      |
| A*02:01:01G+A*32:42     | A*02:243+A*32:01:01G    |                        |                      |                      |
| A*02:01:01G+A*33:01:01G | A*02:01:52+A*33:01:02   | A*02:24:02+A*33:32:01  | A*02:174+A*33:34     | A*02:332+A*33:03:01G |
| A*02:01:01G+A*33:01:05  | A*02:24:01+A*33:32:01   |                        |                      |                      |
| A*02:01:01G+A*33:03:01G | A*02:11:01G+A*33:24     | A*02:55+A*33:08        | A*02:334+A*33:22     |                      |

|                         |                         |                       |                    |                    |
|-------------------------|-------------------------|-----------------------|--------------------|--------------------|
| A*02:01:01G+A*33:03:02  | A*02:01:27+A*33:03:01G  |                       |                    |                    |
| A*02:01:01G+A*33:03:05  | A*02:01:22+A*33:03:01G  |                       |                    |                    |
| A*02:01:01G+A*33:04     | A*02:332+A*33:33        |                       |                    |                    |
| A*02:01:01G+A*33:09     | A*02:20:01+A*33:08      |                       |                    |                    |
| A*02:01:01G+A*33:10     | A*02:36+A*33:03:01G     |                       |                    |                    |
| A*02:01:01G+A*33:11     | A*02:90+A*33:24         |                       |                    |                    |
| A*02:01:01G+A*33:13     | A*02:346+A*33:48        |                       |                    |                    |
| A*02:01:01G+A*33:14     | A*02:367+A*33:03:01G    |                       |                    |                    |
| A*02:01:01G+A*33:16     | A*02:16+A*33:01:01G     |                       |                    |                    |
| A*02:01:01G+A*33:21     | A*02:20:01+A*33:53      |                       |                    |                    |
| A*02:01:01G+A*33:30     | A*02:342+A*33:03:01G    |                       |                    |                    |
| A*02:01:01G+A*33:40     | A*02:211:01+A*33:03:01G |                       |                    |                    |
| A*02:01:01G+A*33:42     | A*02:292+A*33:03:01G    |                       |                    |                    |
| A*02:01:01G+A*33:47     | A*02:306+A*33:03:01G    |                       |                    |                    |
| A*02:01:01G+A*33:48     | A*02:146+A*33:24        |                       |                    |                    |
| A*02:01:01G+A*33:52     | A*02:109+A*33:03:01G    |                       |                    |                    |
| A*02:01:01G+A*33:54     | A*02:297+A*33:24        |                       |                    |                    |
| A*02:01:01G+A*33:58     | A*02:107+A*33:03:01G    |                       |                    |                    |
| A*02:01:01G+A*33:60     | A*02:42+A*33:03:01G     |                       |                    |                    |
| A*02:01:01G+A*33:61     | A*02:101:01+A*33:03:01G |                       |                    |                    |
| A*02:01:01G+A*34:02:01  | A*02:06:01G+A*34:08     | A*02:25+A*34:03       | A*02:346+A*34:09   |                    |
| A*02:01:01G+A*34:02:02  | A*02:01:22+A*34:02:01   | A*02:06:04+A*34:08    |                    |                    |
| A*02:01:01G+A*34:04     | A*02:28+A*34:08         |                       |                    |                    |
| A*02:01:01G+A*34:05     | A*02:322+A*34:01:01     |                       |                    |                    |
| A*02:01:01G+A*34:07     | A*02:292+A*34:02:01     |                       |                    |                    |
| A*02:01:01G+A*36:04     | A*02:101:01+A*36:01     |                       |                    |                    |
| A*02:01:01G+A*66:01:01G | A*02:34+A*66:05         | A*02:35:01+A*26:03:01 | A*02:245+A*66:09   | A*02:323+A*66:06   |
|                         | A*02:346+A*66:12        |                       |                    |                    |
| A*02:01:01G+A*66:02     | A*02:34+A*66:03         |                       |                    |                    |
| A*02:01:01G+A*66:04     | A*02:332+A*66:01:01G    |                       |                    |                    |
| A*02:01:01G+A*66:05     | A*02:90+A*26:03:01      |                       |                    |                    |
| A*02:01:01G+A*66:10     | A*02:36+A*66:01:01G     |                       |                    |                    |
| A*02:01:01G+A*66:12     | A*02:35:01+A*26:30      | A*02:135+A*69:01      |                    |                    |
| A*02:01:01G+A*66:14     | A*02:121+A*66:01:01G    |                       |                    |                    |
| A*02:01:01G+A*66:15     | A*02:11:01G+A*26:03:01  |                       |                    |                    |
| A*02:01:01G+A*68:01:01G | A*02:01:09+A*68:01:11   | A*02:06:01G+A*68:71   | A*02:34+A*68:03:03 |                    |
| A*02:01:01G+A*68:01:02G | A*02:04+A*68:23         | A*02:04+A*68:08:02    | A*02:34+A*68:03:01 | A*02:35:01+A*68:05 |
|                         | A*02:217:02+A*68:75     | A*02:245+A*68:83      |                    |                    |
| A*02:01:01G+A*68:01:03  | A*02:01:54+A*68:01:01G  |                       |                    |                    |
| A*02:01:01G+A*68:01:04  | A*02:01:18+A*68:01:01G  |                       |                    |                    |
| A*02:01:01G+A*68:01:05  | A*02:01:36+A*68:01:01G  |                       |                    |                    |
| A*02:01:01G+A*68:01:06  | A*02:01:29+A*68:01:02G  |                       |                    |                    |
| A*02:01:01G+A*68:01:15  | A*02:01:26+A*68:01:02G  |                       |                    |                    |
| A*02:01:01G+A*68:02:01G | A*02:34+A*68:31         | A*02:35:01+A*68:15    |                    |                    |
| A*02:01:01G+A*68:02:02  | A*02:01:18+A*68:02:01G  |                       |                    |                    |
| A*02:01:01G+A*68:03:01  | A*02:01:02+A*68:03:02   | A*02:90+A*68:05       |                    |                    |
| A*02:01:01G+A*68:09     | A*02:12+A*68:08:02      |                       |                    |                    |
| A*02:01:01G+A*68:12     | A*02:86+A*68:01:02G     |                       |                    |                    |
| A*02:01:01G+A*68:14     | A*02:121+A*68:10        |                       |                    |                    |
| A*02:01:01G+A*68:17     | A*02:60:01+A*68:01:02G  |                       |                    |                    |
| A*02:01:01G+A*68:19     | A*02:237+A*68:01:02G    |                       |                    |                    |
| A*02:01:01G+A*68:20     | A*02:187+A*68:05        |                       |                    |                    |
| A*02:01:01G+A*68:21:01  | A*02:74:02+A*68:01:02G  |                       |                    |                    |
| A*02:01:01G+A*68:21:02  | A*02:74:01+A*68:01:01G  |                       |                    |                    |
| A*02:01:01G+A*68:24     | A*02:208+A*68:01:02G    |                       |                    |                    |
| A*02:01:01G+A*68:28     | A*02:01:22+A*68:02:01G  |                       |                    |                    |
| A*02:01:01G+A*68:29     | A*02:243+A*68:71        |                       |                    |                    |
| A*02:01:01G+A*68:31     | A*02:90+A*68:15         |                       |                    |                    |
| A*02:01:01G+A*68:35     | A*02:123+A*68:01:01G    | A*02:295+A*68:71      |                    |                    |
| A*02:01:01G+A*68:42     | A*02:22:01G+A*68:63     | A*02:26+A*68:01:01G   | A*02:99+A*68:71    |                    |
| A*02:01:01G+A*68:45     | A*02:76:01+A*68:71      |                       |                    |                    |
| A*02:01:01G+A*68:48     | A*02:118+A*68:02:01G    |                       |                    |                    |
| A*02:01:01G+A*68:51     | A*02:40:01+A*68:02:01G  |                       |                    |                    |
| A*02:01:01G+A*68:53     | A*02:159+A*68:02:01G    |                       |                    |                    |
| A*02:01:01G+A*68:54     | A*02:26+A*68:02:01G     |                       |                    |                    |
| A*02:01:01G+A*68:58     | A*02:362+A*68:01:01G    |                       |                    |                    |
| A*02:01:01G+A*68:61     | A*02:101:01+A*68:54     |                       |                    |                    |
| A*02:01:01G+A*68:65     | A*02:36+A*68:01:02G     |                       |                    |                    |
| A*02:01:01G+A*68:67     | A*02:273+A*68:02:01G    |                       |                    |                    |
| A*02:01:01G+A*68:70     | A*02:119+A*68:01:02G    |                       |                    |                    |
| A*02:01:01G+A*68:72     | A*02:139+A*68:01:01G    |                       |                    |                    |
| A*02:01:01G+A*68:76     | A*02:211:01+A*68:01:02G |                       |                    |                    |
| A*02:01:01G+A*68:77     | A*02:74:01+A*68:02:01G  |                       |                    |                    |
| A*02:01:01G+A*68:78     | A*02:133+A*68:02:01G    |                       |                    |                    |
| A*02:01:01G+A*68:81     | A*02:121+A*68:02:01G    |                       |                    |                    |
| A*02:01:01G+A*68:82     | A*02:07:01G+A*68:02:01G |                       |                    |                    |
| A*02:01:01G+A*68:91     | A*02:24:01+A*68:01:02G  |                       |                    |                    |
| A*02:01:01G+A*68:93     | A*02:199+A*68:01:02G    |                       |                    |                    |
| A*02:01:01G+A*74:01:01G | A*02:90+A*74:06         | A*02:195+A*74:04      |                    |                    |
| A*02:01:01G+A*74:05     | A*02:158+A*74:01:01G    |                       |                    |                    |
| A*02:01:01G+A*74:07     | A*02:11:01G+A*74:06     |                       |                    |                    |
| A*02:01:01G+A*74:13     | A*02:34+A*74:01:01G     | A*02:35:01+A*74:06    | A*02:56:02+A*74:04 |                    |
| A*02:01:02+A*02:05:01G  | A*02:02+A*02:06:09      |                       |                    |                    |
| A*02:01:02+A*02:06:02   | A*02:01:49+A*02:06:09   |                       |                    |                    |
| A*02:01:02+A*02:06:04   | A*02:01:22+A*02:06:09   |                       |                    |                    |
| A*02:01:02+A*02:06:07   | A*02:01:09+A*02:06:09   |                       |                    |                    |
| A*02:01:02+A*02:06:12   | A*02:01:52+A*02:06:09   |                       |                    |                    |
| A*02:01:02+A*02:10      | A*02:06:09+A*02:242     |                       |                    |                    |
| A*02:01:02+A*02:41      | A*02:06:09+A*02:289     |                       |                    |                    |
| A*02:01:02+A*02:51      | A*02:06:09+A*02:40:01   |                       |                    |                    |
| A*02:01:02+A*02:54      | A*02:06:09+A*02:37      |                       |                    |                    |
| A*02:01:02+A*02:72      | A*02:06:09+A*02:275     |                       |                    |                    |
| A*02:01:02+A*02:79:01   | A*02:06:09+A*02:86      |                       |                    |                    |
| A*02:01:02+A*02:91      | A*02:06:09+A*02:322     |                       |                    |                    |
| A*02:01:02+A*02:99      | A*02:06:09+A*02:26      |                       |                    |                    |
| A*02:01:02+A*02:106     | A*02:06:09+A*02:145     |                       |                    |                    |
| A*02:01:02+A*02:108     | A*02:06:09+A*02:17:01G  |                       |                    |                    |
| A*02:01:02+A*02:122     | A*02:06:09+A*02:50      |                       |                    |                    |
| A*02:01:02+A*02:127     | A*02:06:09+A*02:16      |                       |                    |                    |
| A*02:01:02+A*02:137     | A*02:06:09+A*02:24:01   |                       |                    |                    |
| A*02:01:02+A*02:142     | A*02:06:09+A*02:12      |                       |                    |                    |
| A*02:01:02+A*02:144     | A*02:06:09+A*02:205     |                       |                    |                    |
| A*02:01:02+A*02:16      | A*02:06:09+A*02:195     |                       |                    |                    |
| A*02:01:02+A*02:170     | A*02:06:09+A*02:364     |                       |                    |                    |
| A*02:01:02+A*02:178     | A*02:06:09+A*02:64      |                       |                    |                    |

|                        |                        |
|------------------------|------------------------|
| A*02:01:02+A*02:295    | A*02:06:09+A*02:123    |
| A*02:01:02+A*02:300    | A*02:06:09+A*02:110    |
| A*02:01:02+A*02:310    | A*02:06:09+A*02:42     |
| A*02:01:02+A*02:328    | A*02:06:09+A*02:273    |
| A*02:01:02+A*02:331    | A*02:06:09+A*02:90     |
| A*02:01:02+A*02:355    | A*02:03:01G+A*02:06:09 |
| A*02:01:02+A*02:358    | A*02:06:09+A*02:92     |
| A*02:01:02+A*03:12     | A*02:06:09+A*03:01:01G |
| A*02:01:02+A*24:50     | A*02:06:09+A*24:104    |
| A*02:01:02+A*25:01:01G | A*02:06:09+A*25:03     |
| A*02:01:02+A*34:02:01  | A*02:06:09+A*34:08     |
| A*02:01:02+A*68:01:01G | A*02:06:09+A*68:71     |
| A*02:01:02+A*68:01:02G | A*02:06:05+A*68:71     |
| A*02:01:04+A*02:05:03  | A*02:01:17+A*02:05:01G |
| A*02:01:04+A*02:06:12  | A*02:01:17+A*02:06:01G |
| A*02:01:04+A*02:35:02  | A*02:01:17+A*02:35:01  |
| A*02:01:04+A*02:56:02  | A*02:01:17+A*02:56:01  |
| A*02:01:04+A*03:01:01G | A*02:01:17+A*03:01:03  |
| A*02:01:04+A*03:23:02  | A*02:01:17+A*03:23:01  |
| A*02:01:04+A*11:01:06  | A*02:01:25+A*11:01:05  |
| A*02:01:04+A*11:01:07  | A*02:01:36+A*11:01:05  |
| A*02:01:04+A*11:01:12  | A*02:01:45+A*11:01:05  |
| A*02:01:04+A*11:01:15  | A*02:01:69+A*11:01:05  |
| A*02:01:04+A*11:01:20  | A*02:01:66+A*11:01:05  |
| A*02:01:04+A*11:01:25  | A*02:01:54+A*11:01:05  |
| A*02:01:04+A*11:01:40  | A*02:01:29+A*11:01:05  |
| A*02:01:04+A*11:01:43  | A*02:01:10+A*11:01:05  |
| A*02:01:04+A*11:15:01  | A*02:202+A*11:01:05    |
| A*02:01:04+A*11:23     | A*02:182+A*11:01:05    |
| A*02:01:04+A*11:30     | A*02:197+A*11:01:05    |
| A*02:01:04+A*11:32     | A*02:121+A*11:01:05    |
| A*02:01:04+A*11:33:02  | A*02:174+A*11:01:05    |
| A*02:01:04+A*11:34     | A*02:153+A*11:01:05    |
| A*02:01:04+A*11:36     | A*02:07:01G+A*11:01:05 |
| A*02:01:04+A*11:39     | A*02:36+A*11:01:05     |
| A*02:01:04+A*11:41     | A*02:273+A*11:01:05    |
| A*02:01:04+A*11:48     | A*02:183+A*11:01:05    |
| A*02:01:04+A*11:72     | A*02:364+A*11:01:05    |
| A*02:01:04+A*11:79     | A*02:109+A*11:01:05    |
| A*02:01:04+A*11:82     | A*02:313+A*11:01:05    |
| A*02:01:04+A*11:87     | A*02:173+A*11:01:05    |
| A*02:01:04+A*11:96     | A*02:292+A*11:01:05    |
| A*02:01:04+A*11:111    | A*02:184+A*11:01:05    |
| A*02:01:04+A*11:112    | A*02:262+A*11:01:05    |
| A*02:01:04+A*11:123    | A*02:159+A*11:01:05    |
| A*02:01:04+A*11:125    | A*02:312+A*11:01:05    |
| A*02:01:04+A*11:128    | A*02:362+A*11:01:05    |
| A*02:01:04+A*24:02:12  | A*02:01:49+A*24:02:35  |
| A*02:01:04+A*24:02:15  | A*02:01:51+A*24:02:35  |
| A*02:01:04+A*24:02:17  | A*02:01:76+A*24:02:35  |
| A*02:01:04+A*24:02:18  | A*02:01:18+A*24:02:35  |
| A*02:01:04+A*24:02:25  | A*02:01:44+A*24:02:35  |
| A*02:01:04+A*24:02:26  | A*02:01:41+A*24:02:35  |
| A*02:01:04+A*24:02:27  | A*02:01:31+A*24:02:35  |
| A*02:01:04+A*24:02:29  | A*02:01:35+A*24:02:35  |
| A*02:01:04+A*24:02:32  | A*02:01:63+A*24:02:35  |
| A*02:01:04+A*24:02:36  | A*02:01:56+A*24:02:35  |
| A*02:01:04+A*24:02:39  | A*02:01:05+A*24:02:35  |
| A*02:01:04+A*24:02:48  | A*02:01:28+A*24:02:35  |
| A*02:01:04+A*24:02:50  | A*02:01:65+A*24:02:35  |
| A*02:01:04+A*24:02:53  | A*02:01:54+A*24:02:35  |
| A*02:01:04+A*24:02:54  | A*02:01:69+A*24:02:35  |
| A*02:01:04+A*24:05:01G | A*02:174+A*24:02:35    |
| A*02:01:04+A*24:07     | A*02:34+A*24:02:35     |
| A*02:01:04+A*24:17     | A*02:246+A*24:02:35    |
| A*02:01:04+A*24:21:01  | A*02:24:01+A*24:02:35  |
| A*02:01:04+A*24:25     | A*02:352+A*24:02:35    |
| A*02:01:04+A*24:46     | A*02:101:01+A*24:02:35 |
| A*02:01:04+A*24:47     | A*02:205+A*24:02:35    |
| A*02:01:04+A*24:55     | A*02:16:01G+A*24:02:35 |
| A*02:01:04+A*24:56     | A*02:26+A*24:02:35     |
| A*02:01:04+A*24:58     | A*02:107+A*24:02:35    |
| A*02:01:04+A*24:60N    | A*02:366N+A*24:02:35   |
| A*02:01:04+A*24:62     | A*02:80+A*24:02:35     |
| A*02:01:04+A*24:71     | A*02:40:01+A*24:02:35  |
| A*02:01:04+A*24:72     | A*02:145+A*24:02:35    |
| A*02:01:04+A*24:73     | A*02:147+A*24:02:35    |
| A*02:01:04+A*24:77     | A*02:217:02+A*24:02:35 |
| A*02:01:04+A*24:90N    | A*02:88N+A*24:02:35    |
| A*02:01:04+A*24:91     | A*02:68+A*24:02:35     |
| A*02:01:04+A*24:96     | A*02:254+A*24:02:35    |
| A*02:01:04+A*24:99     | A*02:25+A*24:02:35     |
| A*02:01:04+A*24:117    | A*02:296+A*24:02:35    |
| A*02:01:04+A*24:118    | A*02:361+A*24:02:35    |
| A*02:01:04+A*24:119    | A*02:158+A*24:02:35    |
| A*02:01:04+A*24:121    | A*02:64+A*24:02:35     |
| A*02:01:04+A*24:133    | A*02:182+A*24:02:35    |
| A*02:01:04+A*24:145    | A*02:20:01+A*24:02:35  |
| A*02:01:04+A*24:160    | A*02:262+A*24:02:35    |
| A*02:01:04+A*24:165    | A*02:353+A*24:02:35    |
| A*02:01:04+A*24:169    | A*02:119+A*24:02:35    |
| A*02:01:04+A*24:174    | A*02:188+A*24:02:35    |
| A*02:01:04+A*24:176    | A*02:16+A*24:02:35     |
| A*02:01:04+A*24:180    | A*02:16+A*24:02:35     |
| A*02:01:04+A*24:181    | A*02:236+A*24:02:35    |
| A*02:01:04+A*24:187    | A*02:111+A*24:02:35    |
| A*02:01:04+A*24:192    | A*02:312+A*24:02:35    |
| A*02:01:04+A*24:197    | A*02:85+A*24:02:35     |
| A*02:01:04+A*24:198    | A*02:203+A*24:02:35    |
| A*02:01:04+A*24:206    | A*02:362+A*24:02:35    |
| A*02:01:04+A*26:07:01  | A*02:01:17+A*26:07:02  |
| A*02:01:04+A*33:01:01G | A*02:01:17+A*33:01:02  |
| A*02:01:05+A*24:02:12  | A*02:01:49+A*24:02:39  |
| A*02:01:05+A*24:02:15  | A*02:01:51+A*24:02:39  |
| A*02:01:05+A*24:02:17  | A*02:01:76+A*24:02:39  |

|                        |                        |
|------------------------|------------------------|
| A*02:01:05+A*24:02:18  | A*02:01:18+A*24:02:39  |
| A*02:01:05+A*24:02:25  | A*02:01:44+A*24:02:39  |
| A*02:01:05+A*24:02:26  | A*02:01:41+A*24:02:39  |
| A*02:01:05+A*24:02:27  | A*02:01:31+A*24:02:39  |
| A*02:01:05+A*24:02:29  | A*02:01:35+A*24:02:39  |
| A*02:01:05+A*24:02:32  | A*02:01:63+A*24:02:39  |
| A*02:01:05+A*24:02:36  | A*02:01:56+A*24:02:39  |
| A*02:01:05+A*24:02:48  | A*02:01:28+A*24:02:39  |
| A*02:01:05+A*24:02:50  | A*02:01:65+A*24:02:39  |
| A*02:01:05+A*24:02:53  | A*02:01:54+A*24:02:39  |
| A*02:01:05+A*24:02:54  | A*02:01:69+A*24:02:39  |
| A*02:01:05+A*24:05:01G | A*02:174+A*24:02:39    |
| A*02:01:05+A*24:07     | A*02:34+A*24:02:39     |
| A*02:01:05+A*24:17     | A*02:246+A*24:02:39    |
| A*02:01:05+A*24:21:01  | A*02:24:01+A*24:02:39  |
| A*02:01:05+A*24:25     | A*02:352+A*24:02:39    |
| A*02:01:05+A*24:46     | A*02:101:01+A*24:02:39 |
| A*02:01:05+A*24:47     | A*02:205+A*24:02:39    |
| A*02:01:05+A*24:55     | A*02:16:01G+A*24:02:39 |
| A*02:01:05+A*24:56     | A*02:26+A*24:02:39     |
| A*02:01:05+A*24:58     | A*02:107+A*24:02:39    |
| A*02:01:05+A*24:60N    | A*02:366N+A*24:02:39   |
| A*02:01:05+A*24:62     | A*02:80+A*24:02:39     |
| A*02:01:05+A*24:71     | A*02:40:01+A*24:02:39  |
| A*02:01:05+A*24:72     | A*02:145+A*24:02:39    |
| A*02:01:05+A*24:73     | A*02:147+A*24:02:39    |
| A*02:01:05+A*24:77     | A*02:217:02+A*24:02:39 |
| A*02:01:05+A*24:90N    | A*02:88N+A*24:02:39    |
| A*02:01:05+A*24:91     | A*02:68+A*24:02:39     |
| A*02:01:05+A*24:96     | A*02:254+A*24:02:39    |
| A*02:01:05+A*24:99     | A*02:25+A*24:02:39     |
| A*02:01:05+A*24:117    | A*02:296+A*24:02:39    |
| A*02:01:05+A*24:118    | A*02:361+A*24:02:39    |
| A*02:01:05+A*24:119    | A*02:158+A*24:02:39    |
| A*02:01:05+A*24:121    | A*02:64+A*24:02:39     |
| A*02:01:05+A*24:133    | A*02:182+A*24:02:39    |
| A*02:01:05+A*24:145    | A*02:20:01+A*24:02:39  |
| A*02:01:05+A*24:160    | A*02:262+A*24:02:39    |
| A*02:01:05+A*24:165    | A*02:353+A*24:02:39    |
| A*02:01:05+A*24:169    | A*02:119+A*24:02:39    |
| A*02:01:05+A*24:174    | A*02:188+A*24:02:39    |
| A*02:01:05+A*24:176    | A*02:16+A*24:02:39     |
| A*02:01:05+A*24:180    | A*02:16+A*24:02:39     |
| A*02:01:05+A*24:181    | A*02:236+A*24:02:39    |
| A*02:01:05+A*24:187    | A*02:111+A*24:02:39    |
| A*02:01:05+A*24:192    | A*02:312+A*24:02:39    |
| A*02:01:05+A*24:197    | A*02:85+A*24:02:39     |
| A*02:01:05+A*24:198    | A*02:203+A*24:02:39    |
| A*02:01:05+A*24:206    | A*02:362+A*24:02:39    |
| A*02:01:07+A*26:01:03  | A*02:01:18+A*26:01:24  |
| A*02:01:07+A*26:01:08  | A*02:01:71+A*26:01:24  |
| A*02:01:07+A*26:01:09  | A*02:01:29+A*26:01:24  |
| A*02:01:07+A*26:01:10  | A*02:01:45+A*26:01:24  |
| A*02:01:07+A*26:01:18  | A*02:01:26+A*26:01:24  |
| A*02:01:07+A*26:01:19  | A*02:01:25+A*26:01:24  |
| A*02:01:07+A*26:01:26  | A*02:01:32+A*26:01:24  |
| A*02:01:07+A*26:13     | A*02:34+A*26:01:24     |
| A*02:01:07+A*26:23     | A*02:284N+A*26:01:24   |
| A*02:01:07+A*26:27     | A*02:68+A*26:01:24     |
| A*02:01:07+A*26:41     | A*02:187+A*26:01:24    |
| A*02:01:07+A*26:47     | A*02:85+A*26:01:24     |
| A*02:01:07+A*26:49     | A*02:36+A*26:01:24     |
| A*02:01:07+A*26:50     | A*02:210+A*26:01:24    |
| A*02:01:07+A*26:52     | A*02:40:01+A*26:01:24  |
| A*02:01:07+A*26:63     | A*02:236+A*26:01:24    |
| A*02:01:07+A*26:70     | A*02:04+A*26:01:24     |
| A*02:01:07+A*26:75     | A*02:153+A*26:01:24    |
| A*02:01:09+A*02:05:02  | A*02:01:72+A*02:05:05  |
| A*02:01:09+A*02:05:03  | A*02:01:52+A*02:05:05  |
| A*02:01:09+A*02:06:02  | A*02:01:49+A*02:06:07  |
| A*02:01:09+A*02:06:04  | A*02:01:22+A*02:06:07  |
| A*02:01:09+A*02:06:12  | A*02:01:52+A*02:06:07  |
| A*02:01:09+A*02:08     | A*02:05:05+A*02:20:01  |
| A*02:01:09+A*02:10     | A*02:06:07+A*02:242    |
| A*02:01:09+A*02:11:03  | A*02:01:18+A*02:11:02  |
| A*02:01:09+A*02:35:02  | A*02:01:52+A*02:35:03  |
| A*02:01:09+A*02:41     | A*02:06:07+A*02:289    |
| A*02:01:09+A*02:51     | A*02:06:07+A*02:40:01  |
| A*02:01:09+A*02:54     | A*02:06:07+A*02:37     |
| A*02:01:09+A*02:72     | A*02:06:07+A*02:275    |
| A*02:01:09+A*02:79:01  | A*02:06:07+A*02:86     |
| A*02:01:09+A*02:91     | A*02:06:07+A*02:322    |
| A*02:01:09+A*02:99     | A*02:06:07+A*02:26     |
| A*02:01:09+A*02:106    | A*02:06:07+A*02:145    |
| A*02:01:09+A*02:108    | A*02:06:07+A*02:17:01G |
| A*02:01:09+A*02:122    | A*02:06:07+A*02:50     |
| A*02:01:09+A*02:127    | A*02:06:07+A*02:16     |
| A*02:01:09+A*02:128    | A*02:11:02+A*02:20:01  |
| A*02:01:09+A*02:137    | A*02:06:07+A*02:24:01  |
| A*02:01:09+A*02:142    | A*02:06:07+A*02:12     |
| A*02:01:09+A*02:144    | A*02:06:07+A*02:205    |
| A*02:01:09+A*02:154    | A*02:05:05+A*02:101:01 |
| A*02:01:09+A*02:16     | A*02:06:07+A*02:195    |
| A*02:01:09+A*02:170    | A*02:06:07+A*02:364    |
| A*02:01:09+A*02:178    | A*02:06:07+A*02:64     |
| A*02:01:09+A*02:295    | A*02:06:07+A*02:123    |
| A*02:01:09+A*02:300    | A*02:06:07+A*02:110    |
| A*02:01:09+A*02:308    | A*02:11:02+A*02:311    |
| A*02:01:09+A*02:310    | A*02:06:07+A*02:42     |
| A*02:01:09+A*02:328    | A*02:06:07+A*02:273    |
| A*02:01:09+A*02:331    | A*02:06:07+A*02:90     |
| A*02:01:09+A*02:355    | A*02:03:01G+A*02:06:07 |
| A*02:01:09+A*02:358    | A*02:06:07+A*02:92     |
| A*02:01:09+A*03:01:01G | A*02:35:03+A*03:108    |
| A*02:01:09+A*03:12     | A*02:06:07+A*03:01:01G |

|                        |                        |
|------------------------|------------------------|
| A*02:01:09+A*03:72     | A*02:76:02+A*03:01:12  |
| A*02:01:09+A*11:12     | A*02:35:03+A*11:18     |
| A*02:01:09+A*23:13     | A*02:35:03+A*23:12     |
| A*02:01:09+A*24:07     | A*02:35:03+A*24:30     |
| A*02:01:09+A*24:34     | A*02:11:02+A*24:30     |
| A*02:01:09+A*24:50     | A*02:06:07+A*24:104    |
| A*02:01:09+A*25:01:01G | A*02:06:07+A*25:03     |
| A*02:01:09+A*25:02     | A*02:35:03+A*25:11     |
| A*02:01:09+A*26:13     | A*02:35:03+A*26:36     |
| A*02:01:09+A*26:16     | A*02:76:02+A*26:20     |
| A*02:01:09+A*30:01:01G | A*02:35:03+A*30:44     |
| A*02:01:09+A*30:17     | A*02:35:03+A*30:46     |
| A*02:01:09+A*32:17     | A*02:35:03+A*32:08     |
| A*02:01:09+A*33:03:01G | A*02:11:02+A*33:24     |
| A*02:01:09+A*34:02:01  | A*02:06:07+A*34:08     |
| A*02:01:09+A*66:01:01G | A*02:35:03+A*26:03:01  |
| A*02:01:09+A*66:12     | A*02:35:03+A*26:30     |
| A*02:01:09+A*66:15     | A*02:11:02+A*26:03:01  |
| A*02:01:09+A*68:01:01G | A*02:06:07+A*68:71     |
| A*02:01:09+A*68:01:02G | A*02:35:03+A*68:05     |
| A*02:01:09+A*68:02:01G | A*02:35:03+A*68:15     |
| A*02:01:09+A*74:07     | A*02:11:02+A*74:06     |
| A*02:01:09+A*74:13     | A*02:35:03+A*74:06     |
| A*02:01:10+A*02:03:04  | A*02:01:18+A*02:03:03  |
| A*02:01:10+A*02:117    | A*02:03:03+A*02:304    |
| A*02:01:10+A*02:355    | A*02:03:03+A*02:06:01G |
| A*02:01:10+A*11:01:06  | A*02:01:25+A*11:01:43  |
| A*02:01:10+A*11:01:07  | A*02:01:36+A*11:01:43  |
| A*02:01:10+A*11:01:12  | A*02:01:45+A*11:01:43  |
| A*02:01:10+A*11:01:15  | A*02:01:69+A*11:01:43  |
| A*02:01:10+A*11:01:20  | A*02:01:66+A*11:01:43  |
| A*02:01:10+A*11:01:25  | A*02:01:54+A*11:01:43  |
| A*02:01:10+A*11:01:40  | A*02:01:29+A*11:01:43  |
| A*02:01:10+A*11:15:01  | A*02:202+A*11:01:43    |
| A*02:01:10+A*11:23     | A*02:182+A*11:01:43    |
| A*02:01:10+A*11:30     | A*02:197+A*11:01:43    |
| A*02:01:10+A*11:32     | A*02:121+A*11:01:43    |
| A*02:01:10+A*11:33:02  | A*02:174+A*11:01:43    |
| A*02:01:10+A*11:34     | A*02:153+A*11:01:43    |
| A*02:01:10+A*11:36     | A*02:07:01G+A*11:01:43 |
| A*02:01:10+A*11:39     | A*02:36+A*11:01:43     |
| A*02:01:10+A*11:41     | A*02:273+A*11:01:43    |
| A*02:01:10+A*11:48     | A*02:183+A*11:01:43    |
| A*02:01:10+A*11:72     | A*02:364+A*11:01:43    |
| A*02:01:10+A*11:79     | A*02:109+A*11:01:43    |
| A*02:01:10+A*11:82     | A*02:313+A*11:01:43    |
| A*02:01:10+A*11:87     | A*02:173+A*11:01:43    |
| A*02:01:10+A*11:96     | A*02:292+A*11:01:43    |
| A*02:01:10+A*11:111    | A*02:184+A*11:01:43    |
| A*02:01:10+A*11:112    | A*02:262+A*11:01:43    |
| A*02:01:10+A*11:123    | A*02:159+A*11:01:43    |
| A*02:01:10+A*11:125    | A*02:312+A*11:01:43    |
| A*02:01:10+A*11:128    | A*02:362+A*11:01:43    |
| A*02:01:12+A*03:01:02  | A*02:01:22+A*03:01:09  |
| A*02:01:12+A*03:01:04  | A*02:01:13+A*03:01:09  |
| A*02:01:12+A*03:01:15  | A*02:01:60+A*03:01:09  |
| A*02:01:12+A*03:01:20  | A*02:01:35+A*03:01:09  |
| A*02:01:12+A*03:01:23  | A*02:01:55+A*03:01:09  |
| A*02:01:12+A*03:01:26  | A*02:01:59+A*03:01:09  |
| A*02:01:12+A*03:01:28  | A*02:01:57+A*03:01:09  |
| A*02:01:12+A*03:01:29  | A*02:01:63+A*03:01:09  |
| A*02:01:12+A*03:04:01  | A*02:74:02+A*03:01:09  |
| A*02:01:12+A*03:04:02  | A*02:74:01+A*03:01:09  |
| A*02:01:12+A*03:12     | A*02:06:01G+A*03:01:09 |
| A*02:01:12+A*03:16     | A*02:341+A*03:01:09    |
| A*02:01:12+A*03:22:01  | A*02:174+A*03:01:09    |
| A*02:01:12+A*03:44     | A*02:16+A*03:01:09     |
| A*02:01:12+A*03:50     | A*02:22:01G+A*03:01:09 |
| A*02:01:12+A*03:54     | A*02:145+A*03:01:09    |
| A*02:01:12+A*03:59     | A*02:352+A*03:01:09    |
| A*02:01:12+A*03:63     | A*02:346+A*03:01:09    |
| A*02:01:12+A*03:65     | A*02:12+A*03:01:09     |
| A*02:01:12+A*03:66     | A*02:49+A*03:01:09     |
| A*02:01:12+A*03:69N    | A*02:226N+A*03:01:09   |
| A*02:01:12+A*03:72     | A*02:76:01+A*03:01:09  |
| A*02:01:12+A*03:79     | A*02:85+A*03:01:09     |
| A*02:01:12+A*03:84     | A*02:349+A*03:01:09    |
| A*02:01:12+A*03:87     | A*02:197+A*03:01:09    |
| A*02:01:12+A*03:93     | A*02:119+A*03:01:09    |
| A*02:01:12+A*03:94     | A*02:322+A*03:01:09    |
| A*02:01:12+A*03:97     | A*02:36+A*03:01:09     |
| A*02:01:12+A*03:101    | A*02:306+A*03:01:09    |
| A*02:01:12+A*03:104    | A*02:332+A*03:01:09    |
| A*02:01:12+A*03:105    | A*02:101:02+A*03:01:09 |
| A*02:01:12+A*03:126    | A*02:198+A*03:01:09    |
| A*02:01:12+A*03:128    | A*02:116+A*03:01:09    |
| A*02:01:12+A*03:136    | A*02:133+A*03:01:09    |
| A*02:01:12+A*03:150    | A*02:262+A*03:01:09    |
| A*02:01:13+A*03:01:02  | A*02:01:22+A*03:01:04  |
| A*02:01:13+A*03:01:15  | A*02:01:60+A*03:01:04  |
| A*02:01:13+A*03:01:20  | A*02:01:35+A*03:01:04  |
| A*02:01:13+A*03:01:23  | A*02:01:55+A*03:01:04  |
| A*02:01:13+A*03:01:26  | A*02:01:59+A*03:01:04  |
| A*02:01:13+A*03:01:28  | A*02:01:57+A*03:01:04  |
| A*02:01:13+A*03:01:29  | A*02:01:63+A*03:01:04  |
| A*02:01:13+A*03:04:01  | A*02:74:02+A*03:01:04  |
| A*02:01:13+A*03:04:02  | A*02:74:01+A*03:01:04  |
| A*02:01:13+A*03:12     | A*02:06:01G+A*03:01:04 |
| A*02:01:13+A*03:16     | A*02:341+A*03:01:04    |
| A*02:01:13+A*03:22:01  | A*02:174+A*03:01:04    |
| A*02:01:13+A*03:44     | A*02:16+A*03:01:04     |
| A*02:01:13+A*03:50     | A*02:22:01G+A*03:01:04 |
| A*02:01:13+A*03:54     | A*02:145+A*03:01:04    |
| A*02:01:13+A*03:59     | A*02:352+A*03:01:04    |
| A*02:01:13+A*03:63     | A*02:346+A*03:01:04    |

|                        |                        |
|------------------------|------------------------|
| A*02:01:13+A*03:65     | A*02:12+A*03:01:04     |
| A*02:01:13+A*03:66     | A*02:49+A*03:01:04     |
| A*02:01:13+A*03:69N    | A*02:226N+A*03:01:04   |
| A*02:01:13+A*03:72     | A*02:76:01+A*03:01:04  |
| A*02:01:13+A*03:79     | A*02:85+A*03:01:04     |
| A*02:01:13+A*03:84     | A*02:349+A*03:01:04    |
| A*02:01:13+A*03:87     | A*02:197+A*03:01:04    |
| A*02:01:13+A*03:93     | A*02:119+A*03:01:04    |
| A*02:01:13+A*03:94     | A*02:322+A*03:01:04    |
| A*02:01:13+A*03:97     | A*02:36+A*03:01:04     |
| A*02:01:13+A*03:101    | A*02:306+A*03:01:04    |
| A*02:01:13+A*03:104    | A*02:332+A*03:01:04    |
| A*02:01:13+A*03:105    | A*02:101:02+A*03:01:04 |
| A*02:01:13+A*03:126    | A*02:198+A*03:01:04    |
| A*02:01:13+A*03:128    | A*02:116+A*03:01:04    |
| A*02:01:13+A*03:136    | A*02:133+A*03:01:04    |
| A*02:01:13+A*03:150    | A*02:262+A*03:01:04    |
| A*02:01:17+A*11:01:01G | A*02:01:52+A*11:01:05  |
| A*02:01:17+A*24:02:01G | A*02:01:52+A*24:02:35  |
| A*02:01:17+A*24:124    | A*02:185+A*24:02:35    |
| A*02:01:18+A*02:117    | A*02:03:04+A*02:304    |
| A*02:01:18+A*02:128    | A*02:11:03+A*02:20:01  |
| A*02:01:18+A*02:308    | A*02:11:03+A*02:311    |
| A*02:01:18+A*02:355    | A*02:03:04+A*02:06:01G |
| A*02:01:18+A*24:02:12  | A*02:01:49+A*24:02:18  |
| A*02:01:18+A*24:02:15  | A*02:01:51+A*24:02:18  |
| A*02:01:18+A*24:02:17  | A*02:01:76+A*24:02:18  |
| A*02:01:18+A*24:02:25  | A*02:01:44+A*24:02:18  |
| A*02:01:18+A*24:02:26  | A*02:01:41+A*24:02:18  |
| A*02:01:18+A*24:02:27  | A*02:01:31+A*24:02:18  |
| A*02:01:18+A*24:02:29  | A*02:01:35+A*24:02:18  |
| A*02:01:18+A*24:02:32  | A*02:01:63+A*24:02:18  |
| A*02:01:18+A*24:02:36  | A*02:01:56+A*24:02:18  |
| A*02:01:18+A*24:02:48  | A*02:01:28+A*24:02:18  |
| A*02:01:18+A*24:02:50  | A*02:01:65+A*24:02:18  |
| A*02:01:18+A*24:02:53  | A*02:01:54+A*24:02:18  |
| A*02:01:18+A*24:02:54  | A*02:01:69+A*24:02:18  |
| A*02:01:18+A*24:05:01G | A*02:174+A*24:02:18    |
| A*02:01:18+A*24:07     | A*02:34+A*24:02:18     |
| A*02:01:18+A*24:10     | A*02:101:01+A*24:03:02 |
| A*02:01:18+A*24:17     | A*02:246+A*24:02:18    |
| A*02:01:18+A*24:21:01  | A*02:24:01+A*24:02:18  |
| A*02:01:18+A*24:25     | A*02:352+A*24:02:18    |
| A*02:01:18+A*24:34     | A*02:11:03+A*24:30     |
| A*02:01:18+A*24:46     | A*02:101:01+A*24:02:18 |
| A*02:01:18+A*24:47     | A*02:205+A*24:02:18    |
| A*02:01:18+A*24:55     | A*02:16:01G+A*24:02:18 |
| A*02:01:18+A*24:56     | A*02:26+A*24:02:18     |
| A*02:01:18+A*24:58     | A*02:107+A*24:02:18    |
| A*02:01:18+A*24:60N    | A*02:366N+A*24:02:18   |
| A*02:01:18+A*24:62     | A*02:80+A*24:02:18     |
| A*02:01:18+A*24:71     | A*02:40:01+A*24:02:18  |
| A*02:01:18+A*24:72     | A*02:145+A*24:02:18    |
| A*02:01:18+A*24:73     | A*02:147+A*24:02:18    |
| A*02:01:18+A*24:77     | A*02:217:02+A*24:02:18 |
| A*02:01:18+A*24:90N    | A*02:88N+A*24:02:18    |
| A*02:01:18+A*24:91     | A*02:68+A*24:02:18     |
| A*02:01:18+A*24:96     | A*02:254+A*24:02:18    |
| A*02:01:18+A*24:99     | A*02:25+A*24:02:18     |
| A*02:01:18+A*24:117    | A*02:296+A*24:02:18    |
| A*02:01:18+A*24:118    | A*02:361+A*24:02:18    |
| A*02:01:18+A*24:119    | A*02:158+A*24:02:18    |
| A*02:01:18+A*24:121    | A*02:64+A*24:02:18     |
| A*02:01:18+A*24:125    | A*02:299+A*24:03:02    |
| A*02:01:18+A*24:133    | A*02:182+A*24:02:18    |
| A*02:01:18+A*24:145    | A*02:20:01+A*24:02:18  |
| A*02:01:18+A*24:160    | A*02:262+A*24:02:18    |
| A*02:01:18+A*24:165    | A*02:353+A*24:02:18    |
| A*02:01:18+A*24:169    | A*02:119+A*24:02:18    |
| A*02:01:18+A*24:174    | A*02:188+A*24:02:18    |
| A*02:01:18+A*24:176    | A*02:16+A*24:02:18     |
| A*02:01:18+A*24:180    | A*02:16+A*24:02:18     |
| A*02:01:18+A*24:181    | A*02:236+A*24:02:18    |
| A*02:01:18+A*24:187    | A*02:111+A*24:02:18    |
| A*02:01:18+A*24:192    | A*02:312+A*24:02:18    |
| A*02:01:18+A*24:197    | A*02:85+A*24:02:18     |
| A*02:01:18+A*24:198    | A*02:203+A*24:02:18    |
| A*02:01:18+A*24:204    | A*02:237+A*24:03:02    |
| A*02:01:18+A*24:206    | A*02:362+A*24:02:18    |
| A*02:01:18+A*25:01:04  | A*02:01:43+A*25:01:06  |
| A*02:01:18+A*25:02     | A*02:34+A*25:01:06     |
| A*02:01:18+A*25:08     | A*02:85+A*25:01:06     |
| A*02:01:18+A*25:15     | A*02:70+A*25:01:06     |
| A*02:01:18+A*26:01:08  | A*02:01:71+A*26:01:03  |
| A*02:01:18+A*26:01:09  | A*02:01:29+A*26:01:03  |
| A*02:01:18+A*26:01:10  | A*02:01:45+A*26:01:03  |
| A*02:01:18+A*26:01:18  | A*02:01:26+A*26:01:03  |
| A*02:01:18+A*26:01:19  | A*02:01:25+A*26:01:03  |
| A*02:01:18+A*26:01:26  | A*02:01:32+A*26:01:03  |
| A*02:01:18+A*26:13     | A*02:34+A*26:01:03     |
| A*02:01:18+A*26:23     | A*02:284N+A*26:01:03   |
| A*02:01:18+A*26:27     | A*02:68+A*26:01:03     |
| A*02:01:18+A*26:41     | A*02:187+A*26:01:03    |
| A*02:01:18+A*26:47     | A*02:85+A*26:01:03     |
| A*02:01:18+A*26:49     | A*02:36+A*26:01:03     |
| A*02:01:18+A*26:50     | A*02:210+A*26:01:03    |
| A*02:01:18+A*26:52     | A*02:40:01+A*26:01:03  |
| A*02:01:18+A*26:63     | A*02:236+A*26:01:03    |
| A*02:01:18+A*26:70     | A*02:04+A*26:01:03     |
| A*02:01:18+A*26:75     | A*02:153+A*26:01:03    |
| A*02:01:18+A*33:03:01G | A*02:11:03+A*33:24     |
| A*02:01:18+A*66:15     | A*02:11:03+A*26:03:01  |
| A*02:01:18+A*68:01:03  | A*02:01:54+A*68:01:04  |
| A*02:01:18+A*68:01:05  | A*02:01:36+A*68:01:04  |
| A*02:01:18+A*68:21:02  | A*02:74:01+A*68:01:04  |

|                        |                         |                        |
|------------------------|-------------------------|------------------------|
| A*02:01:18+A*68:28     | A*02:01:22+A*68:02:02   |                        |
| A*02:01:18+A*68:35     | A*02:123+A*68:01:04     |                        |
| A*02:01:18+A*68:42     | A*02:26+A*68:01:04      |                        |
| A*02:01:18+A*68:48     | A*02:118+A*68:02:02     |                        |
| A*02:01:18+A*68:51     | A*02:40:01+A*68:02:02   |                        |
| A*02:01:18+A*68:53     | A*02:159+A*68:02:02     |                        |
| A*02:01:18+A*68:54     | A*02:26+A*68:02:02      |                        |
| A*02:01:18+A*68:58     | A*02:362+A*68:01:04     |                        |
| A*02:01:18+A*68:67     | A*02:273+A*68:02:02     |                        |
| A*02:01:18+A*68:72     | A*02:139+A*68:01:04     |                        |
| A*02:01:18+A*68:77     | A*02:74:01+A*68:02:02   |                        |
| A*02:01:18+A*68:78     | A*02:133+A*68:02:02     |                        |
| A*02:01:18+A*68:81     | A*02:121+A*68:02:02     |                        |
| A*02:01:18+A*68:82     | A*02:07:01G+A*68:02:02  |                        |
| A*02:01:18+A*74:07     | A*02:11:03+A*74:06      |                        |
| A*02:01:22+A*02:03:01G | A*02:22:01G+A*02:171:01 | A*02:49+A*02:171:02    |
| A*02:01:22+A*02:05:01G | A*02:02+A*02:06:04      | A*02:14+A*02:49        |
| A*02:01:22+A*02:06:02  | A*02:01:49+A*02:06:04   |                        |
| A*02:01:22+A*02:06:12  | A*02:01:52+A*02:06:04   |                        |
| A*02:01:22+A*02:10     | A*02:06:04+A*02:242     |                        |
| A*02:01:22+A*02:41     | A*02:06:04+A*02:289     |                        |
| A*02:01:22+A*02:51     | A*02:06:01G+A*02:40:02  | A*02:06:04+A*02:40:01  |
| A*02:01:22+A*02:54     | A*02:06:04+A*02:37      |                        |
| A*02:01:22+A*02:72     | A*02:06:04+A*02:275     |                        |
| A*02:01:22+A*02:79:01  | A*02:06:04+A*02:86      |                        |
| A*02:01:22+A*02:91     | A*02:06:04+A*02:322     |                        |
| A*02:01:22+A*02:99     | A*02:06:04+A*02:26      |                        |
| A*02:01:22+A*02:106    | A*02:06:04+A*02:145     |                        |
| A*02:01:22+A*02:108    | A*02:06:04+A*02:17:01G  |                        |
| A*02:01:22+A*02:122    | A*02:06:04+A*02:50      |                        |
| A*02:01:22+A*02:127    | A*02:06:04+A*02:16      |                        |
| A*02:01:22+A*02:130    | A*02:07:01G+A*02:40:02  |                        |
| A*02:01:22+A*02:136    | A*02:49+A*02:87         |                        |
| A*02:01:22+A*02:137    | A*02:06:04+A*02:24:01   |                        |
| A*02:01:22+A*02:142    | A*02:06:04+A*02:12      |                        |
| A*02:01:22+A*02:144    | A*02:06:04+A*02:205     |                        |
| A*02:01:22+A*02:16     | A*02:06:04+A*02:195     |                        |
| A*02:01:22+A*02:170    | A*02:06:04+A*02:364     |                        |
| A*02:01:22+A*02:178    | A*02:06:04+A*02:64      |                        |
| A*02:01:22+A*02:191    | A*02:07:01G+A*02:49     |                        |
| A*02:01:22+A*02:280    | A*02:12+A*02:171:01     |                        |
| A*02:01:22+A*02:295    | A*02:06:04+A*02:123     |                        |
| A*02:01:22+A*02:300    | A*02:06:04+A*02:110     |                        |
| A*02:01:22+A*02:310    | A*02:06:04+A*02:42      |                        |
| A*02:01:22+A*02:323    | A*02:26+A*02:49         |                        |
| A*02:01:22+A*02:328    | A*02:06:04+A*02:273     |                        |
| A*02:01:22+A*02:331    | A*02:06:04+A*02:90      |                        |
| A*02:01:22+A*02:355    | A*02:03:01G+A*02:06:04  |                        |
| A*02:01:22+A*02:358    | A*02:06:04+A*02:92      |                        |
| A*02:01:22+A*03:01:15  | A*02:01:60+A*03:01:02   |                        |
| A*02:01:22+A*03:01:20  | A*02:01:35+A*03:01:02   |                        |
| A*02:01:22+A*03:01:23  | A*02:01:55+A*03:01:02   |                        |
| A*02:01:22+A*03:01:26  | A*02:01:59+A*03:01:02   |                        |
| A*02:01:22+A*03:01:28  | A*02:01:57+A*03:01:02   |                        |
| A*02:01:22+A*03:01:29  | A*02:01:63+A*03:01:02   |                        |
| A*02:01:22+A*03:04:01  | A*02:74:02+A*03:01:02   |                        |
| A*02:01:22+A*03:04:02  | A*02:74:01+A*03:01:02   |                        |
| A*02:01:22+A*03:12     | A*02:06:01G+A*03:01:02  | A*02:06:04+A*03:01:01G |
| A*02:01:22+A*03:16     | A*02:341+A*03:01:02     |                        |
| A*02:01:22+A*03:22:01  | A*02:174+A*03:01:02     |                        |
| A*02:01:22+A*03:44     | A*02:16+A*03:01:02      |                        |
| A*02:01:22+A*03:54     | A*02:145+A*03:01:02     |                        |
| A*02:01:22+A*03:59     | A*02:352+A*03:01:02     |                        |
| A*02:01:22+A*03:63     | A*02:346+A*03:01:02     |                        |
| A*02:01:22+A*03:65     | A*02:12+A*03:01:02      |                        |
| A*02:01:22+A*03:66     | A*02:49+A*03:01:02      |                        |
| A*02:01:22+A*03:72     | A*02:76:01+A*03:01:02   |                        |
| A*02:01:22+A*03:79     | A*02:85+A*03:01:02      |                        |
| A*02:01:22+A*03:84     | A*02:349+A*03:01:02     |                        |
| A*02:01:22+A*03:87     | A*02:197+A*03:01:02     |                        |
| A*02:01:22+A*03:93     | A*02:119+A*03:01:02     |                        |
| A*02:01:22+A*03:94     | A*02:322+A*03:01:02     |                        |
| A*02:01:22+A*03:97     | A*02:36+A*03:01:02      |                        |
| A*02:01:22+A*03:101    | A*02:306+A*03:01:02     |                        |
| A*02:01:22+A*03:104    | A*02:332+A*03:01:02     |                        |
| A*02:01:22+A*03:105    | A*02:101:02+A*03:01:02  |                        |
| A*02:01:22+A*03:122    | A*02:36+A*03:05:02      |                        |
| A*02:01:22+A*03:126    | A*02:198+A*03:01:02     |                        |
| A*02:01:22+A*03:128    | A*02:116+A*03:01:02     |                        |
| A*02:01:22+A*03:133    | A*02:40:02+A*03:07      |                        |
| A*02:01:22+A*03:136    | A*02:133+A*03:01:02     |                        |
| A*02:01:22+A*03:150    | A*02:262+A*03:01:02     |                        |
| A*02:01:22+A*11:01:01G | A*02:12+A*11:24:01      |                        |
| A*02:01:22+A*11:03     | A*02:40:02+A*11:20      |                        |
| A*02:01:22+A*11:39     | A*02:37+A*11:24:01      |                        |
| A*02:01:22+A*11:44     | A*02:49+A*11:24:01      |                        |
| A*02:01:22+A*23:01:01G | A*02:174+A*23:14:01     |                        |
| A*02:01:22+A*23:02     | A*02:49+A*23:01:01G     |                        |
| A*02:01:22+A*23:14:01  | A*02:40:02+A*24:13:02   |                        |
| A*02:01:22+A*24:02:01G | A*02:12+A*24:13:02      |                        |
| A*02:01:22+A*24:50     | A*02:06:04+A*24:104     |                        |
| A*02:01:22+A*24:56     | A*02:13+A*24:13:02      |                        |
| A*02:01:22+A*24:59     | A*02:27+A*24:13:02      |                        |
| A*02:01:22+A*24:71     | A*02:12+A*23:14:01      | A*02:40:02+A*24:02:01G |
| A*02:01:22+A*24:87     | A*02:49+A*24:13:02      |                        |
| A*02:01:22+A*24:167    | A*02:49+A*24:207        |                        |
| A*02:01:22+A*24:177    | A*02:13+A*23:14:01      | A*02:40:02+A*24:56     |
| A*02:01:22+A*24:190    | A*02:27+A*23:14:01      | A*02:40:02+A*24:59     |
| A*02:01:22+A*25:01:01G | A*02:06:04+A*25:03      | A*02:49+A*25:19        |
| A*02:01:22+A*26:01:01G | A*02:22:01G+A*26:43:02  | A*02:49+A*26:43:01     |
| A*02:01:22+A*26:08     | A*02:12+A*26:43:02      |                        |
| A*02:01:22+A*26:28     | A*02:40:02+A*26:14      |                        |
| A*02:01:22+A*26:52     | A*02:40:02+A*26:01:01G  | A*02:171:01+A*26:18    |
| A*02:01:22+A*29:28     | A*02:49+A*29:01:01G     |                        |
| A*02:01:22+A*30:25     | A*02:34+A*30:02:05      |                        |



|                        |                        |                        |
|------------------------|------------------------|------------------------|
| A*02:01:22+A*30:28     | A*02:224+A*30:02:05    |                        |
| A*02:01:22+A*30:34     | A*02:74:01+A*30:02:05  |                        |
| A*02:01:22+A*30:51     | A*02:121+A*30:02:05    |                        |
| A*02:01:22+A*31:01:06  | A*02:01:49+A*31:01:05  |                        |
| A*02:01:22+A*31:01:14  | A*02:01:66+A*31:01:05  |                        |
| A*02:01:22+A*31:01:16  | A*02:01:26+A*31:01:05  |                        |
| A*02:01:22+A*31:05     | A*02:36+A*31:01:05     |                        |
| A*02:01:22+A*31:11     | A*02:202+A*31:01:05    |                        |
| A*02:01:22+A*31:13     | A*02:251+A*31:01:05    |                        |
| A*02:01:22+A*31:15     | A*02:351+A*31:01:05    |                        |
| A*02:01:22+A*31:16     | A*02:107+A*31:01:05    |                        |
| A*02:01:22+A*31:25     | A*02:101:02+A*31:01:05 |                        |
| A*02:01:22+A*31:28     | A*02:139+A*31:01:05    |                        |
| A*02:01:22+A*31:30     | A*02:22:01G+A*31:01:05 | A*02:49+A*31:01:02G    |
| A*02:01:22+A*31:31     | A*02:275+A*31:01:05    |                        |
| A*02:01:22+A*31:36     | A*02:257+A*31:01:05    |                        |
| A*02:01:22+A*31:40     | A*02:133+A*31:01:05    |                        |
| A*02:01:22+A*31:45     | A*02:16+A*31:01:05     |                        |
| A*02:01:22+A*31:50     | A*02:307+A*31:01:05    |                        |
| A*02:01:22+A*31:51     | A*02:121+A*31:01:05    |                        |
| A*02:01:22+A*31:63     | A*02:273+A*31:01:05    |                        |
| A*02:01:22+A*31:64     | A*02:157+A*31:01:05    |                        |
| A*02:01:22+A*32:01:04  | A*02:01:56+A*32:01:06  |                        |
| A*02:01:22+A*32:01:05  | A*02:01:63+A*32:01:06  |                        |
| A*02:01:22+A*32:01:08  | A*02:01:26+A*32:01:06  |                        |
| A*02:01:22+A*32:01:09  | A*02:01:29+A*32:01:06  |                        |
| A*02:01:22+A*32:07     | A*02:76:01+A*32:01:06  |                        |
| A*02:01:22+A*32:09     | A*02:233+A*32:01:06    |                        |
| A*02:01:22+A*32:12     | A*02:121+A*32:01:06    |                        |
| A*02:01:22+A*32:13     | A*02:36+A*32:01:06     |                        |
| A*02:01:22+A*32:17     | A*02:34+A*32:01:06     |                        |
| A*02:01:22+A*32:21     | A*02:16+A*32:01:06     |                        |
| A*02:01:22+A*32:22     | A*02:12+A*32:01:06     | A*02:40:02+A*32:02     |
| A*02:01:22+A*32:26     | A*02:101:02+A*32:01:06 |                        |
| A*02:01:22+A*32:37     | A*02:119+A*32:01:06    |                        |
| A*02:01:22+A*32:42     | A*02:243+A*32:01:06    |                        |
| A*02:01:22+A*33:01:01G | A*02:332+A*33:03:05    |                        |
| A*02:01:22+A*33:03:02  | A*02:01:27+A*33:03:05  |                        |
| A*02:01:22+A*33:10     | A*02:36+A*33:03:05     |                        |
| A*02:01:22+A*33:14     | A*02:367+A*33:03:05    |                        |
| A*02:01:22+A*33:30     | A*02:342+A*33:03:05    |                        |
| A*02:01:22+A*33:40     | A*02:211:01+A*33:03:05 |                        |
| A*02:01:22+A*33:42     | A*02:292+A*33:03:05    |                        |
| A*02:01:22+A*33:47     | A*02:306+A*33:03:05    |                        |
| A*02:01:22+A*33:52     | A*02:109+A*33:03:05    |                        |
| A*02:01:22+A*33:58     | A*02:107+A*33:03:05    |                        |
| A*02:01:22+A*33:60     | A*02:42+A*33:03:05     |                        |
| A*02:01:22+A*33:61     | A*02:101:01+A*33:03:05 |                        |
| A*02:01:22+A*34:07     | A*02:292+A*34:02:02    |                        |
| A*02:01:22+A*68:01:01G | A*02:06:04+A*68:71     | A*02:22:01G+A*68:08:01 |
| A*02:01:22+A*68:01:02G | A*02:49+A*68:08:02     |                        |
| A*02:01:22+A*68:26     | A*02:37+A*68:08:01     |                        |
| A*02:01:22+A*68:42     | A*02:49+A*68:63        | A*02:323+A*68:08:01    |
| A*02:01:22+A*68:48     | A*02:118+A*68:28       |                        |
| A*02:01:22+A*68:51     | A*02:40:01+A*68:28     | A*02:40:02+A*68:02:01G |
| A*02:01:22+A*68:53     | A*02:159+A*68:28       |                        |
| A*02:01:22+A*68:54     | A*02:26+A*68:28        |                        |
| A*02:01:22+A*68:63     | A*02:26+A*68:08:01     |                        |
| A*02:01:22+A*68:67     | A*02:273+A*68:28       |                        |
| A*02:01:22+A*68:77     | A*02:74:01+A*68:28     |                        |
| A*02:01:22+A*68:78     | A*02:133+A*68:28       |                        |
| A*02:01:22+A*68:81     | A*02:121+A*68:28       |                        |
| A*02:01:22+A*68:82     | A*02:07:01G+A*68:28    |                        |
| A*02:01:25+A*11:01:07  | A*02:01:36+A*11:01:06  |                        |
| A*02:01:25+A*11:01:12  | A*02:01:45+A*11:01:06  |                        |
| A*02:01:25+A*11:01:15  | A*02:01:69+A*11:01:06  |                        |
| A*02:01:25+A*11:01:20  | A*02:01:66+A*11:01:06  |                        |
| A*02:01:25+A*11:01:25  | A*02:01:54+A*11:01:06  |                        |
| A*02:01:25+A*11:01:40  | A*02:01:29+A*11:01:06  |                        |
| A*02:01:25+A*11:15:01  | A*02:202+A*11:01:06    |                        |
| A*02:01:25+A*11:23     | A*02:182+A*11:01:06    |                        |
| A*02:01:25+A*11:30     | A*02:197+A*11:01:06    |                        |
| A*02:01:25+A*11:32     | A*02:121+A*11:01:06    |                        |
| A*02:01:25+A*11:33:02  | A*02:174+A*11:01:06    |                        |
| A*02:01:25+A*11:34     | A*02:153+A*11:01:06    |                        |
| A*02:01:25+A*11:36     | A*02:07:01G+A*11:01:06 |                        |
| A*02:01:25+A*11:39     | A*02:36+A*11:01:06     |                        |
| A*02:01:25+A*11:41     | A*02:273+A*11:01:06    |                        |
| A*02:01:25+A*11:48     | A*02:183+A*11:01:06    |                        |
| A*02:01:25+A*11:72     | A*02:364+A*11:01:06    |                        |
| A*02:01:25+A*11:79     | A*02:109+A*11:01:06    |                        |
| A*02:01:25+A*11:82     | A*02:313+A*11:01:06    |                        |
| A*02:01:25+A*11:87     | A*02:173+A*11:01:06    |                        |
| A*02:01:25+A*11:96     | A*02:292+A*11:01:06    |                        |
| A*02:01:25+A*11:111    | A*02:184+A*11:01:06    |                        |
| A*02:01:25+A*11:112    | A*02:262+A*11:01:06    |                        |
| A*02:01:25+A*11:123    | A*02:159+A*11:01:06    |                        |
| A*02:01:25+A*11:125    | A*02:312+A*11:01:06    |                        |
| A*02:01:25+A*11:128    | A*02:362+A*11:01:06    |                        |
| A*02:01:25+A*26:01:08  | A*02:01:71+A*26:01:19  |                        |
| A*02:01:25+A*26:01:09  | A*02:01:29+A*26:01:19  |                        |
| A*02:01:25+A*26:01:10  | A*02:01:45+A*26:01:19  |                        |
| A*02:01:25+A*26:01:18  | A*02:01:26+A*26:01:19  |                        |
| A*02:01:25+A*26:01:26  | A*02:01:32+A*26:01:19  |                        |
| A*02:01:25+A*26:13     | A*02:34+A*26:01:19     |                        |
| A*02:01:25+A*26:23     | A*02:284N+A*26:01:19   |                        |
| A*02:01:25+A*26:27     | A*02:68+A*26:01:19     |                        |
| A*02:01:25+A*26:41     | A*02:187+A*26:01:19    |                        |
| A*02:01:25+A*26:47     | A*02:85+A*26:01:19     |                        |
| A*02:01:25+A*26:49     | A*02:36+A*26:01:19     |                        |
| A*02:01:25+A*26:50     | A*02:210+A*26:01:19    |                        |
| A*02:01:25+A*26:52     | A*02:40:01+A*26:01:19  |                        |
| A*02:01:25+A*26:63     | A*02:236+A*26:01:19    |                        |
| A*02:01:25+A*26:70     | A*02:04+A*26:01:19     |                        |
| A*02:01:25+A*26:75     | A*02:153+A*26:01:19    |                        |

|                        |                        |
|------------------------|------------------------|
| A*02:01:26+A*26:01:08  | A*02:01:71+A*26:01:18  |
| A*02:01:26+A*26:01:09  | A*02:01:29+A*26:01:18  |
| A*02:01:26+A*26:01:10  | A*02:01:45+A*26:01:18  |
| A*02:01:26+A*26:01:26  | A*02:01:32+A*26:01:18  |
| A*02:01:26+A*26:13     | A*02:34+A*26:01:18     |
| A*02:01:26+A*26:23     | A*02:284N+A*26:01:18   |
| A*02:01:26+A*26:27     | A*02:68+A*26:01:18     |
| A*02:01:26+A*26:41     | A*02:187+A*26:01:18    |
| A*02:01:26+A*26:47     | A*02:85+A*26:01:18     |
| A*02:01:26+A*26:49     | A*02:36+A*26:01:18     |
| A*02:01:26+A*26:50     | A*02:210+A*26:01:18    |
| A*02:01:26+A*26:52     | A*02:40:01+A*26:01:18  |
| A*02:01:26+A*26:63     | A*02:236+A*26:01:18    |
| A*02:01:26+A*26:70     | A*02:04+A*26:01:18     |
| A*02:01:26+A*26:75     | A*02:153+A*26:01:18    |
| A*02:01:26+A*31:01:06  | A*02:01:49+A*31:01:16  |
| A*02:01:26+A*31:01:14  | A*02:01:66+A*31:01:16  |
| A*02:01:26+A*31:05     | A*02:36+A*31:01:16     |
| A*02:01:26+A*31:11     | A*02:202+A*31:01:16    |
| A*02:01:26+A*31:13     | A*02:251+A*31:01:16    |
| A*02:01:26+A*31:15     | A*02:351+A*31:01:16    |
| A*02:01:26+A*31:16     | A*02:107+A*31:01:16    |
| A*02:01:26+A*31:25     | A*02:101:02+A*31:01:16 |
| A*02:01:26+A*31:28     | A*02:139+A*31:01:16    |
| A*02:01:26+A*31:30     | A*02:22:01G+A*31:01:16 |
| A*02:01:26+A*31:31     | A*02:275+A*31:01:16    |
| A*02:01:26+A*31:36     | A*02:257+A*31:01:16    |
| A*02:01:26+A*31:40     | A*02:133+A*31:01:16    |
| A*02:01:26+A*31:45     | A*02:16+A*31:01:16     |
| A*02:01:26+A*31:50     | A*02:307+A*31:01:16    |
| A*02:01:26+A*31:51     | A*02:121+A*31:01:16    |
| A*02:01:26+A*31:63     | A*02:273+A*31:01:16    |
| A*02:01:26+A*31:64     | A*02:157+A*31:01:16    |
| A*02:01:26+A*32:01:04  | A*02:01:56+A*32:01:08  |
| A*02:01:26+A*32:01:05  | A*02:01:63+A*32:01:08  |
| A*02:01:26+A*32:01:09  | A*02:01:29+A*32:01:08  |
| A*02:01:26+A*32:07     | A*02:76:01+A*32:01:08  |
| A*02:01:26+A*32:09     | A*02:233+A*32:01:08    |
| A*02:01:26+A*32:12     | A*02:121+A*32:01:08    |
| A*02:01:26+A*32:13     | A*02:36+A*32:01:08     |
| A*02:01:26+A*32:17     | A*02:34+A*32:01:08     |
| A*02:01:26+A*32:21     | A*02:16+A*32:01:08     |
| A*02:01:26+A*32:22     | A*02:12+A*32:01:08     |
| A*02:01:26+A*32:26     | A*02:101:02+A*32:01:08 |
| A*02:01:26+A*32:37     | A*02:119+A*32:01:08    |
| A*02:01:26+A*32:42     | A*02:243+A*32:01:08    |
| A*02:01:26+A*68:01:06  | A*02:01:29+A*68:01:15  |
| A*02:01:26+A*68:12     | A*02:86+A*68:01:15     |
| A*02:01:26+A*68:17     | A*02:60:01+A*68:01:15  |
| A*02:01:26+A*68:19     | A*02:237+A*68:01:15    |
| A*02:01:26+A*68:21:01  | A*02:74:02+A*68:01:15  |
| A*02:01:26+A*68:24     | A*02:208+A*68:01:15    |
| A*02:01:26+A*68:65     | A*02:36+A*68:01:15     |
| A*02:01:26+A*68:70     | A*02:119+A*68:01:15    |
| A*02:01:26+A*68:76     | A*02:211:01+A*68:01:15 |
| A*02:01:26+A*68:91     | A*02:24:01+A*68:01:15  |
| A*02:01:26+A*68:93     | A*02:199+A*68:01:15    |
| A*02:01:27+A*33:01:01G | A*02:332+A*33:03:02    |
| A*02:01:27+A*33:10     | A*02:36+A*33:03:02     |
| A*02:01:27+A*33:14     | A*02:367+A*33:03:02    |
| A*02:01:27+A*33:30     | A*02:342+A*33:03:02    |
| A*02:01:27+A*33:40     | A*02:211:01+A*33:03:02 |
| A*02:01:27+A*33:42     | A*02:292+A*33:03:02    |
| A*02:01:27+A*33:47     | A*02:306+A*33:03:02    |
| A*02:01:27+A*33:52     | A*02:109+A*33:03:02    |
| A*02:01:27+A*33:58     | A*02:107+A*33:03:02    |
| A*02:01:27+A*33:60     | A*02:42+A*33:03:02     |
| A*02:01:27+A*33:61     | A*02:101:01+A*33:03:02 |
| A*02:01:28+A*24:02:12  | A*02:01:49+A*24:02:48  |
| A*02:01:28+A*24:02:15  | A*02:01:51+A*24:02:48  |
| A*02:01:28+A*24:02:17  | A*02:01:76+A*24:02:48  |
| A*02:01:28+A*24:02:25  | A*02:01:44+A*24:02:48  |
| A*02:01:28+A*24:02:26  | A*02:01:41+A*24:02:48  |
| A*02:01:28+A*24:02:27  | A*02:01:31+A*24:02:48  |
| A*02:01:28+A*24:02:29  | A*02:01:35+A*24:02:48  |
| A*02:01:28+A*24:02:32  | A*02:01:63+A*24:02:48  |
| A*02:01:28+A*24:02:36  | A*02:01:56+A*24:02:48  |
| A*02:01:28+A*24:02:50  | A*02:01:65+A*24:02:48  |
| A*02:01:28+A*24:02:53  | A*02:01:54+A*24:02:48  |
| A*02:01:28+A*24:02:54  | A*02:01:69+A*24:02:48  |
| A*02:01:28+A*24:05:01G | A*02:174+A*24:02:48    |
| A*02:01:28+A*24:07     | A*02:34+A*24:02:48     |
| A*02:01:28+A*24:17     | A*02:246+A*24:02:48    |
| A*02:01:28+A*24:21:01  | A*02:24:01+A*24:02:48  |
| A*02:01:28+A*24:25     | A*02:352+A*24:02:48    |
| A*02:01:28+A*24:46     | A*02:101:01+A*24:02:48 |
| A*02:01:28+A*24:47     | A*02:205+A*24:02:48    |
| A*02:01:28+A*24:55     | A*02:16:01G+A*24:02:48 |
| A*02:01:28+A*24:56     | A*02:26+A*24:02:48     |
| A*02:01:28+A*24:58     | A*02:107+A*24:02:48    |
| A*02:01:28+A*24:60N    | A*02:366N+A*24:02:48   |
| A*02:01:28+A*24:62     | A*02:80+A*24:02:48     |
| A*02:01:28+A*24:71     | A*02:40:01+A*24:02:48  |
| A*02:01:28+A*24:72     | A*02:145+A*24:02:48    |
| A*02:01:28+A*24:73     | A*02:147+A*24:02:48    |
| A*02:01:28+A*24:77     | A*02:217:02+A*24:02:48 |
| A*02:01:28+A*24:90N    | A*02:88N+A*24:02:48    |
| A*02:01:28+A*24:91     | A*02:68+A*24:02:48     |
| A*02:01:28+A*24:96     | A*02:254+A*24:02:48    |
| A*02:01:28+A*24:99     | A*02:25+A*24:02:48     |
| A*02:01:28+A*24:117    | A*02:296+A*24:02:48    |
| A*02:01:28+A*24:118    | A*02:361+A*24:02:48    |
| A*02:01:28+A*24:119    | A*02:158+A*24:02:48    |
| A*02:01:28+A*24:121    | A*02:64+A*24:02:48     |
| A*02:01:28+A*24:133    | A*02:182+A*24:02:48    |

|                        |                        |
|------------------------|------------------------|
| A*02:01:28+A*24:145    | A*02:20:01+A*24:02:48  |
| A*02:01:28+A*24:160    | A*02:262+A*24:02:48    |
| A*02:01:28+A*24:165    | A*02:353+A*24:02:48    |
| A*02:01:28+A*24:169    | A*02:119+A*24:02:48    |
| A*02:01:28+A*24:174    | A*02:188+A*24:02:48    |
| A*02:01:28+A*24:176    | A*02:16+A*24:02:48     |
| A*02:01:28+A*24:180    | A*02:16+A*24:02:48     |
| A*02:01:28+A*24:181    | A*02:236+A*24:02:48    |
| A*02:01:28+A*24:187    | A*02:111+A*24:02:48    |
| A*02:01:28+A*24:192    | A*02:312+A*24:02:48    |
| A*02:01:28+A*24:197    | A*02:85+A*24:02:48     |
| A*02:01:28+A*24:198    | A*02:203+A*24:02:48    |
| A*02:01:28+A*24:206    | A*02:362+A*24:02:48    |
| A*02:01:29+A*11:01:07  | A*02:01:36+A*11:01:40  |
| A*02:01:29+A*11:01:12  | A*02:01:45+A*11:01:40  |
| A*02:01:29+A*11:01:15  | A*02:01:69+A*11:01:40  |
| A*02:01:29+A*11:01:20  | A*02:01:66+A*11:01:40  |
| A*02:01:29+A*11:01:25  | A*02:01:54+A*11:01:40  |
| A*02:01:29+A*11:15:01  | A*02:202+A*11:01:40    |
| A*02:01:29+A*11:23     | A*02:182+A*11:01:40    |
| A*02:01:29+A*11:30     | A*02:197+A*11:01:40    |
| A*02:01:29+A*11:32     | A*02:121+A*11:01:40    |
| A*02:01:29+A*11:33:02  | A*02:174+A*11:01:40    |
| A*02:01:29+A*11:34     | A*02:153+A*11:01:40    |
| A*02:01:29+A*11:36     | A*02:07:01G+A*11:01:40 |
| A*02:01:29+A*11:39     | A*02:36+A*11:01:40     |
| A*02:01:29+A*11:41     | A*02:273+A*11:01:40    |
| A*02:01:29+A*11:48     | A*02:183+A*11:01:40    |
| A*02:01:29+A*11:72     | A*02:364+A*11:01:40    |
| A*02:01:29+A*11:79     | A*02:109+A*11:01:40    |
| A*02:01:29+A*11:82     | A*02:313+A*11:01:40    |
| A*02:01:29+A*11:87     | A*02:173+A*11:01:40    |
| A*02:01:29+A*11:96     | A*02:292+A*11:01:40    |
| A*02:01:29+A*11:111    | A*02:184+A*11:01:40    |
| A*02:01:29+A*11:112    | A*02:262+A*11:01:40    |
| A*02:01:29+A*11:123    | A*02:159+A*11:01:40    |
| A*02:01:29+A*11:125    | A*02:312+A*11:01:40    |
| A*02:01:29+A*11:128    | A*02:362+A*11:01:40    |
| A*02:01:29+A*26:01:08  | A*02:01:71+A*26:01:09  |
| A*02:01:29+A*26:01:10  | A*02:01:45+A*26:01:09  |
| A*02:01:29+A*26:01:26  | A*02:01:32+A*26:01:09  |
| A*02:01:29+A*26:13     | A*02:34+A*26:01:09     |
| A*02:01:29+A*26:23     | A*02:284N+A*26:01:09   |
| A*02:01:29+A*26:27     | A*02:68+A*26:01:09     |
| A*02:01:29+A*26:41     | A*02:187+A*26:01:09    |
| A*02:01:29+A*26:47     | A*02:85+A*26:01:09     |
| A*02:01:29+A*26:49     | A*02:36+A*26:01:09     |
| A*02:01:29+A*26:50     | A*02:210+A*26:01:09    |
| A*02:01:29+A*26:52     | A*02:40:01+A*26:01:09  |
| A*02:01:29+A*26:63     | A*02:236+A*26:01:09    |
| A*02:01:29+A*26:70     | A*02:04+A*26:01:09     |
| A*02:01:29+A*26:75     | A*02:153+A*26:01:09    |
| A*02:01:29+A*32:01:04  | A*02:01:56+A*32:01:09  |
| A*02:01:29+A*32:01:05  | A*02:01:63+A*32:01:09  |
| A*02:01:29+A*32:07     | A*02:76:01+A*32:01:09  |
| A*02:01:29+A*32:09     | A*02:233+A*32:01:09    |
| A*02:01:29+A*32:12     | A*02:121+A*32:01:09    |
| A*02:01:29+A*32:13     | A*02:36+A*32:01:09     |
| A*02:01:29+A*32:17     | A*02:34+A*32:01:09     |
| A*02:01:29+A*32:21     | A*02:16+A*32:01:09     |
| A*02:01:29+A*32:22     | A*02:12+A*32:01:09     |
| A*02:01:29+A*32:26     | A*02:101:02+A*32:01:09 |
| A*02:01:29+A*32:37     | A*02:119+A*32:01:09    |
| A*02:01:29+A*32:42     | A*02:243+A*32:01:09    |
| A*02:01:29+A*68:12     | A*02:86+A*68:01:06     |
| A*02:01:29+A*68:17     | A*02:60:01+A*68:01:06  |
| A*02:01:29+A*68:19     | A*02:237+A*68:01:06    |
| A*02:01:29+A*68:21:01  | A*02:74:02+A*68:01:06  |
| A*02:01:29+A*68:24     | A*02:208+A*68:01:06    |
| A*02:01:29+A*68:65     | A*02:36+A*68:01:06     |
| A*02:01:29+A*68:70     | A*02:119+A*68:01:06    |
| A*02:01:29+A*68:76     | A*02:211:01+A*68:01:06 |
| A*02:01:29+A*68:91     | A*02:24:01+A*68:01:06  |
| A*02:01:29+A*68:93     | A*02:199+A*68:01:06    |
| A*02:01:31+A*03:02:01  | A*02:20:01+A*03:11:13  |
| A*02:01:31+A*24:02:12  | A*02:01:49+A*24:02:27  |
| A*02:01:31+A*24:02:15  | A*02:01:51+A*24:02:27  |
| A*02:01:31+A*24:02:17  | A*02:01:76+A*24:02:27  |
| A*02:01:31+A*24:02:25  | A*02:01:44+A*24:02:27  |
| A*02:01:31+A*24:02:26  | A*02:01:41+A*24:02:27  |
| A*02:01:31+A*24:02:29  | A*02:01:35+A*24:02:27  |
| A*02:01:31+A*24:02:32  | A*02:01:63+A*24:02:27  |
| A*02:01:31+A*24:02:36  | A*02:01:56+A*24:02:27  |
| A*02:01:31+A*24:02:50  | A*02:01:65+A*24:02:27  |
| A*02:01:31+A*24:02:53  | A*02:01:54+A*24:02:27  |
| A*02:01:31+A*24:02:54  | A*02:01:69+A*24:02:27  |
| A*02:01:31+A*24:05:01G | A*02:174+A*24:02:27    |
| A*02:01:31+A*24:07     | A*02:34+A*24:02:27     |
| A*02:01:31+A*24:17     | A*02:246+A*24:02:27    |
| A*02:01:31+A*24:21:01  | A*02:24:01+A*24:02:27  |
| A*02:01:31+A*24:25     | A*02:352+A*24:02:27    |
| A*02:01:31+A*24:46     | A*02:101:01+A*24:02:27 |
| A*02:01:31+A*24:47     | A*02:205+A*24:02:27    |
| A*02:01:31+A*24:55     | A*02:16:01G+A*24:02:27 |
| A*02:01:31+A*24:56     | A*02:26+A*24:02:27     |
| A*02:01:31+A*24:58     | A*02:107+A*24:02:27    |
| A*02:01:31+A*24:60N    | A*02:366N+A*24:02:27   |
| A*02:01:31+A*24:62     | A*02:80+A*24:02:27     |
| A*02:01:31+A*24:71     | A*02:40:01+A*24:02:27  |
| A*02:01:31+A*24:72     | A*02:145+A*24:02:27    |
| A*02:01:31+A*24:73     | A*02:147+A*24:02:27    |
| A*02:01:31+A*24:77     | A*02:217:02+A*24:02:27 |
| A*02:01:31+A*24:90N    | A*02:88N+A*24:02:27    |
| A*02:01:31+A*24:91     | A*02:68+A*24:02:27     |
| A*02:01:31+A*24:96     | A*02:254+A*24:02:27    |

|                        |                        |
|------------------------|------------------------|
| A*02:01:31+A*24:99     | A*02:25+A*24:02:27     |
| A*02:01:31+A*24:117    | A*02:296+A*24:02:27    |
| A*02:01:31+A*24:118    | A*02:361+A*24:02:27    |
| A*02:01:31+A*24:119    | A*02:158+A*24:02:27    |
| A*02:01:31+A*24:121    | A*02:64+A*24:02:27     |
| A*02:01:31+A*24:133    | A*02:182+A*24:02:27    |
| A*02:01:31+A*24:145    | A*02:20:01+A*24:02:27  |
| A*02:01:31+A*24:160    | A*02:262+A*24:02:27    |
| A*02:01:31+A*24:165    | A*02:353+A*24:02:27    |
| A*02:01:31+A*24:169    | A*02:119+A*24:02:27    |
| A*02:01:31+A*24:174    | A*02:188+A*24:02:27    |
| A*02:01:31+A*24:176    | A*02:16+A*24:02:27     |
| A*02:01:31+A*24:180    | A*02:16+A*24:02:27     |
| A*02:01:31+A*24:181    | A*02:236+A*24:02:27    |
| A*02:01:31+A*24:187    | A*02:111+A*24:02:27    |
| A*02:01:31+A*24:192    | A*02:312+A*24:02:27    |
| A*02:01:31+A*24:197    | A*02:85+A*24:02:27     |
| A*02:01:31+A*24:198    | A*02:203+A*24:02:27    |
| A*02:01:31+A*24:206    | A*02:362+A*24:02:27    |
| A*02:01:32+A*26:01:08  | A*02:01:71+A*26:01:26  |
| A*02:01:32+A*26:01:10  | A*02:01:45+A*26:01:26  |
| A*02:01:32+A*26:13     | A*02:34+A*26:01:26     |
| A*02:01:32+A*26:23     | A*02:284N+A*26:01:26   |
| A*02:01:32+A*26:27     | A*02:68+A*26:01:26     |
| A*02:01:32+A*26:41     | A*02:187+A*26:01:26    |
| A*02:01:32+A*26:47     | A*02:85+A*26:01:26     |
| A*02:01:32+A*26:49     | A*02:36+A*26:01:26     |
| A*02:01:32+A*26:50     | A*02:210+A*26:01:26    |
| A*02:01:32+A*26:52     | A*02:40:01+A*26:01:26  |
| A*02:01:32+A*26:63     | A*02:236+A*26:01:26    |
| A*02:01:32+A*26:70     | A*02:04+A*26:01:26     |
| A*02:01:32+A*26:75     | A*02:153+A*26:01:26    |
| A*02:01:35+A*03:01:15  | A*02:01:60+A*03:01:20  |
| A*02:01:35+A*03:01:23  | A*02:01:55+A*03:01:20  |
| A*02:01:35+A*03:01:26  | A*02:01:59+A*03:01:20  |
| A*02:01:35+A*03:01:28  | A*02:01:57+A*03:01:20  |
| A*02:01:35+A*03:01:29  | A*02:01:63+A*03:01:20  |
| A*02:01:35+A*03:04:01  | A*02:74:02+A*03:01:20  |
| A*02:01:35+A*03:04:02  | A*02:74:01+A*03:01:20  |
| A*02:01:35+A*03:12     | A*02:06:01G+A*03:01:20 |
| A*02:01:35+A*03:16     | A*02:341+A*03:01:20    |
| A*02:01:35+A*03:22:01  | A*02:174+A*03:01:20    |
| A*02:01:35+A*03:44     | A*02:16+A*03:01:20     |
| A*02:01:35+A*03:50     | A*02:22:01G+A*03:01:20 |
| A*02:01:35+A*03:54     | A*02:145+A*03:01:20    |
| A*02:01:35+A*03:59     | A*02:352+A*03:01:20    |
| A*02:01:35+A*03:63     | A*02:346+A*03:01:20    |
| A*02:01:35+A*03:65     | A*02:12+A*03:01:20     |
| A*02:01:35+A*03:66     | A*02:49+A*03:01:20     |
| A*02:01:35+A*03:69N    | A*02:226N+A*03:01:20   |
| A*02:01:35+A*03:72     | A*02:76:01+A*03:01:20  |
| A*02:01:35+A*03:79     | A*02:85+A*03:01:20     |
| A*02:01:35+A*03:84     | A*02:349+A*03:01:20    |
| A*02:01:35+A*03:87     | A*02:197+A*03:01:20    |
| A*02:01:35+A*03:93     | A*02:119+A*03:01:20    |
| A*02:01:35+A*03:94     | A*02:322+A*03:01:20    |
| A*02:01:35+A*03:97     | A*02:36+A*03:01:20     |
| A*02:01:35+A*03:101    | A*02:306+A*03:01:20    |
| A*02:01:35+A*03:104    | A*02:332+A*03:01:20    |
| A*02:01:35+A*03:105    | A*02:101:02+A*03:01:20 |
| A*02:01:35+A*03:126    | A*02:198+A*03:01:20    |
| A*02:01:35+A*03:128    | A*02:116+A*03:01:20    |
| A*02:01:35+A*03:136    | A*02:133+A*03:01:20    |
| A*02:01:35+A*03:150    | A*02:262+A*03:01:20    |
| A*02:01:35+A*24:02:12  | A*02:01:49+A*24:02:29  |
| A*02:01:35+A*24:02:15  | A*02:01:51+A*24:02:29  |
| A*02:01:35+A*24:02:17  | A*02:01:76+A*24:02:29  |
| A*02:01:35+A*24:02:25  | A*02:01:44+A*24:02:29  |
| A*02:01:35+A*24:02:26  | A*02:01:41+A*24:02:29  |
| A*02:01:35+A*24:02:32  | A*02:01:63+A*24:02:29  |
| A*02:01:35+A*24:02:36  | A*02:01:56+A*24:02:29  |
| A*02:01:35+A*24:02:50  | A*02:01:65+A*24:02:29  |
| A*02:01:35+A*24:02:53  | A*02:01:54+A*24:02:29  |
| A*02:01:35+A*24:02:54  | A*02:01:69+A*24:02:29  |
| A*02:01:35+A*24:05:01G | A*02:174+A*24:02:29    |
| A*02:01:35+A*24:07     | A*02:34+A*24:02:29     |
| A*02:01:35+A*24:17     | A*02:246+A*24:02:29    |
| A*02:01:35+A*24:21:01  | A*02:24:01+A*24:02:29  |
| A*02:01:35+A*24:25     | A*02:352+A*24:02:29    |
| A*02:01:35+A*24:46     | A*02:101:01+A*24:02:29 |
| A*02:01:35+A*24:47     | A*02:205+A*24:02:29    |
| A*02:01:35+A*24:55     | A*02:16:01G+A*24:02:29 |
| A*02:01:35+A*24:56     | A*02:26+A*24:02:29     |
| A*02:01:35+A*24:58     | A*02:107+A*24:02:29    |
| A*02:01:35+A*24:60N    | A*02:366N+A*24:02:29   |
| A*02:01:35+A*24:62     | A*02:80+A*24:02:29     |
| A*02:01:35+A*24:71     | A*02:40:01+A*24:02:29  |
| A*02:01:35+A*24:72     | A*02:145+A*24:02:29    |
| A*02:01:35+A*24:73     | A*02:147+A*24:02:29    |
| A*02:01:35+A*24:77     | A*02:217:02+A*24:02:29 |
| A*02:01:35+A*24:90N    | A*02:88N+A*24:02:29    |
| A*02:01:35+A*24:91     | A*02:68+A*24:02:29     |
| A*02:01:35+A*24:96     | A*02:254+A*24:02:29    |
| A*02:01:35+A*24:99     | A*02:25+A*24:02:29     |
| A*02:01:35+A*24:117    | A*02:296+A*24:02:29    |
| A*02:01:35+A*24:118    | A*02:361+A*24:02:29    |
| A*02:01:35+A*24:119    | A*02:158+A*24:02:29    |
| A*02:01:35+A*24:121    | A*02:64+A*24:02:29     |
| A*02:01:35+A*24:133    | A*02:182+A*24:02:29    |
| A*02:01:35+A*24:145    | A*02:20:01+A*24:02:29  |
| A*02:01:35+A*24:160    | A*02:262+A*24:02:29    |
| A*02:01:35+A*24:165    | A*02:353+A*24:02:29    |
| A*02:01:35+A*24:169    | A*02:119+A*24:02:29    |
| A*02:01:35+A*24:174    | A*02:188+A*24:02:29    |
| A*02:01:35+A*24:176    | A*02:16+A*24:02:29     |

|                        |                        |
|------------------------|------------------------|
| A*02:01:35+A*24:180    | A*02:16+A*24:02:29     |
| A*02:01:35+A*24:181    | A*02:236+A*24:02:29    |
| A*02:01:35+A*24:187    | A*02:111+A*24:02:29    |
| A*02:01:35+A*24:192    | A*02:312+A*24:02:29    |
| A*02:01:35+A*24:197    | A*02:85+A*24:02:29     |
| A*02:01:35+A*24:198    | A*02:203+A*24:02:29    |
| A*02:01:35+A*24:206    | A*02:362+A*24:02:29    |
| A*02:01:36+A*03:12     | A*02:79:02+A*03:123    |
| A*02:01:36+A*11:01:12  | A*02:01:45+A*11:01:07  |
| A*02:01:36+A*11:01:15  | A*02:01:69+A*11:01:07  |
| A*02:01:36+A*11:01:20  | A*02:01:66+A*11:01:07  |
| A*02:01:36+A*11:01:25  | A*02:01:54+A*11:01:07  |
| A*02:01:36+A*11:15:01  | A*02:202+A*11:01:07    |
| A*02:01:36+A*11:23     | A*02:182+A*11:01:07    |
| A*02:01:36+A*11:30     | A*02:197+A*11:01:07    |
| A*02:01:36+A*11:32     | A*02:121+A*11:01:07    |
| A*02:01:36+A*11:34     | A*02:153+A*11:01:07    |
| A*02:01:36+A*11:36     | A*02:07:01G+A*11:01:07 |
| A*02:01:36+A*11:39     | A*02:36+A*11:01:07     |
| A*02:01:36+A*11:41     | A*02:273+A*11:01:07    |
| A*02:01:36+A*11:48     | A*02:183+A*11:01:07    |
| A*02:01:36+A*11:72     | A*02:364+A*11:01:07    |
| A*02:01:36+A*11:79     | A*02:109+A*11:01:07    |
| A*02:01:36+A*11:82     | A*02:313+A*11:01:07    |
| A*02:01:36+A*11:87     | A*02:173+A*11:01:07    |
| A*02:01:36+A*11:96     | A*02:292+A*11:01:07    |
| A*02:01:36+A*11:111    | A*02:184+A*11:01:07    |
| A*02:01:36+A*11:112    | A*02:262+A*11:01:07    |
| A*02:01:36+A*11:123    | A*02:159+A*11:01:07    |
| A*02:01:36+A*11:125    | A*02:312+A*11:01:07    |
| A*02:01:36+A*11:128    | A*02:362+A*11:01:07    |
| A*02:01:36+A*68:01:03  | A*02:01:54+A*68:01:05  |
| A*02:01:36+A*68:21:02  | A*02:74:01+A*68:01:05  |
| A*02:01:36+A*68:35     | A*02:123+A*68:01:05    |
| A*02:01:36+A*68:42     | A*02:26+A*68:01:05     |
| A*02:01:36+A*68:58     | A*02:362+A*68:01:05    |
| A*02:01:36+A*68:72     | A*02:139+A*68:01:05    |
| A*02:01:38+A*23:02     | A*02:22:01G+A*23:01:02 |
| A*02:01:38+A*23:03:01  | A*02:24:02+A*23:01:02  |
| A*02:01:38+A*23:03:02  | A*02:24:01+A*23:01:02  |
| A*02:01:38+A*23:05     | A*02:352+A*23:01:02    |
| A*02:01:38+A*23:06     | A*02:257+A*23:01:02    |
| A*02:01:38+A*23:08N    | A*02:82N+A*23:01:02    |
| A*02:01:38+A*23:10     | A*02:101:01+A*23:01:02 |
| A*02:01:38+A*23:13     | A*02:34+A*23:01:02     |
| A*02:01:38+A*23:24     | A*02:145+A*23:01:02    |
| A*02:01:38+A*23:25     | A*02:74:02+A*23:01:02  |
| A*02:01:38+A*23:28     | A*02:217:02+A*23:01:02 |
| A*02:01:38+A*23:41     | A*02:221+A*23:01:02    |
| A*02:01:38+A*23:44     | A*02:187+A*23:01:02    |
| A*02:01:38+A*23:47     | A*02:121+A*23:01:02    |
| A*02:01:38+A*23:50     | A*02:109+A*23:01:02    |
| A*02:01:38+A*23:53     | A*02:246+A*23:01:02    |
| A*02:01:41+A*24:02:12  | A*02:01:49+A*24:02:26  |
| A*02:01:41+A*24:02:15  | A*02:01:51+A*24:02:26  |
| A*02:01:41+A*24:02:17  | A*02:01:76+A*24:02:26  |
| A*02:01:41+A*24:02:25  | A*02:01:44+A*24:02:26  |
| A*02:01:41+A*24:02:32  | A*02:01:63+A*24:02:26  |
| A*02:01:41+A*24:02:36  | A*02:01:56+A*24:02:26  |
| A*02:01:41+A*24:02:50  | A*02:01:65+A*24:02:26  |
| A*02:01:41+A*24:02:53  | A*02:01:54+A*24:02:26  |
| A*02:01:41+A*24:02:54  | A*02:01:69+A*24:02:26  |
| A*02:01:41+A*24:05:01G | A*02:174+A*24:02:26    |
| A*02:01:41+A*24:07     | A*02:34+A*24:02:26     |
| A*02:01:41+A*24:17     | A*02:246+A*24:02:26    |
| A*02:01:41+A*24:21:01  | A*02:24:01+A*24:02:26  |
| A*02:01:41+A*24:25     | A*02:352+A*24:02:26    |
| A*02:01:41+A*24:46     | A*02:101:01+A*24:02:26 |
| A*02:01:41+A*24:47     | A*02:205+A*24:02:26    |
| A*02:01:41+A*24:55     | A*02:16:01G+A*24:02:26 |
| A*02:01:41+A*24:56     | A*02:26+A*24:02:26     |
| A*02:01:41+A*24:58     | A*02:107+A*24:02:26    |
| A*02:01:41+A*24:60N    | A*02:366N+A*24:02:26   |
| A*02:01:41+A*24:62     | A*02:80+A*24:02:26     |
| A*02:01:41+A*24:71     | A*02:40:01+A*24:02:26  |
| A*02:01:41+A*24:72     | A*02:145+A*24:02:26    |
| A*02:01:41+A*24:73     | A*02:147+A*24:02:26    |
| A*02:01:41+A*24:77     | A*02:217:02+A*24:02:26 |
| A*02:01:41+A*24:90N    | A*02:88N+A*24:02:26    |
| A*02:01:41+A*24:91     | A*02:68+A*24:02:26     |
| A*02:01:41+A*24:96     | A*02:254+A*24:02:26    |
| A*02:01:41+A*24:99     | A*02:25+A*24:02:26     |
| A*02:01:41+A*24:117    | A*02:296+A*24:02:26    |
| A*02:01:41+A*24:118    | A*02:361+A*24:02:26    |
| A*02:01:41+A*24:119    | A*02:158+A*24:02:26    |
| A*02:01:41+A*24:121    | A*02:64+A*24:02:26     |
| A*02:01:41+A*24:133    | A*02:182+A*24:02:26    |
| A*02:01:41+A*24:145    | A*02:20:01+A*24:02:26  |
| A*02:01:41+A*24:160    | A*02:262+A*24:02:26    |
| A*02:01:41+A*24:165    | A*02:353+A*24:02:26    |
| A*02:01:41+A*24:169    | A*02:119+A*24:02:26    |
| A*02:01:41+A*24:174    | A*02:188+A*24:02:26    |
| A*02:01:41+A*24:176    | A*02:16+A*24:02:26     |
| A*02:01:41+A*24:180    | A*02:16+A*24:02:26     |
| A*02:01:41+A*24:181    | A*02:236+A*24:02:26    |
| A*02:01:41+A*24:187    | A*02:111+A*24:02:26    |
| A*02:01:41+A*24:192    | A*02:312+A*24:02:26    |
| A*02:01:41+A*24:197    | A*02:85+A*24:02:26     |
| A*02:01:41+A*24:198    | A*02:203+A*24:02:26    |
| A*02:01:41+A*24:206    | A*02:362+A*24:02:26    |
| A*02:01:43+A*25:02     | A*02:34+A*25:01:04     |
| A*02:01:43+A*25:08     | A*02:85+A*25:01:04     |
| A*02:01:43+A*25:15     | A*02:70+A*25:01:04     |
| A*02:01:44+A*24:02:12  | A*02:01:49+A*24:02:25  |
| A*02:01:44+A*24:02:15  | A*02:01:51+A*24:02:25  |

|                        |                        |
|------------------------|------------------------|
| A*02:01:44+A*24:02:17  | A*02:01:76+A*24:02:25  |
| A*02:01:44+A*24:02:32  | A*02:01:63+A*24:02:25  |
| A*02:01:44+A*24:02:36  | A*02:01:56+A*24:02:25  |
| A*02:01:44+A*24:02:50  | A*02:01:65+A*24:02:25  |
| A*02:01:44+A*24:02:53  | A*02:01:54+A*24:02:25  |
| A*02:01:44+A*24:02:54  | A*02:01:69+A*24:02:25  |
| A*02:01:44+A*24:05:01G | A*02:174+A*24:02:25    |
| A*02:01:44+A*24:07     | A*02:34+A*24:02:25     |
| A*02:01:44+A*24:17     | A*02:246+A*24:02:25    |
| A*02:01:44+A*24:21:01  | A*02:24:01+A*24:02:25  |
| A*02:01:44+A*24:25     | A*02:352+A*24:02:25    |
| A*02:01:44+A*24:46     | A*02:101:01+A*24:02:25 |
| A*02:01:44+A*24:47     | A*02:205+A*24:02:25    |
| A*02:01:44+A*24:55     | A*02:16:01G+A*24:02:25 |
| A*02:01:44+A*24:56     | A*02:26+A*24:02:25     |
| A*02:01:44+A*24:58     | A*02:107+A*24:02:25    |
| A*02:01:44+A*24:60N    | A*02:366N+A*24:02:25   |
| A*02:01:44+A*24:62     | A*02:80+A*24:02:25     |
| A*02:01:44+A*24:71     | A*02:40:01+A*24:02:25  |
| A*02:01:44+A*24:72     | A*02:145+A*24:02:25    |
| A*02:01:44+A*24:73     | A*02:147+A*24:02:25    |
| A*02:01:44+A*24:77     | A*02:217:02+A*24:02:25 |
| A*02:01:44+A*24:90N    | A*02:88N+A*24:02:25    |
| A*02:01:44+A*24:91     | A*02:68+A*24:02:25     |
| A*02:01:44+A*24:96     | A*02:254+A*24:02:25    |
| A*02:01:44+A*24:99     | A*02:25+A*24:02:25     |
| A*02:01:44+A*24:117    | A*02:296+A*24:02:25    |
| A*02:01:44+A*24:118    | A*02:361+A*24:02:25    |
| A*02:01:44+A*24:119    | A*02:158+A*24:02:25    |
| A*02:01:44+A*24:121    | A*02:64+A*24:02:25     |
| A*02:01:44+A*24:133    | A*02:182+A*24:02:25    |
| A*02:01:44+A*24:145    | A*02:20:01+A*24:02:25  |
| A*02:01:44+A*24:160    | A*02:262+A*24:02:25    |
| A*02:01:44+A*24:165    | A*02:353+A*24:02:25    |
| A*02:01:44+A*24:169    | A*02:119+A*24:02:25    |
| A*02:01:44+A*24:174    | A*02:188+A*24:02:25    |
| A*02:01:44+A*24:176    | A*02:16+A*24:02:25     |
| A*02:01:44+A*24:180    | A*02:16+A*24:02:25     |
| A*02:01:44+A*24:181    | A*02:236+A*24:02:25    |
| A*02:01:44+A*24:187    | A*02:111+A*24:02:25    |
| A*02:01:44+A*24:192    | A*02:312+A*24:02:25    |
| A*02:01:44+A*24:197    | A*02:85+A*24:02:25     |
| A*02:01:44+A*24:198    | A*02:203+A*24:02:25    |
| A*02:01:44+A*24:206    | A*02:362+A*24:02:25    |
| A*02:01:45+A*11:01:15  | A*02:01:69+A*11:01:12  |
| A*02:01:45+A*11:01:20  | A*02:01:66+A*11:01:12  |
| A*02:01:45+A*11:01:25  | A*02:01:54+A*11:01:12  |
| A*02:01:45+A*11:15:01  | A*02:202+A*11:01:12    |
| A*02:01:45+A*11:23     | A*02:182+A*11:01:12    |
| A*02:01:45+A*11:30     | A*02:197+A*11:01:12    |
| A*02:01:45+A*11:32     | A*02:121+A*11:01:12    |
| A*02:01:45+A*11:33:02  | A*02:174+A*11:01:12    |
| A*02:01:45+A*11:34     | A*02:153+A*11:01:12    |
| A*02:01:45+A*11:36     | A*02:07:01G+A*11:01:12 |
| A*02:01:45+A*11:39     | A*02:36+A*11:01:12     |
| A*02:01:45+A*11:41     | A*02:273+A*11:01:12    |
| A*02:01:45+A*11:48     | A*02:183+A*11:01:12    |
| A*02:01:45+A*11:72     | A*02:364+A*11:01:12    |
| A*02:01:45+A*11:79     | A*02:109+A*11:01:12    |
| A*02:01:45+A*11:82     | A*02:313+A*11:01:12    |
| A*02:01:45+A*11:87     | A*02:173+A*11:01:12    |
| A*02:01:45+A*11:96     | A*02:292+A*11:01:12    |
| A*02:01:45+A*11:111    | A*02:184+A*11:01:12    |
| A*02:01:45+A*11:112    | A*02:262+A*11:01:12    |
| A*02:01:45+A*11:123    | A*02:159+A*11:01:12    |
| A*02:01:45+A*11:125    | A*02:312+A*11:01:12    |
| A*02:01:45+A*11:128    | A*02:362+A*11:01:12    |
| A*02:01:45+A*26:01:08  | A*02:01:71+A*26:01:10  |
| A*02:01:45+A*26:13     | A*02:34+A*26:01:10     |
| A*02:01:45+A*26:23     | A*02:284N+A*26:01:10   |
| A*02:01:45+A*26:27     | A*02:68+A*26:01:10     |
| A*02:01:45+A*26:41     | A*02:187+A*26:01:10    |
| A*02:01:45+A*26:47     | A*02:85+A*26:01:10     |
| A*02:01:45+A*26:49     | A*02:36+A*26:01:10     |
| A*02:01:45+A*26:50     | A*02:210+A*26:01:10    |
| A*02:01:45+A*26:52     | A*02:40:01+A*26:01:10  |
| A*02:01:45+A*26:63     | A*02:236+A*26:01:10    |
| A*02:01:45+A*26:70     | A*02:04+A*26:01:10     |
| A*02:01:45+A*26:75     | A*02:153+A*26:01:10    |
| A*02:01:49+A*02:05:01G | A*02:02+A*02:06:02     |
| A*02:01:49+A*02:06:12  | A*02:01:52+A*02:06:02  |
| A*02:01:49+A*02:10     | A*02:06:02+A*02:242    |
| A*02:01:49+A*02:41     | A*02:06:02+A*02:289    |
| A*02:01:49+A*02:51     | A*02:06:02+A*02:40:01  |
| A*02:01:49+A*02:54     | A*02:06:02+A*02:37     |
| A*02:01:49+A*02:72     | A*02:06:02+A*02:275    |
| A*02:01:49+A*02:79:01  | A*02:06:02+A*02:86     |
| A*02:01:49+A*02:91     | A*02:06:02+A*02:322    |
| A*02:01:49+A*02:99     | A*02:06:02+A*02:26     |
| A*02:01:49+A*02:106    | A*02:06:02+A*02:145    |
| A*02:01:49+A*02:108    | A*02:06:02+A*02:17:01G |
| A*02:01:49+A*02:122    | A*02:06:02+A*02:50     |
| A*02:01:49+A*02:127    | A*02:06:02+A*02:16     |
| A*02:01:49+A*02:137    | A*02:06:02+A*02:24:01  |
| A*02:01:49+A*02:142    | A*02:06:02+A*02:12     |
| A*02:01:49+A*02:144    | A*02:06:02+A*02:205    |
| A*02:01:49+A*02:16     | A*02:06:02+A*02:195    |
| A*02:01:49+A*02:170    | A*02:06:02+A*02:364    |
| A*02:01:49+A*02:178    | A*02:06:02+A*02:64     |
| A*02:01:49+A*02:295    | A*02:06:02+A*02:123    |
| A*02:01:49+A*02:300    | A*02:06:02+A*02:110    |
| A*02:01:49+A*02:310    | A*02:06:02+A*02:42     |
| A*02:01:49+A*02:328    | A*02:06:02+A*02:273    |
| A*02:01:49+A*02:331    | A*02:06:02+A*02:90     |
| A*02:01:49+A*02:355    | A*02:03:01G+A*02:06:02 |

|                        |                        |
|------------------------|------------------------|
| A*02:01:49+A*02:358    | A*02:06:02+A*02:92     |
| A*02:01:49+A*03:12     | A*02:06:02+A*03:01:01G |
| A*02:01:49+A*24:02:15  | A*02:01:51+A*24:02:12  |
| A*02:01:49+A*24:02:17  | A*02:01:76+A*24:02:12  |
| A*02:01:49+A*24:02:32  | A*02:01:63+A*24:02:12  |
| A*02:01:49+A*24:02:36  | A*02:01:56+A*24:02:12  |
| A*02:01:49+A*24:02:50  | A*02:01:65+A*24:02:12  |
| A*02:01:49+A*24:02:53  | A*02:01:54+A*24:02:12  |
| A*02:01:49+A*24:02:54  | A*02:01:69+A*24:02:12  |
| A*02:01:49+A*24:05:01G | A*02:174+A*24:02:12    |
| A*02:01:49+A*24:07     | A*02:34+A*24:02:12     |
| A*02:01:49+A*24:17     | A*02:246+A*24:02:12    |
| A*02:01:49+A*24:21:01  | A*02:24:01+A*24:02:12  |
| A*02:01:49+A*24:25     | A*02:352+A*24:02:12    |
| A*02:01:49+A*24:46     | A*02:101:01+A*24:02:12 |
| A*02:01:49+A*24:47     | A*02:205+A*24:02:12    |
| A*02:01:49+A*24:50     | A*02:06:02+A*24:104    |
| A*02:01:49+A*24:55     | A*02:16:01G+A*24:02:12 |
| A*02:01:49+A*24:56     | A*02:26+A*24:02:12     |
| A*02:01:49+A*24:58     | A*02:107+A*24:02:12    |
| A*02:01:49+A*24:60N    | A*02:366N+A*24:02:12   |
| A*02:01:49+A*24:62     | A*02:80+A*24:02:12     |
| A*02:01:49+A*24:71     | A*02:40:01+A*24:02:12  |
| A*02:01:49+A*24:72     | A*02:145+A*24:02:12    |
| A*02:01:49+A*24:73     | A*02:147+A*24:02:12    |
| A*02:01:49+A*24:77     | A*02:217:02+A*24:02:12 |
| A*02:01:49+A*24:90N    | A*02:88N+A*24:02:12    |
| A*02:01:49+A*24:91     | A*02:68+A*24:02:12     |
| A*02:01:49+A*24:96     | A*02:254+A*24:02:12    |
| A*02:01:49+A*24:99     | A*02:25+A*24:02:12     |
| A*02:01:49+A*24:117    | A*02:296+A*24:02:12    |
| A*02:01:49+A*24:118    | A*02:361+A*24:02:12    |
| A*02:01:49+A*24:119    | A*02:158+A*24:02:12    |
| A*02:01:49+A*24:121    | A*02:64+A*24:02:12     |
| A*02:01:49+A*24:133    | A*02:182+A*24:02:12    |
| A*02:01:49+A*24:145    | A*02:20:01+A*24:02:12  |
| A*02:01:49+A*24:160    | A*02:262+A*24:02:12    |
| A*02:01:49+A*24:165    | A*02:353+A*24:02:12    |
| A*02:01:49+A*24:169    | A*02:119+A*24:02:12    |
| A*02:01:49+A*24:174    | A*02:188+A*24:02:12    |
| A*02:01:49+A*24:176    | A*02:16+A*24:02:12     |
| A*02:01:49+A*24:180    | A*02:16+A*24:02:12     |
| A*02:01:49+A*24:181    | A*02:236+A*24:02:12    |
| A*02:01:49+A*24:187    | A*02:111+A*24:02:12    |
| A*02:01:49+A*24:192    | A*02:312+A*24:02:12    |
| A*02:01:49+A*24:197    | A*02:85+A*24:02:12     |
| A*02:01:49+A*24:198    | A*02:203+A*24:02:12    |
| A*02:01:49+A*24:206    | A*02:362+A*24:02:12    |
| A*02:01:49+A*25:01:01G | A*02:06:02+A*25:03     |
| A*02:01:49+A*31:01:14  | A*02:01:66+A*31:01:06  |
| A*02:01:49+A*31:05     | A*02:36+A*31:01:06     |
| A*02:01:49+A*31:11     | A*02:202+A*31:01:06    |
| A*02:01:49+A*31:13     | A*02:251+A*31:01:06    |
| A*02:01:49+A*31:15     | A*02:351+A*31:01:06    |
| A*02:01:49+A*31:16     | A*02:107+A*31:01:06    |
| A*02:01:49+A*31:25     | A*02:101:02+A*31:01:06 |
| A*02:01:49+A*31:28     | A*02:139+A*31:01:06    |
| A*02:01:49+A*31:30     | A*02:22:01G+A*31:01:06 |
| A*02:01:49+A*31:31     | A*02:275+A*31:01:06    |
| A*02:01:49+A*31:36     | A*02:257+A*31:01:06    |
| A*02:01:49+A*31:40     | A*02:133+A*31:01:06    |
| A*02:01:49+A*31:45     | A*02:16+A*31:01:06     |
| A*02:01:49+A*31:50     | A*02:307+A*31:01:06    |
| A*02:01:49+A*31:51     | A*02:121+A*31:01:06    |
| A*02:01:49+A*31:63     | A*02:273+A*31:01:06    |
| A*02:01:49+A*31:64     | A*02:157+A*31:01:06    |
| A*02:01:49+A*34:02:01  | A*02:06:02+A*34:08     |
| A*02:01:49+A*68:01:01G | A*02:06:02+A*68:71     |
| A*02:01:51+A*24:02:17  | A*02:01:76+A*24:02:15  |
| A*02:01:51+A*24:02:32  | A*02:01:63+A*24:02:15  |
| A*02:01:51+A*24:02:36  | A*02:01:56+A*24:02:15  |
| A*02:01:51+A*24:02:50  | A*02:01:65+A*24:02:15  |
| A*02:01:51+A*24:02:53  | A*02:01:54+A*24:02:15  |
| A*02:01:51+A*24:02:54  | A*02:01:69+A*24:02:15  |
| A*02:01:51+A*24:05:01G | A*02:174+A*24:02:15    |
| A*02:01:51+A*24:07     | A*02:34+A*24:02:15     |
| A*02:01:51+A*24:17     | A*02:246+A*24:02:15    |
| A*02:01:51+A*24:21:01  | A*02:24:01+A*24:02:15  |
| A*02:01:51+A*24:25     | A*02:352+A*24:02:15    |
| A*02:01:51+A*24:46     | A*02:101:01+A*24:02:15 |
| A*02:01:51+A*24:47     | A*02:205+A*24:02:15    |
| A*02:01:51+A*24:55     | A*02:16:01G+A*24:02:15 |
| A*02:01:51+A*24:56     | A*02:26+A*24:02:15     |
| A*02:01:51+A*24:58     | A*02:107+A*24:02:15    |
| A*02:01:51+A*24:60N    | A*02:366N+A*24:02:15   |
| A*02:01:51+A*24:62     | A*02:80+A*24:02:15     |
| A*02:01:51+A*24:71     | A*02:40:01+A*24:02:15  |
| A*02:01:51+A*24:72     | A*02:145+A*24:02:15    |
| A*02:01:51+A*24:73     | A*02:147+A*24:02:15    |
| A*02:01:51+A*24:77     | A*02:217:02+A*24:02:15 |
| A*02:01:51+A*24:90N    | A*02:88N+A*24:02:15    |
| A*02:01:51+A*24:91     | A*02:68+A*24:02:15     |
| A*02:01:51+A*24:96     | A*02:254+A*24:02:15    |
| A*02:01:51+A*24:99     | A*02:25+A*24:02:15     |
| A*02:01:51+A*24:117    | A*02:296+A*24:02:15    |
| A*02:01:51+A*24:118    | A*02:361+A*24:02:15    |
| A*02:01:51+A*24:119    | A*02:158+A*24:02:15    |
| A*02:01:51+A*24:121    | A*02:64+A*24:02:15     |
| A*02:01:51+A*24:133    | A*02:182+A*24:02:15    |
| A*02:01:51+A*24:145    | A*02:20:01+A*24:02:15  |
| A*02:01:51+A*24:160    | A*02:262+A*24:02:15    |
| A*02:01:51+A*24:165    | A*02:353+A*24:02:15    |
| A*02:01:51+A*24:169    | A*02:119+A*24:02:15    |
| A*02:01:51+A*24:174    | A*02:188+A*24:02:15    |
| A*02:01:51+A*24:176    | A*02:16+A*24:02:15     |

|                        |                        |                     |
|------------------------|------------------------|---------------------|
| A*02:01:51+A*24:180    | A*02:16+A*24:02:15     |                     |
| A*02:01:51+A*24:181    | A*02:236+A*24:02:15    |                     |
| A*02:01:51+A*24:187    | A*02:111+A*24:02:15    |                     |
| A*02:01:51+A*24:192    | A*02:312+A*24:02:15    |                     |
| A*02:01:51+A*24:197    | A*02:85+A*24:02:15     |                     |
| A*02:01:51+A*24:198    | A*02:203+A*24:02:15    |                     |
| A*02:01:51+A*24:206    | A*02:362+A*24:02:15    |                     |
| A*02:01:52+A*02:05:02  | A*02:01:72+A*02:05:03  |                     |
| A*02:01:52+A*02:08     | A*02:05:03+A*02:20:01  |                     |
| A*02:01:52+A*02:10     | A*02:06:12+A*02:242    |                     |
| A*02:01:52+A*02:41     | A*02:06:12+A*02:289    |                     |
| A*02:01:52+A*02:51     | A*02:06:12+A*02:40:01  |                     |
| A*02:01:52+A*02:54     | A*02:06:12+A*02:37     |                     |
| A*02:01:52+A*02:72     | A*02:06:12+A*02:275    |                     |
| A*02:01:52+A*02:78     | A*02:35:01+A*02:16     | A*02:56:02+A*02:331 |
| A*02:01:52+A*02:79:01  | A*02:06:12+A*02:86     |                     |
| A*02:01:52+A*02:91     | A*02:06:12+A*02:322    |                     |
| A*02:01:52+A*02:99     | A*02:06:12+A*02:26     |                     |
| A*02:01:52+A*02:106    | A*02:06:12+A*02:145    |                     |
| A*02:01:52+A*02:108    | A*02:06:12+A*02:17:01G |                     |
| A*02:01:52+A*02:122    | A*02:06:12+A*02:50     |                     |
| A*02:01:52+A*02:127    | A*02:06:12+A*02:16     |                     |
| A*02:01:52+A*02:137    | A*02:06:12+A*02:24:01  |                     |
| A*02:01:52+A*02:142    | A*02:06:12+A*02:12     |                     |
| A*02:01:52+A*02:144    | A*02:06:12+A*02:205    |                     |
| A*02:01:52+A*02:154    | A*02:05:03+A*02:101:01 |                     |
| A*02:01:52+A*02:16     | A*02:06:12+A*02:195    |                     |
| A*02:01:52+A*02:170    | A*02:06:12+A*02:364    |                     |
| A*02:01:52+A*02:178    | A*02:06:12+A*02:64     |                     |
| A*02:01:52+A*02:295    | A*02:06:12+A*02:123    |                     |
| A*02:01:52+A*02:300    | A*02:06:12+A*02:110    |                     |
| A*02:01:52+A*02:310    | A*02:06:12+A*02:42     |                     |
| A*02:01:52+A*02:328    | A*02:06:12+A*02:273    |                     |
| A*02:01:52+A*02:331    | A*02:06:12+A*02:90     |                     |
| A*02:01:52+A*02:355    | A*02:03:01G+A*02:06:12 |                     |
| A*02:01:52+A*02:358    | A*02:06:12+A*02:92     |                     |
| A*02:01:52+A*03:01:01G | A*02:35:02+A*03:108    | A*02:195+A*03:23:02 |
| A*02:01:52+A*03:12     | A*02:06:12+A*03:01:01G | A*02:16+A*03:23:02  |
| A*02:01:52+A*03:24     | A*02:55+A*03:23:02     |                     |
| A*02:01:52+A*11:12     | A*02:35:02+A*11:18     |                     |
| A*02:01:52+A*23:13     | A*02:35:02+A*23:12     |                     |
| A*02:01:52+A*24:02:01G | A*02:48+A*24:42        |                     |
| A*02:01:52+A*24:07     | A*02:35:02+A*24:30     |                     |
| A*02:01:52+A*24:50     | A*02:06:12+A*24:104    |                     |
| A*02:01:52+A*24:124    | A*02:185+A*24:02:01G   |                     |
| A*02:01:52+A*25:01:01G | A*02:06:12+A*25:03     |                     |
| A*02:01:52+A*25:02     | A*02:35:02+A*25:11     |                     |
| A*02:01:52+A*26:01:01G | A*02:55+A*26:07:01     |                     |
| A*02:01:52+A*26:13     | A*02:35:02+A*26:36     |                     |
| A*02:01:52+A*30:01:01G | A*02:35:02+A*30:44     | A*02:185+A*30:11:01 |
| A*02:01:52+A*30:02:01G | A*02:185+A*30:03       |                     |
| A*02:01:52+A*30:17     | A*02:35:02+A*30:46     |                     |
| A*02:01:52+A*32:17     | A*02:35:02+A*32:08     |                     |
| A*02:01:52+A*34:02:01  | A*02:06:12+A*34:08     |                     |
| A*02:01:52+A*66:01:01G | A*02:35:02+A*26:03:01  |                     |
| A*02:01:52+A*66:12     | A*02:35:02+A*26:30     |                     |
| A*02:01:52+A*68:01:01G | A*02:06:12+A*68:71     |                     |
| A*02:01:52+A*68:01:02G | A*02:35:02+A*68:05     |                     |
| A*02:01:52+A*68:02:01G | A*02:35:02+A*68:15     |                     |
| A*02:01:52+A*68:15     | A*02:55+A*02:122       |                     |
| A*02:01:52+A*74:13     | A*02:35:02+A*74:06     |                     |
| A*02:01:54+A*11:01:15  | A*02:01:69+A*11:01:25  |                     |
| A*02:01:54+A*11:01:20  | A*02:01:66+A*11:01:25  |                     |
| A*02:01:54+A*11:15:01  | A*02:202+A*11:01:25    |                     |
| A*02:01:54+A*11:23     | A*02:182+A*11:01:25    |                     |
| A*02:01:54+A*11:30     | A*02:197+A*11:01:25    |                     |
| A*02:01:54+A*11:32     | A*02:121+A*11:01:25    |                     |
| A*02:01:54+A*11:33:02  | A*02:174+A*11:01:25    |                     |
| A*02:01:54+A*11:34     | A*02:153+A*11:01:25    |                     |
| A*02:01:54+A*11:36     | A*02:07:01G+A*11:01:25 |                     |
| A*02:01:54+A*11:39     | A*02:36+A*11:01:25     |                     |
| A*02:01:54+A*11:41     | A*02:273+A*11:01:25    |                     |
| A*02:01:54+A*11:48     | A*02:183+A*11:01:25    |                     |
| A*02:01:54+A*11:72     | A*02:364+A*11:01:25    |                     |
| A*02:01:54+A*11:79     | A*02:109+A*11:01:25    |                     |
| A*02:01:54+A*11:82     | A*02:313+A*11:01:25    |                     |
| A*02:01:54+A*11:87     | A*02:173+A*11:01:25    |                     |
| A*02:01:54+A*11:96     | A*02:292+A*11:01:25    |                     |
| A*02:01:54+A*11:111    | A*02:184+A*11:01:25    |                     |
| A*02:01:54+A*11:112    | A*02:262+A*11:01:25    |                     |
| A*02:01:54+A*11:123    | A*02:159+A*11:01:25    |                     |
| A*02:01:54+A*11:125    | A*02:312+A*11:01:25    |                     |
| A*02:01:54+A*11:128    | A*02:362+A*11:01:25    |                     |
| A*02:01:54+A*24:02:17  | A*02:01:76+A*24:02:53  |                     |
| A*02:01:54+A*24:02:32  | A*02:01:63+A*24:02:53  |                     |
| A*02:01:54+A*24:02:36  | A*02:01:56+A*24:02:53  |                     |
| A*02:01:54+A*24:02:50  | A*02:01:65+A*24:02:53  |                     |
| A*02:01:54+A*24:02:54  | A*02:01:69+A*24:02:53  |                     |
| A*02:01:54+A*24:05:01G | A*02:174+A*24:02:53    |                     |
| A*02:01:54+A*24:07     | A*02:34+A*24:02:53     |                     |
| A*02:01:54+A*24:17     | A*02:246+A*24:02:53    |                     |
| A*02:01:54+A*24:21:01  | A*02:24:01+A*24:02:53  |                     |
| A*02:01:54+A*24:25     | A*02:352+A*24:02:53    |                     |
| A*02:01:54+A*24:46     | A*02:101:01+A*24:02:53 |                     |
| A*02:01:54+A*24:47     | A*02:205+A*24:02:53    |                     |
| A*02:01:54+A*24:55     | A*02:16:01G+A*24:02:53 |                     |
| A*02:01:54+A*24:56     | A*02:26+A*24:02:53     |                     |
| A*02:01:54+A*24:58     | A*02:107+A*24:02:53    |                     |
| A*02:01:54+A*24:60N    | A*02:366N+A*24:02:53   |                     |
| A*02:01:54+A*24:62     | A*02:80+A*24:02:53     |                     |
| A*02:01:54+A*24:71     | A*02:40:01+A*24:02:53  |                     |
| A*02:01:54+A*24:72     | A*02:145+A*24:02:53    |                     |
| A*02:01:54+A*24:73     | A*02:147+A*24:02:53    |                     |
| A*02:01:54+A*24:77     | A*02:217:02+A*24:02:53 |                     |
| A*02:01:54+A*24:90N    | A*02:88N+A*24:02:53    |                     |



|                        |                        |
|------------------------|------------------------|
| A*02:01:54+A*24:91     | A*02:68+A*24:02:53     |
| A*02:01:54+A*24:96     | A*02:254+A*24:02:53    |
| A*02:01:54+A*24:99     | A*02:25+A*24:02:53     |
| A*02:01:54+A*24:117    | A*02:296+A*24:02:53    |
| A*02:01:54+A*24:118    | A*02:361+A*24:02:53    |
| A*02:01:54+A*24:119    | A*02:158+A*24:02:53    |
| A*02:01:54+A*24:121    | A*02:64+A*24:02:53     |
| A*02:01:54+A*24:133    | A*02:182+A*24:02:53    |
| A*02:01:54+A*24:145    | A*02:20:01+A*24:02:53  |
| A*02:01:54+A*24:160    | A*02:262+A*24:02:53    |
| A*02:01:54+A*24:165    | A*02:353+A*24:02:53    |
| A*02:01:54+A*24:169    | A*02:119+A*24:02:53    |
| A*02:01:54+A*24:174    | A*02:188+A*24:02:53    |
| A*02:01:54+A*24:176    | A*02:16+A*24:02:53     |
| A*02:01:54+A*24:180    | A*02:16+A*24:02:53     |
| A*02:01:54+A*24:181    | A*02:236+A*24:02:53    |
| A*02:01:54+A*24:187    | A*02:111+A*24:02:53    |
| A*02:01:54+A*24:192    | A*02:312+A*24:02:53    |
| A*02:01:54+A*24:197    | A*02:85+A*24:02:53     |
| A*02:01:54+A*24:198    | A*02:203+A*24:02:53    |
| A*02:01:54+A*24:206    | A*02:362+A*24:02:53    |
| A*02:01:54+A*68:21:02  | A*02:74:01+A*68:01:03  |
| A*02:01:54+A*68:35     | A*02:123+A*68:01:03    |
| A*02:01:54+A*68:42     | A*02:26+A*68:01:03     |
| A*02:01:54+A*68:58     | A*02:362+A*68:01:03    |
| A*02:01:54+A*68:72     | A*02:139+A*68:01:03    |
| A*02:01:55+A*03:01:15  | A*02:01:60+A*03:01:23  |
| A*02:01:55+A*03:01:26  | A*02:01:59+A*03:01:23  |
| A*02:01:55+A*03:01:28  | A*02:01:57+A*03:01:23  |
| A*02:01:55+A*03:01:29  | A*02:01:63+A*03:01:23  |
| A*02:01:55+A*03:04:01  | A*02:74:02+A*03:01:23  |
| A*02:01:55+A*03:04:02  | A*02:74:01+A*03:01:23  |
| A*02:01:55+A*03:12     | A*02:06:01G+A*03:01:23 |
| A*02:01:55+A*03:16     | A*02:341+A*03:01:23    |
| A*02:01:55+A*03:22:01  | A*02:174+A*03:01:23    |
| A*02:01:55+A*03:44     | A*02:16+A*03:01:23     |
| A*02:01:55+A*03:50     | A*02:22:01G+A*03:01:23 |
| A*02:01:55+A*03:54     | A*02:145+A*03:01:23    |
| A*02:01:55+A*03:59     | A*02:352+A*03:01:23    |
| A*02:01:55+A*03:63     | A*02:346+A*03:01:23    |
| A*02:01:55+A*03:65     | A*02:12+A*03:01:23     |
| A*02:01:55+A*03:66     | A*02:49+A*03:01:23     |
| A*02:01:55+A*03:69N    | A*02:226N+A*03:01:23   |
| A*02:01:55+A*03:72     | A*02:76:01+A*03:01:23  |
| A*02:01:55+A*03:79     | A*02:85+A*03:01:23     |
| A*02:01:55+A*03:84     | A*02:349+A*03:01:23    |
| A*02:01:55+A*03:87     | A*02:197+A*03:01:23    |
| A*02:01:55+A*03:93     | A*02:119+A*03:01:23    |
| A*02:01:55+A*03:94     | A*02:322+A*03:01:23    |
| A*02:01:55+A*03:97     | A*02:36+A*03:01:23     |
| A*02:01:55+A*03:101    | A*02:306+A*03:01:23    |
| A*02:01:55+A*03:104    | A*02:332+A*03:01:23    |
| A*02:01:55+A*03:105    | A*02:101:02+A*03:01:23 |
| A*02:01:55+A*03:126    | A*02:198+A*03:01:23    |
| A*02:01:55+A*03:128    | A*02:116+A*03:01:23    |
| A*02:01:55+A*03:136    | A*02:133+A*03:01:23    |
| A*02:01:55+A*03:150    | A*02:262+A*03:01:23    |
| A*02:01:56+A*24:02:17  | A*02:01:76+A*24:02:36  |
| A*02:01:56+A*24:02:32  | A*02:01:63+A*24:02:36  |
| A*02:01:56+A*24:02:50  | A*02:01:65+A*24:02:36  |
| A*02:01:56+A*24:02:54  | A*02:01:69+A*24:02:36  |
| A*02:01:56+A*24:05:01G | A*02:174+A*24:02:36    |
| A*02:01:56+A*24:07     | A*02:34+A*24:02:36     |
| A*02:01:56+A*24:17     | A*02:246+A*24:02:36    |
| A*02:01:56+A*24:21:01  | A*02:24:01+A*24:02:36  |
| A*02:01:56+A*24:25     | A*02:352+A*24:02:36    |
| A*02:01:56+A*24:46     | A*02:101:01+A*24:02:36 |
| A*02:01:56+A*24:47     | A*02:205+A*24:02:36    |
| A*02:01:56+A*24:55     | A*02:16:01G+A*24:02:36 |
| A*02:01:56+A*24:56     | A*02:26+A*24:02:36     |
| A*02:01:56+A*24:58     | A*02:107+A*24:02:36    |
| A*02:01:56+A*24:60N    | A*02:366N+A*24:02:36   |
| A*02:01:56+A*24:62     | A*02:80+A*24:02:36     |
| A*02:01:56+A*24:71     | A*02:40:01+A*24:02:36  |
| A*02:01:56+A*24:72     | A*02:145+A*24:02:36    |
| A*02:01:56+A*24:73     | A*02:147+A*24:02:36    |
| A*02:01:56+A*24:77     | A*02:217:02+A*24:02:36 |
| A*02:01:56+A*24:90N    | A*02:88N+A*24:02:36    |
| A*02:01:56+A*24:91     | A*02:68+A*24:02:36     |
| A*02:01:56+A*24:96     | A*02:254+A*24:02:36    |
| A*02:01:56+A*24:99     | A*02:25+A*24:02:36     |
| A*02:01:56+A*24:117    | A*02:296+A*24:02:36    |
| A*02:01:56+A*24:118    | A*02:361+A*24:02:36    |
| A*02:01:56+A*24:119    | A*02:158+A*24:02:36    |
| A*02:01:56+A*24:121    | A*02:64+A*24:02:36     |
| A*02:01:56+A*24:133    | A*02:182+A*24:02:36    |
| A*02:01:56+A*24:145    | A*02:20:01+A*24:02:36  |
| A*02:01:56+A*24:160    | A*02:262+A*24:02:36    |
| A*02:01:56+A*24:165    | A*02:353+A*24:02:36    |
| A*02:01:56+A*24:169    | A*02:119+A*24:02:36    |
| A*02:01:56+A*24:174    | A*02:188+A*24:02:36    |
| A*02:01:56+A*24:176    | A*02:16+A*24:02:36     |
| A*02:01:56+A*24:180    | A*02:16+A*24:02:36     |
| A*02:01:56+A*24:181    | A*02:236+A*24:02:36    |
| A*02:01:56+A*24:187    | A*02:111+A*24:02:36    |
| A*02:01:56+A*24:192    | A*02:312+A*24:02:36    |
| A*02:01:56+A*24:197    | A*02:85+A*24:02:36     |
| A*02:01:56+A*24:198    | A*02:203+A*24:02:36    |
| A*02:01:56+A*24:206    | A*02:362+A*24:02:36    |
| A*02:01:56+A*32:01:05  | A*02:01:63+A*32:01:04  |
| A*02:01:56+A*32:07     | A*02:76:01+A*32:01:04  |
| A*02:01:56+A*32:09     | A*02:233+A*32:01:04    |
| A*02:01:56+A*32:12     | A*02:121+A*32:01:04    |
| A*02:01:56+A*32:13     | A*02:36+A*32:01:04     |
| A*02:01:56+A*32:17     | A*02:34+A*32:01:04     |

|                       |                        |
|-----------------------|------------------------|
| A*02:01:56+A*32:21    | A*02:16+A*32:01:04     |
| A*02:01:56+A*32:22    | A*02:12+A*32:01:04     |
| A*02:01:56+A*32:26    | A*02:101:02+A*32:01:04 |
| A*02:01:56+A*32:37    | A*02:119+A*32:01:04    |
| A*02:01:56+A*32:42    | A*02:243+A*32:01:04    |
| A*02:01:57+A*03:01:15 | A*02:01:60+A*03:01:28  |
| A*02:01:57+A*03:01:26 | A*02:01:59+A*03:01:28  |
| A*02:01:57+A*03:01:29 | A*02:01:63+A*03:01:28  |
| A*02:01:57+A*03:04:01 | A*02:74:02+A*03:01:28  |
| A*02:01:57+A*03:04:02 | A*02:74:01+A*03:01:28  |
| A*02:01:57+A*03:12    | A*02:06:01G+A*03:01:28 |
| A*02:01:57+A*03:16    | A*02:341+A*03:01:28    |
| A*02:01:57+A*03:22:01 | A*02:174+A*03:01:28    |
| A*02:01:57+A*03:44    | A*02:16+A*03:01:28     |
| A*02:01:57+A*03:50    | A*02:22:01G+A*03:01:28 |
| A*02:01:57+A*03:54    | A*02:145+A*03:01:28    |
| A*02:01:57+A*03:59    | A*02:352+A*03:01:28    |
| A*02:01:57+A*03:63    | A*02:346+A*03:01:28    |
| A*02:01:57+A*03:65    | A*02:12+A*03:01:28     |
| A*02:01:57+A*03:66    | A*02:49+A*03:01:28     |
| A*02:01:57+A*03:69N   | A*02:226N+A*03:01:28   |
| A*02:01:57+A*03:72    | A*02:76:01+A*03:01:28  |
| A*02:01:57+A*03:79    | A*02:85+A*03:01:28     |
| A*02:01:57+A*03:84    | A*02:349+A*03:01:28    |
| A*02:01:57+A*03:87    | A*02:197+A*03:01:28    |
| A*02:01:57+A*03:93    | A*02:119+A*03:01:28    |
| A*02:01:57+A*03:94    | A*02:322+A*03:01:28    |
| A*02:01:57+A*03:97    | A*02:36+A*03:01:28     |
| A*02:01:57+A*03:101   | A*02:306+A*03:01:28    |
| A*02:01:57+A*03:104   | A*02:332+A*03:01:28    |
| A*02:01:57+A*03:105   | A*02:101:02+A*03:01:28 |
| A*02:01:57+A*03:126   | A*02:198+A*03:01:28    |
| A*02:01:57+A*03:128   | A*02:116+A*03:01:28    |
| A*02:01:57+A*03:136   | A*02:133+A*03:01:28    |
| A*02:01:57+A*03:150   | A*02:262+A*03:01:28    |
| A*02:01:59+A*03:01:15 | A*02:01:60+A*03:01:26  |
| A*02:01:59+A*03:01:29 | A*02:01:63+A*03:01:26  |
| A*02:01:59+A*03:04:01 | A*02:74:02+A*03:01:26  |
| A*02:01:59+A*03:04:02 | A*02:74:01+A*03:01:26  |
| A*02:01:59+A*03:12    | A*02:06:01G+A*03:01:26 |
| A*02:01:59+A*03:16    | A*02:341+A*03:01:26    |
| A*02:01:59+A*03:22:01 | A*02:174+A*03:01:26    |
| A*02:01:59+A*03:44    | A*02:16+A*03:01:26     |
| A*02:01:59+A*03:50    | A*02:22:01G+A*03:01:26 |
| A*02:01:59+A*03:54    | A*02:145+A*03:01:26    |
| A*02:01:59+A*03:59    | A*02:352+A*03:01:26    |
| A*02:01:59+A*03:63    | A*02:346+A*03:01:26    |
| A*02:01:59+A*03:65    | A*02:12+A*03:01:26     |
| A*02:01:59+A*03:66    | A*02:49+A*03:01:26     |
| A*02:01:59+A*03:69N   | A*02:226N+A*03:01:26   |
| A*02:01:59+A*03:72    | A*02:76:01+A*03:01:26  |
| A*02:01:59+A*03:79    | A*02:85+A*03:01:26     |
| A*02:01:59+A*03:84    | A*02:349+A*03:01:26    |
| A*02:01:59+A*03:87    | A*02:197+A*03:01:26    |
| A*02:01:59+A*03:93    | A*02:119+A*03:01:26    |
| A*02:01:59+A*03:94    | A*02:322+A*03:01:26    |
| A*02:01:59+A*03:97    | A*02:36+A*03:01:26     |
| A*02:01:59+A*03:101   | A*02:306+A*03:01:26    |
| A*02:01:59+A*03:104   | A*02:332+A*03:01:26    |
| A*02:01:59+A*03:105   | A*02:101:02+A*03:01:26 |
| A*02:01:59+A*03:126   | A*02:198+A*03:01:26    |
| A*02:01:59+A*03:128   | A*02:116+A*03:01:26    |
| A*02:01:59+A*03:136   | A*02:133+A*03:01:26    |
| A*02:01:59+A*03:150   | A*02:262+A*03:01:26    |
| A*02:01:60+A*03:01:29 | A*02:01:63+A*03:01:15  |
| A*02:01:60+A*03:04:01 | A*02:74:02+A*03:01:15  |
| A*02:01:60+A*03:04:02 | A*02:74:01+A*03:01:15  |
| A*02:01:60+A*03:12    | A*02:06:01G+A*03:01:15 |
| A*02:01:60+A*03:16    | A*02:341+A*03:01:15    |
| A*02:01:60+A*03:22:01 | A*02:174+A*03:01:15    |
| A*02:01:60+A*03:44    | A*02:16+A*03:01:15     |
| A*02:01:60+A*03:50    | A*02:22:01G+A*03:01:15 |
| A*02:01:60+A*03:54    | A*02:145+A*03:01:15    |
| A*02:01:60+A*03:59    | A*02:352+A*03:01:15    |
| A*02:01:60+A*03:63    | A*02:346+A*03:01:15    |
| A*02:01:60+A*03:65    | A*02:12+A*03:01:15     |
| A*02:01:60+A*03:66    | A*02:49+A*03:01:15     |
| A*02:01:60+A*03:69N   | A*02:226N+A*03:01:15   |
| A*02:01:60+A*03:72    | A*02:76:01+A*03:01:15  |
| A*02:01:60+A*03:79    | A*02:85+A*03:01:15     |
| A*02:01:60+A*03:84    | A*02:349+A*03:01:15    |
| A*02:01:60+A*03:87    | A*02:197+A*03:01:15    |
| A*02:01:60+A*03:93    | A*02:119+A*03:01:15    |
| A*02:01:60+A*03:94    | A*02:322+A*03:01:15    |
| A*02:01:60+A*03:97    | A*02:36+A*03:01:15     |
| A*02:01:60+A*03:101   | A*02:306+A*03:01:15    |
| A*02:01:60+A*03:104   | A*02:332+A*03:01:15    |
| A*02:01:60+A*03:105   | A*02:101:02+A*03:01:15 |
| A*02:01:60+A*03:126   | A*02:198+A*03:01:15    |
| A*02:01:60+A*03:128   | A*02:116+A*03:01:15    |
| A*02:01:60+A*03:136   | A*02:133+A*03:01:15    |
| A*02:01:60+A*03:150   | A*02:262+A*03:01:15    |
| A*02:01:63+A*03:04:01 | A*02:74:02+A*03:01:29  |
| A*02:01:63+A*03:04:02 | A*02:74:01+A*03:01:29  |
| A*02:01:63+A*03:12    | A*02:06:01G+A*03:01:29 |
| A*02:01:63+A*03:16    | A*02:341+A*03:01:29    |
| A*02:01:63+A*03:22:01 | A*02:174+A*03:01:29    |
| A*02:01:63+A*03:44    | A*02:16+A*03:01:29     |
| A*02:01:63+A*03:50    | A*02:22:01G+A*03:01:29 |
| A*02:01:63+A*03:54    | A*02:145+A*03:01:29    |
| A*02:01:63+A*03:59    | A*02:352+A*03:01:29    |
| A*02:01:63+A*03:63    | A*02:346+A*03:01:29    |
| A*02:01:63+A*03:65    | A*02:12+A*03:01:29     |
| A*02:01:63+A*03:66    | A*02:49+A*03:01:29     |
| A*02:01:63+A*03:69N   | A*02:226N+A*03:01:29   |

|                        |                        |
|------------------------|------------------------|
| A*02:01:63+A*03:72     | A*02:76:01+A*03:01:29  |
| A*02:01:63+A*03:79     | A*02:85+A*03:01:29     |
| A*02:01:63+A*03:84     | A*02:349+A*03:01:29    |
| A*02:01:63+A*03:87     | A*02:197+A*03:01:29    |
| A*02:01:63+A*03:93     | A*02:119+A*03:01:29    |
| A*02:01:63+A*03:94     | A*02:322+A*03:01:29    |
| A*02:01:63+A*03:97     | A*02:36+A*03:01:29     |
| A*02:01:63+A*03:101    | A*02:306+A*03:01:29    |
| A*02:01:63+A*03:104    | A*02:332+A*03:01:29    |
| A*02:01:63+A*03:105    | A*02:101:02+A*03:01:29 |
| A*02:01:63+A*03:126    | A*02:198+A*03:01:29    |
| A*02:01:63+A*03:128    | A*02:116+A*03:01:29    |
| A*02:01:63+A*03:136    | A*02:133+A*03:01:29    |
| A*02:01:63+A*03:150    | A*02:262+A*03:01:29    |
| A*02:01:63+A*24:02:17  | A*02:01:76+A*24:02:32  |
| A*02:01:63+A*24:02:50  | A*02:01:65+A*24:02:32  |
| A*02:01:63+A*24:02:54  | A*02:01:69+A*24:02:32  |
| A*02:01:63+A*24:05:01G | A*02:174+A*24:02:32    |
| A*02:01:63+A*24:07     | A*02:34+A*24:02:32     |
| A*02:01:63+A*24:17     | A*02:246+A*24:02:32    |
| A*02:01:63+A*24:21:01  | A*02:24:01+A*24:02:32  |
| A*02:01:63+A*24:25     | A*02:352+A*24:02:32    |
| A*02:01:63+A*24:46     | A*02:101:01+A*24:02:32 |
| A*02:01:63+A*24:47     | A*02:205+A*24:02:32    |
| A*02:01:63+A*24:55     | A*02:16:01G+A*24:02:32 |
| A*02:01:63+A*24:56     | A*02:26+A*24:02:32     |
| A*02:01:63+A*24:58     | A*02:107+A*24:02:32    |
| A*02:01:63+A*24:60N    | A*02:366N+A*24:02:32   |
| A*02:01:63+A*24:62     | A*02:80+A*24:02:32     |
| A*02:01:63+A*24:71     | A*02:40:01+A*24:02:32  |
| A*02:01:63+A*24:72     | A*02:145+A*24:02:32    |
| A*02:01:63+A*24:73     | A*02:147+A*24:02:32    |
| A*02:01:63+A*24:77     | A*02:217:02+A*24:02:32 |
| A*02:01:63+A*24:90N    | A*02:88N+A*24:02:32    |
| A*02:01:63+A*24:91     | A*02:68+A*24:02:32     |
| A*02:01:63+A*24:96     | A*02:254+A*24:02:32    |
| A*02:01:63+A*24:99     | A*02:25+A*24:02:32     |
| A*02:01:63+A*24:117    | A*02:296+A*24:02:32    |
| A*02:01:63+A*24:118    | A*02:361+A*24:02:32    |
| A*02:01:63+A*24:119    | A*02:158+A*24:02:32    |
| A*02:01:63+A*24:121    | A*02:64+A*24:02:32     |
| A*02:01:63+A*24:133    | A*02:182+A*24:02:32    |
| A*02:01:63+A*24:145    | A*02:20:01+A*24:02:32  |
| A*02:01:63+A*24:160    | A*02:262+A*24:02:32    |
| A*02:01:63+A*24:165    | A*02:353+A*24:02:32    |
| A*02:01:63+A*24:169    | A*02:119+A*24:02:32    |
| A*02:01:63+A*24:174    | A*02:188+A*24:02:32    |
| A*02:01:63+A*24:176    | A*02:16+A*24:02:32     |
| A*02:01:63+A*24:180    | A*02:16+A*24:02:32     |
| A*02:01:63+A*24:181    | A*02:236+A*24:02:32    |
| A*02:01:63+A*24:187    | A*02:111+A*24:02:32    |
| A*02:01:63+A*24:192    | A*02:312+A*24:02:32    |
| A*02:01:63+A*24:197    | A*02:85+A*24:02:32     |
| A*02:01:63+A*24:198    | A*02:203+A*24:02:32    |
| A*02:01:63+A*24:206    | A*02:362+A*24:02:32    |
| A*02:01:63+A*32:07     | A*02:76:01+A*32:01:05  |
| A*02:01:63+A*32:09     | A*02:233+A*32:01:05    |
| A*02:01:63+A*32:12     | A*02:121+A*32:01:05    |
| A*02:01:63+A*32:13     | A*02:36+A*32:01:05     |
| A*02:01:63+A*32:17     | A*02:34+A*32:01:05     |
| A*02:01:63+A*32:21     | A*02:16+A*32:01:05     |
| A*02:01:63+A*32:22     | A*02:12+A*32:01:05     |
| A*02:01:63+A*32:26     | A*02:101:02+A*32:01:05 |
| A*02:01:63+A*32:37     | A*02:119+A*32:01:05    |
| A*02:01:63+A*32:42     | A*02:243+A*32:01:05    |
| A*02:01:65+A*24:02:17  | A*02:01:76+A*24:02:50  |
| A*02:01:65+A*24:02:54  | A*02:01:69+A*24:02:50  |
| A*02:01:65+A*24:05:01G | A*02:174+A*24:02:50    |
| A*02:01:65+A*24:07     | A*02:34+A*24:02:50     |
| A*02:01:65+A*24:17     | A*02:246+A*24:02:50    |
| A*02:01:65+A*24:21:01  | A*02:24:01+A*24:02:50  |
| A*02:01:65+A*24:25     | A*02:352+A*24:02:50    |
| A*02:01:65+A*24:46     | A*02:101:01+A*24:02:50 |
| A*02:01:65+A*24:47     | A*02:205+A*24:02:50    |
| A*02:01:65+A*24:55     | A*02:16:01G+A*24:02:50 |
| A*02:01:65+A*24:56     | A*02:26+A*24:02:50     |
| A*02:01:65+A*24:58     | A*02:107+A*24:02:50    |
| A*02:01:65+A*24:60N    | A*02:366N+A*24:02:50   |
| A*02:01:65+A*24:62     | A*02:80+A*24:02:50     |
| A*02:01:65+A*24:71     | A*02:40:01+A*24:02:50  |
| A*02:01:65+A*24:72     | A*02:145+A*24:02:50    |
| A*02:01:65+A*24:73     | A*02:147+A*24:02:50    |
| A*02:01:65+A*24:77     | A*02:217:02+A*24:02:50 |
| A*02:01:65+A*24:90N    | A*02:88N+A*24:02:50    |
| A*02:01:65+A*24:91     | A*02:68+A*24:02:50     |
| A*02:01:65+A*24:96     | A*02:254+A*24:02:50    |
| A*02:01:65+A*24:99     | A*02:25+A*24:02:50     |
| A*02:01:65+A*24:117    | A*02:296+A*24:02:50    |
| A*02:01:65+A*24:118    | A*02:361+A*24:02:50    |
| A*02:01:65+A*24:119    | A*02:158+A*24:02:50    |
| A*02:01:65+A*24:121    | A*02:64+A*24:02:50     |
| A*02:01:65+A*24:133    | A*02:182+A*24:02:50    |
| A*02:01:65+A*24:145    | A*02:20:01+A*24:02:50  |
| A*02:01:65+A*24:160    | A*02:262+A*24:02:50    |
| A*02:01:65+A*24:165    | A*02:353+A*24:02:50    |
| A*02:01:65+A*24:169    | A*02:119+A*24:02:50    |
| A*02:01:65+A*24:174    | A*02:188+A*24:02:50    |
| A*02:01:65+A*24:176    | A*02:16+A*24:02:50     |
| A*02:01:65+A*24:180    | A*02:16+A*24:02:50     |
| A*02:01:65+A*24:181    | A*02:236+A*24:02:50    |
| A*02:01:65+A*24:187    | A*02:111+A*24:02:50    |
| A*02:01:65+A*24:192    | A*02:312+A*24:02:50    |
| A*02:01:65+A*24:197    | A*02:85+A*24:02:50     |
| A*02:01:65+A*24:198    | A*02:203+A*24:02:50    |
| A*02:01:65+A*24:206    | A*02:362+A*24:02:50    |

|                        |                        |
|------------------------|------------------------|
| A*02:01:66+A*11:01:15  | A*02:01:69+A*11:01:20  |
| A*02:01:66+A*11:15:01  | A*02:202+A*11:01:20    |
| A*02:01:66+A*11:23     | A*02:182+A*11:01:20    |
| A*02:01:66+A*11:30     | A*02:197+A*11:01:20    |
| A*02:01:66+A*11:32     | A*02:121+A*11:01:20    |
| A*02:01:66+A*11:33:02  | A*02:174+A*11:01:20    |
| A*02:01:66+A*11:34     | A*02:153+A*11:01:20    |
| A*02:01:66+A*11:36     | A*02:07:01G+A*11:01:20 |
| A*02:01:66+A*11:39     | A*02:36+A*11:01:20     |
| A*02:01:66+A*11:41     | A*02:273+A*11:01:20    |
| A*02:01:66+A*11:48     | A*02:183+A*11:01:20    |
| A*02:01:66+A*11:72     | A*02:364+A*11:01:20    |
| A*02:01:66+A*11:79     | A*02:109+A*11:01:20    |
| A*02:01:66+A*11:82     | A*02:313+A*11:01:20    |
| A*02:01:66+A*11:87     | A*02:173+A*11:01:20    |
| A*02:01:66+A*11:96     | A*02:292+A*11:01:20    |
| A*02:01:66+A*11:111    | A*02:184+A*11:01:20    |
| A*02:01:66+A*11:112    | A*02:262+A*11:01:20    |
| A*02:01:66+A*11:123    | A*02:159+A*11:01:20    |
| A*02:01:66+A*11:125    | A*02:312+A*11:01:20    |
| A*02:01:66+A*11:128    | A*02:362+A*11:01:20    |
| A*02:01:66+A*31:05     | A*02:36+A*31:01:14     |
| A*02:01:66+A*31:11     | A*02:202+A*31:01:14    |
| A*02:01:66+A*31:13     | A*02:251+A*31:01:14    |
| A*02:01:66+A*31:15     | A*02:351+A*31:01:14    |
| A*02:01:66+A*31:16     | A*02:107+A*31:01:14    |
| A*02:01:66+A*31:25     | A*02:101:02+A*31:01:14 |
| A*02:01:66+A*31:28     | A*02:139+A*31:01:14    |
| A*02:01:66+A*31:30     | A*02:22:01G+A*31:01:14 |
| A*02:01:66+A*31:31     | A*02:275+A*31:01:14    |
| A*02:01:66+A*31:36     | A*02:257+A*31:01:14    |
| A*02:01:66+A*31:40     | A*02:133+A*31:01:14    |
| A*02:01:66+A*31:45     | A*02:16+A*31:01:14     |
| A*02:01:66+A*31:50     | A*02:307+A*31:01:14    |
| A*02:01:66+A*31:51     | A*02:121+A*31:01:14    |
| A*02:01:66+A*31:63     | A*02:273+A*31:01:14    |
| A*02:01:66+A*31:64     | A*02:157+A*31:01:14    |
| A*02:01:69+A*11:15:01  | A*02:202+A*11:01:15    |
| A*02:01:69+A*11:23     | A*02:182+A*11:01:15    |
| A*02:01:69+A*11:30     | A*02:197+A*11:01:15    |
| A*02:01:69+A*11:32     | A*02:121+A*11:01:15    |
| A*02:01:69+A*11:33:02  | A*02:174+A*11:01:15    |
| A*02:01:69+A*11:34     | A*02:153+A*11:01:15    |
| A*02:01:69+A*11:36     | A*02:07:01G+A*11:01:15 |
| A*02:01:69+A*11:39     | A*02:36+A*11:01:15     |
| A*02:01:69+A*11:41     | A*02:273+A*11:01:15    |
| A*02:01:69+A*11:48     | A*02:183+A*11:01:15    |
| A*02:01:69+A*11:72     | A*02:364+A*11:01:15    |
| A*02:01:69+A*11:79     | A*02:109+A*11:01:15    |
| A*02:01:69+A*11:82     | A*02:313+A*11:01:15    |
| A*02:01:69+A*11:87     | A*02:173+A*11:01:15    |
| A*02:01:69+A*11:96     | A*02:292+A*11:01:15    |
| A*02:01:69+A*11:111    | A*02:184+A*11:01:15    |
| A*02:01:69+A*11:112    | A*02:262+A*11:01:15    |
| A*02:01:69+A*11:123    | A*02:159+A*11:01:15    |
| A*02:01:69+A*11:125    | A*02:312+A*11:01:15    |
| A*02:01:69+A*11:128    | A*02:362+A*11:01:15    |
| A*02:01:69+A*24:02:17  | A*02:01:76+A*24:02:54  |
| A*02:01:69+A*24:05:01G | A*02:174+A*24:02:54    |
| A*02:01:69+A*24:07     | A*02:34+A*24:02:54     |
| A*02:01:69+A*24:17     | A*02:246+A*24:02:54    |
| A*02:01:69+A*24:21:01  | A*02:24:01+A*24:02:54  |
| A*02:01:69+A*24:25     | A*02:352+A*24:02:54    |
| A*02:01:69+A*24:46     | A*02:101:01+A*24:02:54 |
| A*02:01:69+A*24:47     | A*02:205+A*24:02:54    |
| A*02:01:69+A*24:55     | A*02:16:01G+A*24:02:54 |
| A*02:01:69+A*24:56     | A*02:26+A*24:02:54     |
| A*02:01:69+A*24:58     | A*02:107+A*24:02:54    |
| A*02:01:69+A*24:60N    | A*02:366N+A*24:02:54   |
| A*02:01:69+A*24:62     | A*02:80+A*24:02:54     |
| A*02:01:69+A*24:71     | A*02:40:01+A*24:02:54  |
| A*02:01:69+A*24:72     | A*02:145+A*24:02:54    |
| A*02:01:69+A*24:73     | A*02:147+A*24:02:54    |
| A*02:01:69+A*24:77     | A*02:217:02+A*24:02:54 |
| A*02:01:69+A*24:90N    | A*02:88N+A*24:02:54    |
| A*02:01:69+A*24:91     | A*02:68+A*24:02:54     |
| A*02:01:69+A*24:96     | A*02:254+A*24:02:54    |
| A*02:01:69+A*24:99     | A*02:25+A*24:02:54     |
| A*02:01:69+A*24:117    | A*02:296+A*24:02:54    |
| A*02:01:69+A*24:118    | A*02:361+A*24:02:54    |
| A*02:01:69+A*24:119    | A*02:158+A*24:02:54    |
| A*02:01:69+A*24:121    | A*02:64+A*24:02:54     |
| A*02:01:69+A*24:133    | A*02:182+A*24:02:54    |
| A*02:01:69+A*24:145    | A*02:20:01+A*24:02:54  |
| A*02:01:69+A*24:160    | A*02:262+A*24:02:54    |
| A*02:01:69+A*24:165    | A*02:353+A*24:02:54    |
| A*02:01:69+A*24:169    | A*02:119+A*24:02:54    |
| A*02:01:69+A*24:174    | A*02:188+A*24:02:54    |
| A*02:01:69+A*24:176    | A*02:16+A*24:02:54     |
| A*02:01:69+A*24:180    | A*02:16+A*24:02:54     |
| A*02:01:69+A*24:181    | A*02:236+A*24:02:54    |
| A*02:01:69+A*24:187    | A*02:111+A*24:02:54    |
| A*02:01:69+A*24:192    | A*02:312+A*24:02:54    |
| A*02:01:69+A*24:197    | A*02:85+A*24:02:54     |
| A*02:01:69+A*24:198    | A*02:203+A*24:02:54    |
| A*02:01:69+A*24:206    | A*02:362+A*24:02:54    |
| A*02:01:71+A*26:13     | A*02:34+A*26:01:08     |
| A*02:01:71+A*26:23     | A*02:284N+A*26:01:08   |
| A*02:01:71+A*26:27     | A*02:68+A*26:01:08     |
| A*02:01:71+A*26:41     | A*02:187+A*26:01:08    |
| A*02:01:71+A*26:47     | A*02:85+A*26:01:08     |
| A*02:01:71+A*26:49     | A*02:36+A*26:01:08     |
| A*02:01:71+A*26:50     | A*02:210+A*26:01:08    |
| A*02:01:71+A*26:52     | A*02:40:01+A*26:01:08  |
| A*02:01:71+A*26:63     | A*02:236+A*26:01:08    |

|                         |                         |                       |                 |                   |
|-------------------------|-------------------------|-----------------------|-----------------|-------------------|
| A*02:01:71+A*26:70      | A*02:04+A*26:01:08      |                       |                 |                   |
| A*02:01:71+A*26:75      | A*02:153+A*26:01:08     |                       |                 |                   |
| A*02:01:72+A*02:08      | A*02:05:02+A*02:20:01   |                       |                 |                   |
| A*02:01:72+A*02:154     | A*02:05:02+A*02:101:01  |                       |                 |                   |
| A*02:01:76+A*24:05:01G  | A*02:174+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:07      | A*02:34+A*24:02:17      |                       |                 |                   |
| A*02:01:76+A*24:17      | A*02:246+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:21:01   | A*02:24:01+A*24:02:17   |                       |                 |                   |
| A*02:01:76+A*24:25      | A*02:352+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:46      | A*02:101:01+A*24:02:17  |                       |                 |                   |
| A*02:01:76+A*24:47      | A*02:205+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:55      | A*02:16:01G+A*24:02:17  |                       |                 |                   |
| A*02:01:76+A*24:56      | A*02:26+A*24:02:17      |                       |                 |                   |
| A*02:01:76+A*24:58      | A*02:107+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:60N     | A*02:366N+A*24:02:17    |                       |                 |                   |
| A*02:01:76+A*24:62      | A*02:80+A*24:02:17      |                       |                 |                   |
| A*02:01:76+A*24:71      | A*02:40:01+A*24:02:17   |                       |                 |                   |
| A*02:01:76+A*24:72      | A*02:145+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:73      | A*02:147+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:77      | A*02:217:02+A*24:02:17  |                       |                 |                   |
| A*02:01:76+A*24:90N     | A*02:88N+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:91      | A*02:68+A*24:02:17      |                       |                 |                   |
| A*02:01:76+A*24:96      | A*02:254+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:99      | A*02:25+A*24:02:17      |                       |                 |                   |
| A*02:01:76+A*24:117     | A*02:296+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:118     | A*02:361+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:119     | A*02:158+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:121     | A*02:64+A*24:02:17      |                       |                 |                   |
| A*02:01:76+A*24:133     | A*02:182+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:145     | A*02:20:01+A*24:02:17   |                       |                 |                   |
| A*02:01:76+A*24:160     | A*02:262+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:165     | A*02:353+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:169     | A*02:119+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:174     | A*02:188+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:176     | A*02:16+A*24:02:17      |                       |                 |                   |
| A*02:01:76+A*24:180     | A*02:16+A*24:02:17      |                       |                 |                   |
| A*02:01:76+A*24:181     | A*02:236+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:187     | A*02:111+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:192     | A*02:312+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:197     | A*02:85+A*24:02:17      |                       |                 |                   |
| A*02:01:76+A*24:198     | A*02:203+A*24:02:17     |                       |                 |                   |
| A*02:01:76+A*24:206     | A*02:362+A*24:02:17     |                       |                 |                   |
| A*02:02+A*02:10         | A*02:05:01G+A*02:242    |                       |                 |                   |
| A*02:02+A*02:28         | A*02:06:01G+A*02:155    |                       |                 |                   |
| A*02:02+A*02:41         | A*02:05:01G+A*02:289    |                       |                 |                   |
| A*02:02+A*02:51         | A*02:05:01G+A*02:40:01  |                       |                 |                   |
| A*02:02+A*02:54         | A*02:05:01G+A*02:37     |                       |                 |                   |
| A*02:02+A*02:72         | A*02:05:01G+A*02:275    |                       |                 |                   |
| A*02:02+A*02:79:01      | A*02:05:01G+A*02:86     |                       |                 |                   |
| A*02:02+A*02:91         | A*02:05:01G+A*02:322    |                       |                 |                   |
| A*02:02+A*02:99         | A*02:05:01G+A*02:26     | A*02:14+A*02:323      |                 |                   |
| A*02:02+A*02:106        | A*02:05:01G+A*02:145    |                       |                 |                   |
| A*02:02+A*02:108        | A*02:05:01G+A*02:17:01G |                       |                 |                   |
| A*02:02+A*02:122        | A*02:05:01G+A*02:50     |                       |                 |                   |
| A*02:02+A*02:127        | A*02:05:01G+A*02:16     |                       |                 |                   |
| A*02:02+A*02:137        | A*02:05:01G+A*02:24:01  |                       |                 |                   |
| A*02:02+A*02:142        | A*02:05:01G+A*02:12     | A*02:22:01G+A*02:271  |                 |                   |
| A*02:02+A*02:144        | A*02:05:01G+A*02:205    |                       |                 |                   |
| A*02:02+A*02:16         | A*02:05:01G+A*02:195    |                       |                 |                   |
| A*02:02+A*02:170        | A*02:05:01G+A*02:364    |                       |                 |                   |
| A*02:02+A*02:178        | A*02:05:01G+A*02:64     |                       |                 |                   |
| A*02:02+A*02:295        | A*02:05:01G+A*02:123    |                       |                 |                   |
| A*02:02+A*02:300        | A*02:05:01G+A*02:110    |                       |                 |                   |
| A*02:02+A*02:310        | A*02:05:01G+A*02:42     |                       |                 |                   |
| A*02:02+A*02:328        | A*02:05:01G+A*02:273    |                       |                 |                   |
| A*02:02+A*02:331        | A*02:05:01G+A*02:90     |                       |                 |                   |
| A*02:02+A*02:355        | A*02:03:01G+A*02:05:01G |                       |                 |                   |
| A*02:02+A*02:358        | A*02:05:01G+A*02:92     |                       |                 |                   |
| A*02:02+A*03:12         | A*02:05:01G+A*03:01:01G | A*02:05:03+A*03:01:03 | A*02:14+A*03:50 | A*02:229+A*03:103 |
| A*02:02+A*03:88         | A*02:172+A*03:63        |                       |                 |                   |
| A*02:02+A*03:144        | A*02:186+A*03:01:01G    |                       |                 |                   |
| A*02:02+A*23:01:01G     | A*02:102+A*23:39        |                       |                 |                   |
| A*02:02+A*23:21         | A*02:155+A*23:01:01G    |                       |                 |                   |
| A*02:02+A*24:50         | A*02:05:01G+A*24:104    |                       |                 |                   |
| A*02:02+A*25:01:01G     | A*02:05:01G+A*25:03     |                       |                 |                   |
| A*02:02+A*25:04         | A*02:271+A*25:03        |                       |                 |                   |
| A*02:02+A*25:19         | A*02:14+A*25:03         |                       |                 |                   |
| A*02:02+A*30:01:01G     | A*02:155+A*30:11:02     |                       |                 |                   |
| A*02:02+A*31:01:02G     | A*02:155+A*31:44        |                       |                 |                   |
| A*02:02+A*34:02:01      | A*02:05:01G+A*34:08     |                       |                 |                   |
| A*02:02+A*34:04         | A*02:155+A*34:02:01     |                       |                 |                   |
| A*02:02+A*68:01:01G     | A*02:05:01G+A*68:71     |                       |                 |                   |
| A*02:03:01G+A*02:07:01G | A*02:171:02+A*02:191    |                       |                 |                   |
| A*02:03:01G+A*02:10     | A*02:242+A*02:355       |                       |                 |                   |
| A*02:03:01G+A*02:11:03  | A*02:03:04+A*02:11:01G  |                       |                 |                   |
| A*02:03:01G+A*02:12     | A*02:22:01G+A*02:280    |                       |                 |                   |
| A*02:03:01G+A*02:13     | A*02:280+A*02:323       |                       |                 |                   |
| A*02:03:01G+A*02:14     | A*02:05:01G+A*02:171:02 |                       |                 |                   |
| A*02:03:01G+A*02:26     | A*02:171:02+A*02:323    |                       |                 |                   |
| A*02:03:01G+A*02:27     | A*02:13+A*02:267        |                       |                 |                   |
| A*02:03:01G+A*02:41     | A*02:289+A*02:355       |                       |                 |                   |
| A*02:03:01G+A*02:51     | A*02:40:01+A*02:355     |                       |                 |                   |
| A*02:03:01G+A*02:54     | A*02:37+A*02:355        |                       |                 |                   |
| A*02:03:01G+A*02:72     | A*02:275+A*02:355       |                       |                 |                   |
| A*02:03:01G+A*02:79:01  | A*02:86+A*02:355        |                       |                 |                   |
| A*02:03:01G+A*02:87     | A*02:136+A*02:171:02    |                       |                 |                   |
| A*02:03:01G+A*02:91     | A*02:322+A*02:355       |                       |                 |                   |
| A*02:03:01G+A*02:99     | A*02:26+A*02:355        |                       |                 |                   |
| A*02:03:01G+A*02:106    | A*02:145+A*02:355       |                       |                 |                   |
| A*02:03:01G+A*02:108    | A*02:17:01G+A*02:355    | A*02:57+A*02:148      |                 |                   |
| A*02:03:01G+A*02:122    | A*02:50+A*02:355        |                       |                 |                   |
| A*02:03:01G+A*02:127    | A*02:16+A*02:355        |                       |                 |                   |
| A*02:03:01G+A*02:137    | A*02:24:01+A*02:355     |                       |                 |                   |
| A*02:03:01G+A*02:142    | A*02:12+A*02:355        |                       |                 |                   |
| A*02:03:01G+A*02:144    | A*02:205+A*02:355       |                       |                 |                   |

|                         |                         |                      |                  |
|-------------------------|-------------------------|----------------------|------------------|
| A*02:03:01G+A*02:16     | A*02:195+A*02:355       |                      |                  |
| A*02:03:01G+A*02:170    | A*02:355+A*02:364       |                      |                  |
| A*02:03:01G+A*02:178    | A*02:64+A*02:355        |                      |                  |
| A*02:03:01G+A*02:242    | A*02:95+A*02:148        |                      |                  |
| A*02:03:01G+A*02:268    | A*02:04+A*02:148        |                      |                  |
| A*02:03:01G+A*02:271    | A*02:05:01G+A*02:280    |                      |                  |
| A*02:03:01G+A*02:295    | A*02:123+A*02:355       |                      |                  |
| A*02:03:01G+A*02:300    | A*02:110+A*02:355       |                      |                  |
| A*02:03:01G+A*02:310    | A*02:42+A*02:355        |                      |                  |
| A*02:03:01G+A*02:328    | A*02:273+A*02:355       |                      |                  |
| A*02:03:01G+A*02:331    | A*02:90+A*02:355        |                      |                  |
| A*02:03:01G+A*02:358    | A*02:92+A*02:355        |                      |                  |
| A*02:03:01G+A*03:01:01G | A*02:171:02+A*03:50     |                      |                  |
| A*02:03:01G+A*03:01:02  | A*02:171:01+A*03:50     | A*02:171:02+A*03:66  |                  |
| A*02:03:01G+A*03:07     | A*02:25+A*03:50         |                      |                  |
| A*02:03:01G+A*03:12     | A*02:355+A*03:01:01G    |                      |                  |
| A*02:03:01G+A*03:15     | A*02:148+A*03:01:01G    |                      |                  |
| A*02:03:01G+A*03:65     | A*02:280+A*03:50        |                      |                  |
| A*02:03:01G+A*03:85     | A*02:315+A*03:01:01G    |                      |                  |
| A*02:03:01G+A*03:92     | A*02:345+A*03:01:01G    |                      |                  |
| A*02:03:01G+A*03:127    | A*02:267+A*03:01:01G    |                      |                  |
| A*02:03:01G+A*11:01:01G | A*02:267+A*11:20        |                      |                  |
| A*02:03:01G+A*11:01:43  | A*02:03:03+A*11:01:01G  |                      |                  |
| A*02:03:01G+A*11:24:01  | A*02:171:02+A*11:44     |                      |                  |
| A*02:03:01G+A*11:24:02  | A*02:267+A*11:25        |                      |                  |
| A*02:03:01G+A*11:44     | A*02:267+A*11:08        |                      |                  |
| A*02:03:01G+A*11:84     | A*02:315+A*11:01:01G    |                      |                  |
| A*02:03:01G+A*23:01:01G | A*02:171:02+A*23:02     |                      |                  |
| A*02:03:01G+A*24:02:01G | A*02:148+A*24:53        | A*02:280+A*24:06     | A*02:323+A*24:99 |
| A*02:03:01G+A*24:02:18  | A*02:03:04+A*24:02:01G  |                      |                  |
| A*02:03:01G+A*24:02:42  | A*02:03:02+A*24:02:01G  |                      |                  |
| A*02:03:01G+A*24:03:01G | A*02:280+A*24:167       |                      |                  |
| A*02:03:01G+A*24:03:02  | A*02:03:04+A*24:03:01G  |                      |                  |
| A*02:03:01G+A*24:10     | A*02:38+A*24:167        |                      |                  |
| A*02:03:01G+A*24:13:01  | A*02:171:02+A*24:06     |                      |                  |
| A*02:03:01G+A*24:13:02  | A*02:171:01+A*24:06     | A*02:171:02+A*24:87  |                  |
| A*02:03:01G+A*24:46     | A*02:38+A*24:06         |                      |                  |
| A*02:03:01G+A*24:50     | A*02:355+A*24:104       |                      |                  |
| A*02:03:01G+A*24:59     | A*02:267+A*24:56        |                      |                  |
| A*02:03:01G+A*24:120    | A*02:148+A*24:57        |                      |                  |
| A*02:03:01G+A*24:190    | A*02:267+A*24:177       |                      |                  |
| A*02:03:01G+A*24:207    | A*02:171:02+A*24:167    |                      |                  |
| A*02:03:01G+A*25:01:01G | A*02:355+A*25:03        |                      |                  |
| A*02:03:01G+A*25:01:06  | A*02:03:04+A*25:01:01G  |                      |                  |
| A*02:03:01G+A*25:04     | A*02:38+A*25:06         | A*02:280+A*25:01:01G |                  |
| A*02:03:01G+A*25:09     | A*02:323+A*25:01:01G    |                      |                  |
| A*02:03:01G+A*25:19     | A*02:171:02+A*25:01:01G |                      |                  |
| A*02:03:01G+A*26:01:03  | A*02:03:04+A*26:01:01G  |                      |                  |
| A*02:03:01G+A*26:08     | A*02:38+A*26:09         | A*02:280+A*26:01:01G |                  |
| A*02:03:01G+A*26:14     | A*02:323+A*26:01:01G    |                      |                  |
| A*02:03:01G+A*26:18     | A*02:22:01G+A*26:52     |                      |                  |
| A*02:03:01G+A*26:28     | A*02:323+A*26:52        |                      |                  |
| A*02:03:01G+A*26:43:01  | A*02:171:02+A*26:01:01G |                      |                  |
| A*02:03:01G+A*26:43:02  | A*02:171:01+A*26:01:01G |                      |                  |
| A*02:03:01G+A*26:48     | A*02:280+A*26:69        |                      |                  |
| A*02:03:01G+A*26:57     | A*02:281+A*26:01:01G    |                      |                  |
| A*02:03:01G+A*26:73     | A*02:13+A*26:01:21      |                      |                  |
| A*02:03:01G+A*29:01:01G | A*02:171:02+A*29:28     |                      |                  |
| A*02:03:01G+A*30:19     | A*02:345+A*30:01:01G    |                      |                  |
| A*02:03:01G+A*31:01:02G | A*02:171:02+A*31:30     |                      |                  |
| A*02:03:01G+A*31:01:05  | A*02:171:01+A*31:30     |                      |                  |
| A*02:03:01G+A*32:06     | A*02:25+A*32:10         |                      |                  |
| A*02:03:01G+A*34:02:01  | A*02:355+A*34:08        |                      |                  |
| A*02:03:01G+A*34:02:03  | A*02:03:02+A*34:02:01   |                      |                  |
| A*02:03:01G+A*34:03     | A*02:323+A*34:02:01     |                      |                  |
| A*02:03:01G+A*66:06     | A*02:25+A*66:01:01G     |                      |                  |
| A*02:03:01G+A*68:01:01G | A*02:355+A*68:71        |                      |                  |
| A*02:03:01G+A*68:01:04  | A*02:03:04+A*68:01:01G  |                      |                  |
| A*02:03:01G+A*68:02:02  | A*02:03:04+A*68:02:01G  |                      |                  |
| A*02:03:01G+A*68:08:01  | A*02:171:01+A*68:01:01G |                      |                  |
| A*02:03:01G+A*68:08:02  | A*02:171:02+A*68:01:02G |                      |                  |
| A*02:03:01G+A*68:09     | A*02:280+A*68:01:02G    |                      |                  |
| A*02:03:01G+A*68:63     | A*02:171:02+A*68:42     |                      |                  |
| A*02:03:01G+A*68:86     | A*02:281+A*68:02:01G    |                      |                  |
| A*02:03:02+A*24:02:18   | A*02:03:04+A*24:02:42   |                      |                  |
| A*02:03:02+A*34:03      | A*02:323+A*34:02:03     |                      |                  |
| A*02:03:03+A*11:84      | A*02:315+A*11:01:43     |                      |                  |
| A*02:03:04+A*25:04      | A*02:280+A*25:01:06     |                      |                  |
| A*02:03:04+A*25:09      | A*02:323+A*25:01:06     |                      |                  |
| A*02:03:04+A*25:19      | A*02:171:02+A*25:01:06  |                      |                  |
| A*02:03:04+A*26:08      | A*02:280+A*26:01:03     |                      |                  |
| A*02:03:04+A*26:14      | A*02:323+A*26:01:03     |                      |                  |
| A*02:03:04+A*26:43:01   | A*02:171:02+A*26:01:03  |                      |                  |
| A*02:03:04+A*26:43:02   | A*02:171:01+A*26:01:03  |                      |                  |
| A*02:03:04+A*26:57      | A*02:281+A*26:01:03     |                      |                  |
| A*02:03:04+A*68:08:01   | A*02:171:01+A*68:01:04  |                      |                  |
| A*02:03:04+A*68:86      | A*02:281+A*68:02:02     |                      |                  |
| A*02:04+A*02:73         | A*02:93+A*02:334        |                      |                  |
| A*02:04+A*02:108        | A*02:57+A*02:268        |                      |                  |
| A*02:04+A*02:242        | A*02:95+A*02:268        |                      |                  |
| A*02:04+A*03:15         | A*02:268+A*03:01:01G    |                      |                  |
| A*02:04+A*24:02:01G     | A*02:268+A*24:53        |                      |                  |
| A*02:04+A*24:120        | A*02:268+A*24:57        | A*02:334+A*24:93     |                  |
| A*02:04+A*26:13         | A*02:34+A*26:70         |                      |                  |
| A*02:04+A*26:23         | A*02:284N+A*26:70       |                      |                  |
| A*02:04+A*26:27         | A*02:68+A*26:70         |                      |                  |
| A*02:04+A*26:41         | A*02:187+A*26:70        |                      |                  |
| A*02:04+A*26:47         | A*02:85+A*26:70         |                      |                  |
| A*02:04+A*26:49         | A*02:36+A*26:70         |                      |                  |
| A*02:04+A*26:50         | A*02:210+A*26:70        |                      |                  |
| A*02:04+A*26:52         | A*02:40:01+A*26:70      |                      |                  |
| A*02:04+A*26:63         | A*02:236+A*26:70        |                      |                  |
| A*02:04+A*26:75         | A*02:153+A*26:70        |                      |                  |
| A*02:04+A*30:02:01G     | A*02:334+A*30:47        |                      |                  |
| A*02:04+A*66:01:01G     | A*02:334+A*66:09        |                      |                  |

|                         |                        |                      |                   |
|-------------------------|------------------------|----------------------|-------------------|
| A*02:04+A*68:01:02G     | A*02:334+A*68:83       |                      |                   |
| A*02:05:01G+A*02:06:07  | A*02:05:05+A*02:06:01G |                      |                   |
| A*02:05:01G+A*02:06:12  | A*02:05:03+A*02:06:01G |                      |                   |
| A*02:05:01G+A*02:07:01G | A*02:14+A*02:191       |                      |                   |
| A*02:05:01G+A*02:11:02  | A*02:05:05+A*02:11:01G |                      |                   |
| A*02:05:01G+A*02:13     | A*02:271+A*02:323      |                      |                   |
| A*02:05:01G+A*02:35:02  | A*02:05:03+A*02:35:01  |                      |                   |
| A*02:05:01G+A*02:35:03  | A*02:05:05+A*02:35:01  |                      |                   |
| A*02:05:01G+A*02:38     | A*02:154+A*02:280      |                      |                   |
| A*02:05:01G+A*02:56:02  | A*02:05:03+A*02:56:01  |                      |                   |
| A*02:05:01G+A*02:62     | A*02:08+A*02:34        |                      |                   |
| A*02:05:01G+A*02:87     | A*02:14+A*02:136       |                      |                   |
| A*02:05:01G+A*02:93     | A*02:95+A*02:172       |                      |                   |
| A*02:05:01G+A*02:114    | A*02:229+A*02:304      |                      |                   |
| A*02:05:01G+A*02:128    | A*02:08+A*02:11:01G    |                      |                   |
| A*02:05:01G+A*02:246    | A*02:80+A*02:229       |                      |                   |
| A*02:05:01G+A*02:279    | A*02:114+A*02:172      |                      |                   |
| A*02:05:01G+A*03:01:02  | A*02:14+A*03:66        |                      |                   |
| A*02:05:01G+A*03:23:02  | A*02:05:03+A*03:23:01  |                      |                   |
| A*02:05:01G+A*03:56     | A*02:172+A*03:01:01G   |                      |                   |
| A*02:05:01G+A*03:65     | A*02:271+A*03:50       |                      |                   |
| A*02:05:01G+A*03:144    | A*02:186+A*03:12       |                      |                   |
| A*02:05:01G+A*11:01:01G | A*02:154+A*11:04       | A*02:172+A*11:117    | A*02:229+A*11:116 |
| A*02:05:01G+A*11:24:01  | A*02:14+A*11:44        |                      |                   |
| A*02:05:01G+A*11:39     | A*02:154+A*11:27       |                      |                   |
| A*02:05:01G+A*11:118    | A*02:172+A*11:26       |                      |                   |
| A*02:05:01G+A*23:01:01G | A*02:14+A*23:02        |                      |                   |
| A*02:05:01G+A*23:10     | A*02:154+A*23:01:01G   |                      |                   |
| A*02:05:01G+A*23:48     | A*02:286+A*23:01:01G   |                      |                   |
| A*02:05:01G+A*24:02:01G | A*02:05:05+A*24:02:06  | A*02:271+A*24:06     |                   |
| A*02:05:01G+A*24:03:01G | A*02:271+A*24:167      |                      |                   |
| A*02:05:01G+A*24:10     | A*02:154+A*24:03:01G   |                      |                   |
| A*02:05:01G+A*24:13:01  | A*02:14+A*24:06        |                      |                   |
| A*02:05:01G+A*24:13:02  | A*02:14+A*24:87        |                      |                   |
| A*02:05:01G+A*24:15     | A*02:172+A*24:53       |                      |                   |
| A*02:05:01G+A*24:17     | A*02:229+A*24:62       |                      |                   |
| A*02:05:01G+A*24:41     | A*02:172+A*24:17       |                      |                   |
| A*02:05:01G+A*24:46     | A*02:154+A*24:02:01G   |                      |                   |
| A*02:05:01G+A*24:145    | A*02:08+A*24:02:01G    |                      |                   |
| A*02:05:01G+A*24:156    | A*02:08+A*24:29        |                      |                   |
| A*02:05:01G+A*24:207    | A*02:14+A*24:167       |                      |                   |
| A*02:05:01G+A*25:01:01G | A*02:154+A*25:06       | A*02:172+A*25:10     |                   |
| A*02:05:01G+A*25:04     | A*02:271+A*25:01:01G   |                      |                   |
| A*02:05:01G+A*25:19     | A*02:14+A*25:01:01G    |                      |                   |
| A*02:05:01G+A*26:01:01G | A*02:08+A*26:69        | A*02:154+A*26:09     |                   |
| A*02:05:01G+A*26:07:01  | A*02:05:03+A*26:07:02  |                      |                   |
| A*02:05:01G+A*26:08     | A*02:08+A*26:48        | A*02:271+A*26:01:01G |                   |
| A*02:05:01G+A*26:43:01  | A*02:14+A*26:01:01G    |                      |                   |
| A*02:05:01G+A*26:48     | A*02:271+A*26:69       |                      |                   |
| A*02:05:01G+A*29:01:01G | A*02:14+A*29:28        |                      |                   |
| A*02:05:01G+A*29:02:01G | A*02:229+A*29:32       |                      |                   |
| A*02:05:01G+A*29:44     | A*02:172+A*29:02:01G   |                      |                   |
| A*02:05:01G+A*30:04:02  | A*02:05:05+A*30:04:01  |                      |                   |
| A*02:05:01G+A*30:38     | A*02:286+A*30:01:01G   |                      |                   |
| A*02:05:01G+A*31:01:02G | A*02:08+A*31:02        | A*02:14+A*31:30      |                   |
| A*02:05:01G+A*31:06     | A*02:229+A*31:01:02G   |                      |                   |
| A*02:05:01G+A*31:10     | A*02:08+A*31:07        |                      |                   |
| A*02:05:01G+A*32:01:01G | A*02:08+A*32:31        |                      |                   |
| A*02:05:01G+A*32:30     | A*02:229+A*32:01:01G   |                      |                   |
| A*02:05:01G+A*33:01:01G | A*02:05:03+A*33:01:02  |                      |                   |
| A*02:05:01G+A*33:09     | A*02:08+A*33:08        |                      |                   |
| A*02:05:01G+A*33:18     | A*02:229+A*33:03:01G   |                      |                   |
| A*02:05:01G+A*33:21     | A*02:08+A*33:53        |                      |                   |
| A*02:05:01G+A*33:61     | A*02:154+A*33:03:01G   |                      |                   |
| A*02:05:01G+A*36:04     | A*02:154+A*36:01       |                      |                   |
| A*02:05:01G+A*68:01:01G | A*02:05:05+A*68:01:11  |                      |                   |
| A*02:05:01G+A*68:08:02  | A*02:14+A*68:01:02G    |                      |                   |
| A*02:05:01G+A*68:09     | A*02:271+A*68:01:02G   |                      |                   |
| A*02:05:01G+A*68:61     | A*02:154+A*68:54       |                      |                   |
| A*02:05:01G+A*68:63     | A*02:14+A*68:42        |                      |                   |
| A*02:05:03+A*02:06:07   | A*02:05:05+A*02:06:12  |                      |                   |
| A*02:05:03+A*02:35:03   | A*02:05:05+A*02:35:02  |                      |                   |
| A*02:05:05+A*02:128     | A*02:08+A*02:11:02     |                      |                   |
| A*02:06:01G+A*02:11:02  | A*02:06:07+A*02:11:01G |                      |                   |
| A*02:06:01G+A*02:13     | A*02:12+A*02:99        | A*02:26+A*02:142     |                   |
| A*02:06:01G+A*02:16:01G | A*02:127+A*02:354      |                      |                   |
| A*02:06:01G+A*02:35:01  | A*02:34+A*02:331       |                      |                   |
| A*02:06:01G+A*02:35:02  | A*02:06:12+A*02:35:01  |                      |                   |
| A*02:06:01G+A*02:35:03  | A*02:06:07+A*02:35:01  |                      |                   |
| A*02:06:01G+A*02:39     | A*02:79:02+A*02:242    |                      |                   |
| A*02:06:01G+A*02:45     | A*02:217:02+A*02:358   |                      |                   |
| A*02:06:01G+A*02:46     | A*02:70+A*02:358       |                      |                   |
| A*02:06:01G+A*02:49     | A*02:06:04+A*02:22:01G |                      |                   |
| A*02:06:01G+A*02:56:02  | A*02:06:12+A*02:56:01  | A*02:34+A*02:16      |                   |
| A*02:06:01G+A*02:117    | A*02:304+A*02:355      |                      |                   |
| A*02:06:01G+A*02:130    | A*02:07:01G+A*02:51    |                      |                   |
| A*02:06:01G+A*02:149    | A*02:79:01+A*02:190    |                      |                   |
| A*02:06:01G+A*02:171:01 | A*02:06:04+A*02:171:02 |                      |                   |
| A*02:06:01G+A*02:171:02 | A*02:25+A*02:99        |                      |                   |
| A*02:06:01G+A*02:188    | A*02:151+A*02:178      |                      |                   |
| A*02:06:01G+A*02:271    | A*02:14+A*02:142       |                      |                   |
| A*02:06:01G+A*02:280    | A*02:142+A*02:171:02   |                      |                   |
| A*02:06:01G+A*02:300    | A*02:10+A*02:57        |                      |                   |
| A*02:06:01G+A*02:323    | A*02:22:01G+A*02:99    |                      |                   |
| A*02:06:01G+A*02:369    | A*02:07:01G+A*02:358   |                      |                   |
| A*02:06:01G+A*03:01:16  | A*02:06:03+A*03:01:01G |                      |                   |
| A*02:06:01G+A*03:02:01  | A*02:142+A*03:07       |                      |                   |
| A*02:06:01G+A*03:04:01  | A*02:74:02+A*03:12     |                      |                   |
| A*02:06:01G+A*03:04:02  | A*02:74:01+A*03:12     |                      |                   |
| A*02:06:01G+A*03:05:02  | A*02:06:04+A*03:05:01  |                      |                   |
| A*02:06:01G+A*03:08     | A*02:331+A*03:108      |                      |                   |
| A*02:06:01G+A*03:16     | A*02:341+A*03:12       |                      |                   |
| A*02:06:01G+A*03:22:01  | A*02:174+A*03:12       |                      |                   |
| A*02:06:01G+A*03:23:02  | A*02:06:12+A*03:23:01  |                      |                   |
| A*02:06:01G+A*03:24     | A*03:89+A*69:01        |                      |                   |

|                         |                        |                       |                    |                      |
|-------------------------|------------------------|-----------------------|--------------------|----------------------|
| A*02:06:01G+A*03:44     | A*02:16+A*03:12        |                       |                    |                      |
| A*02:06:01G+A*03:50     | A*02:22:01G+A*03:12    |                       |                    |                      |
| A*02:06:01G+A*03:54     | A*02:106+A*03:01:01G   | A*02:145+A*03:12      |                    |                      |
| A*02:06:01G+A*03:59     | A*02:352+A*03:12       |                       |                    |                      |
| A*02:06:01G+A*03:63     | A*02:346+A*03:12       |                       |                    |                      |
| A*02:06:01G+A*03:65     | A*02:06:04+A*03:69N    | A*02:12+A*03:12       | A*02:99+A*03:02:01 | A*02:142+A*03:01:01G |
| A*02:06:01G+A*03:66     | A*02:06:04+A*03:50     | A*02:49+A*03:12       |                    |                      |
| A*02:06:01G+A*03:69N    | A*02:226N+A*03:12      |                       |                    |                      |
| A*02:06:01G+A*03:72     | A*02:76:01+A*03:12     |                       |                    |                      |
| A*02:06:01G+A*03:75     | A*02:57+A*03:95        |                       |                    |                      |
| A*02:06:01G+A*03:79     | A*02:85+A*03:12        |                       |                    |                      |
| A*02:06:01G+A*03:84     | A*02:349+A*03:12       |                       |                    |                      |
| A*02:06:01G+A*03:87     | A*02:197+A*03:12       |                       |                    |                      |
| A*02:06:01G+A*03:93     | A*02:119+A*03:12       |                       |                    |                      |
| A*02:06:01G+A*03:94     | A*02:91+A*03:01:01G    | A*02:322+A*03:12      |                    |                      |
| A*02:06:01G+A*03:97     | A*02:36+A*03:12        |                       |                    |                      |
| A*02:06:01G+A*03:101    | A*02:306+A*03:12       |                       |                    |                      |
| A*02:06:01G+A*03:104    | A*02:332+A*03:12       |                       |                    |                      |
| A*02:06:01G+A*03:105    | A*02:101:02+A*03:12    |                       |                    |                      |
| A*02:06:01G+A*03:126    | A*02:198+A*03:12       |                       |                    |                      |
| A*02:06:01G+A*03:128    | A*02:116+A*03:12       |                       |                    |                      |
| A*02:06:01G+A*03:133    | A*02:51+A*03:07        |                       |                    |                      |
| A*02:06:01G+A*03:136    | A*02:133+A*03:12       |                       |                    |                      |
| A*02:06:01G+A*03:150    | A*02:262+A*03:12       |                       |                    |                      |
| A*02:06:01G+A*11:01:01G | A*02:06:09+A*11:01:34  | A*02:79:01+A*11:73    | A*02:137+A*11:119  | A*02:142+A*11:24:02  |
|                         | A*02:331+A*11:06       | A*02:358+A*11:103     |                    |                      |
| A*02:06:01G+A*11:01:02  | A*02:06:06+A*11:01:01G |                       |                    |                      |
| A*02:06:01G+A*11:01:07  | A*02:79:02+A*11:73     |                       |                    |                      |
| A*02:06:01G+A*11:01:17  | A*02:06:03+A*11:01:01G |                       |                    |                      |
| A*02:06:01G+A*11:02:01G | A*02:79:01+A*11:16     |                       |                    |                      |
| A*02:06:01G+A*11:03     | A*02:51+A*11:20        | A*02:99+A*11:60       |                    |                      |
| A*02:06:01G+A*11:19     | A*02:16+A*11:121       |                       |                    |                      |
| A*02:06:01G+A*11:20     | A*02:142+A*11:25       |                       |                    |                      |
| A*02:06:01G+A*11:24:01  | A*02:06:04+A*11:24:02  |                       |                    |                      |
| A*02:06:01G+A*11:25     | A*02:99+A*11:31        |                       |                    |                      |
| A*02:06:01G+A*11:39     | A*02:54+A*11:24:02     |                       |                    |                      |
| A*02:06:01G+A*11:41     | A*02:328+A*11:01:01G   |                       |                    |                      |
| A*02:06:01G+A*11:43     | A*02:243+A*11:01:01G   |                       |                    |                      |
| A*02:06:01G+A*11:72     | A*02:170+A*11:01:01G   |                       |                    |                      |
| A*02:06:01G+A*11:88     | A*02:76:01+A*11:01:01G |                       |                    |                      |
| A*02:06:01G+A*23:01:01G | A*02:331+A*23:12       |                       |                    |                      |
| A*02:06:01G+A*23:01:09  | A*02:06:10+A*23:01:01G |                       |                    |                      |
| A*02:06:01G+A*23:03:02  | A*02:137+A*23:01:01G   |                       |                    |                      |
| A*02:06:01G+A*23:14:01  | A*02:06:04+A*23:14:02  | A*02:51+A*24:13:02    |                    |                      |
| A*02:06:01G+A*23:14:02  | A*02:51+A*24:13:01     |                       |                    |                      |
| A*02:06:01G+A*23:21     | A*02:28+A*23:01:01G    |                       |                    |                      |
| A*02:06:01G+A*23:24     | A*02:106+A*23:01:01G   |                       |                    |                      |
| A*02:06:01G+A*24:02:01G | A*02:06:07+A*24:02:06  | A*02:06:09+A*24:02:58 | A*02:44+A*24:188   | A*02:54+A*24:207     |
|                         | A*02:76:01+A*24:50     | A*02:142+A*24:13:01   | A*02:300+A*24:14   | A*02:331+A*24:30     |
| A*02:06:01G+A*24:02:12  | A*02:06:02+A*24:02:01G |                       |                    |                      |
| A*02:06:01G+A*24:02:14  | A*02:06:03+A*24:02:01G |                       |                    |                      |
| A*02:06:01G+A*24:02:38  | A*02:06:11+A*24:02:01G |                       |                    |                      |
| A*02:06:01G+A*24:03:01G | A*02:142+A*24:207      |                       |                    |                      |
| A*02:06:01G+A*24:07     | A*02:79:01+A*24:131    |                       |                    |                      |
| A*02:06:01G+A*24:13:02  | A*02:06:04+A*24:13:01  |                       |                    |                      |
| A*02:06:01G+A*24:21:01  | A*02:137+A*24:02:01G   |                       |                    |                      |
| A*02:06:01G+A*24:47     | A*02:144+A*24:02:01G   |                       |                    |                      |
| A*02:06:01G+A*24:56     | A*02:99+A*24:02:01G    |                       |                    |                      |
| A*02:06:01G+A*24:69     | A*02:278+A*24:02:01G   |                       |                    |                      |
| A*02:06:01G+A*24:71     | A*02:51+A*24:02:01G    | A*02:142+A*23:14:02   |                    |                      |
| A*02:06:01G+A*24:72     | A*02:106+A*24:02:01G   |                       |                    |                      |
| A*02:06:01G+A*24:82     | A*02:243+A*24:50       |                       |                    |                      |
| A*02:06:01G+A*24:87     | A*02:06:04+A*24:06     |                       |                    |                      |
| A*02:06:01G+A*24:121    | A*02:178+A*24:02:01G   |                       |                    |                      |
| A*02:06:01G+A*24:162    | A*02:21+A*24:02:01G    |                       |                    |                      |
| A*02:06:01G+A*24:172    | A*02:259+A*24:02:01G   |                       |                    |                      |
| A*02:06:01G+A*24:177    | A*02:51+A*24:56        | A*02:99+A*24:71       |                    |                      |
| A*02:06:01G+A*24:190    | A*02:51+A*24:59        |                       |                    |                      |
| A*02:06:01G+A*25:01:01G | A*02:06:09+A*25:01:07  | A*02:331+A*25:11      |                    |                      |
| A*02:06:01G+A*25:04     | A*02:142+A*25:19       |                       |                    |                      |
| A*02:06:01G+A*26:01:01G | A*02:99+A*26:12        | A*02:137+A*26:10      | A*02:331+A*26:36   |                      |
| A*02:06:01G+A*26:01:12  | A*02:06:03+A*26:01:01G |                       |                    |                      |
| A*02:06:01G+A*26:07:01  | A*02:06:12+A*26:07:02  |                       |                    |                      |
| A*02:06:01G+A*26:08     | A*02:142+A*26:43:01    |                       |                    |                      |
| A*02:06:01G+A*26:16     | A*02:76:01+A*26:01:01G |                       |                    |                      |
| A*02:06:01G+A*26:28     | A*02:51+A*26:14        | A*02:99+A*26:18       |                    |                      |
| A*02:06:01G+A*26:43:02  | A*02:06:04+A*26:43:01  |                       |                    |                      |
| A*02:06:01G+A*26:52     | A*02:51+A*26:01:01G    |                       |                    |                      |
| A*02:06:01G+A*26:74     | A*02:259+A*26:01:01G   |                       |                    |                      |
| A*02:06:01G+A*29:02:10  | A*02:06:03+A*29:02:01G |                       |                    |                      |
| A*02:06:01G+A*29:07     | A*02:108+A*29:22       |                       |                    |                      |
| A*02:06:01G+A*29:36     | A*02:278+A*29:02:01G   |                       |                    |                      |
| A*02:06:01G+A*30:01:01G | A*02:28+A*30:11:02     | A*02:331+A*30:16      |                    |                      |
| A*02:06:01G+A*30:01:06  | A*02:06:06+A*30:01:01G |                       |                    |                      |
| A*02:06:01G+A*30:02:01G | A*02:137+A*30:61       |                       |                    |                      |
| A*02:06:01G+A*30:02:05  | A*02:06:04+A*30:02:01G |                       |                    |                      |
| A*02:06:01G+A*30:04:02  | A*02:06:07+A*30:04:01  |                       |                    |                      |
| A*02:06:01G+A*30:37     | A*02:259+A*30:01:01G   |                       |                    |                      |
| A*02:06:01G+A*31:01:02G | A*02:28+A*31:44        | A*02:51+A*31:41       |                    |                      |
| A*02:06:01G+A*31:01:03  | A*02:06:06+A*31:01:02G |                       |                    |                      |
| A*02:06:01G+A*31:01:05  | A*02:06:04+A*31:01:02G |                       |                    |                      |
| A*02:06:01G+A*31:01:06  | A*02:06:02+A*31:01:02G |                       |                    |                      |
| A*02:06:01G+A*31:31     | A*02:72+A*31:01:02G    |                       |                    |                      |
| A*02:06:01G+A*31:63     | A*02:328+A*31:01:02G   |                       |                    |                      |
| A*02:06:01G+A*32:01:01G | A*02:51+A*32:06        | A*02:331+A*32:08      | A*02:358+A*32:39   |                      |
| A*02:06:01G+A*32:01:06  | A*02:06:04+A*32:01:01G |                       |                    |                      |
| A*02:06:01G+A*32:01:12  | A*02:137+A*32:28       |                       |                    |                      |
| A*02:06:01G+A*32:02     | A*02:142+A*32:06       |                       |                    |                      |
| A*02:06:01G+A*32:22     | A*02:51+A*32:02        | A*02:142+A*32:01:01G  |                    |                      |
| A*02:06:01G+A*32:46     | A*02:259+A*32:01:01G   |                       |                    |                      |
| A*02:06:01G+A*33:01:01G | A*02:06:12+A*33:01:02  |                       |                    |                      |
| A*02:06:01G+A*33:01:05  | A*02:137+A*33:32:01    |                       |                    |                      |
| A*02:06:01G+A*33:03:01G | A*02:243+A*33:51       |                       |                    |                      |
| A*02:06:01G+A*33:03:05  | A*02:06:04+A*33:03:01G |                       |                    |                      |
| A*02:06:01G+A*33:11     | A*02:331+A*33:24       |                       |                    |                      |



|                         |                        |                  |
|-------------------------|------------------------|------------------|
| A*02:06:01G+A*33:60     | A*02:310+A*33:03:01G   |                  |
| A*02:06:01G+A*34:02:02  | A*02:06:04+A*34:02:01  |                  |
| A*02:06:01G+A*34:04     | A*02:28+A*34:02:01     |                  |
| A*02:06:01G+A*34:05     | A*02:91+A*34:01:01     |                  |
| A*02:06:01G+A*66:05     | A*02:331+A*26:03:01    |                  |
| A*02:06:01G+A*68:01:01G | A*02:06:07+A*68:01:11  |                  |
| A*02:06:01G+A*68:03:01  | A*02:06:09+A*68:03:02  | A*02:331+A*68:05 |
| A*02:06:01G+A*68:09     | A*02:142+A*68:08:02    |                  |
| A*02:06:01G+A*68:12     | A*02:79:01+A*68:01:02G |                  |
| A*02:06:01G+A*68:28     | A*02:06:04+A*68:02:01G |                  |
| A*02:06:01G+A*68:29     | A*02:243+A*68:01:01G   |                  |
| A*02:06:01G+A*68:31     | A*02:331+A*68:15       |                  |
| A*02:06:01G+A*68:35     | A*02:295+A*68:01:01G   |                  |
| A*02:06:01G+A*68:42     | A*02:99+A*68:01:01G    |                  |
| A*02:06:01G+A*68:45     | A*02:76:01+A*68:01:01G |                  |
| A*02:06:01G+A*68:51     | A*02:51+A*68:02:01G    |                  |
| A*02:06:01G+A*68:54     | A*02:99+A*68:02:01G    |                  |
| A*02:06:01G+A*68:67     | A*02:328+A*68:02:01G   |                  |
| A*02:06:01G+A*68:91     | A*02:137+A*68:01:02G   |                  |
| A*02:06:01G+A*74:01:01G | A*02:16+A*74:04        | A*02:331+A*74:06 |
| A*02:06:02+A*24:02:14   | A*02:06:03+A*24:02:12  |                  |
| A*02:06:02+A*24:02:38   | A*02:06:11+A*24:02:12  |                  |
| A*02:06:02+A*24:21:01   | A*02:137+A*24:02:12    |                  |
| A*02:06:02+A*24:47      | A*02:144+A*24:02:12    |                  |
| A*02:06:02+A*24:56      | A*02:99+A*24:02:12     |                  |
| A*02:06:02+A*24:69      | A*02:278+A*24:02:12    |                  |
| A*02:06:02+A*24:71      | A*02:51+A*24:02:12     |                  |
| A*02:06:02+A*24:72      | A*02:106+A*24:02:12    |                  |
| A*02:06:02+A*24:121     | A*02:178+A*24:02:12    |                  |
| A*02:06:02+A*24:162     | A*02:21+A*24:02:12     |                  |
| A*02:06:02+A*24:172     | A*02:259+A*24:02:12    |                  |
| A*02:06:02+A*31:01:03   | A*02:06:06+A*31:01:06  |                  |
| A*02:06:02+A*31:01:05   | A*02:06:04+A*31:01:06  |                  |
| A*02:06:02+A*31:31      | A*02:72+A*31:01:06     |                  |
| A*02:06:02+A*31:63      | A*02:328+A*31:01:06    |                  |
| A*02:06:03+A*03:01:02   | A*02:06:04+A*03:01:16  |                  |
| A*02:06:03+A*03:54      | A*02:106+A*03:01:16    |                  |
| A*02:06:03+A*03:65      | A*02:142+A*03:01:16    |                  |
| A*02:06:03+A*03:94      | A*02:91+A*03:01:16     |                  |
| A*02:06:03+A*11:01:02   | A*02:06:06+A*11:01:17  |                  |
| A*02:06:03+A*11:41      | A*02:328+A*11:01:17    |                  |
| A*02:06:03+A*11:43      | A*02:243+A*11:01:17    |                  |
| A*02:06:03+A*11:72      | A*02:170+A*11:01:17    |                  |
| A*02:06:03+A*11:88      | A*02:76:01+A*11:01:17  |                  |
| A*02:06:03+A*24:02:38   | A*02:06:11+A*24:02:14  |                  |
| A*02:06:03+A*24:21:01   | A*02:137+A*24:02:14    |                  |
| A*02:06:03+A*24:47      | A*02:144+A*24:02:14    |                  |
| A*02:06:03+A*24:56      | A*02:99+A*24:02:14     |                  |
| A*02:06:03+A*24:69      | A*02:278+A*24:02:14    |                  |
| A*02:06:03+A*24:71      | A*02:51+A*24:02:14     |                  |
| A*02:06:03+A*24:72      | A*02:106+A*24:02:14    |                  |
| A*02:06:03+A*24:121     | A*02:178+A*24:02:14    |                  |
| A*02:06:03+A*24:162     | A*02:21+A*24:02:14     |                  |
| A*02:06:03+A*24:172     | A*02:259+A*24:02:14    |                  |
| A*02:06:03+A*26:16      | A*02:76:01+A*26:01:12  |                  |
| A*02:06:03+A*26:52      | A*02:51+A*26:01:12     |                  |
| A*02:06:03+A*26:74      | A*02:259+A*26:01:12    |                  |
| A*02:06:03+A*29:36      | A*02:278+A*29:02:10    |                  |
| A*02:06:04+A*02:280     | A*02:142+A*02:17:01    |                  |
| A*02:06:04+A*02:323     | A*02:49+A*02:99        |                  |
| A*02:06:04+A*03:54      | A*02:106+A*03:01:02    |                  |
| A*02:06:04+A*03:65      | A*02:142+A*03:01:02    |                  |
| A*02:06:04+A*03:94      | A*02:91+A*03:01:02     |                  |
| A*02:06:04+A*11:01:01G  | A*02:142+A*11:24:01    |                  |
| A*02:06:04+A*11:39      | A*02:54+A*11:24:01     |                  |
| A*02:06:04+A*24:02:01G  | A*02:142+A*24:13:02    |                  |
| A*02:06:04+A*24:71      | A*02:142+A*23:14:01    |                  |
| A*02:06:04+A*26:08      | A*02:142+A*26:43:02    |                  |
| A*02:06:04+A*31:01:03   | A*02:06:06+A*31:01:05  |                  |
| A*02:06:04+A*31:31      | A*02:72+A*31:01:05     |                  |
| A*02:06:04+A*31:63      | A*02:328+A*31:01:05    |                  |
| A*02:06:04+A*32:22      | A*02:142+A*32:01:06    |                  |
| A*02:06:04+A*32:46      | A*02:259+A*32:01:06    |                  |
| A*02:06:04+A*33:60      | A*02:310+A*33:03:05    |                  |
| A*02:06:04+A*34:04      | A*02:28+A*34:02:02     |                  |
| A*02:06:04+A*68:26      | A*02:54+A*68:08:01     |                  |
| A*02:06:04+A*68:51      | A*02:51+A*68:28        |                  |
| A*02:06:04+A*68:54      | A*02:99+A*68:28        |                  |
| A*02:06:04+A*68:63      | A*02:99+A*68:08:01     |                  |
| A*02:06:04+A*68:67      | A*02:328+A*68:28       |                  |
| A*02:06:05+A*68:01:01G  | A*02:06:09+A*68:01:02G |                  |
| A*02:06:05+A*68:03:03   | A*02:06:09+A*68:03:01  |                  |
| A*02:06:06+A*11:41      | A*02:328+A*11:01:02    |                  |
| A*02:06:06+A*11:43      | A*02:243+A*11:01:02    |                  |
| A*02:06:06+A*11:72      | A*02:170+A*11:01:02    |                  |
| A*02:06:06+A*11:88      | A*02:76:01+A*11:01:02  |                  |
| A*02:06:06+A*30:37      | A*02:259+A*30:01:06    |                  |
| A*02:06:06+A*31:31      | A*02:72+A*31:01:03     |                  |
| A*02:06:06+A*31:63      | A*02:328+A*31:01:03    |                  |
| A*02:06:07+A*02:35:02   | A*02:06:12+A*02:35:03  |                  |
| A*02:06:07+A*11:88      | A*02:76:02+A*11:01:34  |                  |
| A*02:06:07+A*30:01:01G  | A*02:76:02+A*30:08     |                  |
| A*02:06:09+A*68:45      | A*02:76:02+A*68:01:11  |                  |
| A*02:06:10+A*23:03:02   | A*02:137+A*23:01:09    |                  |
| A*02:06:10+A*23:21      | A*02:28+A*23:01:09     |                  |
| A*02:06:10+A*23:24      | A*02:106+A*23:01:09    |                  |
| A*02:06:11+A*24:21:01   | A*02:137+A*24:02:38    |                  |
| A*02:06:11+A*24:47      | A*02:144+A*24:02:38    |                  |
| A*02:06:11+A*24:56      | A*02:99+A*24:02:38     |                  |
| A*02:06:11+A*24:69      | A*02:278+A*24:02:38    |                  |
| A*02:06:11+A*24:71      | A*02:51+A*24:02:38     |                  |
| A*02:06:11+A*24:72      | A*02:106+A*24:02:38    |                  |
| A*02:06:11+A*24:121     | A*02:178+A*24:02:38    |                  |
| A*02:06:11+A*24:162     | A*02:21+A*24:02:38     |                  |
| A*02:06:11+A*24:172     | A*02:259+A*24:02:38    |                  |

|                         |                      |                      |                   |
|-------------------------|----------------------|----------------------|-------------------|
| A*02:06:12+A*24:02:01G  | A*02:129+A*24:89     |                      |                   |
| A*02:07:01G+A*02:37     | A*02:12+A*02:255     |                      |                   |
| A*02:07:01G+A*02:45     | A*02:217:02+A*02:369 |                      |                   |
| A*02:07:01G+A*02:46     | A*02:70+A*02:369     |                      |                   |
| A*02:07:01G+A*02:54     | A*02:142+A*02:255    |                      |                   |
| A*02:07:01G+A*02:110    | A*02:17:01G+A*02:282 |                      |                   |
| A*02:07:01G+A*02:114    | A*02:246+A*02:282    |                      |                   |
| A*02:07:01G+A*02:136    | A*02:22:01G+A*02:112 | A*02:87+A*02:191     |                   |
| A*02:07:01G+A*02:300    | A*02:108+A*02:282    |                      |                   |
| A*02:07:01G+A*02:304    | A*02:80+A*02:282     |                      |                   |
| A*02:07:01G+A*02:323    | A*02:26+A*02:191     |                      |                   |
| A*02:07:01G+A*03:50     | A*02:191+A*03:01:01G |                      |                   |
| A*02:07:01G+A*03:66     | A*02:191+A*03:01:02  |                      |                   |
| A*02:07:01G+A*03:72     | A*02:319+A*03:01:01G |                      |                   |
| A*02:07:01G+A*03:97     | A*02:255+A*03:01:01G |                      |                   |
| A*02:07:01G+A*03:122    | A*02:255+A*03:05:01  |                      |                   |
| A*02:07:01G+A*03:133    | A*02:130+A*03:07     |                      |                   |
| A*02:07:01G+A*11:03     | A*02:130+A*11:20     |                      |                   |
| A*02:07:01G+A*11:15:01  | A*02:202+A*11:36     |                      |                   |
| A*02:07:01G+A*11:23     | A*02:182+A*11:36     |                      |                   |
| A*02:07:01G+A*11:27     | A*02:255+A*11:04     |                      |                   |
| A*02:07:01G+A*11:30     | A*02:197+A*11:36     |                      |                   |
| A*02:07:01G+A*11:32     | A*02:121+A*11:36     |                      |                   |
| A*02:07:01G+A*11:33:02  | A*02:174+A*11:36     |                      |                   |
| A*02:07:01G+A*11:34     | A*02:153+A*11:36     |                      |                   |
| A*02:07:01G+A*11:38     | A*02:255+A*11:02:01G |                      |                   |
| A*02:07:01G+A*11:39     | A*02:36+A*11:36      | A*02:255+A*11:01:01G |                   |
| A*02:07:01G+A*11:41     | A*02:273+A*11:36     |                      |                   |
| A*02:07:01G+A*11:44     | A*02:191+A*11:24:01  |                      |                   |
| A*02:07:01G+A*11:48     | A*02:183+A*11:36     |                      |                   |
| A*02:07:01G+A*11:72     | A*02:364+A*11:36     |                      |                   |
| A*02:07:01G+A*11:79     | A*02:109+A*11:36     |                      |                   |
| A*02:07:01G+A*11:82     | A*02:313+A*11:36     |                      |                   |
| A*02:07:01G+A*11:87     | A*02:173+A*11:36     |                      |                   |
| A*02:07:01G+A*11:93     | A*02:219+A*11:82     |                      |                   |
| A*02:07:01G+A*11:96     | A*02:292+A*11:36     |                      |                   |
| A*02:07:01G+A*11:111    | A*02:184+A*11:36     |                      |                   |
| A*02:07:01G+A*11:112    | A*02:262+A*11:36     |                      |                   |
| A*02:07:01G+A*11:123    | A*02:159+A*11:36     |                      |                   |
| A*02:07:01G+A*11:125    | A*02:312+A*11:36     |                      |                   |
| A*02:07:01G+A*11:128    | A*02:362+A*11:36     |                      |                   |
| A*02:07:01G+A*23:01:01G | A*02:255+A*23:04     |                      |                   |
| A*02:07:01G+A*23:02     | A*02:191+A*23:01:01G |                      |                   |
| A*02:07:01G+A*23:14:01  | A*02:130+A*24:13:02  |                      |                   |
| A*02:07:01G+A*23:14:02  | A*02:130+A*24:13:01  |                      |                   |
| A*02:07:01G+A*24:02:01G | A*02:112+A*24:28     | A*02:255+A*24:03:01G | A*02:319+A*24:104 |
| A*02:07:01G+A*24:02:18  | A*02:255+A*24:03:02  |                      |                   |
| A*02:07:01G+A*24:06     | A*02:191+A*24:13:01  | A*02:255+A*24:167    |                   |
| A*02:07:01G+A*24:13:01  | A*02:255+A*24:207    |                      |                   |
| A*02:07:01G+A*24:20     | A*02:319+A*24:88     |                      |                   |
| A*02:07:01G+A*24:27     | A*02:219+A*24:02:01G |                      |                   |
| A*02:07:01G+A*24:46     | A*02:255+A*24:10     |                      |                   |
| A*02:07:01G+A*24:71     | A*02:130+A*24:02:01G |                      |                   |
| A*02:07:01G+A*24:87     | A*02:191+A*24:13:02  |                      |                   |
| A*02:07:01G+A*24:167    | A*02:191+A*24:207    |                      |                   |
| A*02:07:01G+A*24:177    | A*02:130+A*24:56     |                      |                   |
| A*02:07:01G+A*24:190    | A*02:130+A*24:59     |                      |                   |
| A*02:07:01G+A*25:01:01G | A*02:191+A*25:19     |                      |                   |
| A*02:07:01G+A*26:01:01G | A*02:191+A*26:43:01  |                      |                   |
| A*02:07:01G+A*26:28     | A*02:130+A*26:14     |                      |                   |
| A*02:07:01G+A*26:29     | A*02:255+A*26:15     |                      |                   |
| A*02:07:01G+A*26:49     | A*02:255+A*26:01:01G |                      |                   |
| A*02:07:01G+A*26:52     | A*02:130+A*26:01:01G |                      |                   |
| A*02:07:01G+A*29:03     | A*02:255+A*29:02:01G |                      |                   |
| A*02:07:01G+A*29:28     | A*02:191+A*29:01:01G |                      |                   |
| A*02:07:01G+A*30:18     | A*02:319+A*30:55     |                      |                   |
| A*02:07:01G+A*31:01:02G | A*02:130+A*31:41     |                      |                   |
| A*02:07:01G+A*31:05     | A*02:255+A*31:01:02G |                      |                   |
| A*02:07:01G+A*31:30     | A*02:191+A*31:01:02G |                      |                   |
| A*02:07:01G+A*32:01:01G | A*02:130+A*32:06     | A*02:369+A*32:39     |                   |
| A*02:07:01G+A*32:03     | A*02:112+A*74:06     |                      |                   |
| A*02:07:01G+A*32:07     | A*02:319+A*32:01:01G |                      |                   |
| A*02:07:01G+A*32:13     | A*02:255+A*32:01:01G |                      |                   |
| A*02:07:01G+A*32:22     | A*02:130+A*32:02     |                      |                   |
| A*02:07:01G+A*33:10     | A*02:255+A*33:03:01G |                      |                   |
| A*02:07:01G+A*66:10     | A*02:255+A*66:01:01G |                      |                   |
| A*02:07:01G+A*68:01:02G | A*02:191+A*68:08:02  |                      |                   |
| A*02:07:01G+A*68:42     | A*02:191+A*68:63     |                      |                   |
| A*02:07:01G+A*68:45     | A*02:319+A*68:71     |                      |                   |
| A*02:07:01G+A*68:48     | A*02:118+A*68:82     | A*02:130+A*68:02:01G |                   |
| A*02:07:01G+A*68:51     | A*02:40:01+A*68:82   |                      |                   |
| A*02:07:01G+A*68:53     | A*02:159+A*68:82     |                      |                   |
| A*02:07:01G+A*68:54     | A*02:26+A*68:82      |                      |                   |
| A*02:07:01G+A*68:62     | A*02:219+A*68:02:01G |                      |                   |
| A*02:07:01G+A*68:65     | A*02:255+A*68:01:02G |                      |                   |
| A*02:07:01G+A*68:67     | A*02:273+A*68:82     |                      |                   |
| A*02:07:01G+A*68:77     | A*02:74:01+A*68:82   |                      |                   |
| A*02:07:01G+A*68:78     | A*02:133+A*68:82     |                      |                   |
| A*02:07:01G+A*68:79     | A*02:18+A*68:01:01G  |                      |                   |
| A*02:07:01G+A*68:81     | A*02:121+A*68:82     |                      |                   |
| A*02:07:01G+A*74:13     | A*02:103+A*74:04     |                      |                   |
| A*02:08+A*02:101:01     | A*02:20:01+A*02:154  |                      |                   |
| A*02:08+A*24:46         | A*02:154+A*24:145    |                      |                   |
| A*02:10+A*02:12         | A*02:142+A*02:242    |                      |                   |
| A*02:10+A*02:17:01G     | A*02:108+A*02:242    |                      |                   |
| A*02:10+A*02:24:01      | A*02:137+A*02:242    |                      |                   |
| A*02:10+A*02:26         | A*02:99+A*02:242     |                      |                   |
| A*02:10+A*02:37         | A*02:54+A*02:242     |                      |                   |
| A*02:10+A*02:40:01      | A*02:51+A*02:242     |                      |                   |
| A*02:10+A*02:42         | A*02:242+A*02:310    |                      |                   |
| A*02:10+A*02:50         | A*02:122+A*02:242    |                      |                   |
| A*02:10+A*02:64         | A*02:178+A*02:242    |                      |                   |
| A*02:10+A*02:86         | A*02:79:01+A*02:242  |                      |                   |
| A*02:10+A*02:90         | A*02:242+A*02:331    |                      |                   |
| A*02:10+A*02:92         | A*02:242+A*02:358    |                      |                   |

|                         |                        |                      |                  |
|-------------------------|------------------------|----------------------|------------------|
| A*02:10+A*02:110        | A*02:242+A*02:300      |                      |                  |
| A*02:10+A*02:123        | A*02:242+A*02:295      |                      |                  |
| A*02:10+A*02:145        | A*02:106+A*02:242      |                      |                  |
| A*02:10+A*02:16         | A*02:127+A*02:242      |                      |                  |
| A*02:10+A*02:195        | A*02:16+A*02:242       |                      |                  |
| A*02:10+A*02:205        | A*02:144+A*02:242      |                      |                  |
| A*02:10+A*02:273        | A*02:242+A*02:328      |                      |                  |
| A*02:10+A*02:275        | A*02:72+A*02:242       |                      |                  |
| A*02:10+A*02:289        | A*02:41+A*02:242       |                      |                  |
| A*02:10+A*02:322        | A*02:91+A*02:242       |                      |                  |
| A*02:10+A*02:364        | A*02:170+A*02:242      |                      |                  |
| A*02:10+A*03:01:01G     | A*02:242+A*03:12       |                      |                  |
| A*02:10+A*03:75         | A*02:300+A*03:95       |                      |                  |
| A*02:10+A*11:79         | A*02:244+A*11:01:01G   |                      |                  |
| A*02:10+A*23:50         | A*02:244+A*23:01:01G   |                      |                  |
| A*02:10+A*24:104        | A*02:242+A*24:50       |                      |                  |
| A*02:10+A*25:03         | A*02:242+A*25:01:01G   |                      |                  |
| A*02:10+A*33:52         | A*02:244+A*33:03:01G   |                      |                  |
| A*02:10+A*34:08         | A*02:242+A*34:02:01    |                      |                  |
| A*02:10+A*68:71         | A*02:242+A*68:01:01G   |                      |                  |
| A*02:11:01G+A*02:35:03  | A*02:11:02+A*02:35:01  |                      |                  |
| A*02:11:01G+A*02:62     | A*02:34+A*02:128       |                      |                  |
| A*02:11:01G+A*02:80     | A*02:289+A*02:298      |                      |                  |
| A*02:11:01G+A*03:02:01  | A*02:35:01+A*03:32     | A*02:298+A*03:31     |                  |
| A*02:11:01G+A*11:01:01G | A*02:35:01+A*11:98     |                      |                  |
| A*02:11:01G+A*11:06     | A*02:34+A*11:98        |                      |                  |
| A*02:11:01G+A*11:19     | A*02:90+A*11:98        |                      |                  |
| A*02:11:01G+A*11:40     | A*02:146+A*11:98       |                      |                  |
| A*02:11:01G+A*24:02:01G | A*02:11:02+A*24:02:06  | A*02:90+A*24:34      |                  |
| A*02:11:01G+A*24:02:18  | A*02:11:03+A*24:02:01G |                      |                  |
| A*02:11:01G+A*24:02:49  | A*02:11:04+A*24:02:01G |                      |                  |
| A*02:11:01G+A*24:03:02  | A*02:11:03+A*24:03:01G |                      |                  |
| A*02:11:01G+A*24:07     | A*02:35:01+A*24:34     |                      |                  |
| A*02:11:01G+A*24:127    | A*02:297+A*24:02:01G   |                      |                  |
| A*02:11:01G+A*24:145    | A*02:128+A*24:02:01G   |                      |                  |
| A*02:11:01G+A*24:156    | A*02:128+A*24:29       |                      |                  |
| A*02:11:01G+A*25:01:01G | A*02:81:01G+A*66:15    |                      |                  |
| A*02:11:01G+A*25:01:06  | A*02:11:03+A*25:01:01G |                      |                  |
| A*02:11:01G+A*26:01:01G | A*02:128+A*26:69       | A*02:146+A*66:15     |                  |
| A*02:11:01G+A*26:01:03  | A*02:11:03+A*26:01:01G |                      |                  |
| A*02:11:01G+A*26:05     | A*02:247+A*66:15       |                      |                  |
| A*02:11:01G+A*26:08     | A*02:128+A*26:48       |                      |                  |
| A*02:11:01G+A*29:02:01G | A*02:146+A*29:39       |                      |                  |
| A*02:11:01G+A*29:13     | A*02:81:01G+A*29:39    |                      |                  |
| A*02:11:01G+A*30:04:02  | A*02:11:02+A*30:04:01  |                      |                  |
| A*02:11:01G+A*30:58     | A*02:297+A*30:01:01G   |                      |                  |
| A*02:11:01G+A*31:01:02G | A*02:128+A*31:02       |                      |                  |
| A*02:11:01G+A*31:07     | A*02:87+A*31:02        |                      |                  |
| A*02:11:01G+A*31:08     | A*02:87+A*33:53        |                      |                  |
| A*02:11:01G+A*31:10     | A*02:87+A*31:01:02G    | A*02:128+A*31:07     |                  |
| A*02:11:01G+A*31:66     | A*02:90+A*31:01:02G    |                      |                  |
| A*02:11:01G+A*32:01:01G | A*02:81:01G+A*74:07    | A*02:128+A*32:31     |                  |
| A*02:11:01G+A*32:03     | A*02:87+A*74:07        |                      |                  |
| A*02:11:01G+A*33:09     | A*02:128+A*33:08       |                      |                  |
| A*02:11:01G+A*33:11     | A*02:90+A*33:03:01G    |                      |                  |
| A*02:11:01G+A*33:21     | A*02:128+A*33:53       |                      |                  |
| A*02:11:01G+A*33:48     | A*02:146+A*33:03:01G   |                      |                  |
| A*02:11:01G+A*33:54     | A*02:297+A*33:03:01G   |                      |                  |
| A*02:11:01G+A*66:01:01G | A*02:35:01+A*66:15     |                      |                  |
| A*02:11:01G+A*66:05     | A*02:90+A*66:15        |                      |                  |
| A*02:11:01G+A*68:01:01G | A*02:11:02+A*68:01:11  | A*02:35:01+A*68:04   | A*02:298+A*68:88 |
| A*02:11:01G+A*68:01:04  | A*02:11:03+A*68:01:01G |                      |                  |
| A*02:11:01G+A*68:02:02  | A*02:11:03+A*68:02:01G |                      |                  |
| A*02:11:01G+A*68:03:03  | A*02:90+A*68:04        |                      |                  |
| A*02:11:01G+A*74:01:01G | A*02:90+A*74:07        |                      |                  |
| A*02:11:01G+A*74:13     | A*02:35:01+A*74:07     |                      |                  |
| A*02:11:02+A*03:02:01   | A*02:35:03+A*03:32     |                      |                  |
| A*02:11:02+A*11:01:01G  | A*02:35:03+A*11:98     |                      |                  |
| A*02:11:02+A*24:07      | A*02:35:03+A*24:34     |                      |                  |
| A*02:11:02+A*66:01:01G  | A*02:35:03+A*66:15     |                      |                  |
| A*02:11:02+A*68:01:01G  | A*02:35:03+A*68:04     |                      |                  |
| A*02:11:02+A*74:13      | A*02:35:03+A*74:07     |                      |                  |
| A*02:11:03+A*24:02:49   | A*02:11:04+A*24:02:18  |                      |                  |
| A*02:11:03+A*24:127     | A*02:297+A*24:02:18    |                      |                  |
| A*02:11:03+A*24:145     | A*02:128+A*24:02:18    |                      |                  |
| A*02:11:04+A*24:127     | A*02:297+A*24:02:49    |                      |                  |
| A*02:11:04+A*24:145     | A*02:128+A*24:02:49    |                      |                  |
| A*02:12+A*02:22:01G     | A*02:49+A*02:226N      |                      |                  |
| A*02:12+A*02:40:01      | A*02:40:02+A*02:226N   |                      |                  |
| A*02:12+A*02:41         | A*02:142+A*02:289      |                      |                  |
| A*02:12+A*02:51         | A*02:40:01+A*02:142    |                      |                  |
| A*02:12+A*02:54         | A*02:37+A*02:142       |                      |                  |
| A*02:12+A*02:72         | A*02:142+A*02:275      |                      |                  |
| A*02:12+A*02:79:01      | A*02:86+A*02:142       |                      |                  |
| A*02:12+A*02:91         | A*02:142+A*02:322      |                      |                  |
| A*02:12+A*02:106        | A*02:142+A*02:145      |                      |                  |
| A*02:12+A*02:108        | A*02:17:01G+A*02:142   |                      |                  |
| A*02:12+A*02:122        | A*02:50+A*02:142       |                      |                  |
| A*02:12+A*02:127        | A*02:142+A*02:16       |                      |                  |
| A*02:12+A*02:137        | A*02:24:01+A*02:142    |                      |                  |
| A*02:12+A*02:144        | A*02:142+A*02:205      |                      |                  |
| A*02:12+A*02:16         | A*02:142+A*02:195      |                      |                  |
| A*02:12+A*02:170        | A*02:142+A*02:364      |                      |                  |
| A*02:12+A*02:178        | A*02:64+A*02:142       |                      |                  |
| A*02:12+A*02:295        | A*02:123+A*02:142      |                      |                  |
| A*02:12+A*02:300        | A*02:110+A*02:142      |                      |                  |
| A*02:12+A*02:310        | A*02:42+A*02:142       |                      |                  |
| A*02:12+A*02:323        | A*02:13+A*02:22:01G    |                      |                  |
| A*02:12+A*02:328        | A*02:142+A*02:273      |                      |                  |
| A*02:12+A*02:331        | A*02:90+A*02:142       |                      |                  |
| A*02:12+A*02:358        | A*02:92+A*02:142       |                      |                  |
| A*02:12+A*03:04:01      | A*02:74:02+A*03:65     |                      |                  |
| A*02:12+A*03:04:02      | A*02:74:01+A*03:65     |                      |                  |
| A*02:12+A*03:05:01      | A*02:26+A*03:10        | A*02:226N+A*03:05:02 |                  |
| A*02:12+A*03:16         | A*02:341+A*03:65       |                      |                  |

|                     |                         |                         |                   |                     |
|---------------------|-------------------------|-------------------------|-------------------|---------------------|
| A*02:12+A*03:22:01  | A*02:174+A*03:65        |                         |                   |                     |
| A*02:12+A*03:43     | A*02:26+A*03:82         |                         |                   |                     |
| A*02:12+A*03:44     | A*02:16+A*03:65         |                         |                   |                     |
| A*02:12+A*03:47     | A*02:26+A*03:76         |                         |                   |                     |
| A*02:12+A*03:50     | A*02:22:01G+A*03:65     | A*02:49+A*03:69N        | A*02:226N+A*03:66 | A*02:323+A*03:02:01 |
| A*02:12+A*03:54     | A*02:145+A*03:65        |                         |                   |                     |
| A*02:12+A*03:59     | A*02:352+A*03:65        |                         |                   |                     |
| A*02:12+A*03:63     | A*02:346+A*03:65        |                         |                   |                     |
| A*02:12+A*03:65     | A*02:13+A*03:02:01      |                         |                   |                     |
| A*02:12+A*03:66     | A*02:49+A*03:65         |                         |                   |                     |
| A*02:12+A*03:69N    | A*02:226N+A*03:65       |                         |                   |                     |
| A*02:12+A*03:72     | A*02:76:01+A*03:65      |                         |                   |                     |
| A*02:12+A*03:79     | A*02:85+A*03:65         |                         |                   |                     |
| A*02:12+A*03:84     | A*02:349+A*03:65        |                         |                   |                     |
| A*02:12+A*03:87     | A*02:197+A*03:65        |                         |                   |                     |
| A*02:12+A*03:93     | A*02:119+A*03:65        |                         |                   |                     |
| A*02:12+A*03:94     | A*02:322+A*03:65        |                         |                   |                     |
| A*02:12+A*03:97     | A*02:36+A*03:65         | A*02:37+A*03:01:01G     |                   |                     |
| A*02:12+A*03:101    | A*02:306+A*03:65        |                         |                   |                     |
| A*02:12+A*03:104    | A*02:332+A*03:65        |                         |                   |                     |
| A*02:12+A*03:105    | A*02:101:02+A*03:65     |                         |                   |                     |
| A*02:12+A*03:122    | A*02:37+A*03:05:01      |                         |                   |                     |
| A*02:12+A*03:126    | A*02:198+A*03:65        |                         |                   |                     |
| A*02:12+A*03:127    | A*02:27+A*03:07         |                         |                   |                     |
| A*02:12+A*03:128    | A*02:116+A*03:65        |                         |                   |                     |
| A*02:12+A*03:133    | A*02:40:01+A*03:02:01   |                         |                   |                     |
| A*02:12+A*03:136    | A*02:133+A*03:65        |                         |                   |                     |
| A*02:12+A*03:150    | A*02:262+A*03:65        |                         |                   |                     |
| A*02:12+A*11:03     | A*02:13+A*11:60         |                         |                   |                     |
| A*02:12+A*11:08     | A*02:49+A*11:20         |                         |                   |                     |
| A*02:12+A*11:27     | A*02:37+A*11:04         |                         |                   |                     |
| A*02:12+A*11:38     | A*02:37+A*11:02:01G     |                         |                   |                     |
| A*02:12+A*11:39     | A*02:37+A*11:01:01G     |                         |                   |                     |
| A*02:12+A*11:44     | A*02:49+A*11:01:01G     |                         |                   |                     |
| A*02:12+A*23:01:01G | A*02:37+A*23:04         | A*02:40:01+A*24:05:01G  | A*02:174+A*24:71  |                     |
| A*02:12+A*24:02:01G | A*02:37+A*24:03:01G     |                         |                   |                     |
| A*02:12+A*24:02:18  | A*02:37+A*24:03:02      |                         |                   |                     |
| A*02:12+A*24:06     | A*02:19+A*24:138        | A*02:22:01G+A*24:02:01G | A*02:37+A*24:167  | A*02:136+A*24:28    |
|                     | A*02:226N+A*24:87       |                         |                   |                     |
| A*02:12+A*24:18     | A*02:26+A*24:204        |                         |                   |                     |
| A*02:12+A*24:46     | A*02:37+A*24:10         |                         |                   |                     |
| A*02:12+A*24:50     | A*02:142+A*24:104       |                         |                   |                     |
| A*02:12+A*24:56     | A*02:13+A*24:02:01G     |                         |                   |                     |
| A*02:12+A*24:59     | A*02:27+A*24:02:01G     |                         |                   |                     |
| A*02:12+A*24:87     | A*02:49+A*24:02:01G     |                         |                   |                     |
| A*02:12+A*24:167    | A*02:22:01G+A*24:03:01G |                         |                   |                     |
| A*02:12+A*24:177    | A*02:13+A*24:71         |                         |                   |                     |
| A*02:12+A*24:190    | A*02:27+A*24:71         |                         |                   |                     |
| A*02:12+A*25:01:01G | A*02:22:01G+A*25:04     | A*02:142+A*25:03        |                   |                     |
| A*02:12+A*26:01:01G | A*02:13+A*26:12         | A*02:22:01G+A*26:08     |                   |                     |
| A*02:12+A*26:28     | A*02:13+A*26:18         |                         |                   |                     |
| A*02:12+A*26:29     | A*02:37+A*26:15         |                         |                   |                     |
| A*02:12+A*26:49     | A*02:37+A*26:01:01G     |                         |                   |                     |
| A*02:12+A*26:52     | A*02:280+A*26:18        |                         |                   |                     |
| A*02:12+A*26:69     | A*02:22:01G+A*26:48     |                         |                   |                     |
| A*02:12+A*29:03     | A*02:37+A*29:02:01G     |                         |                   |                     |
| A*02:12+A*30:02:01G | A*02:226N+A*30:02:05    |                         |                   |                     |
| A*02:12+A*31:01:02G | A*02:226N+A*31:01:05    |                         |                   |                     |
| A*02:12+A*31:05     | A*02:37+A*31:01:02G     |                         |                   |                     |
| A*02:12+A*31:43     | A*02:27+A*31:01:02G     |                         |                   |                     |
| A*02:12+A*32:07     | A*02:76:01+A*32:22      |                         |                   |                     |
| A*02:12+A*32:09     | A*02:233+A*32:22        |                         |                   |                     |
| A*02:12+A*32:10     | A*02:323+A*32:02        |                         |                   |                     |
| A*02:12+A*32:12     | A*02:121+A*32:22        |                         |                   |                     |
| A*02:12+A*32:13     | A*02:36+A*32:22         | A*02:37+A*32:01:01G     |                   |                     |
| A*02:12+A*32:17     | A*02:34+A*32:22         |                         |                   |                     |
| A*02:12+A*32:21     | A*02:16+A*32:22         |                         |                   |                     |
| A*02:12+A*32:26     | A*02:101:02+A*32:22     |                         |                   |                     |
| A*02:12+A*32:37     | A*02:119+A*32:22        |                         |                   |                     |
| A*02:12+A*32:42     | A*02:243+A*32:22        |                         |                   |                     |
| A*02:12+A*33:03:01G | A*02:226N+A*33:03:05    |                         |                   |                     |
| A*02:12+A*33:10     | A*02:37+A*33:03:01G     |                         |                   |                     |
| A*02:12+A*34:02:01  | A*02:142+A*34:08        | A*02:226N+A*34:02:02    |                   |                     |
| A*02:12+A*66:10     | A*02:37+A*66:01:01G     |                         |                   |                     |
| A*02:12+A*68:01:01G | A*02:142+A*68:71        |                         |                   |                     |
| A*02:12+A*68:01:02G | A*02:22:01G+A*68:09     |                         |                   |                     |
| A*02:12+A*68:02:01G | A*02:226N+A*68:28       |                         |                   |                     |
| A*02:12+A*68:42     | A*02:13+A*68:01:01G     |                         |                   |                     |
| A*02:12+A*68:54     | A*02:13+A*68:02:01G     |                         |                   |                     |
| A*02:12+A*68:65     | A*02:37+A*68:01:02G     |                         |                   |                     |
| A*02:13+A*02:14     | A*02:26+A*02:271        |                         |                   |                     |
| A*02:13+A*02:36     | A*02:26+A*02:37         |                         |                   |                     |
| A*02:13+A*02:171:02 | A*02:26+A*02:280        |                         |                   |                     |
| A*02:13+A*03:01:01G | A*02:26+A*03:65         |                         |                   |                     |
| A*02:13+A*03:12     | A*02:99+A*03:65         |                         |                   |                     |
| A*02:13+A*03:50     | A*02:323+A*03:65        |                         |                   |                     |
| A*02:13+A*03:127    | A*02:27+A*03:01:01G     |                         |                   |                     |
| A*02:13+A*03:133    | A*02:40:01+A*03:65      | A*02:40:02+A*03:69N     |                   |                     |
| A*02:13+A*11:01:01G | A*02:27+A*11:20         |                         |                   |                     |
| A*02:13+A*11:24:02  | A*02:26+A*11:01:01G     | A*02:27+A*11:25         |                   |                     |
| A*02:13+A*11:25     | A*02:26+A*11:20         |                         |                   |                     |
| A*02:13+A*11:44     | A*02:27+A*11:08         |                         |                   |                     |
| A*02:13+A*23:01:01G | A*02:174+A*24:177       |                         |                   |                     |
| A*02:13+A*24:06     | A*02:22:01G+A*24:56     | A*02:323+A*24:02:01G    |                   |                     |
| A*02:13+A*24:59     | A*02:27+A*24:56         |                         |                   |                     |
| A*02:13+A*24:87     | A*02:49+A*24:56         |                         |                   |                     |
| A*02:13+A*24:99     | A*02:280+A*24:02:01G    |                         |                   |                     |
| A*02:13+A*24:167    | A*02:323+A*24:03:01G    |                         |                   |                     |
| A*02:13+A*24:190    | A*02:27+A*24:177        |                         |                   |                     |
| A*02:13+A*24:207    | A*02:26+A*24:03:01G     |                         |                   |                     |
| A*02:13+A*25:01:01G | A*02:280+A*25:09        | A*02:323+A*25:04        |                   |                     |
| A*02:13+A*25:19     | A*02:26+A*25:04         |                         |                   |                     |
| A*02:13+A*26:01:01G | A*02:280+A*26:14        | A*02:323+A*26:08        |                   |                     |
| A*02:13+A*26:43:01  | A*02:26+A*26:08         |                         |                   |                     |
| A*02:13+A*26:52     | A*02:280+A*26:28        |                         |                   |                     |

|                         |                      |
|-------------------------|----------------------|
| A*02:13+A*26:69         | A*02:323+A*26:48     |
| A*02:13+A*29:02:01G     | A*02:40:01+A*29:05   |
| A*02:13+A*32:01:01G     | A*02:26+A*32:22      |
| A*02:13+A*32:06         | A*02:26+A*32:02      |
| A*02:13+A*34:02:01      | A*02:280+A*34:03     |
| A*02:13+A*68:01:02G     | A*02:323+A*68:09     |
| A*02:13+A*68:08:02      | A*02:26+A*68:09      |
| A*02:14+A*02:37         | A*02:36+A*02:271     |
| A*02:14+A*02:280        | A*02:171:02+A*02:271 |
| A*02:14+A*03:02:01      | A*02:271+A*03:07     |
| A*02:14+A*03:65         | A*02:271+A*03:01:01G |
| A*02:14+A*11:01:01G     | A*02:271+A*11:24:02  |
| A*02:14+A*11:20         | A*02:271+A*11:25     |
| A*02:14+A*24:02:01G     | A*02:271+A*24:13:01  |
| A*02:14+A*24:03:01G     | A*02:271+A*24:207    |
| A*02:14+A*24:71         | A*02:271+A*23:14:02  |
| A*02:14+A*25:04         | A*02:271+A*25:19     |
| A*02:14+A*26:08         | A*02:271+A*26:43:01  |
| A*02:14+A*32:02         | A*02:271+A*32:06     |
| A*02:14+A*32:22         | A*02:271+A*32:01:01G |
| A*02:14+A*68:09         | A*02:271+A*68:08:02  |
| A*02:16:01G+A*11:01:01G | A*02:101:01+A*11:90  |
| A*02:16:01G+A*11:01:44  | A*02:101:02+A*11:90  |
| A*02:16:01G+A*11:27     | A*02:36+A*11:90      |
| A*02:16:01G+A*24:05:01G | A*02:174+A*24:55     |
| A*02:16:01G+A*24:07     | A*02:34+A*24:55      |
| A*02:16:01G+A*24:17     | A*02:246+A*24:55     |
| A*02:16:01G+A*24:21:01  | A*02:24:01+A*24:55   |
| A*02:16:01G+A*24:25     | A*02:352+A*24:55     |
| A*02:16:01G+A*24:46     | A*02:101:01+A*24:55  |
| A*02:16:01G+A*24:47     | A*02:205+A*24:55     |
| A*02:16:01G+A*24:56     | A*02:26+A*24:55      |
| A*02:16:01G+A*24:58     | A*02:107+A*24:55     |
| A*02:16:01G+A*24:60N    | A*02:366N+A*24:55    |
| A*02:16:01G+A*24:62     | A*02:80+A*24:55      |
| A*02:16:01G+A*24:71     | A*02:40:01+A*24:55   |
| A*02:16:01G+A*24:72     | A*02:145+A*24:55     |
| A*02:16:01G+A*24:73     | A*02:147+A*24:55     |
| A*02:16:01G+A*24:77     | A*02:217:02+A*24:55  |
| A*02:16:01G+A*24:90N    | A*02:88N+A*24:55     |
| A*02:16:01G+A*24:91     | A*02:68+A*24:55      |
| A*02:16:01G+A*24:96     | A*02:254+A*24:55     |
| A*02:16:01G+A*24:99     | A*02:25+A*24:55      |
| A*02:16:01G+A*24:117    | A*02:296+A*24:55     |
| A*02:16:01G+A*24:118    | A*02:361+A*24:55     |
| A*02:16:01G+A*24:119    | A*02:158+A*24:55     |
| A*02:16:01G+A*24:121    | A*02:64+A*24:55      |
| A*02:16:01G+A*24:133    | A*02:182+A*24:55     |
| A*02:16:01G+A*24:145    | A*02:20:01+A*24:55   |
| A*02:16:01G+A*24:160    | A*02:262+A*24:55     |
| A*02:16:01G+A*24:165    | A*02:353+A*24:55     |
| A*02:16:01G+A*24:169    | A*02:119+A*24:55     |
| A*02:16:01G+A*24:174    | A*02:188+A*24:55     |
| A*02:16:01G+A*24:176    | A*02:16+A*24:55      |
| A*02:16:01G+A*24:180    | A*02:16+A*24:55      |
| A*02:16:01G+A*24:181    | A*02:236+A*24:55     |
| A*02:16:01G+A*24:187    | A*02:111+A*24:55     |
| A*02:16:01G+A*24:192    | A*02:312+A*24:55     |
| A*02:16:01G+A*24:197    | A*02:85+A*24:55      |
| A*02:16:01G+A*24:198    | A*02:203+A*24:55     |
| A*02:16:01G+A*24:206    | A*02:362+A*24:55     |
| A*02:16:01G+A*66:12     | A*02:101:01+A*66:02  |
| A*02:17:01G+A*02:41     | A*02:108+A*02:289    |
| A*02:17:01G+A*02:51     | A*02:40:01+A*02:108  |
| A*02:17:01G+A*02:54     | A*02:37+A*02:108     |
| A*02:17:01G+A*02:72     | A*02:108+A*02:275    |
| A*02:17:01G+A*02:79:01  | A*02:86+A*02:108     |
| A*02:17:01G+A*02:91     | A*02:108+A*02:322    |
| A*02:17:01G+A*02:99     | A*02:26+A*02:108     |
| A*02:17:01G+A*02:106    | A*02:108+A*02:145    |
| A*02:17:01G+A*02:114    | A*02:110+A*02:246    |
| A*02:17:01G+A*02:122    | A*02:50+A*02:108     |
| A*02:17:01G+A*02:127    | A*02:108+A*02:16     |
| A*02:17:01G+A*02:137    | A*02:24:01+A*02:108  |
| A*02:17:01G+A*02:144    | A*02:108+A*02:205    |
| A*02:17:01G+A*02:16     | A*02:108+A*02:195    |
| A*02:17:01G+A*02:170    | A*02:108+A*02:364    |
| A*02:17:01G+A*02:178    | A*02:64+A*02:108     |
| A*02:17:01G+A*02:295    | A*02:108+A*02:123    |
| A*02:17:01G+A*02:300    | A*02:108+A*02:110    |
| A*02:17:01G+A*02:304    | A*02:80+A*02:110     |
| A*02:17:01G+A*02:310    | A*02:42+A*02:108     |
| A*02:17:01G+A*02:328    | A*02:108+A*02:273    |
| A*02:17:01G+A*02:331    | A*02:90+A*02:108     |
| A*02:17:01G+A*02:358    | A*02:92+A*02:108     |
| A*02:17:01G+A*03:12     | A*02:57+A*03:15      |
| A*02:17:01G+A*24:50     | A*02:108+A*24:104    |
| A*02:17:01G+A*24:57     | A*02:334+A*24:02:01G |
| A*02:17:01G+A*24:93     | A*02:268+A*24:02:01G |
| A*02:17:01G+A*25:01:01G | A*02:108+A*25:03     |
| A*02:17:01G+A*29:02:01G | A*02:334+A*29:07     |
| A*02:17:01G+A*31:01:02G | A*02:334+A*31:29     |
| A*02:17:01G+A*33:26     | A*02:303+A*33:03:01G |
| A*02:17:01G+A*34:02:01  | A*02:108+A*34:08     |
| A*02:17:01G+A*68:01:01G | A*02:108+A*68:71     |
| A*02:19+A*68:01:01G     | A*02:37+A*68:50      |
| A*02:20:01+A*02:35:01   | A*02:62+A*02:90      |
| A*02:20:01+A*02:56:02   | A*02:62+A*02:195     |
| A*02:20:01+A*02:308     | A*02:128+A*02:311    |
| A*02:20:01+A*03:01:01G  | A*02:62+A*03:08      |
| A*02:20:01+A*03:09      | A*02:62+A*03:108     |
| A*02:20:01+A*11:01:01G  | A*02:62+A*11:19      |
| A*02:20:01+A*23:01:01G  | A*02:70+A*23:51      |
| A*02:20:01+A*23:13      | A*02:62+A*23:01:01G  |
| A*02:20:01+A*24:05:01G  | A*02:174+A*24:145    |

A\*02:108+A\*03:01:01G

|                         |                        |                      |
|-------------------------|------------------------|----------------------|
| A*02:20:01+A*24:07      | A*02:34+A*24:145       | A*02:62+A*24:02:01G  |
| A*02:20:01+A*24:17      | A*02:246+A*24:145      |                      |
| A*02:20:01+A*24:19      | A*02:62+A*24:44        |                      |
| A*02:20:01+A*24:21:01   | A*02:24:01+A*24:145    |                      |
| A*02:20:01+A*24:25      | A*02:352+A*24:145      |                      |
| A*02:20:01+A*24:34      | A*02:128+A*24:30       |                      |
| A*02:20:01+A*24:46      | A*02:101:01+A*24:145   |                      |
| A*02:20:01+A*24:47      | A*02:205+A*24:145      |                      |
| A*02:20:01+A*24:56      | A*02:26+A*24:145       |                      |
| A*02:20:01+A*24:58      | A*02:107+A*24:145      |                      |
| A*02:20:01+A*24:60N     | A*02:366N+A*24:145     |                      |
| A*02:20:01+A*24:62      | A*02:80+A*24:145       |                      |
| A*02:20:01+A*24:71      | A*02:40:01+A*24:145    |                      |
| A*02:20:01+A*24:72      | A*02:145+A*24:145      |                      |
| A*02:20:01+A*24:73      | A*02:147+A*24:145      |                      |
| A*02:20:01+A*24:77      | A*02:70+A*24:191       | A*02:217:02+A*24:145 |
| A*02:20:01+A*24:90N     | A*02:88N+A*24:145      |                      |
| A*02:20:01+A*24:91      | A*02:68+A*24:145       |                      |
| A*02:20:01+A*24:96      | A*02:254+A*24:145      |                      |
| A*02:20:01+A*24:99      | A*02:25+A*24:145       |                      |
| A*02:20:01+A*24:117     | A*02:296+A*24:145      |                      |
| A*02:20:01+A*24:118     | A*02:361+A*24:145      |                      |
| A*02:20:01+A*24:119     | A*02:158+A*24:145      |                      |
| A*02:20:01+A*24:121     | A*02:64+A*24:145       |                      |
| A*02:20:01+A*24:133     | A*02:182+A*24:145      |                      |
| A*02:20:01+A*24:160     | A*02:262+A*24:145      |                      |
| A*02:20:01+A*24:165     | A*02:353+A*24:145      |                      |
| A*02:20:01+A*24:169     | A*02:119+A*24:145      |                      |
| A*02:20:01+A*24:174     | A*02:188+A*24:145      |                      |
| A*02:20:01+A*24:176     | A*02:16+A*24:145       |                      |
| A*02:20:01+A*24:180     | A*02:16+A*24:145       |                      |
| A*02:20:01+A*24:181     | A*02:236+A*24:145      |                      |
| A*02:20:01+A*24:187     | A*02:111+A*24:145      |                      |
| A*02:20:01+A*24:192     | A*02:312+A*24:145      |                      |
| A*02:20:01+A*24:197     | A*02:85+A*24:145       |                      |
| A*02:20:01+A*24:198     | A*02:203+A*24:145      |                      |
| A*02:20:01+A*24:206     | A*02:362+A*24:145      |                      |
| A*02:20:01+A*25:02      | A*02:62+A*25:01:01G    |                      |
| A*02:20:01+A*26:13      | A*02:62+A*26:01:01G    |                      |
| A*02:20:01+A*29:01:01G  | A*02:62+A*29:20        |                      |
| A*02:20:01+A*29:02:01G  | A*02:62+A*29:34        |                      |
| A*02:20:01+A*30:16      | A*02:62+A*30:44        |                      |
| A*02:20:01+A*30:25      | A*02:62+A*30:02:01G    |                      |
| A*02:20:01+A*32:05      | A*02:46+A*32:39        | A*02:70+A*32:01:01G  |
| A*02:20:01+A*32:17      | A*02:62+A*32:01:01G    |                      |
| A*02:20:01+A*33:03:01G  | A*02:55+A*33:09        | A*02:128+A*33:24     |
| A*02:20:01+A*66:01:01G  | A*02:62+A*66:05        |                      |
| A*02:20:01+A*66:02      | A*02:62+A*66:03        |                      |
| A*02:20:01+A*66:15      | A*02:128+A*26:03:01    |                      |
| A*02:20:01+A*68:01:01G  | A*02:62+A*68:03:03     |                      |
| A*02:20:01+A*68:01:02G  | A*02:55+A*68:30        | A*02:62+A*68:03:01   |
| A*02:20:01+A*68:02:01G  | A*02:62+A*68:31        |                      |
| A*02:20:01+A*68:66      | A*02:195+A*68:30       |                      |
| A*02:20:01+A*74:07      | A*02:128+A*74:06       |                      |
| A*02:20:01+A*74:13      | A*02:62+A*74:01:01G    |                      |
| A*02:21+A*24:21:01      | A*02:137+A*24:162      |                      |
| A*02:21+A*24:47         | A*02:144+A*24:162      |                      |
| A*02:21+A*24:56         | A*02:99+A*24:162       |                      |
| A*02:21+A*24:69         | A*02:278+A*24:162      |                      |
| A*02:21+A*24:71         | A*02:51+A*24:162       |                      |
| A*02:21+A*24:72         | A*02:106+A*24:162      |                      |
| A*02:21+A*24:121        | A*02:178+A*24:162      |                      |
| A*02:21+A*24:172        | A*02:259+A*24:162      |                      |
| A*02:22:01G+A*02:40:02  | A*02:40:01+A*02:49     |                      |
| A*02:22:01G+A*02:103    | A*02:56:02+A*02:191    |                      |
| A*02:22:01G+A*02:130    | A*02:40:01+A*02:191    |                      |
| A*02:22:01G+A*02:255    | A*02:36+A*02:191       |                      |
| A*02:22:01G+A*02:282    | A*02:95+A*02:191       |                      |
| A*02:22:01G+A*02:319    | A*02:76:01+A*02:191    |                      |
| A*02:22:01G+A*02:369    | A*02:92+A*02:191       |                      |
| A*02:22:01G+A*03:04:01  | A*02:74:02+A*03:50     |                      |
| A*02:22:01G+A*03:04:02  | A*02:74:01+A*03:50     |                      |
| A*02:22:01G+A*03:05:02  | A*02:49+A*03:05:01     |                      |
| A*02:22:01G+A*03:16     | A*02:341+A*03:50       |                      |
| A*02:22:01G+A*03:22:01  | A*02:174+A*03:50       |                      |
| A*02:22:01G+A*03:44     | A*02:16+A*03:50        |                      |
| A*02:22:01G+A*03:54     | A*02:145+A*03:50       |                      |
| A*02:22:01G+A*03:59     | A*02:352+A*03:50       |                      |
| A*02:22:01G+A*03:63     | A*02:346+A*03:50       |                      |
| A*02:22:01G+A*03:66     | A*02:49+A*03:50        |                      |
| A*02:22:01G+A*03:69N    | A*02:226N+A*03:50      |                      |
| A*02:22:01G+A*03:72     | A*02:76:01+A*03:50     |                      |
| A*02:22:01G+A*03:79     | A*02:85+A*03:50        |                      |
| A*02:22:01G+A*03:84     | A*02:349+A*03:50       |                      |
| A*02:22:01G+A*03:87     | A*02:197+A*03:50       |                      |
| A*02:22:01G+A*03:93     | A*02:119+A*03:50       |                      |
| A*02:22:01G+A*03:94     | A*02:322+A*03:50       |                      |
| A*02:22:01G+A*03:97     | A*02:36+A*03:50        |                      |
| A*02:22:01G+A*03:101    | A*02:306+A*03:50       |                      |
| A*02:22:01G+A*03:104    | A*02:332+A*03:50       |                      |
| A*02:22:01G+A*03:105    | A*02:101:02+A*03:50    |                      |
| A*02:22:01G+A*03:126    | A*02:198+A*03:50       |                      |
| A*02:22:01G+A*03:128    | A*02:116+A*03:50       |                      |
| A*02:22:01G+A*03:136    | A*02:133+A*03:50       |                      |
| A*02:22:01G+A*03:150    | A*02:262+A*03:50       |                      |
| A*02:22:01G+A*11:01:01G | A*02:226N+A*11:44      |                      |
| A*02:22:01G+A*11:01:30  | A*02:22:02+A*11:01:01G |                      |
| A*02:22:01G+A*11:03     | A*02:323+A*11:60       |                      |
| A*02:22:01G+A*11:20     | A*02:226N+A*11:08      |                      |
| A*02:22:01G+A*11:25     | A*02:323+A*11:31       |                      |
| A*02:22:01G+A*11:36     | A*02:191+A*11:01:01G   |                      |
| A*02:22:01G+A*23:03:01  | A*02:24:02+A*23:02     |                      |
| A*02:22:01G+A*23:03:02  | A*02:24:01+A*23:02     |                      |
| A*02:22:01G+A*23:05     | A*02:352+A*23:02       |                      |
| A*02:22:01G+A*23:06     | A*02:257+A*23:02       |                      |

|                         |                        |                    |                    |
|-------------------------|------------------------|--------------------|--------------------|
| A*02:22:01G+A*23:08N    | A*02:82N+A*23:02       |                    |                    |
| A*02:22:01G+A*23:10     | A*02:101:01+A*23:02    |                    |                    |
| A*02:22:01G+A*23:13     | A*02:34+A*23:02        |                    |                    |
| A*02:22:01G+A*23:14:01  | A*02:40:01+A*24:87     | A*02:40:02+A*24:06 | A*02:49+A*23:14:02 |
| A*02:22:01G+A*23:14:02  | A*02:40:01+A*24:06     |                    |                    |
| A*02:22:01G+A*23:24     | A*02:145+A*23:02       |                    |                    |
| A*02:22:01G+A*23:25     | A*02:74:02+A*23:02     |                    |                    |
| A*02:22:01G+A*23:28     | A*02:217:02+A*23:02    |                    |                    |
| A*02:22:01G+A*23:41     | A*02:221+A*23:02       |                    |                    |
| A*02:22:01G+A*23:44     | A*02:187+A*23:02       |                    |                    |
| A*02:22:01G+A*23:47     | A*02:121+A*23:02       |                    |                    |
| A*02:22:01G+A*23:50     | A*02:109+A*23:02       |                    |                    |
| A*02:22:01G+A*23:53     | A*02:246+A*23:02       |                    |                    |
| A*02:22:01G+A*24:02:51  | A*02:102+A*24:93       |                    |                    |
| A*02:22:01G+A*24:59     | A*02:27+A*24:06        |                    |                    |
| A*02:22:01G+A*24:87     | A*02:49+A*24:06        |                    |                    |
| A*02:22:01G+A*24:160    | A*02:37+A*24:22        |                    |                    |
| A*02:22:01G+A*24:177    | A*02:323+A*24:71       |                    |                    |
| A*02:22:01G+A*26:01:01G | A*02:323+A*26:12       |                    |                    |
| A*02:22:01G+A*26:28     | A*02:323+A*26:18       |                    |                    |
| A*02:22:01G+A*29:12     | A*02:107+A*29:28       |                    |                    |
| A*02:22:01G+A*29:15     | A*02:221+A*29:28       |                    |                    |
| A*02:22:01G+A*30:02:05  | A*02:49+A*30:02:01G    |                    |                    |
| A*02:22:01G+A*30:09     | A*02:40:01+A*30:04:01  |                    |                    |
| A*02:22:01G+A*31:05     | A*02:36+A*31:30        |                    |                    |
| A*02:22:01G+A*31:11     | A*02:202+A*31:30       |                    |                    |
| A*02:22:01G+A*31:13     | A*02:251+A*31:30       |                    |                    |
| A*02:22:01G+A*31:15     | A*02:351+A*31:30       |                    |                    |
| A*02:22:01G+A*31:16     | A*02:107+A*31:30       |                    |                    |
| A*02:22:01G+A*31:25     | A*02:101:02+A*31:30    |                    |                    |
| A*02:22:01G+A*31:28     | A*02:139+A*31:30       |                    |                    |
| A*02:22:01G+A*31:31     | A*02:275+A*31:30       |                    |                    |
| A*02:22:01G+A*31:36     | A*02:257+A*31:30       |                    |                    |
| A*02:22:01G+A*31:40     | A*02:133+A*31:30       |                    |                    |
| A*02:22:01G+A*31:45     | A*02:16+A*31:30        |                    |                    |
| A*02:22:01G+A*31:50     | A*02:307+A*31:30       |                    |                    |
| A*02:22:01G+A*31:51     | A*02:121+A*31:30       |                    |                    |
| A*02:22:01G+A*31:63     | A*02:273+A*31:30       |                    |                    |
| A*02:22:01G+A*31:64     | A*02:157+A*31:30       |                    |                    |
| A*02:22:01G+A*32:01:06  | A*02:49+A*32:01:01G    |                    |                    |
| A*02:22:01G+A*32:03     | A*02:136+A*74:06       |                    |                    |
| A*02:22:01G+A*33:03:05  | A*02:49+A*33:03:01G    |                    |                    |
| A*02:22:01G+A*34:02:02  | A*02:49+A*34:02:01     |                    |                    |
| A*02:22:01G+A*68:26     | A*02:37+A*68:01:01G    | A*02:54+A*68:71    |                    |
| A*02:22:01G+A*68:28     | A*02:49+A*68:02:01G    |                    |                    |
| A*02:22:01G+A*68:42     | A*02:323+A*68:01:01G   |                    |                    |
| A*02:22:01G+A*68:54     | A*02:323+A*68:02:01G   |                    |                    |
| A*02:22:01G+A*68:82     | A*02:191+A*68:02:01G   |                    |                    |
| A*02:22:02+A*11:36      | A*02:191+A*11:01:30    |                    |                    |
| A*02:24:01+A*02:41      | A*02:137+A*02:289      |                    |                    |
| A*02:24:01+A*02:51      | A*02:40:01+A*02:137    |                    |                    |
| A*02:24:01+A*02:54      | A*02:37+A*02:137       |                    |                    |
| A*02:24:01+A*02:72      | A*02:137+A*02:275      |                    |                    |
| A*02:24:01+A*02:79:01   | A*02:86+A*02:137       |                    |                    |
| A*02:24:01+A*02:91      | A*02:137+A*02:322      |                    |                    |
| A*02:24:01+A*02:99      | A*02:26+A*02:137       |                    |                    |
| A*02:24:01+A*02:106     | A*02:137+A*02:145      |                    |                    |
| A*02:24:01+A*02:122     | A*02:50+A*02:137       |                    |                    |
| A*02:24:01+A*02:127     | A*02:137+A*02:16       |                    |                    |
| A*02:24:01+A*02:144     | A*02:137+A*02:205      |                    |                    |
| A*02:24:01+A*02:16      | A*02:137+A*02:195      |                    |                    |
| A*02:24:01+A*02:170     | A*02:137+A*02:364      |                    |                    |
| A*02:24:01+A*02:178     | A*02:64+A*02:137       |                    |                    |
| A*02:24:01+A*02:295     | A*02:123+A*02:137      |                    |                    |
| A*02:24:01+A*02:300     | A*02:110+A*02:137      |                    |                    |
| A*02:24:01+A*02:310     | A*02:42+A*02:137       |                    |                    |
| A*02:24:01+A*02:328     | A*02:137+A*02:273      |                    |                    |
| A*02:24:01+A*02:331     | A*02:90+A*02:137       |                    |                    |
| A*02:24:01+A*02:358     | A*02:92+A*02:137       |                    |                    |
| A*02:24:01+A*03:01:18   | A*02:24:02+A*03:01:01G |                    |                    |
| A*02:24:01+A*03:12      | A*02:137+A*03:01:01G   |                    |                    |
| A*02:24:01+A*03:22:02   | A*02:24:02+A*03:22:01  |                    |                    |
| A*02:24:01+A*11:01:28   | A*02:24:02+A*11:01:07  |                    |                    |
| A*02:24:01+A*23:03:01   | A*02:24:02+A*23:03:02  |                    |                    |
| A*02:24:01+A*23:05      | A*02:352+A*23:03:02    |                    |                    |
| A*02:24:01+A*23:06      | A*02:257+A*23:03:02    |                    |                    |
| A*02:24:01+A*23:08N     | A*02:82N+A*23:03:02    |                    |                    |
| A*02:24:01+A*23:10      | A*02:101:01+A*23:03:02 |                    |                    |
| A*02:24:01+A*23:13      | A*02:34+A*23:03:02     |                    |                    |
| A*02:24:01+A*23:24      | A*02:145+A*23:03:02    |                    |                    |
| A*02:24:01+A*23:25      | A*02:74:02+A*23:03:02  |                    |                    |
| A*02:24:01+A*23:28      | A*02:217:02+A*23:03:02 |                    |                    |
| A*02:24:01+A*23:41      | A*02:221+A*23:03:02    |                    |                    |
| A*02:24:01+A*23:44      | A*02:187+A*23:03:02    |                    |                    |
| A*02:24:01+A*23:47      | A*02:121+A*23:03:02    |                    |                    |
| A*02:24:01+A*23:50      | A*02:109+A*23:03:02    |                    |                    |
| A*02:24:01+A*23:53      | A*02:246+A*23:03:02    |                    |                    |
| A*02:24:01+A*24:05:01G  | A*02:174+A*24:21:01    |                    |                    |
| A*02:24:01+A*24:07      | A*02:34+A*24:21:01     |                    |                    |
| A*02:24:01+A*24:17      | A*02:246+A*24:21:01    |                    |                    |
| A*02:24:01+A*24:25      | A*02:352+A*24:21:01    |                    |                    |
| A*02:24:01+A*24:46      | A*02:101:01+A*24:21:01 |                    |                    |
| A*02:24:01+A*24:47      | A*02:205+A*24:21:01    |                    |                    |
| A*02:24:01+A*24:50      | A*02:137+A*24:104      |                    |                    |
| A*02:24:01+A*24:56      | A*02:26+A*24:21:01     |                    |                    |
| A*02:24:01+A*24:58      | A*02:107+A*24:21:01    |                    |                    |
| A*02:24:01+A*24:60N     | A*02:366N+A*24:21:01   |                    |                    |
| A*02:24:01+A*24:62      | A*02:80+A*24:21:01     |                    |                    |
| A*02:24:01+A*24:71      | A*02:40:01+A*24:21:01  |                    |                    |
| A*02:24:01+A*24:72      | A*02:145+A*24:21:01    |                    |                    |
| A*02:24:01+A*24:73      | A*02:147+A*24:21:01    |                    |                    |
| A*02:24:01+A*24:77      | A*02:217:02+A*24:21:01 |                    |                    |
| A*02:24:01+A*24:90N     | A*02:88N+A*24:21:01    |                    |                    |
| A*02:24:01+A*24:91      | A*02:68+A*24:21:01     |                    |                    |
| A*02:24:01+A*24:96      | A*02:254+A*24:21:01    |                    |                    |

|                        |                         |                         |                     |
|------------------------|-------------------------|-------------------------|---------------------|
| A*02:24:01+A*24:99     | A*02:25+A*24:21:01      |                         |                     |
| A*02:24:01+A*24:117    | A*02:296+A*24:21:01     |                         |                     |
| A*02:24:01+A*24:118    | A*02:361+A*24:21:01     |                         |                     |
| A*02:24:01+A*24:119    | A*02:158+A*24:21:01     |                         |                     |
| A*02:24:01+A*24:121    | A*02:64+A*24:21:01      |                         |                     |
| A*02:24:01+A*24:133    | A*02:182+A*24:21:01     |                         |                     |
| A*02:24:01+A*24:160    | A*02:262+A*24:21:01     |                         |                     |
| A*02:24:01+A*24:165    | A*02:353+A*24:21:01     |                         |                     |
| A*02:24:01+A*24:169    | A*02:119+A*24:21:01     |                         |                     |
| A*02:24:01+A*24:174    | A*02:188+A*24:21:01     |                         |                     |
| A*02:24:01+A*24:176    | A*02:16+A*24:21:01      |                         |                     |
| A*02:24:01+A*24:180    | A*02:16+A*24:21:01      |                         |                     |
| A*02:24:01+A*24:181    | A*02:236+A*24:21:01     |                         |                     |
| A*02:24:01+A*24:187    | A*02:111+A*24:21:01     |                         |                     |
| A*02:24:01+A*24:192    | A*02:312+A*24:21:01     |                         |                     |
| A*02:24:01+A*24:197    | A*02:85+A*24:21:01      |                         |                     |
| A*02:24:01+A*24:198    | A*02:203+A*24:21:01     |                         |                     |
| A*02:24:01+A*24:206    | A*02:362+A*24:21:01     |                         |                     |
| A*02:24:01+A*25:01:01G | A*02:137+A*25:03        |                         |                     |
| A*02:24:01+A*29:01:01G | A*02:24:02+A*29:01:02   |                         |                     |
| A*02:24:01+A*32:01:01G | A*02:24:02+A*32:01:12   |                         |                     |
| A*02:24:01+A*33:01:01G | A*02:24:02+A*33:01:05   |                         |                     |
| A*02:24:01+A*34:02:01  | A*02:137+A*34:08        |                         |                     |
| A*02:24:01+A*68:01:01G | A*02:137+A*68:71        |                         |                     |
| A*02:24:01+A*68:12     | A*02:86+A*68:91         |                         |                     |
| A*02:24:01+A*68:17     | A*02:60:01+A*68:91      |                         |                     |
| A*02:24:01+A*68:19     | A*02:237+A*68:91        |                         |                     |
| A*02:24:01+A*68:21:01  | A*02:74:02+A*68:91      |                         |                     |
| A*02:24:01+A*68:24     | A*02:208+A*68:91        |                         |                     |
| A*02:24:01+A*68:65     | A*02:36+A*68:91         |                         |                     |
| A*02:24:01+A*68:70     | A*02:119+A*68:91        |                         |                     |
| A*02:24:01+A*68:76     | A*02:211:01+A*68:91     |                         |                     |
| A*02:24:01+A*68:93     | A*02:199+A*68:91        |                         |                     |
| A*02:24:02+A*03:12     | A*02:137+A*03:01:18     |                         |                     |
| A*02:24:02+A*23:05     | A*02:352+A*23:03:01     |                         |                     |
| A*02:24:02+A*23:06     | A*02:257+A*23:03:01     |                         |                     |
| A*02:24:02+A*23:08N    | A*02:82N+A*23:03:01     |                         |                     |
| A*02:24:02+A*23:10     | A*02:101:01+A*23:03:01  |                         |                     |
| A*02:24:02+A*23:13     | A*02:34+A*23:03:01      |                         |                     |
| A*02:24:02+A*23:24     | A*02:145+A*23:03:01     |                         |                     |
| A*02:24:02+A*23:25     | A*02:74:02+A*23:03:01   |                         |                     |
| A*02:24:02+A*23:28     | A*02:217:02+A*23:03:01  |                         |                     |
| A*02:24:02+A*23:41     | A*02:221+A*23:03:01     |                         |                     |
| A*02:24:02+A*23:44     | A*02:187+A*23:03:01     |                         |                     |
| A*02:24:02+A*23:47     | A*02:121+A*23:03:01     |                         |                     |
| A*02:24:02+A*23:50     | A*02:109+A*23:03:01     |                         |                     |
| A*02:24:02+A*23:53     | A*02:246+A*23:03:01     |                         |                     |
| A*02:25+A*03:01:01G    | A*02:171:02+A*03:07     |                         |                     |
| A*02:25+A*03:01:02     | A*02:171:01+A*03:07     |                         |                     |
| A*02:25+A*03:65        | A*02:171:02+A*03:02:01  | A*02:280+A*03:07        |                     |
| A*02:25+A*11:03        | A*02:171:02+A*11:60     |                         |                     |
| A*02:25+A*11:20        | A*02:280+A*11:31        |                         |                     |
| A*02:25+A*11:25        | A*02:171:02+A*11:31     |                         |                     |
| A*02:25+A*24:05:01G    | A*02:174+A*24:99        |                         |                     |
| A*02:25+A*24:07        | A*02:34+A*24:99         |                         |                     |
| A*02:25+A*24:17        | A*02:246+A*24:99        |                         |                     |
| A*02:25+A*24:25        | A*02:352+A*24:99        |                         |                     |
| A*02:25+A*24:46        | A*02:101:01+A*24:99     |                         |                     |
| A*02:25+A*24:47        | A*02:205+A*24:99        |                         |                     |
| A*02:25+A*24:56        | A*02:26+A*24:99         | A*02:171:02+A*24:02:01G | A*02:280+A*24:13:01 |
| A*02:25+A*24:58        | A*02:107+A*24:99        |                         |                     |
| A*02:25+A*24:60N       | A*02:366N+A*24:99       |                         |                     |
| A*02:25+A*24:62        | A*02:80+A*24:99         |                         |                     |
| A*02:25+A*24:71        | A*02:40:01+A*24:99      |                         |                     |
| A*02:25+A*24:72        | A*02:145+A*24:99        |                         |                     |
| A*02:25+A*24:73        | A*02:147+A*24:99        |                         |                     |
| A*02:25+A*24:77        | A*02:217:02+A*24:99     |                         |                     |
| A*02:25+A*24:90N       | A*02:88N+A*24:99        |                         |                     |
| A*02:25+A*24:91        | A*02:68+A*24:99         |                         |                     |
| A*02:25+A*24:96        | A*02:254+A*24:99        |                         |                     |
| A*02:25+A*24:117       | A*02:296+A*24:99        |                         |                     |
| A*02:25+A*24:118       | A*02:361+A*24:99        |                         |                     |
| A*02:25+A*24:119       | A*02:158+A*24:99        |                         |                     |
| A*02:25+A*24:121       | A*02:64+A*24:99         |                         |                     |
| A*02:25+A*24:133       | A*02:182+A*24:99        |                         |                     |
| A*02:25+A*24:160       | A*02:262+A*24:99        |                         |                     |
| A*02:25+A*24:165       | A*02:353+A*24:99        |                         |                     |
| A*02:25+A*24:169       | A*02:119+A*24:99        |                         |                     |
| A*02:25+A*24:174       | A*02:188+A*24:99        |                         |                     |
| A*02:25+A*24:176       | A*02:16+A*24:99         |                         |                     |
| A*02:25+A*24:177       | A*02:171:02+A*24:71     | A*02:280+A*23:14:02     |                     |
| A*02:25+A*24:180       | A*02:16+A*24:99         |                         |                     |
| A*02:25+A*24:181       | A*02:236+A*24:99        |                         |                     |
| A*02:25+A*24:187       | A*02:111+A*24:99        |                         |                     |
| A*02:25+A*24:192       | A*02:312+A*24:99        |                         |                     |
| A*02:25+A*24:197       | A*02:85+A*24:99         |                         |                     |
| A*02:25+A*24:198       | A*02:203+A*24:99        |                         |                     |
| A*02:25+A*24:206       | A*02:362+A*24:99        |                         |                     |
| A*02:25+A*26:01:01G    | A*02:171:02+A*26:12     |                         |                     |
| A*02:25+A*26:18        | A*02:40:01+A*26:12      |                         |                     |
| A*02:25+A*68:42        | A*02:171:02+A*68:01:01G |                         |                     |
| A*02:25+A*68:54        | A*02:171:02+A*68:02:01G |                         |                     |
| A*02:26+A*02:41        | A*02:99+A*02:289        |                         |                     |
| A*02:26+A*02:51        | A*02:40:01+A*02:99      |                         |                     |
| A*02:26+A*02:54        | A*02:37+A*02:99         |                         |                     |
| A*02:26+A*02:72        | A*02:99+A*02:275        |                         |                     |
| A*02:26+A*02:79:01     | A*02:86+A*02:99         |                         |                     |
| A*02:26+A*02:91        | A*02:99+A*02:322        |                         |                     |
| A*02:26+A*02:106       | A*02:99+A*02:145        |                         |                     |
| A*02:26+A*02:122       | A*02:50+A*02:99         |                         |                     |
| A*02:26+A*02:127       | A*02:99+A*02:16         |                         |                     |
| A*02:26+A*02:136       | A*02:87+A*02:323        |                         |                     |
| A*02:26+A*02:144       | A*02:99+A*02:205        |                         |                     |
| A*02:26+A*02:16        | A*02:99+A*02:195        |                         |                     |
| A*02:26+A*02:170       | A*02:99+A*02:364        |                         |                     |



|                     |                        |                       |                       |
|---------------------|------------------------|-----------------------|-----------------------|
| A*02:26+A*02:178    | A*02:64+A*02:99        |                       |                       |
| A*02:26+A*02:295    | A*02:99+A*02:123       |                       |                       |
| A*02:26+A*02:300    | A*02:99+A*02:110       |                       |                       |
| A*02:26+A*02:310    | A*02:42+A*02:99        |                       |                       |
| A*02:26+A*02:328    | A*02:99+A*02:273       |                       |                       |
| A*02:26+A*02:331    | A*02:90+A*02:99        |                       |                       |
| A*02:26+A*02:358    | A*02:92+A*02:99        |                       |                       |
| A*02:26+A*03:12     | A*02:99+A*03:01:01G    |                       |                       |
| A*02:26+A*03:50     | A*02:323+A*03:01:01G   |                       |                       |
| A*02:26+A*03:66     | A*02:323+A*03:01:02    |                       |                       |
| A*02:26+A*03:133    | A*02:40:01+A*03:01:01G |                       |                       |
| A*02:26+A*11:44     | A*02:323+A*11:24:01    |                       |                       |
| A*02:26+A*23:02     | A*02:323+A*23:01:01G   |                       |                       |
| A*02:26+A*24:05:01G | A*02:174+A*24:56       |                       |                       |
| A*02:26+A*24:06     | A*02:323+A*24:13:01    |                       |                       |
| A*02:26+A*24:07     | A*02:34+A*24:56        |                       |                       |
| A*02:26+A*24:17     | A*02:246+A*24:56       |                       |                       |
| A*02:26+A*24:25     | A*02:352+A*24:56       |                       |                       |
| A*02:26+A*24:46     | A*02:101:01+A*24:56    |                       |                       |
| A*02:26+A*24:47     | A*02:205+A*24:56       |                       |                       |
| A*02:26+A*24:50     | A*02:99+A*24:104       |                       |                       |
| A*02:26+A*24:58     | A*02:107+A*24:56       |                       |                       |
| A*02:26+A*24:60N    | A*02:366N+A*24:56      |                       |                       |
| A*02:26+A*24:62     | A*02:80+A*24:56        |                       |                       |
| A*02:26+A*24:72     | A*02:145+A*24:56       |                       |                       |
| A*02:26+A*24:73     | A*02:147+A*24:56       |                       |                       |
| A*02:26+A*24:77     | A*02:217:02+A*24:56    |                       |                       |
| A*02:26+A*24:87     | A*02:323+A*24:13:02    |                       |                       |
| A*02:26+A*24:90N    | A*02:88N+A*24:56       |                       |                       |
| A*02:26+A*24:91     | A*02:68+A*24:56        |                       |                       |
| A*02:26+A*24:96     | A*02:254+A*24:56       |                       |                       |
| A*02:26+A*24:117    | A*02:296+A*24:56       |                       |                       |
| A*02:26+A*24:118    | A*02:361+A*24:56       |                       |                       |
| A*02:26+A*24:119    | A*02:158+A*24:56       |                       |                       |
| A*02:26+A*24:121    | A*02:64+A*24:56        |                       |                       |
| A*02:26+A*24:133    | A*02:182+A*24:56       |                       |                       |
| A*02:26+A*24:160    | A*02:262+A*24:56       |                       |                       |
| A*02:26+A*24:165    | A*02:353+A*24:56       |                       |                       |
| A*02:26+A*24:167    | A*02:323+A*24:207      |                       |                       |
| A*02:26+A*24:169    | A*02:119+A*24:56       |                       |                       |
| A*02:26+A*24:174    | A*02:188+A*24:56       |                       |                       |
| A*02:26+A*24:176    | A*02:16+A*24:56        |                       |                       |
| A*02:26+A*24:180    | A*02:16+A*24:56        |                       |                       |
| A*02:26+A*24:181    | A*02:236+A*24:56       |                       |                       |
| A*02:26+A*24:187    | A*02:111+A*24:56       |                       |                       |
| A*02:26+A*24:192    | A*02:312+A*24:56       |                       |                       |
| A*02:26+A*24:197    | A*02:85+A*24:56        |                       |                       |
| A*02:26+A*24:198    | A*02:203+A*24:56       |                       |                       |
| A*02:26+A*24:206    | A*02:362+A*24:56       |                       |                       |
| A*02:26+A*25:01:01G | A*02:99+A*25:03        | A*02:171:02+A*25:09   | A*02:323+A*25:19      |
| A*02:26+A*26:01:01G | A*02:171:02+A*26:14    | A*02:323+A*26:43:01   |                       |
| A*02:26+A*26:52     | A*02:171:02+A*26:28    |                       |                       |
| A*02:26+A*29:28     | A*02:323+A*29:01:01G   |                       |                       |
| A*02:26+A*31:30     | A*02:323+A*31:01:02G   |                       |                       |
| A*02:26+A*33:03:01G | A*02:40:01+A*33:28     |                       |                       |
| A*02:26+A*33:03:05  | A*02:40:02+A*33:28     |                       |                       |
| A*02:26+A*33:59     | A*02:27+A*33:28        |                       |                       |
| A*02:26+A*34:02:01  | A*02:99+A*34:08        | A*02:171:02+A*34:03   |                       |
| A*02:26+A*34:02:02  | A*02:171:01+A*34:03    |                       |                       |
| A*02:26+A*68:01:02G | A*02:323+A*68:08:02    |                       |                       |
| A*02:26+A*68:21:02  | A*02:74:01+A*68:42     |                       |                       |
| A*02:26+A*68:26     | A*02:37+A*68:63        |                       |                       |
| A*02:26+A*68:35     | A*02:123+A*68:42       |                       |                       |
| A*02:26+A*68:42     | A*02:323+A*68:63       |                       |                       |
| A*02:26+A*68:48     | A*02:118+A*68:54       |                       |                       |
| A*02:26+A*68:51     | A*02:40:01+A*68:54     |                       |                       |
| A*02:26+A*68:53     | A*02:159+A*68:54       |                       |                       |
| A*02:26+A*68:58     | A*02:362+A*68:42       |                       |                       |
| A*02:26+A*68:67     | A*02:273+A*68:54       |                       |                       |
| A*02:26+A*68:72     | A*02:139+A*68:42       |                       |                       |
| A*02:26+A*68:77     | A*02:74:01+A*68:54     |                       |                       |
| A*02:26+A*68:78     | A*02:133+A*68:54       |                       |                       |
| A*02:26+A*68:81     | A*02:121+A*68:54       |                       |                       |
| A*02:27+A*23:01:01G | A*02:174+A*24:190      |                       |                       |
| A*02:27+A*24:87     | A*02:49+A*24:59        |                       |                       |
| A*02:27+A*26:01:21  | A*02:267+A*26:73       |                       |                       |
| A*02:27+A*31:05     | A*02:37+A*31:43        |                       |                       |
| A*02:27+A*33:03:01G | A*02:40:01+A*33:59     |                       |                       |
| A*02:27+A*33:03:05  | A*02:40:02+A*33:59     |                       |                       |
| A*02:28+A*23:03:02  | A*02:137+A*23:21       |                       |                       |
| A*02:28+A*23:24     | A*02:106+A*23:21       |                       |                       |
| A*02:29+A*29:01:01G | A*02:204+A*29:04       |                       |                       |
| A*02:29+A*29:03     | A*02:36+A*29:04        |                       |                       |
| A*02:29+A*29:06     | A*02:121+A*29:04       |                       |                       |
| A*02:29+A*29:29     | A*02:362+A*29:04       |                       |                       |
| A*02:29+A*29:30     | A*02:351+A*29:04       |                       |                       |
| A*02:29+A*29:41     | A*02:181+A*29:04       |                       |                       |
| A*02:34+A*02:48     | A*02:35:02+A*02:46     |                       |                       |
| A*02:34+A*03:01:01G | A*02:35:01+A*03:09     | A*02:56:01+A*03:23:02 | A*02:56:02+A*03:23:01 |
| A*02:34+A*03:01:03  | A*02:56:01+A*03:23:01  |                       |                       |
| A*02:34+A*03:41     | A*02:346+A*03:57       |                       |                       |
| A*02:34+A*11:01:01G | A*02:35:01+A*11:06     |                       |                       |
| A*02:34+A*11:40     | A*02:146+A*11:06       |                       |                       |
| A*02:34+A*23:05     | A*02:352+A*23:13       |                       |                       |
| A*02:34+A*23:06     | A*02:257+A*23:13       |                       |                       |
| A*02:34+A*23:08N    | A*02:82N+A*23:13       |                       |                       |
| A*02:34+A*23:10     | A*02:101:01+A*23:13    |                       |                       |
| A*02:34+A*23:24     | A*02:145+A*23:13       |                       |                       |
| A*02:34+A*23:25     | A*02:74:02+A*23:13     |                       |                       |
| A*02:34+A*23:28     | A*02:217:02+A*23:13    |                       |                       |
| A*02:34+A*23:41     | A*02:221+A*23:13       |                       |                       |
| A*02:34+A*23:44     | A*02:187+A*23:13       |                       |                       |
| A*02:34+A*23:47     | A*02:121+A*23:13       |                       |                       |
| A*02:34+A*23:50     | A*02:109+A*23:13       |                       |                       |
| A*02:34+A*23:53     | A*02:246+A*23:13       |                       |                       |

|                        |                         |                      |
|------------------------|-------------------------|----------------------|
| A*02:34+A*24:05:01G    | A*02:174+A*24:07        |                      |
| A*02:34+A*24:17        | A*02:246+A*24:07        |                      |
| A*02:34+A*24:25        | A*02:352+A*24:07        |                      |
| A*02:34+A*24:46        | A*02:101:01+A*24:07     |                      |
| A*02:34+A*24:47        | A*02:205+A*24:07        |                      |
| A*02:34+A*24:58        | A*02:107+A*24:07        |                      |
| A*02:34+A*24:60N       | A*02:366N+A*24:07       |                      |
| A*02:34+A*24:62        | A*02:80+A*24:07         |                      |
| A*02:34+A*24:71        | A*02:40:01+A*24:07      |                      |
| A*02:34+A*24:72        | A*02:145+A*24:07        |                      |
| A*02:34+A*24:73        | A*02:147+A*24:07        |                      |
| A*02:34+A*24:77        | A*02:217:02+A*24:07     |                      |
| A*02:34+A*24:90N       | A*02:88N+A*24:07        |                      |
| A*02:34+A*24:91        | A*02:68+A*24:07         |                      |
| A*02:34+A*24:96        | A*02:254+A*24:07        |                      |
| A*02:34+A*24:117       | A*02:296+A*24:07        |                      |
| A*02:34+A*24:118       | A*02:361+A*24:07        |                      |
| A*02:34+A*24:119       | A*02:158+A*24:07        |                      |
| A*02:34+A*24:121       | A*02:64+A*24:07         |                      |
| A*02:34+A*24:133       | A*02:182+A*24:07        |                      |
| A*02:34+A*24:156       | A*02:62+A*24:29         |                      |
| A*02:34+A*24:160       | A*02:262+A*24:07        |                      |
| A*02:34+A*24:165       | A*02:353+A*24:07        |                      |
| A*02:34+A*24:169       | A*02:119+A*24:07        |                      |
| A*02:34+A*24:174       | A*02:188+A*24:07        |                      |
| A*02:34+A*24:176       | A*02:16+A*24:07         |                      |
| A*02:34+A*24:180       | A*02:16+A*24:07         |                      |
| A*02:34+A*24:181       | A*02:236+A*24:07        |                      |
| A*02:34+A*24:187       | A*02:111+A*24:07        |                      |
| A*02:34+A*24:192       | A*02:312+A*24:07        |                      |
| A*02:34+A*24:197       | A*02:85+A*24:07         |                      |
| A*02:34+A*24:198       | A*02:203+A*24:07        |                      |
| A*02:34+A*24:206       | A*02:362+A*24:07        |                      |
| A*02:34+A*25:08        | A*02:85+A*25:02         |                      |
| A*02:34+A*25:15        | A*02:70+A*25:02         |                      |
| A*02:34+A*26:08        | A*02:62+A*26:48         |                      |
| A*02:34+A*26:23        | A*02:284N+A*26:13       |                      |
| A*02:34+A*26:27        | A*02:68+A*26:13         |                      |
| A*02:34+A*26:41        | A*02:187+A*26:13        |                      |
| A*02:34+A*26:47        | A*02:85+A*26:13         |                      |
| A*02:34+A*26:49        | A*02:36+A*26:13         |                      |
| A*02:34+A*26:50        | A*02:210+A*26:13        |                      |
| A*02:34+A*26:52        | A*02:40:01+A*26:13      |                      |
| A*02:34+A*26:63        | A*02:236+A*26:13        |                      |
| A*02:34+A*26:75        | A*02:153+A*26:13        |                      |
| A*02:34+A*30:01:01G    | A*02:35:01+A*30:16      |                      |
| A*02:34+A*30:28        | A*02:224+A*30:25        |                      |
| A*02:34+A*30:34        | A*02:74:01+A*30:25      |                      |
| A*02:34+A*30:51        | A*02:121+A*30:25        |                      |
| A*02:34+A*31:01:02G    | A*02:62+A*31:02         |                      |
| A*02:34+A*31:10        | A*02:62+A*31:07         |                      |
| A*02:34+A*32:04        | A*02:81:01G+A*03:09     |                      |
| A*02:34+A*32:07        | A*02:76:01+A*32:17      |                      |
| A*02:34+A*32:09        | A*02:233+A*32:17        |                      |
| A*02:34+A*32:12        | A*02:121+A*32:17        |                      |
| A*02:34+A*32:13        | A*02:36+A*32:17         |                      |
| A*02:34+A*32:21        | A*02:16+A*32:17         |                      |
| A*02:34+A*32:26        | A*02:101:02+A*32:17     |                      |
| A*02:34+A*32:37        | A*02:119+A*32:17        |                      |
| A*02:34+A*32:42        | A*02:243+A*32:17        |                      |
| A*02:34+A*33:09        | A*02:62+A*33:08         |                      |
| A*02:34+A*33:11        | A*02:35:01+A*33:24      |                      |
| A*02:34+A*33:21        | A*02:62+A*33:53         |                      |
| A*02:34+A*74:05        | A*02:158+A*74:13        |                      |
| A*02:35:01+A*02:56:02  | A*02:35:02+A*02:56:01   |                      |
| A*02:35:01+A*02:195    | A*02:56:02+A*02:90      |                      |
| A*02:35:01+A*03:01:01G | A*02:35:02+A*03:01:03   |                      |
| A*02:35:01+A*03:08     | A*02:90+A*03:01:01G     |                      |
| A*02:35:01+A*03:12     | A*02:78+A*03:23:02      |                      |
| A*02:35:01+A*03:23:02  | A*02:35:02+A*03:23:01   |                      |
| A*02:35:01+A*03:41     | A*02:146+A*03:63        |                      |
| A*02:35:01+A*11:19     | A*02:90+A*11:01:01G     |                      |
| A*02:35:01+A*11:40     | A*02:146+A*11:01:01G    |                      |
| A*02:35:01+A*23:01:01G | A*02:90+A*23:13         |                      |
| A*02:35:01+A*24:02:01G | A*02:35:03+A*24:02:06   | A*02:90+A*24:07      |
| A*02:35:01+A*24:44     | A*02:90+A*24:19         |                      |
| A*02:35:01+A*24:109    | A*02:146+A*24:19        |                      |
| A*02:35:01+A*25:01:01G | A*02:81:01G+A*66:01:01G | A*02:90+A*25:02      |
| A*02:35:01+A*25:13     | A*02:81:01G+A*66:12     |                      |
| A*02:35:01+A*26:01:01G | A*02:90+A*26:13         | A*02:146+A*66:01:01G |
| A*02:35:01+A*26:05     | A*02:247+A*66:01:01G    |                      |
| A*02:35:01+A*26:07:01  | A*02:35:02+A*26:07:02   |                      |
| A*02:35:01+A*26:22     | A*02:146+A*66:09        |                      |
| A*02:35:01+A*26:49     | A*02:146+A*66:10        |                      |
| A*02:35:01+A*26:65     | A*02:146+A*66:12        |                      |
| A*02:35:01+A*29:20     | A*02:90+A*29:01:01G     |                      |
| A*02:35:01+A*29:34     | A*02:90+A*29:02:01G     |                      |
| A*02:35:01+A*30:02:01G | A*02:90+A*30:25         |                      |
| A*02:35:01+A*30:04:01  | A*02:247+A*30:17        |                      |
| A*02:35:01+A*30:04:02  | A*02:35:03+A*30:04:01   |                      |
| A*02:35:01+A*32:01:01G | A*02:81:01G+A*74:13     | A*02:90+A*32:17      |
| A*02:35:01+A*32:03     | A*02:87+A*74:13         |                      |
| A*02:35:01+A*32:04     | A*02:81:01G+A*03:01:01G |                      |
| A*02:35:01+A*33:01:01G | A*02:35:02+A*33:01:02   |                      |
| A*02:35:01+A*66:03     | A*02:90+A*66:02         |                      |
| A*02:35:01+A*66:05     | A*02:90+A*66:01:01G     |                      |
| A*02:35:01+A*68:01:01G | A*02:35:03+A*68:01:11   |                      |
| A*02:35:01+A*68:03:01  | A*02:90+A*68:01:02G     |                      |
| A*02:35:01+A*68:03:03  | A*02:90+A*68:01:01G     | A*02:331+A*68:71     |
| A*02:35:01+A*68:20     | A*02:187+A*68:01:02G    |                      |
| A*02:35:01+A*68:31     | A*02:90+A*68:02:01G     |                      |
| A*02:35:01+A*74:01:01G | A*02:90+A*74:13         |                      |
| A*02:35:02+A*03:09     | A*02:56:02+A*03:23:02   |                      |
| A*02:36+A*02:103       | A*02:56:02+A*02:255     |                      |
| A*02:36+A*02:112       | A*02:87+A*02:255        |                      |

|                     |                      |
|---------------------|----------------------|
| A*02:36+A*02:130    | A*02:40:01+A*02:255  |
| A*02:36+A*02:280    | A*02:37+A*02:171:02  |
| A*02:36+A*02:282    | A*02:95+A*02:255     |
| A*02:36+A*02:319    | A*02:76:01+A*02:255  |
| A*02:36+A*02:369    | A*02:92+A*02:255     |
| A*02:36+A*03:02:01  | A*02:37+A*03:07      |
| A*02:36+A*03:04:01  | A*02:74:02+A*03:97   |
| A*02:36+A*03:04:02  | A*02:74:01+A*03:97   |
| A*02:36+A*03:16     | A*02:341+A*03:97     |
| A*02:36+A*03:22:01  | A*02:174+A*03:97     |
| A*02:36+A*03:44     | A*02:16+A*03:97      |
| A*02:36+A*03:54     | A*02:145+A*03:97     |
| A*02:36+A*03:59     | A*02:352+A*03:97     |
| A*02:36+A*03:63     | A*02:346+A*03:97     |
| A*02:36+A*03:66     | A*02:49+A*03:97      |
| A*02:36+A*03:69N    | A*02:226N+A*03:97    |
| A*02:36+A*03:72     | A*02:76:01+A*03:97   |
| A*02:36+A*03:79     | A*02:85+A*03:97      |
| A*02:36+A*03:84     | A*02:349+A*03:97     |
| A*02:36+A*03:87     | A*02:197+A*03:97     |
| A*02:36+A*03:93     | A*02:119+A*03:97     |
| A*02:36+A*03:94     | A*02:322+A*03:97     |
| A*02:36+A*03:101    | A*02:306+A*03:97     |
| A*02:36+A*03:104    | A*02:332+A*03:97     |
| A*02:36+A*03:105    | A*02:101:02+A*03:97  |
| A*02:36+A*03:126    | A*02:198+A*03:97     |
| A*02:36+A*03:128    | A*02:116+A*03:97     |
| A*02:36+A*03:136    | A*02:133+A*03:97     |
| A*02:36+A*03:150    | A*02:262+A*03:97     |
| A*02:36+A*11:01:44  | A*02:101:02+A*11:27  |
| A*02:36+A*11:15:01  | A*02:202+A*11:39     |
| A*02:36+A*11:20     | A*02:37+A*11:25      |
| A*02:36+A*11:23     | A*02:182+A*11:39     |
| A*02:36+A*11:30     | A*02:197+A*11:39     |
| A*02:36+A*11:32     | A*02:121+A*11:39     |
| A*02:36+A*11:33:02  | A*02:174+A*11:39     |
| A*02:36+A*11:34     | A*02:153+A*11:39     |
| A*02:36+A*11:41     | A*02:273+A*11:39     |
| A*02:36+A*11:48     | A*02:183+A*11:39     |
| A*02:36+A*11:72     | A*02:364+A*11:39     |
| A*02:36+A*11:79     | A*02:109+A*11:39     |
| A*02:36+A*11:82     | A*02:313+A*11:39     |
| A*02:36+A*11:87     | A*02:173+A*11:39     |
| A*02:36+A*11:96     | A*02:292+A*11:39     |
| A*02:36+A*11:101    | A*02:194+A*11:38     |
| A*02:36+A*11:111    | A*02:184+A*11:39     |
| A*02:36+A*11:112    | A*02:262+A*11:39     |
| A*02:36+A*11:123    | A*02:159+A*11:39     |
| A*02:36+A*11:125    | A*02:312+A*11:39     |
| A*02:36+A*11:128    | A*02:362+A*11:39     |
| A*02:36+A*24:02:01G | A*02:37+A*24:13:01   |
| A*02:36+A*24:22     | A*02:262+A*24:06     |
| A*02:36+A*24:71     | A*02:37+A*23:14:02   |
| A*02:36+A*24:94     | A*02:86+A*24:188     |
| A*02:36+A*24:125    | A*02:299+A*24:02:01G |
| A*02:36+A*24:204    | A*02:237+A*24:02:01G |
| A*02:36+A*25:04     | A*02:37+A*25:19      |
| A*02:36+A*26:08     | A*02:37+A*26:43:01   |
| A*02:36+A*26:23     | A*02:284N+A*26:49    |
| A*02:36+A*26:27     | A*02:68+A*26:49      |
| A*02:36+A*26:41     | A*02:187+A*26:49     |
| A*02:36+A*26:47     | A*02:85+A*26:49      |
| A*02:36+A*26:50     | A*02:210+A*26:49     |
| A*02:36+A*26:52     | A*02:40:01+A*26:49   |
| A*02:36+A*26:63     | A*02:236+A*26:49     |
| A*02:36+A*26:75     | A*02:153+A*26:49     |
| A*02:36+A*29:01:01G | A*02:204+A*29:03     |
| A*02:36+A*29:06     | A*02:121+A*29:03     |
| A*02:36+A*29:29     | A*02:362+A*29:03     |
| A*02:36+A*29:30     | A*02:351+A*29:03     |
| A*02:36+A*29:41     | A*02:181+A*29:03     |
| A*02:36+A*31:11     | A*02:202+A*31:05     |
| A*02:36+A*31:13     | A*02:251+A*31:05     |
| A*02:36+A*31:15     | A*02:351+A*31:05     |
| A*02:36+A*31:16     | A*02:107+A*31:05     |
| A*02:36+A*31:25     | A*02:101:02+A*31:05  |
| A*02:36+A*31:28     | A*02:139+A*31:05     |
| A*02:36+A*31:31     | A*02:275+A*31:05     |
| A*02:36+A*31:36     | A*02:257+A*31:05     |
| A*02:36+A*31:40     | A*02:133+A*31:05     |
| A*02:36+A*31:45     | A*02:16+A*31:05      |
| A*02:36+A*31:50     | A*02:307+A*31:05     |
| A*02:36+A*31:51     | A*02:121+A*31:05     |
| A*02:36+A*31:63     | A*02:273+A*31:05     |
| A*02:36+A*31:64     | A*02:157+A*31:05     |
| A*02:36+A*32:02     | A*02:37+A*32:06      |
| A*02:36+A*32:07     | A*02:76:01+A*32:13   |
| A*02:36+A*32:09     | A*02:233+A*32:13     |
| A*02:36+A*32:12     | A*02:121+A*32:13     |
| A*02:36+A*32:21     | A*02:16+A*32:13      |
| A*02:36+A*32:26     | A*02:101:02+A*32:13  |
| A*02:36+A*32:37     | A*02:119+A*32:13     |
| A*02:36+A*32:42     | A*02:243+A*32:13     |
| A*02:36+A*33:01:01G | A*02:332+A*33:10     |
| A*02:36+A*33:14     | A*02:367+A*33:10     |
| A*02:36+A*33:30     | A*02:342+A*33:10     |
| A*02:36+A*33:40     | A*02:211:01+A*33:10  |
| A*02:36+A*33:42     | A*02:292+A*33:10     |
| A*02:36+A*33:47     | A*02:306+A*33:10     |
| A*02:36+A*33:52     | A*02:109+A*33:10     |
| A*02:36+A*33:58     | A*02:107+A*33:10     |
| A*02:36+A*33:60     | A*02:42+A*33:10      |
| A*02:36+A*33:61     | A*02:101:01+A*33:10  |
| A*02:36+A*66:04     | A*02:332+A*66:10     |
| A*02:36+A*66:14     | A*02:121+A*66:10     |

|                        |                        |                  |
|------------------------|------------------------|------------------|
| A*02:36+A*68:09        | A*02:37+A*68:08:02     |                  |
| A*02:36+A*68:12        | A*02:86+A*68:65        |                  |
| A*02:36+A*68:17        | A*02:60:01+A*68:65     |                  |
| A*02:36+A*68:19        | A*02:237+A*68:65       |                  |
| A*02:36+A*68:21:01     | A*02:74:02+A*68:65     |                  |
| A*02:36+A*68:24        | A*02:208+A*68:65       |                  |
| A*02:36+A*68:70        | A*02:119+A*68:65       |                  |
| A*02:36+A*68:76        | A*02:211:01+A*68:65    |                  |
| A*02:36+A*68:82        | A*02:255+A*68:02:01G   |                  |
| A*02:36+A*68:93        | A*02:199+A*68:65       |                  |
| A*02:37+A*02:41        | A*02:54+A*02:289       |                  |
| A*02:37+A*02:51        | A*02:40:01+A*02:54     |                  |
| A*02:37+A*02:72        | A*02:54+A*02:275       |                  |
| A*02:37+A*02:79:01     | A*02:54+A*02:86        |                  |
| A*02:37+A*02:91        | A*02:54+A*02:322       |                  |
| A*02:37+A*02:106       | A*02:54+A*02:145       |                  |
| A*02:37+A*02:122       | A*02:50+A*02:54        |                  |
| A*02:37+A*02:127       | A*02:54+A*02:16        |                  |
| A*02:37+A*02:144       | A*02:54+A*02:205       |                  |
| A*02:37+A*02:16        | A*02:54+A*02:195       |                  |
| A*02:37+A*02:170       | A*02:54+A*02:364       |                  |
| A*02:37+A*02:178       | A*02:54+A*02:64        |                  |
| A*02:37+A*02:295       | A*02:54+A*02:123       |                  |
| A*02:37+A*02:300       | A*02:54+A*02:110       |                  |
| A*02:37+A*02:310       | A*02:42+A*02:54        |                  |
| A*02:37+A*02:328       | A*02:54+A*02:273       |                  |
| A*02:37+A*02:331       | A*02:54+A*02:90        |                  |
| A*02:37+A*02:358       | A*02:54+A*02:92        |                  |
| A*02:37+A*03:12        | A*02:54+A*03:01:01G    | A*02:142+A*03:97 |
| A*02:37+A*11:44        | A*02:49+A*11:39        |                  |
| A*02:37+A*24:18        | A*02:237+A*24:56       |                  |
| A*02:37+A*24:50        | A*02:54+A*24:104       |                  |
| A*02:37+A*25:01:01G    | A*02:54+A*25:03        |                  |
| A*02:37+A*34:02:01     | A*02:54+A*34:08        |                  |
| A*02:37+A*68:42        | A*02:323+A*68:26       |                  |
| A*02:38+A*11:04        | A*02:280+A*11:01:01G   |                  |
| A*02:38+A*11:27        | A*02:280+A*11:39       |                  |
| A*02:38+A*23:01:01G    | A*02:280+A*23:10       |                  |
| A*02:38+A*24:02:01G    | A*02:280+A*24:46       |                  |
| A*02:38+A*24:03:01G    | A*02:280+A*24:10       |                  |
| A*02:38+A*24:13:01     | A*02:171:02+A*24:46    |                  |
| A*02:38+A*24:13:02     | A*02:171:01+A*24:46    |                  |
| A*02:38+A*24:207       | A*02:171:02+A*24:10    |                  |
| A*02:38+A*33:03:01G    | A*02:280+A*33:61       |                  |
| A*02:38+A*36:01        | A*02:280+A*36:04       |                  |
| A*02:38+A*68:54        | A*02:280+A*68:61       |                  |
| A*02:39+A*02:57        | A*02:79:02+A*02:110    |                  |
| A*02:39+A*11:73        | A*02:242+A*11:01:07    |                  |
| A*02:40:01+A*02:41     | A*02:51+A*02:289       |                  |
| A*02:40:01+A*02:72     | A*02:51+A*02:275       |                  |
| A*02:40:01+A*02:79:01  | A*02:51+A*02:86        |                  |
| A*02:40:01+A*02:91     | A*02:51+A*02:322       |                  |
| A*02:40:01+A*02:103    | A*02:56:02+A*02:130    |                  |
| A*02:40:01+A*02:106    | A*02:51+A*02:145       |                  |
| A*02:40:01+A*02:112    | A*02:87+A*02:130       |                  |
| A*02:40:01+A*02:122    | A*02:50+A*02:51        |                  |
| A*02:40:01+A*02:127    | A*02:51+A*02:16        |                  |
| A*02:40:01+A*02:144    | A*02:51+A*02:205       |                  |
| A*02:40:01+A*02:16     | A*02:51+A*02:195       |                  |
| A*02:40:01+A*02:170    | A*02:51+A*02:364       |                  |
| A*02:40:01+A*02:171:01 | A*02:40:02+A*02:171:02 |                  |
| A*02:40:01+A*02:178    | A*02:51+A*02:64        |                  |
| A*02:40:01+A*02:282    | A*02:95+A*02:130       |                  |
| A*02:40:01+A*02:295    | A*02:51+A*02:123       |                  |
| A*02:40:01+A*02:300    | A*02:51+A*02:110       |                  |
| A*02:40:01+A*02:310    | A*02:42+A*02:51        |                  |
| A*02:40:01+A*02:319    | A*02:76:01+A*02:130    |                  |
| A*02:40:01+A*02:328    | A*02:51+A*02:273       |                  |
| A*02:40:01+A*02:331    | A*02:51+A*02:90        |                  |
| A*02:40:01+A*02:358    | A*02:51+A*02:92        |                  |
| A*02:40:01+A*02:369    | A*02:92+A*02:130       |                  |
| A*02:40:01+A*03:01:02  | A*02:40:02+A*03:01:01G |                  |
| A*02:40:01+A*03:05:02  | A*02:40:02+A*03:05:01  |                  |
| A*02:40:01+A*03:12     | A*02:51+A*03:01:01G    | A*02:99+A*03:133 |
| A*02:40:01+A*03:50     | A*02:323+A*03:133      |                  |
| A*02:40:01+A*03:66     | A*02:40:02+A*03:50     |                  |
| A*02:40:01+A*11:24:01  | A*02:40:02+A*11:24:02  |                  |
| A*02:40:01+A*11:36     | A*02:130+A*11:01:01G   |                  |
| A*02:40:01+A*23:14:01  | A*02:40:02+A*23:14:02  |                  |
| A*02:40:01+A*24:17     | A*02:246+A*24:71       |                  |
| A*02:40:01+A*24:25     | A*02:352+A*24:71       |                  |
| A*02:40:01+A*24:46     | A*02:101:01+A*24:71    |                  |
| A*02:40:01+A*24:47     | A*02:205+A*24:71       |                  |
| A*02:40:01+A*24:50     | A*02:51+A*24:104       |                  |
| A*02:40:01+A*24:58     | A*02:107+A*24:71       |                  |
| A*02:40:01+A*24:60N    | A*02:366N+A*24:71      |                  |
| A*02:40:01+A*24:62     | A*02:80+A*24:71        |                  |
| A*02:40:01+A*24:72     | A*02:145+A*24:71       |                  |
| A*02:40:01+A*24:73     | A*02:147+A*24:71       |                  |
| A*02:40:01+A*24:77     | A*02:217:02+A*24:71    |                  |
| A*02:40:01+A*24:90N    | A*02:88N+A*24:71       |                  |
| A*02:40:01+A*24:91     | A*02:68+A*24:71        |                  |
| A*02:40:01+A*24:96     | A*02:254+A*24:71       |                  |
| A*02:40:01+A*24:117    | A*02:296+A*24:71       |                  |
| A*02:40:01+A*24:118    | A*02:361+A*24:71       |                  |
| A*02:40:01+A*24:119    | A*02:158+A*24:71       |                  |
| A*02:40:01+A*24:121    | A*02:64+A*24:71        |                  |
| A*02:40:01+A*24:133    | A*02:182+A*24:71       |                  |
| A*02:40:01+A*24:160    | A*02:262+A*24:71       |                  |
| A*02:40:01+A*24:165    | A*02:353+A*24:71       |                  |
| A*02:40:01+A*24:169    | A*02:119+A*24:71       |                  |
| A*02:40:01+A*24:174    | A*02:188+A*24:71       |                  |
| A*02:40:01+A*24:176    | A*02:16+A*24:71        |                  |
| A*02:40:01+A*24:180    | A*02:16+A*24:71        |                  |
| A*02:40:01+A*24:181    | A*02:236+A*24:71       |                  |

|                        |                         |                      |
|------------------------|-------------------------|----------------------|
| A*02:40:01+A*24:187    | A*02:111+A*24:71        |                      |
| A*02:40:01+A*24:192    | A*02:312+A*24:71        |                      |
| A*02:40:01+A*24:197    | A*02:85+A*24:71         |                      |
| A*02:40:01+A*24:198    | A*02:203+A*24:71        |                      |
| A*02:40:01+A*24:206    | A*02:362+A*24:71        |                      |
| A*02:40:01+A*25:01:01G | A*02:51+A*25:03         |                      |
| A*02:40:01+A*26:23     | A*02:284N+A*26:52       |                      |
| A*02:40:01+A*26:27     | A*02:68+A*26:52         |                      |
| A*02:40:01+A*26:41     | A*02:187+A*26:52        |                      |
| A*02:40:01+A*26:43:02  | A*02:40:02+A*26:43:01   |                      |
| A*02:40:01+A*26:47     | A*02:85+A*26:52         |                      |
| A*02:40:01+A*26:50     | A*02:210+A*26:52        |                      |
| A*02:40:01+A*26:63     | A*02:236+A*26:52        |                      |
| A*02:40:01+A*26:75     | A*02:153+A*26:52        |                      |
| A*02:40:01+A*30:02:05  | A*02:40:02+A*30:02:01G  |                      |
| A*02:40:01+A*31:01:05  | A*02:40:02+A*31:01:02G  |                      |
| A*02:40:01+A*32:01:06  | A*02:40:02+A*32:01:01G  |                      |
| A*02:40:01+A*32:10     | A*02:323+A*32:01:01G    |                      |
| A*02:40:01+A*33:03:05  | A*02:40:02+A*33:03:01G  |                      |
| A*02:40:01+A*34:02:01  | A*02:51+A*34:08         |                      |
| A*02:40:01+A*34:02:02  | A*02:40:02+A*34:02:01   |                      |
| A*02:40:01+A*68:01:01G | A*02:51+A*68:71         |                      |
| A*02:40:01+A*68:48     | A*02:118+A*68:51        |                      |
| A*02:40:01+A*68:53     | A*02:159+A*68:51        |                      |
| A*02:40:01+A*68:67     | A*02:273+A*68:51        |                      |
| A*02:40:01+A*68:77     | A*02:74:01+A*68:51      |                      |
| A*02:40:01+A*68:78     | A*02:133+A*68:51        |                      |
| A*02:40:01+A*68:81     | A*02:121+A*68:51        |                      |
| A*02:40:02+A*02:191    | A*02:49+A*02:130        |                      |
| A*02:40:02+A*03:12     | A*02:51+A*03:01:02      |                      |
| A*02:40:02+A*24:87     | A*02:49+A*23:14:01      |                      |
| A*02:40:02+A*30:04:01  | A*02:49+A*30:09         |                      |
| A*02:40:02+A*32:10     | A*02:323+A*32:01:06     |                      |
| A*02:40:02+A*68:82     | A*02:130+A*68:28        |                      |
| A*02:41+A*02:42        | A*02:289+A*02:310       |                      |
| A*02:41+A*02:50        | A*02:122+A*02:289       |                      |
| A*02:41+A*02:64        | A*02:178+A*02:289       |                      |
| A*02:41+A*02:86        | A*02:79:01+A*02:289     |                      |
| A*02:41+A*02:90        | A*02:289+A*02:331       |                      |
| A*02:41+A*02:92        | A*02:289+A*02:358       |                      |
| A*02:41+A*02:110       | A*02:289+A*02:300       |                      |
| A*02:41+A*02:123       | A*02:289+A*02:295       |                      |
| A*02:41+A*02:145       | A*02:106+A*02:289       |                      |
| A*02:41+A*02:16        | A*02:127+A*02:289       |                      |
| A*02:41+A*02:195       | A*02:16+A*02:289        |                      |
| A*02:41+A*02:205       | A*02:144+A*02:289       |                      |
| A*02:41+A*02:273       | A*02:289+A*02:328       |                      |
| A*02:41+A*02:275       | A*02:72+A*02:289        |                      |
| A*02:41+A*02:322       | A*02:91+A*02:289        |                      |
| A*02:41+A*02:364       | A*02:170+A*02:289       |                      |
| A*02:41+A*03:01:01G    | A*02:289+A*03:12        |                      |
| A*02:41+A*24:104       | A*02:289+A*24:50        |                      |
| A*02:41+A*25:03        | A*02:289+A*25:01:01G    |                      |
| A*02:41+A*34:08        | A*02:289+A*34:02:01     |                      |
| A*02:41+A*68:71        | A*02:80+A*68:88         | A*02:289+A*68:01:01G |
| A*02:42+A*02:72        | A*02:275+A*02:310       |                      |
| A*02:42+A*02:79:01     | A*02:86+A*02:310        |                      |
| A*02:42+A*02:91        | A*02:310+A*02:322       |                      |
| A*02:42+A*02:106       | A*02:145+A*02:310       |                      |
| A*02:42+A*02:122       | A*02:50+A*02:310        |                      |
| A*02:42+A*02:127       | A*02:16+A*02:310        |                      |
| A*02:42+A*02:144       | A*02:205+A*02:310       |                      |
| A*02:42+A*02:16        | A*02:195+A*02:310       |                      |
| A*02:42+A*02:170       | A*02:310+A*02:364       |                      |
| A*02:42+A*02:178       | A*02:64+A*02:310        |                      |
| A*02:42+A*02:295       | A*02:123+A*02:310       |                      |
| A*02:42+A*02:300       | A*02:110+A*02:310       |                      |
| A*02:42+A*02:328       | A*02:273+A*02:310       |                      |
| A*02:42+A*02:331       | A*02:90+A*02:310        |                      |
| A*02:42+A*02:358       | A*02:92+A*02:310        |                      |
| A*02:42+A*03:12        | A*02:310+A*03:01:01G    |                      |
| A*02:42+A*24:50        | A*02:310+A*24:104       |                      |
| A*02:42+A*25:01:01G    | A*02:310+A*25:03        |                      |
| A*02:42+A*33:01:01G    | A*02:332+A*33:60        |                      |
| A*02:42+A*33:14        | A*02:367+A*33:60        |                      |
| A*02:42+A*33:30        | A*02:342+A*33:60        |                      |
| A*02:42+A*33:40        | A*02:211:01+A*33:60     |                      |
| A*02:42+A*33:42        | A*02:292+A*33:60        |                      |
| A*02:42+A*33:47        | A*02:306+A*33:60        |                      |
| A*02:42+A*33:52        | A*02:109+A*33:60        |                      |
| A*02:42+A*33:58        | A*02:107+A*33:60        |                      |
| A*02:42+A*33:61        | A*02:101:01+A*33:60     |                      |
| A*02:42+A*34:02:01     | A*02:310+A*34:08        |                      |
| A*02:42+A*68:01:01G    | A*02:310+A*68:71        |                      |
| A*02:44+A*02:174       | A*02:142+A*02:149       |                      |
| A*02:44+A*11:57        | A*02:142+A*11:02:01G    |                      |
| A*02:44+A*24:94        | A*02:79:01+A*24:03:01G  |                      |
| A*02:44+A*68:01:05     | A*02:142+A*68:50        |                      |
| A*02:45+A*02:70        | A*02:46+A*02:217:02     |                      |
| A*02:45+A*11:103       | A*02:217:02+A*11:01:01G |                      |
| A*02:45+A*23:01:01G    | A*02:92+A*23:28         |                      |
| A*02:45+A*24:02:01G    | A*02:92+A*24:77         |                      |
| A*02:45+A*24:145       | A*02:46+A*24:191        |                      |
| A*02:45+A*24:156       | A*02:92+A*24:191        |                      |
| A*02:45+A*26:13        | A*02:56:01+A*26:69      |                      |
| A*02:45+A*32:17        | A*02:56:01+A*32:31      |                      |
| A*02:45+A*32:39        | A*02:217:02+A*32:01:01G |                      |
| A*02:45+A*68:75        | A*02:92+A*68:01:02G     |                      |
| A*02:46+A*11:103       | A*02:70+A*11:01:01G     |                      |
| A*02:46+A*24:29        | A*02:92+A*24:02:01G     |                      |
| A*02:46+A*24:156       | A*02:92+A*24:145        |                      |
| A*02:46+A*25:01:01G    | A*02:92+A*25:15         |                      |
| A*02:46+A*30:25        | A*02:56:01+A*30:07      |                      |
| A*02:46+A*32:31        | A*02:92+A*32:05         |                      |
| A*02:48+A*03:09        | A*02:195+A*03:30        |                      |

|                        |                       |                      |
|------------------------|-----------------------|----------------------|
| A*02:48+A*03:23:01     | A*02:90+A*03:30       |                      |
| A*02:48+A*33:08        | A*02:90+A*33:53       |                      |
| A*02:48+A*33:09        | A*02:90+A*33:21       |                      |
| A*02:49+A*03:04:01     | A*02:74:02+A*03:66    |                      |
| A*02:49+A*03:04:02     | A*02:74:01+A*03:66    |                      |
| A*02:49+A*03:16        | A*02:341+A*03:66      |                      |
| A*02:49+A*03:22:01     | A*02:174+A*03:66      |                      |
| A*02:49+A*03:44        | A*02:16+A*03:66       |                      |
| A*02:49+A*03:54        | A*02:145+A*03:66      |                      |
| A*02:49+A*03:59        | A*02:352+A*03:66      |                      |
| A*02:49+A*03:63        | A*02:346+A*03:66      |                      |
| A*02:49+A*03:72        | A*02:76:01+A*03:66    |                      |
| A*02:49+A*03:79        | A*02:85+A*03:66       |                      |
| A*02:49+A*03:84        | A*02:349+A*03:66      |                      |
| A*02:49+A*03:87        | A*02:197+A*03:66      |                      |
| A*02:49+A*03:93        | A*02:119+A*03:66      |                      |
| A*02:49+A*03:94        | A*02:322+A*03:66      |                      |
| A*02:49+A*03:101       | A*02:306+A*03:66      |                      |
| A*02:49+A*03:104       | A*02:332+A*03:66      |                      |
| A*02:49+A*03:105       | A*02:101:02+A*03:66   |                      |
| A*02:49+A*03:126       | A*02:198+A*03:66      |                      |
| A*02:49+A*03:128       | A*02:116+A*03:66      |                      |
| A*02:49+A*03:136       | A*02:133+A*03:66      |                      |
| A*02:49+A*03:150       | A*02:262+A*03:66      |                      |
| A*02:49+A*68:54        | A*02:323+A*68:28      |                      |
| A*02:49+A*68:82        | A*02:191+A*68:28      |                      |
| A*02:50+A*02:72        | A*02:122+A*02:275     |                      |
| A*02:50+A*02:79:01     | A*02:86+A*02:122      |                      |
| A*02:50+A*02:91        | A*02:122+A*02:322     |                      |
| A*02:50+A*02:106       | A*02:122+A*02:145     |                      |
| A*02:50+A*02:127       | A*02:122+A*02:16      |                      |
| A*02:50+A*02:144       | A*02:122+A*02:205     |                      |
| A*02:50+A*02:16        | A*02:122+A*02:195     |                      |
| A*02:50+A*02:170       | A*02:122+A*02:364     |                      |
| A*02:50+A*02:178       | A*02:64+A*02:122      |                      |
| A*02:50+A*02:295       | A*02:122+A*02:123     |                      |
| A*02:50+A*02:300       | A*02:110+A*02:122     |                      |
| A*02:50+A*02:328       | A*02:122+A*02:273     |                      |
| A*02:50+A*02:331       | A*02:90+A*02:122      |                      |
| A*02:50+A*02:358       | A*02:92+A*02:122      |                      |
| A*02:50+A*03:12        | A*02:122+A*03:01:01G  |                      |
| A*02:50+A*24:50        | A*02:122+A*24:104     |                      |
| A*02:50+A*25:01:01G    | A*02:122+A*25:03      |                      |
| A*02:50+A*34:02:01     | A*02:122+A*34:08      |                      |
| A*02:50+A*68:01:01G    | A*02:122+A*68:71      |                      |
| A*02:51+A*02:369       | A*02:130+A*02:358     |                      |
| A*02:51+A*03:02:01     | A*02:142+A*03:133     |                      |
| A*02:51+A*24:05:01G    | A*02:54+A*23:04       | A*02:142+A*23:01:01G |
| A*02:51+A*24:21:01     | A*02:137+A*24:71      |                      |
| A*02:51+A*24:47        | A*02:144+A*24:71      |                      |
| A*02:51+A*24:69        | A*02:278+A*24:71      |                      |
| A*02:51+A*24:72        | A*02:106+A*24:71      |                      |
| A*02:51+A*24:121       | A*02:178+A*24:71      |                      |
| A*02:51+A*24:172       | A*02:259+A*24:71      |                      |
| A*02:51+A*26:16        | A*02:76:01+A*26:52    |                      |
| A*02:51+A*26:74        | A*02:259+A*26:52      |                      |
| A*02:51+A*33:28        | A*02:99+A*33:03:01G   |                      |
| A*02:51+A*68:54        | A*02:99+A*68:51       |                      |
| A*02:51+A*68:67        | A*02:328+A*68:51      |                      |
| A*02:52+A*03:01:01G    | A*02:114+A*03:43      |                      |
| A*02:52+A*03:02:01     | A*02:114+A*03:82      |                      |
| A*02:52+A*03:19        | A*02:242+A*03:43      |                      |
| A*02:52+A*03:56        | A*02:279+A*03:43      |                      |
| A*02:52+A*03:103       | A*02:304+A*03:43      |                      |
| A*02:52+A*11:02:01G    | A*02:114+A*11:113     |                      |
| A*02:52+A*23:01:01G    | A*02:95+A*23:46       |                      |
| A*02:52+A*23:53        | A*02:114+A*23:46      |                      |
| A*02:52+A*24:02:01G    | A*02:95+A*24:66       |                      |
| A*02:52+A*24:17        | A*02:114+A*24:66      |                      |
| A*02:52+A*24:41        | A*02:279+A*24:66      |                      |
| A*02:52+A*24:62        | A*02:304+A*24:66      |                      |
| A*02:52+A*30:26        | A*02:114+A*30:01:01G  |                      |
| A*02:52+A*68:01:02G    | A*02:114+A*68:06      |                      |
| A*02:54+A*03:05:01     | A*02:142+A*03:122     |                      |
| A*02:54+A*11:01:01G    | A*02:142+A*11:39      |                      |
| A*02:54+A*11:02:01G    | A*02:142+A*11:38      |                      |
| A*02:54+A*11:04        | A*02:142+A*11:27      |                      |
| A*02:54+A*24:03:01G    | A*02:142+A*24:02:01G  |                      |
| A*02:54+A*24:03:02     | A*02:142+A*24:02:18   |                      |
| A*02:54+A*24:10        | A*02:142+A*24:46      |                      |
| A*02:54+A*24:167       | A*02:142+A*24:06      |                      |
| A*02:54+A*26:01:01G    | A*02:142+A*26:49      |                      |
| A*02:54+A*26:15        | A*02:142+A*26:29      |                      |
| A*02:54+A*29:02:01G    | A*02:142+A*29:03      |                      |
| A*02:54+A*31:01:02G    | A*02:142+A*31:05      |                      |
| A*02:54+A*32:01:01G    | A*02:142+A*32:13      |                      |
| A*02:54+A*33:03:01G    | A*02:142+A*33:10      |                      |
| A*02:54+A*66:01:01G    | A*02:142+A*66:10      |                      |
| A*02:54+A*68:01:02G    | A*02:142+A*68:65      |                      |
| A*02:54+A*68:63        | A*02:99+A*68:26       |                      |
| A*02:55+A*03:01:01G    | A*02:195+A*03:24      |                      |
| A*02:55+A*03:12        | A*02:16+A*03:24       |                      |
| A*02:55+A*11:01:01G    | A*02:195+A*11:10      |                      |
| A*02:55+A*24:191       | A*02:195+A*24:67      |                      |
| A*02:55+A*26:72        | A*02:195+A*26:62      |                      |
| A*02:55+A*32:01:01G    | A*02:195+A*32:15      |                      |
| A*02:55+A*32:17        | A*02:56:02+A*32:15    |                      |
| A*02:55+A*68:66        | A*02:56:02+A*68:03:01 | A*02:195+A*68:01:02G |
| A*02:56:01+A*03:01:01G | A*02:56:02+A*03:01:03 |                      |
| A*02:56:01+A*03:08     | A*02:195+A*03:01:03   |                      |
| A*02:56:01+A*03:12     | A*02:78+A*03:09       |                      |
| A*02:56:01+A*11:70     | A*02:62+A*11:01:01G   |                      |
| A*02:56:01+A*26:07:01  | A*02:56:02+A*26:07:02 |                      |
| A*02:56:01+A*33:01:01G | A*02:56:02+A*33:01:02 |                      |
| A*02:56:02+A*02:112    | A*02:87+A*02:103      |                      |

|                        |                      |                      |
|------------------------|----------------------|----------------------|
| A*02:56:02+A*02:282    | A*02:95+A*02:103     |                      |
| A*02:56:02+A*02:319    | A*02:76:01+A*02:103  |                      |
| A*02:56:02+A*02:369    | A*02:92+A*02:103     |                      |
| A*02:56:02+A*03:08     | A*02:195+A*03:01:01G |                      |
| A*02:56:02+A*03:108    | A*02:195+A*03:09     |                      |
| A*02:56:02+A*11:19     | A*02:195+A*11:01:01G |                      |
| A*02:56:02+A*11:36     | A*02:103+A*11:01:01G |                      |
| A*02:56:02+A*23:01:01G | A*02:195+A*23:13     |                      |
| A*02:56:02+A*24:02:01G | A*02:195+A*24:07     |                      |
| A*02:56:02+A*24:44     | A*02:195+A*24:19     |                      |
| A*02:56:02+A*25:01:01G | A*02:195+A*25:02     |                      |
| A*02:56:02+A*26:01:01G | A*02:195+A*26:13     |                      |
| A*02:56:02+A*29:20     | A*02:195+A*29:01:01G |                      |
| A*02:56:02+A*29:34     | A*02:195+A*29:02:01G |                      |
| A*02:56:02+A*30:02:01G | A*02:195+A*30:25     |                      |
| A*02:56:02+A*30:44     | A*02:195+A*30:16     |                      |
| A*02:56:02+A*32:01:01G | A*02:195+A*32:17     |                      |
| A*02:56:02+A*66:03     | A*02:195+A*66:02     |                      |
| A*02:56:02+A*66:05     | A*02:195+A*66:01:01G |                      |
| A*02:56:02+A*68:03:03  | A*02:16+A*68:71      | A*02:195+A*68:01:01G |
| A*02:56:02+A*68:30     | A*02:62+A*68:66      |                      |
| A*02:56:02+A*68:31     | A*02:195+A*68:02:01G |                      |
| A*02:56:02+A*68:82     | A*02:103+A*68:02:01G |                      |
| A*02:56:02+A*74:01:01G | A*02:195+A*74:13     |                      |
| A*02:57+A*24:02:01G    | A*02:108+A*24:53     |                      |
| A*02:57+A*24:120       | A*02:108+A*24:57     |                      |
| A*02:58+A*24:57        | A*02:245+A*24:53     |                      |
| A*02:58+A*24:92        | A*02:245+A*24:51     |                      |
| A*02:58+A*24:120       | A*02:245+A*24:02:01G | A*02:334+A*24:52     |
| A*02:60:01+A*68:12     | A*02:86+A*68:17      |                      |
| A*02:60:01+A*68:19     | A*02:237+A*68:17     |                      |
| A*02:60:01+A*68:21:01  | A*02:74:02+A*68:17   |                      |
| A*02:60:01+A*68:24     | A*02:208+A*68:17     |                      |
| A*02:60:01+A*68:70     | A*02:119+A*68:17     |                      |
| A*02:60:01+A*68:76     | A*02:211:01+A*68:17  |                      |
| A*02:60:01+A*68:93     | A*02:199+A*68:17     |                      |
| A*02:62+A*11:98        | A*02:128+A*11:06     |                      |
| A*02:62+A*32:05        | A*02:70+A*32:17      |                      |
| A*02:64+A*02:72        | A*02:178+A*02:275    |                      |
| A*02:64+A*02:79:01     | A*02:86+A*02:178     |                      |
| A*02:64+A*02:91        | A*02:178+A*02:322    |                      |
| A*02:64+A*02:106       | A*02:145+A*02:178    |                      |
| A*02:64+A*02:127       | A*02:16+A*02:178     |                      |
| A*02:64+A*02:144       | A*02:178+A*02:205    |                      |
| A*02:64+A*02:16        | A*02:178+A*02:195    |                      |
| A*02:64+A*02:170       | A*02:178+A*02:364    |                      |
| A*02:64+A*02:295       | A*02:123+A*02:178    |                      |
| A*02:64+A*02:300       | A*02:110+A*02:178    |                      |
| A*02:64+A*02:328       | A*02:178+A*02:273    |                      |
| A*02:64+A*02:331       | A*02:90+A*02:178     |                      |
| A*02:64+A*02:358       | A*02:92+A*02:178     |                      |
| A*02:64+A*03:12        | A*02:178+A*03:01:01G |                      |
| A*02:64+A*24:05:01G    | A*02:174+A*24:121    |                      |
| A*02:64+A*24:17        | A*02:246+A*24:121    |                      |
| A*02:64+A*24:25        | A*02:352+A*24:121    |                      |
| A*02:64+A*24:46        | A*02:101:01+A*24:121 |                      |
| A*02:64+A*24:47        | A*02:205+A*24:121    |                      |
| A*02:64+A*24:50        | A*02:178+A*24:104    |                      |
| A*02:64+A*24:58        | A*02:107+A*24:121    |                      |
| A*02:64+A*24:60N       | A*02:366N+A*24:121   |                      |
| A*02:64+A*24:62        | A*02:80+A*24:121     |                      |
| A*02:64+A*24:72        | A*02:145+A*24:121    |                      |
| A*02:64+A*24:73        | A*02:147+A*24:121    | A*02:188+A*24:157    |
| A*02:64+A*24:77        | A*02:217:02+A*24:121 |                      |
| A*02:64+A*24:90N       | A*02:88N+A*24:121    |                      |
| A*02:64+A*24:91        | A*02:68+A*24:121     |                      |
| A*02:64+A*24:96        | A*02:254+A*24:121    |                      |
| A*02:64+A*24:117       | A*02:296+A*24:121    |                      |
| A*02:64+A*24:118       | A*02:361+A*24:121    |                      |
| A*02:64+A*24:119       | A*02:158+A*24:121    |                      |
| A*02:64+A*24:133       | A*02:182+A*24:121    |                      |
| A*02:64+A*24:160       | A*02:262+A*24:121    |                      |
| A*02:64+A*24:165       | A*02:353+A*24:121    |                      |
| A*02:64+A*24:169       | A*02:119+A*24:121    |                      |
| A*02:64+A*24:174       | A*02:188+A*24:121    |                      |
| A*02:64+A*24:176       | A*02:16+A*24:121     |                      |
| A*02:64+A*24:180       | A*02:16+A*24:121     |                      |
| A*02:64+A*24:181       | A*02:236+A*24:121    |                      |
| A*02:64+A*24:187       | A*02:111+A*24:121    |                      |
| A*02:64+A*24:192       | A*02:312+A*24:121    |                      |
| A*02:64+A*24:197       | A*02:85+A*24:121     |                      |
| A*02:64+A*24:198       | A*02:203+A*24:121    |                      |
| A*02:64+A*24:206       | A*02:362+A*24:121    |                      |
| A*02:64+A*25:01:01G    | A*02:178+A*25:03     |                      |
| A*02:64+A*34:02:01     | A*02:178+A*34:08     |                      |
| A*02:64+A*68:01:01G    | A*02:178+A*68:71     |                      |
| A*02:65+A*68:01:01G    | A*02:152+A*68:25     |                      |
| A*02:68+A*24:05:01G    | A*02:174+A*24:91     |                      |
| A*02:68+A*24:17        | A*02:246+A*24:91     |                      |
| A*02:68+A*24:25        | A*02:352+A*24:91     |                      |
| A*02:68+A*24:46        | A*02:101:01+A*24:91  |                      |
| A*02:68+A*24:47        | A*02:205+A*24:91     |                      |
| A*02:68+A*24:58        | A*02:107+A*24:91     |                      |
| A*02:68+A*24:60N       | A*02:366N+A*24:91    |                      |
| A*02:68+A*24:62        | A*02:80+A*24:91      |                      |
| A*02:68+A*24:72        | A*02:145+A*24:91     |                      |
| A*02:68+A*24:73        | A*02:147+A*24:91     |                      |
| A*02:68+A*24:77        | A*02:217:02+A*24:91  |                      |
| A*02:68+A*24:90N       | A*02:88N+A*24:91     |                      |
| A*02:68+A*24:96        | A*02:254+A*24:91     |                      |
| A*02:68+A*24:117       | A*02:296+A*24:91     |                      |
| A*02:68+A*24:118       | A*02:361+A*24:91     |                      |
| A*02:68+A*24:119       | A*02:158+A*24:91     |                      |
| A*02:68+A*24:133       | A*02:182+A*24:91     |                      |
| A*02:68+A*24:160       | A*02:262+A*24:91     |                      |

|                       |                        |
|-----------------------|------------------------|
| A*02:68+A*24:165      | A*02:353+A*24:91       |
| A*02:68+A*24:169      | A*02:119+A*24:91       |
| A*02:68+A*24:174      | A*02:188+A*24:91       |
| A*02:68+A*24:176      | A*02:16+A*24:91        |
| A*02:68+A*24:180      | A*02:16+A*24:91        |
| A*02:68+A*24:181      | A*02:236+A*24:91       |
| A*02:68+A*24:187      | A*02:111+A*24:91       |
| A*02:68+A*24:192      | A*02:312+A*24:91       |
| A*02:68+A*24:197      | A*02:85+A*24:91        |
| A*02:68+A*24:198      | A*02:203+A*24:91       |
| A*02:68+A*24:206      | A*02:362+A*24:91       |
| A*02:68+A*26:23       | A*02:284N+A*26:27      |
| A*02:68+A*26:41       | A*02:187+A*26:27       |
| A*02:68+A*26:47       | A*02:85+A*26:27        |
| A*02:68+A*26:50       | A*02:210+A*26:27       |
| A*02:68+A*26:63       | A*02:236+A*26:27       |
| A*02:68+A*26:75       | A*02:153+A*26:27       |
| A*02:70+A*25:08       | A*02:85+A*25:15        |
| A*02:71+A*30:31       | A*02:351+A*30:36       |
| A*02:71+A*30:39       | A*02:202+A*30:36       |
| A*02:71+A*30:65       | A*02:116+A*30:36       |
| A*02:72+A*02:86       | A*02:79:01+A*02:275    |
| A*02:72+A*02:90       | A*02:275+A*02:331      |
| A*02:72+A*02:92       | A*02:275+A*02:358      |
| A*02:72+A*02:110      | A*02:275+A*02:300      |
| A*02:72+A*02:123      | A*02:275+A*02:295      |
| A*02:72+A*02:145      | A*02:106+A*02:275      |
| A*02:72+A*02:16       | A*02:127+A*02:275      |
| A*02:72+A*02:195      | A*02:16+A*02:275       |
| A*02:72+A*02:205      | A*02:144+A*02:275      |
| A*02:72+A*02:273      | A*02:275+A*02:328      |
| A*02:72+A*02:322      | A*02:91+A*02:275       |
| A*02:72+A*02:364      | A*02:170+A*02:275      |
| A*02:72+A*03:01:01G   | A*02:275+A*03:12       |
| A*02:72+A*24:104      | A*02:275+A*24:50       |
| A*02:72+A*25:03       | A*02:275+A*25:01:01G   |
| A*02:72+A*31:63       | A*02:328+A*31:31       |
| A*02:72+A*34:08       | A*02:275+A*34:02:01    |
| A*02:72+A*68:71       | A*02:275+A*68:01:01G   |
| A*02:73+A*02:246      | A*02:245+A*02:279      |
| A*02:73+A*02:338      | A*02:156+A*02:245      |
| A*02:73+A*24:93       | A*02:93+A*24:120       |
| A*02:73+A*26:22       | A*02:93+A*26:01:01G    |
| A*02:73+A*30:47       | A*02:93+A*30:02:01G    |
| A*02:73+A*66:09       | A*02:93+A*66:01:01G    |
| A*02:73+A*68:83       | A*02:93+A*68:01:02G    |
| A*02:74:01+A*03:04:01 | A*02:74:02+A*03:04:02  |
| A*02:74:01+A*03:16    | A*02:341+A*03:04:02    |
| A*02:74:01+A*03:22:01 | A*02:174+A*03:04:02    |
| A*02:74:01+A*03:44    | A*02:16+A*03:04:02     |
| A*02:74:01+A*03:54    | A*02:145+A*03:04:02    |
| A*02:74:01+A*03:59    | A*02:352+A*03:04:02    |
| A*02:74:01+A*03:63    | A*02:346+A*03:04:02    |
| A*02:74:01+A*03:69N   | A*02:226N+A*03:04:02   |
| A*02:74:01+A*03:72    | A*02:76:01+A*03:04:02  |
| A*02:74:01+A*03:79    | A*02:85+A*03:04:02     |
| A*02:74:01+A*03:84    | A*02:349+A*03:04:02    |
| A*02:74:01+A*03:87    | A*02:197+A*03:04:02    |
| A*02:74:01+A*03:93    | A*02:119+A*03:04:02    |
| A*02:74:01+A*03:94    | A*02:322+A*03:04:02    |
| A*02:74:01+A*03:101   | A*02:306+A*03:04:02    |
| A*02:74:01+A*03:104   | A*02:332+A*03:04:02    |
| A*02:74:01+A*03:105   | A*02:101:02+A*03:04:02 |
| A*02:74:01+A*03:126   | A*02:198+A*03:04:02    |
| A*02:74:01+A*03:128   | A*02:116+A*03:04:02    |
| A*02:74:01+A*03:136   | A*02:133+A*03:04:02    |
| A*02:74:01+A*03:150   | A*02:262+A*03:04:02    |
| A*02:74:01+A*30:28    | A*02:224+A*30:34       |
| A*02:74:01+A*30:51    | A*02:121+A*30:34       |
| A*02:74:01+A*68:35    | A*02:123+A*68:21:02    |
| A*02:74:01+A*68:48    | A*02:118+A*68:77       |
| A*02:74:01+A*68:53    | A*02:159+A*68:77       |
| A*02:74:01+A*68:58    | A*02:362+A*68:21:02    |
| A*02:74:01+A*68:67    | A*02:273+A*68:77       |
| A*02:74:01+A*68:72    | A*02:139+A*68:21:02    |
| A*02:74:01+A*68:78    | A*02:133+A*68:77       |
| A*02:74:01+A*68:81    | A*02:121+A*68:77       |
| A*02:74:02+A*03:16    | A*02:341+A*03:04:01    |
| A*02:74:02+A*03:22:01 | A*02:174+A*03:04:01    |
| A*02:74:02+A*03:44    | A*02:16+A*03:04:01     |
| A*02:74:02+A*03:54    | A*02:145+A*03:04:01    |
| A*02:74:02+A*03:59    | A*02:352+A*03:04:01    |
| A*02:74:02+A*03:63    | A*02:346+A*03:04:01    |
| A*02:74:02+A*03:69N   | A*02:226N+A*03:04:01   |
| A*02:74:02+A*03:72    | A*02:76:01+A*03:04:01  |
| A*02:74:02+A*03:79    | A*02:85+A*03:04:01     |
| A*02:74:02+A*03:84    | A*02:349+A*03:04:01    |
| A*02:74:02+A*03:87    | A*02:197+A*03:04:01    |
| A*02:74:02+A*03:93    | A*02:119+A*03:04:01    |
| A*02:74:02+A*03:94    | A*02:322+A*03:04:01    |
| A*02:74:02+A*03:101   | A*02:306+A*03:04:01    |
| A*02:74:02+A*03:104   | A*02:332+A*03:04:01    |
| A*02:74:02+A*03:105   | A*02:101:02+A*03:04:01 |
| A*02:74:02+A*03:126   | A*02:198+A*03:04:01    |
| A*02:74:02+A*03:128   | A*02:116+A*03:04:01    |
| A*02:74:02+A*03:136   | A*02:133+A*03:04:01    |
| A*02:74:02+A*03:150   | A*02:262+A*03:04:01    |
| A*02:74:02+A*23:05    | A*02:352+A*23:25       |
| A*02:74:02+A*23:06    | A*02:257+A*23:25       |
| A*02:74:02+A*23:08N   | A*02:82N+A*23:25       |
| A*02:74:02+A*23:10    | A*02:101:01+A*23:25    |
| A*02:74:02+A*23:24    | A*02:145+A*23:25       |
| A*02:74:02+A*23:28    | A*02:217:02+A*23:25    |
| A*02:74:02+A*23:41    | A*02:221+A*23:25       |
| A*02:74:02+A*23:44    | A*02:187+A*23:25       |



|                        |                        |
|------------------------|------------------------|
| A*02:74:02+A*23:47     | A*02:121+A*23:25       |
| A*02:74:02+A*23:50     | A*02:109+A*23:25       |
| A*02:74:02+A*23:53     | A*02:246+A*23:25       |
| A*02:74:02+A*68:12     | A*02:86+A*68:21:01     |
| A*02:74:02+A*68:19     | A*02:237+A*68:21:01    |
| A*02:74:02+A*68:24     | A*02:208+A*68:21:01    |
| A*02:74:02+A*68:70     | A*02:119+A*68:21:01    |
| A*02:74:02+A*68:76     | A*02:211:01+A*68:21:01 |
| A*02:74:02+A*68:93     | A*02:199+A*68:21:01    |
| A*02:76:01+A*02:112    | A*02:87+A*02:319       |
| A*02:76:01+A*02:282    | A*02:95+A*02:319       |
| A*02:76:01+A*02:369    | A*02:92+A*02:319       |
| A*02:76:01+A*03:16     | A*02:341+A*03:72       |
| A*02:76:01+A*03:22:01  | A*02:174+A*03:72       |
| A*02:76:01+A*03:44     | A*02:16+A*03:72        |
| A*02:76:01+A*03:54     | A*02:145+A*03:72       |
| A*02:76:01+A*03:59     | A*02:352+A*03:72       |
| A*02:76:01+A*03:63     | A*02:346+A*03:72       |
| A*02:76:01+A*03:69N    | A*02:226N+A*03:72      |
| A*02:76:01+A*03:79     | A*02:85+A*03:72        |
| A*02:76:01+A*03:84     | A*02:349+A*03:72       |
| A*02:76:01+A*03:87     | A*02:197+A*03:72       |
| A*02:76:01+A*03:93     | A*02:119+A*03:72       |
| A*02:76:01+A*03:94     | A*02:322+A*03:72       |
| A*02:76:01+A*03:101    | A*02:306+A*03:72       |
| A*02:76:01+A*03:104    | A*02:332+A*03:72       |
| A*02:76:01+A*03:105    | A*02:101:02+A*03:72    |
| A*02:76:01+A*03:126    | A*02:198+A*03:72       |
| A*02:76:01+A*03:128    | A*02:116+A*03:72       |
| A*02:76:01+A*03:136    | A*02:133+A*03:72       |
| A*02:76:01+A*03:150    | A*02:262+A*03:72       |
| A*02:76:01+A*11:36     | A*02:319+A*11:01:01G   |
| A*02:76:01+A*11:41     | A*02:328+A*11:88       |
| A*02:76:01+A*11:43     | A*02:243+A*11:88       |
| A*02:76:01+A*11:72     | A*02:170+A*11:88       |
| A*02:76:01+A*24:82     | A*02:243+A*24:02:01G   |
| A*02:76:01+A*26:74     | A*02:259+A*26:16       |
| A*02:76:01+A*29:02:01G | A*02:243+A*29:37       |
| A*02:76:01+A*32:09     | A*02:233+A*32:07       |
| A*02:76:01+A*32:12     | A*02:121+A*32:07       |
| A*02:76:01+A*32:21     | A*02:16+A*32:07        |
| A*02:76:01+A*32:26     | A*02:101:02+A*32:07    |
| A*02:76:01+A*32:37     | A*02:119+A*32:07       |
| A*02:76:01+A*32:42     | A*02:243+A*32:07       |
| A*02:76:01+A*68:29     | A*02:243+A*68:45       |
| A*02:76:01+A*68:35     | A*02:295+A*68:45       |
| A*02:76:01+A*68:42     | A*02:99+A*68:45        |
| A*02:76:01+A*68:82     | A*02:319+A*68:02:01G   |
| A*02:78+A*03:108       | A*02:16+A*03:01:03     |
| A*02:79:01+A*02:90     | A*02:86+A*02:331       |
| A*02:79:01+A*02:92     | A*02:86+A*02:358       |
| A*02:79:01+A*02:110    | A*02:86+A*02:300       |
| A*02:79:01+A*02:123    | A*02:86+A*02:295       |
| A*02:79:01+A*02:145    | A*02:86+A*02:106       |
| A*02:79:01+A*02:16     | A*02:86+A*02:127       |
| A*02:79:01+A*02:195    | A*02:86+A*02:16        |
| A*02:79:01+A*02:205    | A*02:86+A*02:144       |
| A*02:79:01+A*02:273    | A*02:86+A*02:328       |
| A*02:79:01+A*02:322    | A*02:86+A*02:91        |
| A*02:79:01+A*02:364    | A*02:86+A*02:170       |
| A*02:79:01+A*03:01:01G | A*02:86+A*03:12        |
| A*02:79:01+A*11:01:07  | A*02:79:02+A*11:01:01G |
| A*02:79:01+A*11:33:01  | A*02:79:02+A*11:33:02  |
| A*02:79:01+A*24:02:01G | A*02:79:02+A*24:02:02  |
| A*02:79:01+A*24:104    | A*02:86+A*24:50        |
| A*02:79:01+A*25:03     | A*02:86+A*25:01:01G    |
| A*02:79:01+A*26:01:01G | A*02:79:02+A*26:01:17  |
| A*02:79:01+A*29:02:01G | A*02:79:02+A*29:02:11  |
| A*02:79:01+A*34:08     | A*02:86+A*34:02:01     |
| A*02:79:01+A*68:01:05  | A*02:79:02+A*68:01:01G |
| A*02:79:01+A*68:71     | A*02:86+A*68:01:01G    |
| A*02:79:01+A*68:91     | A*02:137+A*68:12       |
| A*02:79:02+A*68:71     | A*02:86+A*68:01:05     |
| A*02:80+A*02:114       | A*02:246+A*02:304      |
| A*02:80+A*02:300       | A*02:108+A*02:304      |
| A*02:80+A*03:01:01G    | A*02:246+A*03:103      |
| A*02:80+A*03:31        | A*02:289+A*03:02:01    |
| A*02:80+A*11:01:01G    | A*02:246+A*11:116      |
| A*02:80+A*24:05:01G    | A*02:174+A*24:62       |
| A*02:80+A*24:17        | A*02:246+A*24:62       |
| A*02:80+A*24:25        | A*02:352+A*24:62       |
| A*02:80+A*24:46        | A*02:101:01+A*24:62    |
| A*02:80+A*24:47        | A*02:205+A*24:62       |
| A*02:80+A*24:58        | A*02:107+A*24:62       |
| A*02:80+A*24:60N       | A*02:366N+A*24:62      |
| A*02:80+A*24:72        | A*02:145+A*24:62       |
| A*02:80+A*24:73        | A*02:147+A*24:62       |
| A*02:80+A*24:77        | A*02:217:02+A*24:62    |
| A*02:80+A*24:90N       | A*02:88N+A*24:62       |
| A*02:80+A*24:96        | A*02:254+A*24:62       |
| A*02:80+A*24:117       | A*02:296+A*24:62       |
| A*02:80+A*24:118       | A*02:361+A*24:62       |
| A*02:80+A*24:119       | A*02:158+A*24:62       |
| A*02:80+A*24:133       | A*02:182+A*24:62       |
| A*02:80+A*24:160       | A*02:262+A*24:62       |
| A*02:80+A*24:165       | A*02:353+A*24:62       |
| A*02:80+A*24:169       | A*02:119+A*24:62       |
| A*02:80+A*24:174       | A*02:188+A*24:62       |
| A*02:80+A*24:176       | A*02:16+A*24:62        |
| A*02:80+A*24:180       | A*02:16+A*24:62        |
| A*02:80+A*24:181       | A*02:236+A*24:62       |
| A*02:80+A*24:187       | A*02:111+A*24:62       |
| A*02:80+A*24:192       | A*02:312+A*24:62       |
| A*02:80+A*24:197       | A*02:85+A*24:62        |
| A*02:80+A*24:198       | A*02:203+A*24:62       |

|                         |                      |                  |
|-------------------------|----------------------|------------------|
| A*02:80+A*24:206        | A*02:362+A*24:62     |                  |
| A*02:80+A*29:02:01G     | A*02:246+A*29:32     |                  |
| A*02:80+A*31:06         | A*02:246+A*31:01:02G |                  |
| A*02:80+A*32:30         | A*02:246+A*32:01:01G |                  |
| A*02:80+A*33:18         | A*02:246+A*33:03:01G |                  |
| A*02:81:01G+A*03:08     | A*02:90+A*32:04      |                  |
| A*02:81:01G+A*23:01:01G | A*02:87+A*23:36      |                  |
| A*02:81:01G+A*23:02     | A*02:136+A*23:36     |                  |
| A*02:81:01G+A*24:02:01G | A*02:87+A*24:32      |                  |
| A*02:81:01G+A*24:04     | A*02:146+A*24:32     |                  |
| A*02:81:01G+A*26:01:01G | A*02:146+A*25:01:01G |                  |
| A*02:81:01G+A*26:01:03  | A*02:146+A*25:01:06  |                  |
| A*02:81:01G+A*26:05     | A*02:247+A*25:01:01G |                  |
| A*02:81:01G+A*26:08     | A*02:146+A*25:04     |                  |
| A*02:81:01G+A*26:09     | A*02:146+A*25:06     |                  |
| A*02:81:01G+A*26:13     | A*02:146+A*25:02     |                  |
| A*02:81:01G+A*26:14     | A*02:146+A*25:09     |                  |
| A*02:81:01G+A*26:36     | A*02:146+A*25:11     |                  |
| A*02:81:01G+A*26:43:01  | A*02:146+A*25:19     |                  |
| A*02:81:01G+A*26:47     | A*02:146+A*25:08     |                  |
| A*02:81:01G+A*26:54     | A*02:146+A*25:05     |                  |
| A*02:81:01G+A*26:65     | A*02:146+A*25:13     |                  |
| A*02:81:01G+A*29:02:01G | A*02:146+A*29:13     |                  |
| A*02:81:01G+A*32:03     | A*02:87+A*32:01:01G  |                  |
| A*02:81:01G+A*66:05     | A*02:90+A*25:01:01G  | A*02:331+A*25:03 |
| A*02:81:01G+A*74:01:01G | A*02:90+A*32:01:01G  |                  |
| A*02:82N+A*23:05        | A*02:352+A*23:08N    |                  |
| A*02:82N+A*23:06        | A*02:257+A*23:08N    |                  |
| A*02:82N+A*23:10        | A*02:101:01+A*23:08N |                  |
| A*02:82N+A*23:24        | A*02:145+A*23:08N    |                  |
| A*02:82N+A*23:28        | A*02:217:02+A*23:08N |                  |
| A*02:82N+A*23:41        | A*02:221+A*23:08N    |                  |
| A*02:82N+A*23:44        | A*02:187+A*23:08N    |                  |
| A*02:82N+A*23:47        | A*02:121+A*23:08N    |                  |
| A*02:82N+A*23:50        | A*02:109+A*23:08N    |                  |
| A*02:82N+A*23:53        | A*02:246+A*23:08N    |                  |
| A*02:85+A*03:16         | A*02:341+A*03:79     |                  |
| A*02:85+A*03:22:01      | A*02:174+A*03:79     |                  |
| A*02:85+A*03:44         | A*02:16+A*03:79      |                  |
| A*02:85+A*03:54         | A*02:145+A*03:79     |                  |
| A*02:85+A*03:59         | A*02:352+A*03:79     |                  |
| A*02:85+A*03:63         | A*02:346+A*03:79     |                  |
| A*02:85+A*03:69N        | A*02:226N+A*03:79    |                  |
| A*02:85+A*03:84         | A*02:349+A*03:79     |                  |
| A*02:85+A*03:87         | A*02:197+A*03:79     |                  |
| A*02:85+A*03:93         | A*02:119+A*03:79     |                  |
| A*02:85+A*03:94         | A*02:322+A*03:79     |                  |
| A*02:85+A*03:101        | A*02:306+A*03:79     |                  |
| A*02:85+A*03:104        | A*02:332+A*03:79     |                  |
| A*02:85+A*03:105        | A*02:101:02+A*03:79  |                  |
| A*02:85+A*03:126        | A*02:198+A*03:79     |                  |
| A*02:85+A*03:128        | A*02:116+A*03:79     |                  |
| A*02:85+A*03:136        | A*02:133+A*03:79     |                  |
| A*02:85+A*03:150        | A*02:262+A*03:79     |                  |
| A*02:85+A*24:05:01G     | A*02:174+A*24:197    |                  |
| A*02:85+A*24:17         | A*02:246+A*24:197    |                  |
| A*02:85+A*24:25         | A*02:352+A*24:197    |                  |
| A*02:85+A*24:46         | A*02:101:01+A*24:197 |                  |
| A*02:85+A*24:47         | A*02:205+A*24:197    |                  |
| A*02:85+A*24:58         | A*02:107+A*24:197    |                  |
| A*02:85+A*24:60N        | A*02:366N+A*24:197   |                  |
| A*02:85+A*24:72         | A*02:145+A*24:197    |                  |
| A*02:85+A*24:73         | A*02:147+A*24:197    |                  |
| A*02:85+A*24:77         | A*02:217:02+A*24:197 |                  |
| A*02:85+A*24:90N        | A*02:88N+A*24:197    |                  |
| A*02:85+A*24:96         | A*02:254+A*24:197    |                  |
| A*02:85+A*24:117        | A*02:296+A*24:197    |                  |
| A*02:85+A*24:118        | A*02:361+A*24:197    |                  |
| A*02:85+A*24:119        | A*02:158+A*24:197    |                  |
| A*02:85+A*24:133        | A*02:182+A*24:197    |                  |
| A*02:85+A*24:160        | A*02:262+A*24:197    |                  |
| A*02:85+A*24:165        | A*02:353+A*24:197    |                  |
| A*02:85+A*24:169        | A*02:119+A*24:197    |                  |
| A*02:85+A*24:174        | A*02:188+A*24:197    |                  |
| A*02:85+A*24:176        | A*02:16+A*24:197     |                  |
| A*02:85+A*24:180        | A*02:16+A*24:197     |                  |
| A*02:85+A*24:181        | A*02:236+A*24:197    |                  |
| A*02:85+A*24:187        | A*02:111+A*24:197    |                  |
| A*02:85+A*24:192        | A*02:312+A*24:197    |                  |
| A*02:85+A*24:198        | A*02:203+A*24:197    |                  |
| A*02:85+A*24:206        | A*02:362+A*24:197    |                  |
| A*02:85+A*26:23         | A*02:284N+A*26:47    |                  |
| A*02:85+A*26:41         | A*02:187+A*26:47     |                  |
| A*02:85+A*26:50         | A*02:210+A*26:47     |                  |
| A*02:85+A*26:63         | A*02:236+A*26:47     |                  |
| A*02:85+A*26:75         | A*02:153+A*26:47     |                  |
| A*02:86+A*68:19         | A*02:237+A*68:12     |                  |
| A*02:86+A*68:24         | A*02:208+A*68:12     |                  |
| A*02:86+A*68:70         | A*02:119+A*68:12     |                  |
| A*02:86+A*68:76         | A*02:211:01+A*68:12  |                  |
| A*02:86+A*68:93         | A*02:199+A*68:12     |                  |
| A*02:87+A*02:282        | A*02:95+A*02:112     |                  |
| A*02:87+A*02:369        | A*02:92+A*02:112     |                  |
| A*02:87+A*03:50         | A*02:136+A*03:01:01G |                  |
| A*02:87+A*03:66         | A*02:136+A*03:01:02  |                  |
| A*02:87+A*11:36         | A*02:112+A*11:01:01G |                  |
| A*02:87+A*11:44         | A*02:136+A*11:24:01  |                  |
| A*02:87+A*23:02         | A*02:136+A*23:01:01G |                  |
| A*02:87+A*24:04         | A*02:146+A*24:02:01G |                  |
| A*02:87+A*24:06         | A*02:136+A*24:13:01  |                  |
| A*02:87+A*24:87         | A*02:136+A*24:13:02  |                  |
| A*02:87+A*24:89         | A*02:90+A*24:42      |                  |
| A*02:87+A*24:167        | A*02:136+A*24:207    |                  |
| A*02:87+A*25:01:01G     | A*02:136+A*25:19     |                  |
| A*02:87+A*26:01:01G     | A*02:136+A*26:43:01  |                  |

|                      |                      |                      |
|----------------------|----------------------|----------------------|
| A*02:87+A*29:28      | A*02:136+A*29:01:01G |                      |
| A*02:87+A*31:30      | A*02:136+A*31:01:02G |                      |
| A*02:87+A*31:66      | A*02:90+A*31:10      |                      |
| A*02:87+A*33:21      | A*02:128+A*31:08     |                      |
| A*02:87+A*68:01:02G  | A*02:90+A*68:36      | A*02:136+A*68:08:02  |
| A*02:87+A*68:42      | A*02:136+A*68:63     |                      |
| A*02:87+A*68:82      | A*02:112+A*68:02:01G |                      |
| A*02:87+A*68:84      | A*02:146+A*68:36     |                      |
| A*02:87+A*74:01:01G  | A*02:90+A*32:03      |                      |
| A*02:88N+A*24:05:01G | A*02:174+A*24:90N    |                      |
| A*02:88N+A*24:17     | A*02:246+A*24:90N    |                      |
| A*02:88N+A*24:25     | A*02:352+A*24:90N    |                      |
| A*02:88N+A*24:46     | A*02:101:01+A*24:90N |                      |
| A*02:88N+A*24:47     | A*02:205+A*24:90N    |                      |
| A*02:88N+A*24:58     | A*02:107+A*24:90N    |                      |
| A*02:88N+A*24:60N    | A*02:366N+A*24:90N   |                      |
| A*02:88N+A*24:72     | A*02:145+A*24:90N    |                      |
| A*02:88N+A*24:73     | A*02:147+A*24:90N    |                      |
| A*02:88N+A*24:77     | A*02:217:02+A*24:90N |                      |
| A*02:88N+A*24:96     | A*02:254+A*24:90N    |                      |
| A*02:88N+A*24:117    | A*02:296+A*24:90N    |                      |
| A*02:88N+A*24:118    | A*02:361+A*24:90N    |                      |
| A*02:88N+A*24:119    | A*02:158+A*24:90N    |                      |
| A*02:88N+A*24:133    | A*02:182+A*24:90N    |                      |
| A*02:88N+A*24:160    | A*02:262+A*24:90N    |                      |
| A*02:88N+A*24:165    | A*02:353+A*24:90N    |                      |
| A*02:88N+A*24:169    | A*02:119+A*24:90N    |                      |
| A*02:88N+A*24:174    | A*02:188+A*24:90N    |                      |
| A*02:88N+A*24:176    | A*02:16+A*24:90N     |                      |
| A*02:88N+A*24:180    | A*02:16+A*24:90N     |                      |
| A*02:88N+A*24:181    | A*02:236+A*24:90N    |                      |
| A*02:88N+A*24:187    | A*02:111+A*24:90N    |                      |
| A*02:88N+A*24:192    | A*02:312+A*24:90N    |                      |
| A*02:88N+A*24:198    | A*02:203+A*24:90N    |                      |
| A*02:88N+A*24:206    | A*02:362+A*24:90N    |                      |
| A*02:90+A*02:91      | A*02:322+A*02:331    |                      |
| A*02:90+A*02:106     | A*02:145+A*02:331    |                      |
| A*02:90+A*02:127     | A*02:16+A*02:331     |                      |
| A*02:90+A*02:144     | A*02:205+A*02:331    |                      |
| A*02:90+A*02:16      | A*02:195+A*02:331    |                      |
| A*02:90+A*02:170     | A*02:331+A*02:364    |                      |
| A*02:90+A*02:295     | A*02:123+A*02:331    |                      |
| A*02:90+A*02:300     | A*02:110+A*02:331    |                      |
| A*02:90+A*02:328     | A*02:273+A*02:331    |                      |
| A*02:90+A*02:358     | A*02:92+A*02:331     |                      |
| A*02:90+A*03:12      | A*02:331+A*03:01:01G |                      |
| A*02:90+A*03:57      | A*02:146+A*03:01:01G |                      |
| A*02:90+A*11:40      | A*02:146+A*11:19     |                      |
| A*02:90+A*24:50      | A*02:331+A*24:104    |                      |
| A*02:90+A*24:109     | A*02:146+A*24:44     |                      |
| A*02:90+A*26:01:01G  | A*02:146+A*66:05     |                      |
| A*02:90+A*26:05      | A*02:247+A*66:05     |                      |
| A*02:90+A*33:48      | A*02:146+A*33:11     |                      |
| A*02:90+A*33:54      | A*02:297+A*33:11     |                      |
| A*02:90+A*34:02:01   | A*02:331+A*34:08     |                      |
| A*02:90+A*68:20      | A*02:187+A*68:03:01  |                      |
| A*02:90+A*68:84      | A*02:146+A*68:01:02G |                      |
| A*02:91+A*02:92      | A*02:322+A*02:358    |                      |
| A*02:91+A*02:110     | A*02:300+A*02:322    |                      |
| A*02:91+A*02:123     | A*02:295+A*02:322    |                      |
| A*02:91+A*02:145     | A*02:106+A*02:322    |                      |
| A*02:91+A*02:16      | A*02:127+A*02:322    |                      |
| A*02:91+A*02:195     | A*02:16+A*02:322     |                      |
| A*02:91+A*02:205     | A*02:144+A*02:322    |                      |
| A*02:91+A*02:273     | A*02:322+A*02:328    |                      |
| A*02:91+A*02:364     | A*02:170+A*02:322    |                      |
| A*02:91+A*03:54      | A*02:106+A*03:94     |                      |
| A*02:91+A*03:65      | A*02:142+A*03:94     |                      |
| A*02:91+A*24:104     | A*02:322+A*24:50     |                      |
| A*02:91+A*25:03      | A*02:322+A*25:01:01G |                      |
| A*02:91+A*34:08      | A*02:322+A*34:02:01  |                      |
| A*02:91+A*68:71      | A*02:322+A*68:01:01G |                      |
| A*02:92+A*02:106     | A*02:145+A*02:358    |                      |
| A*02:92+A*02:127     | A*02:16+A*02:358     |                      |
| A*02:92+A*02:144     | A*02:205+A*02:358    |                      |
| A*02:92+A*02:16      | A*02:195+A*02:358    |                      |
| A*02:92+A*02:170     | A*02:358+A*02:364    |                      |
| A*02:92+A*02:282     | A*02:95+A*02:369     |                      |
| A*02:92+A*02:295     | A*02:123+A*02:358    |                      |
| A*02:92+A*02:300     | A*02:110+A*02:358    |                      |
| A*02:92+A*02:328     | A*02:273+A*02:358    |                      |
| A*02:92+A*03:12      | A*02:358+A*03:01:01G |                      |
| A*02:92+A*11:36      | A*02:369+A*11:01:01G |                      |
| A*02:92+A*24:50      | A*02:358+A*24:104    |                      |
| A*02:92+A*25:01:01G  | A*02:358+A*25:03     |                      |
| A*02:92+A*34:02:01   | A*02:358+A*34:08     |                      |
| A*02:92+A*68:01:01G  | A*02:358+A*68:71     |                      |
| A*02:92+A*68:13      | A*02:217:02+A*68:10  |                      |
| A*02:92+A*68:82      | A*02:369+A*68:02:01G |                      |
| A*02:93+A*02:114     | A*02:95+A*02:279     |                      |
| A*02:93+A*03:01:01G  | A*02:95+A*03:56      | A*02:156+A*03:95     |
| A*02:93+A*03:15      | A*02:242+A*03:56     | A*02:279+A*03:19     |
| A*02:93+A*11:26      | A*02:95+A*11:118     |                      |
| A*02:93+A*11:117     | A*02:95+A*11:01:01G  |                      |
| A*02:93+A*23:53      | A*02:279+A*23:01:01G |                      |
| A*02:93+A*24:02:01G  | A*02:242+A*24:15     |                      |
| A*02:93+A*24:17      | A*02:95+A*24:41      | A*02:279+A*24:02:01G |
| A*02:93+A*24:53      | A*02:95+A*24:15      |                      |
| A*02:93+A*25:10      | A*02:95+A*25:01:01G  |                      |
| A*02:93+A*29:02:01G  | A*02:95+A*29:44      |                      |
| A*02:95+A*03:15      | A*02:114+A*03:19     | A*02:242+A*03:01:01G |
| A*02:95+A*11:36      | A*02:282+A*11:01:01G |                      |
| A*02:95+A*23:53      | A*02:114+A*23:01:01G |                      |
| A*02:95+A*24:02:01G  | A*02:242+A*24:53     |                      |
| A*02:95+A*24:17      | A*02:114+A*24:02:01G |                      |

|                         |                         |
|-------------------------|-------------------------|
| A*02:95+A*24:62         | A*02:304+A*24:02:01G    |
| A*02:95+A*24:120        | A*02:242+A*24:57        |
| A*02:95+A*29:07         | A*02:110+A*29:22        |
| A*02:95+A*68:82         | A*02:282+A*68:02:01G    |
| A*02:99+A*03:10         | A*02:142+A*03:05:01     |
| A*02:99+A*03:50         | A*02:323+A*03:12        |
| A*02:99+A*03:76         | A*02:142+A*03:47        |
| A*02:99+A*03:82         | A*02:142+A*03:43        |
| A*02:99+A*24:21:01      | A*02:137+A*24:56        |
| A*02:99+A*24:47         | A*02:144+A*24:56        |
| A*02:99+A*24:69         | A*02:278+A*24:56        |
| A*02:99+A*24:72         | A*02:106+A*24:56        |
| A*02:99+A*24:121        | A*02:178+A*24:56        |
| A*02:99+A*24:172        | A*02:259+A*24:56        |
| A*02:99+A*24:204        | A*02:142+A*24:18        |
| A*02:99+A*68:29         | A*02:243+A*68:42        |
| A*02:99+A*68:35         | A*02:295+A*68:42        |
| A*02:99+A*68:67         | A*02:328+A*68:54        |
| A*02:101:01+A*11:01:44  | A*02:101:02+A*11:01:01G |
| A*02:101:01+A*23:05     | A*02:352+A*23:10        |
| A*02:101:01+A*23:06     | A*02:257+A*23:10        |
| A*02:101:01+A*23:24     | A*02:145+A*23:10        |
| A*02:101:01+A*23:28     | A*02:217:02+A*23:10     |
| A*02:101:01+A*23:41     | A*02:221+A*23:10        |
| A*02:101:01+A*23:44     | A*02:187+A*23:10        |
| A*02:101:01+A*23:47     | A*02:121+A*23:10        |
| A*02:101:01+A*23:50     | A*02:109+A*23:10        |
| A*02:101:01+A*23:53     | A*02:246+A*23:10        |
| A*02:101:01+A*24:05:01G | A*02:174+A*24:46        |
| A*02:101:01+A*24:17     | A*02:246+A*24:46        |
| A*02:101:01+A*24:25     | A*02:352+A*24:46        |
| A*02:101:01+A*24:47     | A*02:205+A*24:46        |
| A*02:101:01+A*24:58     | A*02:107+A*24:46        |
| A*02:101:01+A*24:60N    | A*02:366N+A*24:46       |
| A*02:101:01+A*24:72     | A*02:145+A*24:46        |
| A*02:101:01+A*24:73     | A*02:147+A*24:46        |
| A*02:101:01+A*24:77     | A*02:217:02+A*24:46     |
| A*02:101:01+A*24:96     | A*02:254+A*24:46        |
| A*02:101:01+A*24:117    | A*02:296+A*24:46        |
| A*02:101:01+A*24:118    | A*02:361+A*24:46        |
| A*02:101:01+A*24:119    | A*02:158+A*24:46        |
| A*02:101:01+A*24:125    | A*02:299+A*24:10        |
| A*02:101:01+A*24:133    | A*02:182+A*24:46        |
| A*02:101:01+A*24:160    | A*02:262+A*24:46        |
| A*02:101:01+A*24:165    | A*02:353+A*24:46        |
| A*02:101:01+A*24:169    | A*02:119+A*24:46        |
| A*02:101:01+A*24:170    | A*02:101:02+A*24:143    |
| A*02:101:01+A*24:174    | A*02:188+A*24:46        |
| A*02:101:01+A*24:176    | A*02:16+A*24:46         |
| A*02:101:01+A*24:180    | A*02:16+A*24:46         |
| A*02:101:01+A*24:181    | A*02:236+A*24:46        |
| A*02:101:01+A*24:187    | A*02:111+A*24:46        |
| A*02:101:01+A*24:192    | A*02:312+A*24:46        |
| A*02:101:01+A*24:198    | A*02:203+A*24:46        |
| A*02:101:01+A*24:204    | A*02:237+A*24:10        |
| A*02:101:01+A*24:206    | A*02:362+A*24:46        |
| A*02:101:01+A*26:01:21  | A*02:101:02+A*26:01:01G |
| A*02:101:01+A*33:01:01G | A*02:332+A*33:61        |
| A*02:101:01+A*33:14     | A*02:367+A*33:61        |
| A*02:101:01+A*33:30     | A*02:342+A*33:61        |
| A*02:101:01+A*33:40     | A*02:211:01+A*33:61     |
| A*02:101:01+A*33:42     | A*02:292+A*33:61        |
| A*02:101:01+A*33:47     | A*02:306+A*33:61        |
| A*02:101:01+A*33:52     | A*02:109+A*33:61        |
| A*02:101:01+A*33:58     | A*02:107+A*33:61        |
| A*02:101:02+A*03:16     | A*02:341+A*03:105       |
| A*02:101:02+A*03:22:01  | A*02:174+A*03:105       |
| A*02:101:02+A*03:44     | A*02:16+A*03:105        |
| A*02:101:02+A*03:54     | A*02:145+A*03:105       |
| A*02:101:02+A*03:59     | A*02:352+A*03:105       |
| A*02:101:02+A*03:63     | A*02:346+A*03:105       |
| A*02:101:02+A*03:69N    | A*02:226N+A*03:105      |
| A*02:101:02+A*03:84     | A*02:349+A*03:105       |
| A*02:101:02+A*03:87     | A*02:197+A*03:105       |
| A*02:101:02+A*03:93     | A*02:119+A*03:105       |
| A*02:101:02+A*03:94     | A*02:322+A*03:105       |
| A*02:101:02+A*03:101    | A*02:306+A*03:105       |
| A*02:101:02+A*03:104    | A*02:332+A*03:105       |
| A*02:101:02+A*03:126    | A*02:198+A*03:105       |
| A*02:101:02+A*03:128    | A*02:116+A*03:105       |
| A*02:101:02+A*03:136    | A*02:133+A*03:105       |
| A*02:101:02+A*03:150    | A*02:262+A*03:105       |
| A*02:101:02+A*31:11     | A*02:202+A*31:25        |
| A*02:101:02+A*31:13     | A*02:251+A*31:25        |
| A*02:101:02+A*31:15     | A*02:351+A*31:25        |
| A*02:101:02+A*31:16     | A*02:107+A*31:25        |
| A*02:101:02+A*31:28     | A*02:139+A*31:25        |
| A*02:101:02+A*31:31     | A*02:275+A*31:25        |
| A*02:101:02+A*31:36     | A*02:257+A*31:25        |
| A*02:101:02+A*31:40     | A*02:133+A*31:25        |
| A*02:101:02+A*31:45     | A*02:16+A*31:25         |
| A*02:101:02+A*31:50     | A*02:307+A*31:25        |
| A*02:101:02+A*31:51     | A*02:121+A*31:25        |
| A*02:101:02+A*31:63     | A*02:273+A*31:25        |
| A*02:101:02+A*31:64     | A*02:157+A*31:25        |
| A*02:101:02+A*32:09     | A*02:233+A*32:26        |
| A*02:101:02+A*32:12     | A*02:121+A*32:26        |
| A*02:101:02+A*32:21     | A*02:16+A*32:26         |
| A*02:101:02+A*32:37     | A*02:119+A*32:26        |
| A*02:101:02+A*32:42     | A*02:243+A*32:26        |
| A*02:103+A*11:19        | A*02:195+A*11:36        |
| A*02:103+A*68:31        | A*02:195+A*68:82        |
| A*02:106+A*02:110       | A*02:145+A*02:300       |
| A*02:106+A*02:123       | A*02:145+A*02:295       |
| A*02:106+A*02:16        | A*02:127+A*02:145       |

|                      |                      |
|----------------------|----------------------|
| A*02:106+A*02:195    | A*02:145+A*02:16     |
| A*02:106+A*02:205    | A*02:144+A*02:145    |
| A*02:106+A*02:273    | A*02:145+A*02:328    |
| A*02:106+A*02:364    | A*02:145+A*02:170    |
| A*02:106+A*03:65     | A*02:142+A*03:54     |
| A*02:106+A*23:03:02  | A*02:137+A*23:24     |
| A*02:106+A*24:21:01  | A*02:137+A*24:72     |
| A*02:106+A*24:47     | A*02:144+A*24:72     |
| A*02:106+A*24:69     | A*02:278+A*24:72     |
| A*02:106+A*24:104    | A*02:145+A*24:50     |
| A*02:106+A*24:121    | A*02:178+A*24:72     |
| A*02:106+A*24:172    | A*02:259+A*24:72     |
| A*02:106+A*25:03     | A*02:145+A*25:01:01G |
| A*02:106+A*34:08     | A*02:145+A*34:02:01  |
| A*02:106+A*68:71     | A*02:145+A*68:01:01G |
| A*02:107+A*24:05:01G | A*02:174+A*24:58     |
| A*02:107+A*24:17     | A*02:246+A*24:58     |
| A*02:107+A*24:25     | A*02:352+A*24:58     |
| A*02:107+A*24:47     | A*02:205+A*24:58     |
| A*02:107+A*24:60N    | A*02:366N+A*24:58    |
| A*02:107+A*24:72     | A*02:145+A*24:58     |
| A*02:107+A*24:73     | A*02:147+A*24:58     |
| A*02:107+A*24:77     | A*02:217:02+A*24:58  |
| A*02:107+A*24:96     | A*02:254+A*24:58     |
| A*02:107+A*24:117    | A*02:296+A*24:58     |
| A*02:107+A*24:118    | A*02:361+A*24:58     |
| A*02:107+A*24:119    | A*02:158+A*24:58     |
| A*02:107+A*24:133    | A*02:182+A*24:58     |
| A*02:107+A*24:160    | A*02:262+A*24:58     |
| A*02:107+A*24:165    | A*02:353+A*24:58     |
| A*02:107+A*24:169    | A*02:119+A*24:58     |
| A*02:107+A*24:174    | A*02:188+A*24:58     |
| A*02:107+A*24:176    | A*02:16+A*24:58      |
| A*02:107+A*24:180    | A*02:16+A*24:58      |
| A*02:107+A*24:181    | A*02:236+A*24:58     |
| A*02:107+A*24:187    | A*02:111+A*24:58     |
| A*02:107+A*24:192    | A*02:312+A*24:58     |
| A*02:107+A*24:198    | A*02:203+A*24:58     |
| A*02:107+A*24:206    | A*02:362+A*24:58     |
| A*02:107+A*29:15     | A*02:221+A*29:12     |
| A*02:107+A*31:11     | A*02:202+A*31:16     |
| A*02:107+A*31:13     | A*02:251+A*31:16     |
| A*02:107+A*31:15     | A*02:351+A*31:16     |
| A*02:107+A*31:28     | A*02:139+A*31:16     |
| A*02:107+A*31:31     | A*02:275+A*31:16     |
| A*02:107+A*31:36     | A*02:257+A*31:16     |
| A*02:107+A*31:40     | A*02:133+A*31:16     |
| A*02:107+A*31:45     | A*02:16+A*31:16      |
| A*02:107+A*31:50     | A*02:307+A*31:16     |
| A*02:107+A*31:51     | A*02:121+A*31:16     |
| A*02:107+A*31:63     | A*02:273+A*31:16     |
| A*02:107+A*31:64     | A*02:157+A*31:16     |
| A*02:107+A*33:01:01G | A*02:332+A*33:58     |
| A*02:107+A*33:14     | A*02:367+A*33:58     |
| A*02:107+A*33:30     | A*02:342+A*33:58     |
| A*02:107+A*33:40     | A*02:211:01+A*33:58  |
| A*02:107+A*33:42     | A*02:292+A*33:58     |
| A*02:107+A*33:47     | A*02:306+A*33:58     |
| A*02:107+A*33:52     | A*02:109+A*33:58     |
| A*02:108+A*02:114    | A*02:246+A*02:300    |
| A*02:109+A*11:15:01  | A*02:202+A*11:79     |
| A*02:109+A*11:23     | A*02:182+A*11:79     |
| A*02:109+A*11:30     | A*02:197+A*11:79     |
| A*02:109+A*11:32     | A*02:121+A*11:79     |
| A*02:109+A*11:33:02  | A*02:174+A*11:79     |
| A*02:109+A*11:34     | A*02:153+A*11:79     |
| A*02:109+A*11:41     | A*02:273+A*11:79     |
| A*02:109+A*11:48     | A*02:183+A*11:79     |
| A*02:109+A*11:72     | A*02:364+A*11:79     |
| A*02:109+A*11:82     | A*02:313+A*11:79     |
| A*02:109+A*11:87     | A*02:173+A*11:79     |
| A*02:109+A*11:96     | A*02:292+A*11:79     |
| A*02:109+A*11:111    | A*02:184+A*11:79     |
| A*02:109+A*11:112    | A*02:262+A*11:79     |
| A*02:109+A*11:123    | A*02:159+A*11:79     |
| A*02:109+A*11:125    | A*02:312+A*11:79     |
| A*02:109+A*11:128    | A*02:362+A*11:79     |
| A*02:109+A*23:05     | A*02:352+A*23:50     |
| A*02:109+A*23:06     | A*02:257+A*23:50     |
| A*02:109+A*23:24     | A*02:145+A*23:50     |
| A*02:109+A*23:28     | A*02:217:02+A*23:50  |
| A*02:109+A*23:41     | A*02:221+A*23:50     |
| A*02:109+A*23:44     | A*02:187+A*23:50     |
| A*02:109+A*23:47     | A*02:121+A*23:50     |
| A*02:109+A*23:53     | A*02:246+A*23:50     |
| A*02:109+A*33:01:01G | A*02:332+A*33:52     |
| A*02:109+A*33:14     | A*02:367+A*33:52     |
| A*02:109+A*33:30     | A*02:342+A*33:52     |
| A*02:109+A*33:40     | A*02:211:01+A*33:52  |
| A*02:109+A*33:42     | A*02:292+A*33:52     |
| A*02:109+A*33:47     | A*02:306+A*33:52     |
| A*02:110+A*02:127    | A*02:16+A*02:300     |
| A*02:110+A*02:144    | A*02:205+A*02:300    |
| A*02:110+A*02:16     | A*02:195+A*02:300    |
| A*02:110+A*02:170    | A*02:300+A*02:364    |
| A*02:110+A*02:295    | A*02:123+A*02:300    |
| A*02:110+A*02:328    | A*02:273+A*02:300    |
| A*02:110+A*03:12     | A*02:300+A*03:01:01G |
| A*02:110+A*03:95     | A*02:242+A*03:75     |
| A*02:110+A*24:50     | A*02:300+A*24:104    |
| A*02:110+A*24:92     | A*02:156+A*24:02:01G |
| A*02:110+A*25:01:01G | A*02:300+A*25:03     |
| A*02:110+A*34:02:01  | A*02:300+A*34:08     |
| A*02:110+A*68:01:01G | A*02:300+A*68:71     |
| A*02:111+A*24:05:01G | A*02:174+A*24:187    |

|                      |                      |                      |
|----------------------|----------------------|----------------------|
| A*02:111+A*24:17     | A*02:246+A*24:187    |                      |
| A*02:111+A*24:25     | A*02:352+A*24:187    |                      |
| A*02:111+A*24:47     | A*02:205+A*24:187    |                      |
| A*02:111+A*24:60N    | A*02:366N+A*24:187   |                      |
| A*02:111+A*24:72     | A*02:145+A*24:187    |                      |
| A*02:111+A*24:73     | A*02:147+A*24:187    |                      |
| A*02:111+A*24:77     | A*02:217:02+A*24:187 |                      |
| A*02:111+A*24:96     | A*02:254+A*24:187    |                      |
| A*02:111+A*24:117    | A*02:296+A*24:187    |                      |
| A*02:111+A*24:118    | A*02:361+A*24:187    |                      |
| A*02:111+A*24:119    | A*02:158+A*24:187    |                      |
| A*02:111+A*24:133    | A*02:182+A*24:187    |                      |
| A*02:111+A*24:160    | A*02:262+A*24:187    |                      |
| A*02:111+A*24:165    | A*02:353+A*24:187    |                      |
| A*02:111+A*24:169    | A*02:119+A*24:187    |                      |
| A*02:111+A*24:174    | A*02:188+A*24:187    |                      |
| A*02:111+A*24:176    | A*02:16+A*24:187     |                      |
| A*02:111+A*24:180    | A*02:16+A*24:187     |                      |
| A*02:111+A*24:181    | A*02:236+A*24:187    |                      |
| A*02:111+A*24:192    | A*02:312+A*24:187    |                      |
| A*02:111+A*24:198    | A*02:203+A*24:187    |                      |
| A*02:111+A*24:206    | A*02:362+A*24:187    |                      |
| A*02:114+A*03:56     | A*02:279+A*03:01:01G |                      |
| A*02:114+A*03:103    | A*02:304+A*03:01:01G |                      |
| A*02:114+A*11:01:01G | A*02:279+A*11:117    |                      |
| A*02:114+A*11:116    | A*02:304+A*11:01:01G |                      |
| A*02:114+A*11:118    | A*02:279+A*11:26     |                      |
| A*02:114+A*24:15     | A*02:279+A*24:53     |                      |
| A*02:114+A*24:41     | A*02:279+A*24:17     |                      |
| A*02:114+A*24:62     | A*02:304+A*24:17     |                      |
| A*02:114+A*25:01:01G | A*02:279+A*25:10     |                      |
| A*02:114+A*29:32     | A*02:304+A*29:02:01G |                      |
| A*02:114+A*29:44     | A*02:279+A*29:02:01G |                      |
| A*02:114+A*31:01:02G | A*02:304+A*31:06     |                      |
| A*02:114+A*32:01:01G | A*02:304+A*32:30     |                      |
| A*02:114+A*33:03:01G | A*02:304+A*33:18     |                      |
| A*02:116+A*03:16     | A*02:341+A*03:128    |                      |
| A*02:116+A*03:22:01  | A*02:174+A*03:128    |                      |
| A*02:116+A*03:44     | A*02:16+A*03:128     |                      |
| A*02:116+A*03:54     | A*02:145+A*03:128    |                      |
| A*02:116+A*03:59     | A*02:352+A*03:128    |                      |
| A*02:116+A*03:63     | A*02:346+A*03:128    |                      |
| A*02:116+A*03:69N    | A*02:226N+A*03:128   |                      |
| A*02:116+A*03:84     | A*02:349+A*03:128    |                      |
| A*02:116+A*03:87     | A*02:197+A*03:128    |                      |
| A*02:116+A*03:93     | A*02:119+A*03:128    |                      |
| A*02:116+A*03:94     | A*02:322+A*03:128    |                      |
| A*02:116+A*03:101    | A*02:306+A*03:128    |                      |
| A*02:116+A*03:104    | A*02:332+A*03:128    |                      |
| A*02:116+A*03:126    | A*02:198+A*03:128    |                      |
| A*02:116+A*03:136    | A*02:133+A*03:128    |                      |
| A*02:116+A*03:150    | A*02:262+A*03:128    |                      |
| A*02:116+A*30:31     | A*02:351+A*30:65     |                      |
| A*02:116+A*30:39     | A*02:202+A*30:65     |                      |
| A*02:118+A*03:22:01  | A*02:149+A*03:123    | A*02:190+A*03:01:01G |
| A*02:118+A*03:22:02  | A*02:190+A*03:01:18  |                      |
| A*02:118+A*11:33:01  | A*02:190+A*11:01:07  |                      |
| A*02:118+A*11:33:02  | A*02:149+A*11:73     | A*02:190+A*11:01:01G |
| A*02:118+A*23:01:01G | A*02:190+A*23:14:02  |                      |
| A*02:118+A*24:05:01G | A*02:190+A*24:02:01G |                      |
| A*02:118+A*29:02:01G | A*02:190+A*29:09     |                      |
| A*02:118+A*30:01:01G | A*02:190+A*30:54     |                      |
| A*02:118+A*33:01:01G | A*02:190+A*33:34     |                      |
| A*02:118+A*68:53     | A*02:159+A*68:48     |                      |
| A*02:118+A*68:67     | A*02:273+A*68:48     |                      |
| A*02:118+A*68:78     | A*02:133+A*68:48     |                      |
| A*02:118+A*68:81     | A*02:121+A*68:48     |                      |
| A*02:119+A*03:16     | A*02:341+A*03:93     |                      |
| A*02:119+A*03:22:01  | A*02:174+A*03:93     |                      |
| A*02:119+A*03:44     | A*02:16+A*03:93      |                      |
| A*02:119+A*03:54     | A*02:145+A*03:93     |                      |
| A*02:119+A*03:59     | A*02:352+A*03:93     |                      |
| A*02:119+A*03:63     | A*02:346+A*03:93     |                      |
| A*02:119+A*03:69N    | A*02:226N+A*03:93    |                      |
| A*02:119+A*03:84     | A*02:349+A*03:93     |                      |
| A*02:119+A*03:87     | A*02:197+A*03:93     |                      |
| A*02:119+A*03:94     | A*02:322+A*03:93     |                      |
| A*02:119+A*03:101    | A*02:306+A*03:93     |                      |
| A*02:119+A*03:104    | A*02:332+A*03:93     |                      |
| A*02:119+A*03:126    | A*02:198+A*03:93     |                      |
| A*02:119+A*03:136    | A*02:133+A*03:93     |                      |
| A*02:119+A*03:150    | A*02:262+A*03:93     |                      |
| A*02:119+A*24:05:01G | A*02:174+A*24:169    |                      |
| A*02:119+A*24:17     | A*02:246+A*24:169    |                      |
| A*02:119+A*24:25     | A*02:352+A*24:169    |                      |
| A*02:119+A*24:47     | A*02:205+A*24:169    |                      |
| A*02:119+A*24:60N    | A*02:366N+A*24:169   |                      |
| A*02:119+A*24:72     | A*02:145+A*24:169    |                      |
| A*02:119+A*24:73     | A*02:147+A*24:169    |                      |
| A*02:119+A*24:77     | A*02:217:02+A*24:169 |                      |
| A*02:119+A*24:96     | A*02:254+A*24:169    |                      |
| A*02:119+A*24:117    | A*02:296+A*24:169    |                      |
| A*02:119+A*24:118    | A*02:361+A*24:169    |                      |
| A*02:119+A*24:119    | A*02:158+A*24:169    |                      |
| A*02:119+A*24:133    | A*02:182+A*24:169    |                      |
| A*02:119+A*24:160    | A*02:262+A*24:169    |                      |
| A*02:119+A*24:165    | A*02:353+A*24:169    |                      |
| A*02:119+A*24:174    | A*02:188+A*24:169    |                      |
| A*02:119+A*24:176    | A*02:16+A*24:169     |                      |
| A*02:119+A*24:180    | A*02:16+A*24:169     |                      |
| A*02:119+A*24:181    | A*02:236+A*24:169    |                      |
| A*02:119+A*24:192    | A*02:312+A*24:169    |                      |
| A*02:119+A*24:198    | A*02:203+A*24:169    |                      |
| A*02:119+A*24:206    | A*02:362+A*24:169    |                      |
| A*02:119+A*32:09     | A*02:233+A*32:37     |                      |

|                      |                      |
|----------------------|----------------------|
| A*02:119+A*32:12     | A*02:121+A*32:37     |
| A*02:119+A*32:21     | A*02:16+A*32:37      |
| A*02:119+A*32:42     | A*02:243+A*32:37     |
| A*02:119+A*68:19     | A*02:237+A*68:70     |
| A*02:119+A*68:24     | A*02:208+A*68:70     |
| A*02:119+A*68:76     | A*02:211:01+A*68:70  |
| A*02:119+A*68:93     | A*02:199+A*68:70     |
| A*02:121+A*11:15:01  | A*02:202+A*11:32     |
| A*02:121+A*11:23     | A*02:182+A*11:32     |
| A*02:121+A*11:30     | A*02:197+A*11:32     |
| A*02:121+A*11:33:02  | A*02:174+A*11:32     |
| A*02:121+A*11:34     | A*02:153+A*11:32     |
| A*02:121+A*11:41     | A*02:273+A*11:32     |
| A*02:121+A*11:48     | A*02:183+A*11:32     |
| A*02:121+A*11:72     | A*02:364+A*11:32     |
| A*02:121+A*11:82     | A*02:313+A*11:32     |
| A*02:121+A*11:87     | A*02:173+A*11:32     |
| A*02:121+A*11:96     | A*02:292+A*11:32     |
| A*02:121+A*11:111    | A*02:184+A*11:32     |
| A*02:121+A*11:112    | A*02:262+A*11:32     |
| A*02:121+A*11:123    | A*02:159+A*11:32     |
| A*02:121+A*11:125    | A*02:312+A*11:32     |
| A*02:121+A*11:128    | A*02:362+A*11:32     |
| A*02:121+A*23:05     | A*02:352+A*23:47     |
| A*02:121+A*23:06     | A*02:257+A*23:47     |
| A*02:121+A*23:24     | A*02:145+A*23:47     |
| A*02:121+A*23:28     | A*02:217:02+A*23:47  |
| A*02:121+A*23:41     | A*02:221+A*23:47     |
| A*02:121+A*23:44     | A*02:187+A*23:47     |
| A*02:121+A*23:53     | A*02:246+A*23:47     |
| A*02:121+A*29:01:01G | A*02:204+A*29:06     |
| A*02:121+A*29:29     | A*02:362+A*29:06     |
| A*02:121+A*29:30     | A*02:351+A*29:06     |
| A*02:121+A*29:41     | A*02:181+A*29:06     |
| A*02:121+A*30:28     | A*02:224+A*30:51     |
| A*02:121+A*31:11     | A*02:202+A*31:51     |
| A*02:121+A*31:13     | A*02:251+A*31:51     |
| A*02:121+A*31:15     | A*02:351+A*31:51     |
| A*02:121+A*31:28     | A*02:139+A*31:51     |
| A*02:121+A*31:31     | A*02:275+A*31:51     |
| A*02:121+A*31:36     | A*02:257+A*31:51     |
| A*02:121+A*31:40     | A*02:133+A*31:51     |
| A*02:121+A*31:45     | A*02:16+A*31:51      |
| A*02:121+A*31:50     | A*02:307+A*31:51     |
| A*02:121+A*31:63     | A*02:273+A*31:51     |
| A*02:121+A*31:64     | A*02:157+A*31:51     |
| A*02:121+A*32:09     | A*02:233+A*32:12     |
| A*02:121+A*32:21     | A*02:16+A*32:12      |
| A*02:121+A*32:42     | A*02:243+A*32:12     |
| A*02:121+A*66:04     | A*02:332+A*66:14     |
| A*02:121+A*68:53     | A*02:159+A*68:81     |
| A*02:121+A*68:67     | A*02:273+A*68:81     |
| A*02:121+A*68:78     | A*02:133+A*68:81     |
| A*02:122+A*03:24     | A*03:23:02+A*68:15   |
| A*02:122+A*24:67     | A*24:42+A*68:31      |
| A*02:122+A*26:01:01G | A*26:07:01+A*68:15   |
| A*02:123+A*02:127    | A*02:16+A*02:295     |
| A*02:123+A*02:144    | A*02:205+A*02:295    |
| A*02:123+A*02:16     | A*02:195+A*02:295    |
| A*02:123+A*02:170    | A*02:295+A*02:364    |
| A*02:123+A*02:328    | A*02:273+A*02:295    |
| A*02:123+A*03:12     | A*02:295+A*03:01:01G |
| A*02:123+A*24:50     | A*02:295+A*24:104    |
| A*02:123+A*25:01:01G | A*02:295+A*25:03     |
| A*02:123+A*34:02:01  | A*02:295+A*34:08     |
| A*02:123+A*68:58     | A*02:362+A*68:35     |
| A*02:123+A*68:72     | A*02:139+A*68:35     |
| A*02:127+A*02:195    | A*02:16+A*02:16      |
| A*02:127+A*02:205    | A*02:144+A*02:16     |
| A*02:127+A*02:273    | A*02:16+A*02:328     |
| A*02:127+A*02:364    | A*02:16+A*02:170     |
| A*02:127+A*03:01:01G | A*02:16+A*03:12      |
| A*02:127+A*24:104    | A*02:16+A*24:50      |
| A*02:127+A*25:03     | A*02:16+A*25:01:01G  |
| A*02:127+A*34:08     | A*02:16+A*34:02:01   |
| A*02:127+A*68:71     | A*02:16+A*68:01:01G  |
| A*02:128+A*24:127    | A*02:297+A*24:145    |
| A*02:130+A*24:06     | A*02:191+A*23:14:02  |
| A*02:130+A*24:27     | A*02:219+A*24:71     |
| A*02:130+A*24:87     | A*02:191+A*23:14:01  |
| A*02:130+A*26:49     | A*02:255+A*26:52     |
| A*02:130+A*30:04:01  | A*02:191+A*30:09     |
| A*02:130+A*68:62     | A*02:219+A*68:51     |
| A*02:133+A*03:16     | A*02:341+A*03:136    |
| A*02:133+A*03:22:01  | A*02:174+A*03:136    |
| A*02:133+A*03:44     | A*02:16+A*03:136     |
| A*02:133+A*03:54     | A*02:145+A*03:136    |
| A*02:133+A*03:59     | A*02:352+A*03:136    |
| A*02:133+A*03:63     | A*02:346+A*03:136    |
| A*02:133+A*03:69N    | A*02:226N+A*03:136   |
| A*02:133+A*03:84     | A*02:349+A*03:136    |
| A*02:133+A*03:87     | A*02:197+A*03:136    |
| A*02:133+A*03:94     | A*02:322+A*03:136    |
| A*02:133+A*03:101    | A*02:306+A*03:136    |
| A*02:133+A*03:104    | A*02:332+A*03:136    |
| A*02:133+A*03:126    | A*02:198+A*03:136    |
| A*02:133+A*03:150    | A*02:262+A*03:136    |
| A*02:133+A*31:11     | A*02:202+A*31:40     |
| A*02:133+A*31:13     | A*02:251+A*31:40     |
| A*02:133+A*31:15     | A*02:351+A*31:40     |
| A*02:133+A*31:28     | A*02:139+A*31:40     |
| A*02:133+A*31:31     | A*02:275+A*31:40     |
| A*02:133+A*31:36     | A*02:257+A*31:40     |
| A*02:133+A*31:45     | A*02:16+A*31:40      |
| A*02:133+A*31:50     | A*02:307+A*31:40     |

|                      |                      |
|----------------------|----------------------|
| A*02:133+A*31:63     | A*02:273+A*31:40     |
| A*02:133+A*31:64     | A*02:157+A*31:40     |
| A*02:133+A*68:53     | A*02:159+A*68:78     |
| A*02:133+A*68:67     | A*02:273+A*68:78     |
| A*02:137+A*24:47     | A*02:144+A*24:21:01  |
| A*02:137+A*24:69     | A*02:278+A*24:21:01  |
| A*02:137+A*24:121    | A*02:178+A*24:21:01  |
| A*02:137+A*24:172    | A*02:259+A*24:21:01  |
| A*02:139+A*31:11     | A*02:202+A*31:28     |
| A*02:139+A*31:13     | A*02:251+A*31:28     |
| A*02:139+A*31:15     | A*02:351+A*31:28     |
| A*02:139+A*31:31     | A*02:275+A*31:28     |
| A*02:139+A*31:36     | A*02:257+A*31:28     |
| A*02:139+A*31:45     | A*02:16+A*31:28      |
| A*02:139+A*31:50     | A*02:307+A*31:28     |
| A*02:139+A*31:63     | A*02:273+A*31:28     |
| A*02:139+A*31:64     | A*02:157+A*31:28     |
| A*02:139+A*68:58     | A*02:362+A*68:72     |
| A*02:142+A*32:46     | A*02:259+A*32:22     |
| A*02:143+A*68:71     | A*02:217:01+A*68:39  |
| A*02:144+A*02:195    | A*02:16+A*02:205     |
| A*02:144+A*02:273    | A*02:205+A*02:328    |
| A*02:144+A*02:364    | A*02:170+A*02:205    |
| A*02:144+A*03:01:01G | A*02:205+A*03:12     |
| A*02:144+A*24:69     | A*02:278+A*24:47     |
| A*02:144+A*24:104    | A*02:205+A*24:50     |
| A*02:144+A*24:121    | A*02:178+A*24:47     |
| A*02:144+A*24:172    | A*02:259+A*24:47     |
| A*02:144+A*25:03     | A*02:205+A*25:01:01G |
| A*02:144+A*34:08     | A*02:205+A*34:02:01  |
| A*02:144+A*68:71     | A*02:205+A*68:01:01G |
| A*02:145+A*03:16     | A*02:341+A*03:54     |
| A*02:145+A*03:22:01  | A*02:174+A*03:54     |
| A*02:145+A*03:44     | A*02:16+A*03:54      |
| A*02:145+A*03:59     | A*02:352+A*03:54     |
| A*02:145+A*03:63     | A*02:346+A*03:54     |
| A*02:145+A*03:69N    | A*02:226N+A*03:54    |
| A*02:145+A*03:84     | A*02:349+A*03:54     |
| A*02:145+A*03:87     | A*02:197+A*03:54     |
| A*02:145+A*03:94     | A*02:322+A*03:54     |
| A*02:145+A*03:101    | A*02:306+A*03:54     |
| A*02:145+A*03:104    | A*02:332+A*03:54     |
| A*02:145+A*03:126    | A*02:198+A*03:54     |
| A*02:145+A*03:150    | A*02:262+A*03:54     |
| A*02:145+A*23:05     | A*02:352+A*23:24     |
| A*02:145+A*23:06     | A*02:257+A*23:24     |
| A*02:145+A*23:28     | A*02:217:02+A*23:24  |
| A*02:145+A*23:41     | A*02:221+A*23:24     |
| A*02:145+A*23:44     | A*02:187+A*23:24     |
| A*02:145+A*23:53     | A*02:246+A*23:24     |
| A*02:145+A*24:05:01G | A*02:174+A*24:72     |
| A*02:145+A*24:17     | A*02:246+A*24:72     |
| A*02:145+A*24:25     | A*02:352+A*24:72     |
| A*02:145+A*24:47     | A*02:205+A*24:72     |
| A*02:145+A*24:60N    | A*02:366N+A*24:72    |
| A*02:145+A*24:73     | A*02:147+A*24:72     |
| A*02:145+A*24:77     | A*02:217:02+A*24:72  |
| A*02:145+A*24:96     | A*02:254+A*24:72     |
| A*02:145+A*24:117    | A*02:296+A*24:72     |
| A*02:145+A*24:118    | A*02:361+A*24:72     |
| A*02:145+A*24:119    | A*02:158+A*24:72     |
| A*02:145+A*24:133    | A*02:182+A*24:72     |
| A*02:145+A*24:160    | A*02:262+A*24:72     |
| A*02:145+A*24:165    | A*02:353+A*24:72     |
| A*02:145+A*24:174    | A*02:188+A*24:72     |
| A*02:145+A*24:176    | A*02:16+A*24:72      |
| A*02:145+A*24:180    | A*02:16+A*24:72      |
| A*02:145+A*24:181    | A*02:236+A*24:72     |
| A*02:145+A*24:192    | A*02:312+A*24:72     |
| A*02:145+A*24:198    | A*02:203+A*24:72     |
| A*02:145+A*24:206    | A*02:362+A*24:72     |
| A*02:146+A*03:12     | A*02:331+A*03:57     |
| A*02:146+A*11:111    | A*02:247+A*11:45     |
| A*02:146+A*23:01:01G | A*02:247+A*23:40     |
| A*02:146+A*26:05     | A*02:247+A*26:01:01G |
| A*02:146+A*30:02:01G | A*02:247+A*30:57     |
| A*02:146+A*33:54     | A*02:297+A*33:48     |
| A*02:147+A*24:05:01G | A*02:174+A*24:73     |
| A*02:147+A*24:17     | A*02:246+A*24:73     |
| A*02:147+A*24:25     | A*02:352+A*24:73     |
| A*02:147+A*24:47     | A*02:205+A*24:73     |
| A*02:147+A*24:60N    | A*02:366N+A*24:73    |
| A*02:147+A*24:77     | A*02:217:02+A*24:73  |
| A*02:147+A*24:96     | A*02:254+A*24:73     |
| A*02:147+A*24:117    | A*02:296+A*24:73     |
| A*02:147+A*24:118    | A*02:361+A*24:73     |
| A*02:147+A*24:119    | A*02:158+A*24:73     |
| A*02:147+A*24:133    | A*02:182+A*24:73     |
| A*02:147+A*24:160    | A*02:262+A*24:73     |
| A*02:147+A*24:165    | A*02:353+A*24:73     |
| A*02:147+A*24:174    | A*02:188+A*24:73     |
| A*02:147+A*24:176    | A*02:16+A*24:73      |
| A*02:147+A*24:180    | A*02:16+A*24:73      |
| A*02:147+A*24:181    | A*02:236+A*24:73     |
| A*02:147+A*24:192    | A*02:312+A*24:73     |
| A*02:147+A*24:198    | A*02:203+A*24:73     |
| A*02:147+A*24:206    | A*02:362+A*24:73     |
| A*02:148+A*03:12     | A*02:355+A*03:15     |
| A*02:148+A*03:85     | A*02:315+A*03:15     |
| A*02:148+A*03:92     | A*02:345+A*03:15     |
| A*02:148+A*03:127    | A*02:267+A*03:15     |
| A*02:149+A*11:16     | A*02:190+A*11:02:01G |
| A*02:149+A*11:57     | A*02:174+A*11:02:01G |
| A*02:149+A*24:131    | A*02:190+A*24:07     |
| A*02:149+A*24:188    | A*02:174+A*24:13:01  |



|                      |                      |
|----------------------|----------------------|
| A*02:149+A*68:01:02G | A*02:190+A*68:12     |
| A*02:149+A*68:01:05  | A*02:174+A*68:50     |
| A*02:151+A*23:45     | A*02:289+A*23:31     |
| A*02:151+A*24:62     | A*02:289+A*24:106    |
| A*02:153+A*11:15:01  | A*02:202+A*11:34     |
| A*02:153+A*11:23     | A*02:182+A*11:34     |
| A*02:153+A*11:30     | A*02:197+A*11:34     |
| A*02:153+A*11:33:02  | A*02:174+A*11:34     |
| A*02:153+A*11:41     | A*02:273+A*11:34     |
| A*02:153+A*11:48     | A*02:183+A*11:34     |
| A*02:153+A*11:72     | A*02:364+A*11:34     |
| A*02:153+A*11:82     | A*02:313+A*11:34     |
| A*02:153+A*11:87     | A*02:173+A*11:34     |
| A*02:153+A*11:96     | A*02:292+A*11:34     |
| A*02:153+A*11:111    | A*02:184+A*11:34     |
| A*02:153+A*11:112    | A*02:262+A*11:34     |
| A*02:153+A*11:123    | A*02:159+A*11:34     |
| A*02:153+A*11:125    | A*02:312+A*11:34     |
| A*02:153+A*11:128    | A*02:362+A*11:34     |
| A*02:153+A*26:23     | A*02:284N+A*26:75    |
| A*02:153+A*26:41     | A*02:187+A*26:75     |
| A*02:153+A*26:50     | A*02:210+A*26:75     |
| A*02:153+A*26:63     | A*02:236+A*26:75     |
| A*02:154+A*23:48     | A*02:286+A*23:10     |
| A*02:154+A*33:18     | A*02:229+A*33:61     |
| A*02:156+A*02:246    | A*02:279+A*02:338    |
| A*02:157+A*31:11     | A*02:202+A*31:64     |
| A*02:157+A*31:13     | A*02:251+A*31:64     |
| A*02:157+A*31:15     | A*02:351+A*31:64     |
| A*02:157+A*31:31     | A*02:275+A*31:64     |
| A*02:157+A*31:36     | A*02:257+A*31:64     |
| A*02:157+A*31:45     | A*02:16+A*31:64      |
| A*02:157+A*31:50     | A*02:307+A*31:64     |
| A*02:157+A*31:63     | A*02:273+A*31:64     |
| A*02:158+A*24:05:01G | A*02:174+A*24:119    |
| A*02:158+A*24:17     | A*02:246+A*24:119    |
| A*02:158+A*24:25     | A*02:352+A*24:119    |
| A*02:158+A*24:47     | A*02:205+A*24:119    |
| A*02:158+A*24:60N    | A*02:366N+A*24:119   |
| A*02:158+A*24:77     | A*02:217:02+A*24:119 |
| A*02:158+A*24:96     | A*02:254+A*24:119    |
| A*02:158+A*24:117    | A*02:296+A*24:119    |
| A*02:158+A*24:118    | A*02:361+A*24:119    |
| A*02:158+A*24:133    | A*02:182+A*24:119    |
| A*02:158+A*24:160    | A*02:262+A*24:119    |
| A*02:158+A*24:165    | A*02:353+A*24:119    |
| A*02:158+A*24:174    | A*02:188+A*24:119    |
| A*02:158+A*24:176    | A*02:16+A*24:119     |
| A*02:158+A*24:180    | A*02:16+A*24:119     |
| A*02:158+A*24:181    | A*02:236+A*24:119    |
| A*02:158+A*24:192    | A*02:312+A*24:119    |
| A*02:158+A*24:198    | A*02:203+A*24:119    |
| A*02:158+A*24:206    | A*02:362+A*24:119    |
| A*02:159+A*11:15:01  | A*02:202+A*11:123    |
| A*02:159+A*11:23     | A*02:182+A*11:123    |
| A*02:159+A*11:30     | A*02:197+A*11:123    |
| A*02:159+A*11:33:02  | A*02:174+A*11:123    |
| A*02:159+A*11:41     | A*02:273+A*11:123    |
| A*02:159+A*11:48     | A*02:183+A*11:123    |
| A*02:159+A*11:72     | A*02:364+A*11:123    |
| A*02:159+A*11:82     | A*02:313+A*11:123    |
| A*02:159+A*11:87     | A*02:173+A*11:123    |
| A*02:159+A*11:96     | A*02:292+A*11:123    |
| A*02:159+A*11:111    | A*02:184+A*11:123    |
| A*02:159+A*11:112    | A*02:262+A*11:123    |
| A*02:159+A*11:125    | A*02:312+A*11:123    |
| A*02:159+A*11:128    | A*02:362+A*11:123    |
| A*02:159+A*68:67     | A*02:273+A*68:53     |
| A*02:16+A*03:16      | A*02:341+A*03:44     |
| A*02:16+A*03:22:01   | A*02:174+A*03:44     |
| A*02:16+A*03:59      | A*02:352+A*03:44     |
| A*02:16+A*03:63      | A*02:346+A*03:44     |
| A*02:16+A*03:69N     | A*02:226N+A*03:44    |
| A*02:16+A*03:84      | A*02:349+A*03:44     |
| A*02:16+A*03:87      | A*02:197+A*03:44     |
| A*02:16+A*03:94      | A*02:322+A*03:44     |
| A*02:16+A*03:101     | A*02:306+A*03:44     |
| A*02:16+A*03:104     | A*02:332+A*03:44     |
| A*02:16+A*03:126     | A*02:198+A*03:44     |
| A*02:16+A*03:150     | A*02:262+A*03:44     |
| A*02:16+A*24:05:01G  | A*02:174+A*24:176    |
| A*02:16+A*24:17      | A*02:246+A*24:176    |
| A*02:16+A*24:25      | A*02:352+A*24:176    |
| A*02:16+A*24:47      | A*02:205+A*24:176    |
| A*02:16+A*24:60N     | A*02:366N+A*24:176   |
| A*02:16+A*24:77      | A*02:217:02+A*24:176 |
| A*02:16+A*24:96      | A*02:254+A*24:176    |
| A*02:16+A*24:117     | A*02:296+A*24:176    |
| A*02:16+A*24:118     | A*02:361+A*24:176    |
| A*02:16+A*24:133     | A*02:182+A*24:176    |
| A*02:16+A*24:160     | A*02:262+A*24:176    |
| A*02:16+A*24:165     | A*02:353+A*24:176    |
| A*02:16+A*24:174     | A*02:188+A*24:176    |
| A*02:16+A*24:180     | A*02:16+A*24:176     |
| A*02:16+A*24:181     | A*02:236+A*24:176    |
| A*02:16+A*24:192     | A*02:312+A*24:176    |
| A*02:16+A*24:198     | A*02:203+A*24:176    |
| A*02:16+A*24:206     | A*02:362+A*24:176    |
| A*02:16+A*31:11      | A*02:202+A*31:45     |
| A*02:16+A*31:13      | A*02:251+A*31:45     |
| A*02:16+A*31:15      | A*02:351+A*31:45     |
| A*02:16+A*31:31      | A*02:275+A*31:45     |
| A*02:16+A*31:36      | A*02:257+A*31:45     |
| A*02:16+A*31:50      | A*02:307+A*31:45     |
| A*02:16+A*31:63      | A*02:273+A*31:45     |

|                         |                        |                      |
|-------------------------|------------------------|----------------------|
| A*02:16+A*32:09         | A*02:233+A*32:21       |                      |
| A*02:16+A*32:42         | A*02:243+A*32:21       |                      |
| A*02:16+A*24:05:01G     | A*02:174+A*24:180      |                      |
| A*02:16+A*24:17         | A*02:246+A*24:180      |                      |
| A*02:16+A*24:25         | A*02:352+A*24:180      |                      |
| A*02:16+A*24:47         | A*02:205+A*24:180      |                      |
| A*02:16+A*24:60N        | A*02:366N+A*24:180     |                      |
| A*02:16+A*24:77         | A*02:217:02+A*24:180   |                      |
| A*02:16+A*24:96         | A*02:254+A*24:180      |                      |
| A*02:16+A*24:117        | A*02:296+A*24:180      |                      |
| A*02:16+A*24:118        | A*02:361+A*24:180      |                      |
| A*02:16+A*24:133        | A*02:182+A*24:180      |                      |
| A*02:16+A*24:160        | A*02:262+A*24:180      |                      |
| A*02:16+A*24:165        | A*02:353+A*24:180      |                      |
| A*02:16+A*24:174        | A*02:188+A*24:180      |                      |
| A*02:16+A*24:181        | A*02:236+A*24:180      |                      |
| A*02:16+A*24:192        | A*02:312+A*24:180      |                      |
| A*02:16+A*24:198        | A*02:203+A*24:180      |                      |
| A*02:16+A*24:206        | A*02:362+A*24:180      |                      |
| A*02:16+A*02:273        | A*02:195+A*02:328      |                      |
| A*02:16+A*02:364        | A*02:170+A*02:195      |                      |
| A*02:16+A*03:01:01G     | A*02:195+A*03:12       |                      |
| A*02:16+A*24:104        | A*02:195+A*24:50       |                      |
| A*02:16+A*25:03         | A*02:195+A*25:01:01G   |                      |
| A*02:16+A*34:08         | A*02:195+A*34:02:01    |                      |
| A*02:170+A*02:273       | A*02:328+A*02:364      |                      |
| A*02:170+A*03:01:01G    | A*02:364+A*03:12       |                      |
| A*02:170+A*11:41        | A*02:328+A*11:72       |                      |
| A*02:170+A*11:43        | A*02:243+A*11:72       |                      |
| A*02:170+A*24:104       | A*02:364+A*24:50       |                      |
| A*02:170+A*25:03        | A*02:364+A*25:01:01G   |                      |
| A*02:170+A*34:08        | A*02:364+A*34:02:01    |                      |
| A*02:170+A*68:71        | A*02:364+A*68:01:01G   |                      |
| A*02:171:01+A*03:01:01G | A*02:171:02+A*03:01:02 |                      |
| A*02:171:01+A*03:05:01  | A*02:171:02+A*03:05:02 |                      |
| A*02:171:01+A*03:65     | A*02:280+A*03:01:02    |                      |
| A*02:171:01+A*03:69N    | A*02:171:02+A*03:65    |                      |
| A*02:171:01+A*11:01:01G | A*02:280+A*11:24:01    | A*02:280+A*03:01:01G |
| A*02:171:01+A*11:24:02  | A*02:171:02+A*11:24:01 |                      |
| A*02:171:01+A*23:14:02  | A*02:171:02+A*23:14:01 |                      |
| A*02:171:01+A*24:02:01G | A*02:280+A*24:13:02    |                      |
| A*02:171:01+A*24:13:01  | A*02:171:02+A*24:13:02 |                      |
| A*02:171:01+A*24:71     | A*02:280+A*23:14:01    |                      |
| A*02:171:01+A*26:08     | A*02:280+A*26:43:02    |                      |
| A*02:171:01+A*26:14     | A*02:323+A*26:43:02    |                      |
| A*02:171:01+A*26:43:01  | A*02:171:02+A*26:43:02 |                      |
| A*02:171:01+A*26:57     | A*02:281+A*26:43:02    |                      |
| A*02:171:01+A*30:02:01G | A*02:171:02+A*30:02:05 |                      |
| A*02:171:01+A*31:01:02G | A*02:171:02+A*31:01:05 |                      |
| A*02:171:01+A*32:01:01G | A*02:171:02+A*32:01:06 |                      |
| A*02:171:01+A*32:22     | A*02:280+A*32:01:06    |                      |
| A*02:171:01+A*33:03:01G | A*02:171:02+A*33:03:05 |                      |
| A*02:171:01+A*34:02:01  | A*02:171:02+A*34:02:02 |                      |
| A*02:171:01+A*68:02:01G | A*02:171:02+A*68:28    |                      |
| A*02:171:02+A*11:01:01G | A*02:280+A*11:24:02    |                      |
| A*02:171:02+A*11:20     | A*02:280+A*11:25       |                      |
| A*02:171:02+A*24:03:01G | A*02:280+A*24:207      |                      |
| A*02:171:02+A*25:04     | A*02:280+A*25:19       |                      |
| A*02:171:02+A*26:08     | A*02:280+A*26:43:01    |                      |
| A*02:171:02+A*26:57     | A*02:281+A*26:43:01    |                      |
| A*02:171:02+A*32:02     | A*02:280+A*32:06       |                      |
| A*02:171:02+A*32:22     | A*02:280+A*32:01:01G   |                      |
| A*02:171:02+A*68:09     | A*02:280+A*68:08:02    |                      |
| A*02:173+A*11:15:01     | A*02:202+A*11:87       |                      |
| A*02:173+A*11:23        | A*02:182+A*11:87       |                      |
| A*02:173+A*11:30        | A*02:197+A*11:87       |                      |
| A*02:173+A*11:33:02     | A*02:174+A*11:87       |                      |
| A*02:173+A*11:41        | A*02:273+A*11:87       |                      |
| A*02:173+A*11:48        | A*02:183+A*11:87       |                      |
| A*02:173+A*11:72        | A*02:364+A*11:87       |                      |
| A*02:173+A*11:82        | A*02:313+A*11:87       |                      |
| A*02:173+A*11:96        | A*02:292+A*11:87       |                      |
| A*02:173+A*11:111       | A*02:184+A*11:87       |                      |
| A*02:173+A*11:112       | A*02:262+A*11:87       |                      |
| A*02:173+A*11:125       | A*02:312+A*11:87       |                      |
| A*02:173+A*11:128       | A*02:362+A*11:87       |                      |
| A*02:174+A*03:16        | A*02:341+A*03:22:01    |                      |
| A*02:174+A*03:59        | A*02:352+A*03:22:01    |                      |
| A*02:174+A*03:63        | A*02:346+A*03:22:01    |                      |
| A*02:174+A*03:69N       | A*02:226N+A*03:22:01   |                      |
| A*02:174+A*03:84        | A*02:349+A*03:22:01    |                      |
| A*02:174+A*03:87        | A*02:197+A*03:22:01    |                      |
| A*02:174+A*03:94        | A*02:322+A*03:22:01    |                      |
| A*02:174+A*03:101       | A*02:306+A*03:22:01    |                      |
| A*02:174+A*03:104       | A*02:332+A*03:22:01    |                      |
| A*02:174+A*03:126       | A*02:198+A*03:22:01    |                      |
| A*02:174+A*03:133       | A*02:237+A*03:42       |                      |
| A*02:174+A*03:150       | A*02:262+A*03:22:01    |                      |
| A*02:174+A*11:15:01     | A*02:202+A*11:33:02    |                      |
| A*02:174+A*11:16        | A*02:190+A*11:57       |                      |
| A*02:174+A*11:23        | A*02:182+A*11:33:02    |                      |
| A*02:174+A*11:30        | A*02:197+A*11:33:02    |                      |
| A*02:174+A*11:41        | A*02:273+A*11:33:02    |                      |
| A*02:174+A*11:48        | A*02:183+A*11:33:02    |                      |
| A*02:174+A*11:72        | A*02:364+A*11:33:02    |                      |
| A*02:174+A*11:82        | A*02:313+A*11:33:02    |                      |
| A*02:174+A*11:96        | A*02:292+A*11:33:02    |                      |
| A*02:174+A*11:111       | A*02:184+A*11:33:02    |                      |
| A*02:174+A*11:112       | A*02:262+A*11:33:02    |                      |
| A*02:174+A*11:125       | A*02:312+A*11:33:02    |                      |
| A*02:174+A*11:128       | A*02:362+A*11:33:02    |                      |
| A*02:174+A*24:17        | A*02:246+A*24:05:01G   |                      |
| A*02:174+A*24:25        | A*02:352+A*24:05:01G   |                      |
| A*02:174+A*24:47        | A*02:205+A*24:05:01G   |                      |
| A*02:174+A*24:60N       | A*02:366N+A*24:05:01G  |                      |

|                      |                         |
|----------------------|-------------------------|
| A*02:174+A*24:77     | A*02:217:02+A*24:05:01G |
| A*02:174+A*24:96     | A*02:254+A*24:05:01G    |
| A*02:174+A*24:117    | A*02:296+A*24:05:01G    |
| A*02:174+A*24:118    | A*02:361+A*24:05:01G    |
| A*02:174+A*24:133    | A*02:182+A*24:05:01G    |
| A*02:174+A*24:160    | A*02:262+A*24:05:01G    |
| A*02:174+A*24:165    | A*02:353+A*24:05:01G    |
| A*02:174+A*24:174    | A*02:188+A*24:05:01G    |
| A*02:174+A*24:181    | A*02:236+A*24:05:01G    |
| A*02:174+A*24:192    | A*02:312+A*24:05:01G    |
| A*02:174+A*24:198    | A*02:203+A*24:05:01G    |
| A*02:174+A*24:206    | A*02:362+A*24:05:01G    |
| A*02:174+A*24:207    | A*02:190+A*24:94        |
| A*02:174+A*25:01:01G | A*02:190+A*25:05        |
| A*02:174+A*26:01:01G | A*02:190+A*26:54        |
| A*02:174+A*68:48     | A*02:190+A*68:02:01G    |
| A*02:178+A*24:69     | A*02:278+A*24:121       |
| A*02:178+A*24:172    | A*02:259+A*24:121       |
| A*02:181+A*29:01:01G | A*02:204+A*29:41        |
| A*02:181+A*29:29     | A*02:362+A*29:41        |
| A*02:181+A*29:30     | A*02:351+A*29:41        |
| A*02:182+A*11:15:01  | A*02:202+A*11:23        |
| A*02:182+A*11:30     | A*02:197+A*11:23        |
| A*02:182+A*11:41     | A*02:273+A*11:23        |
| A*02:182+A*11:48     | A*02:183+A*11:23        |
| A*02:182+A*11:72     | A*02:364+A*11:23        |
| A*02:182+A*11:82     | A*02:313+A*11:23        |
| A*02:182+A*11:96     | A*02:292+A*11:23        |
| A*02:182+A*11:111    | A*02:184+A*11:23        |
| A*02:182+A*11:112    | A*02:262+A*11:23        |
| A*02:182+A*11:125    | A*02:312+A*11:23        |
| A*02:182+A*11:128    | A*02:362+A*11:23        |
| A*02:182+A*24:17     | A*02:246+A*24:133       |
| A*02:182+A*24:25     | A*02:352+A*24:133       |
| A*02:182+A*24:47     | A*02:205+A*24:133       |
| A*02:182+A*24:60N    | A*02:366N+A*24:133      |
| A*02:182+A*24:77     | A*02:217:02+A*24:133    |
| A*02:182+A*24:96     | A*02:254+A*24:133       |
| A*02:182+A*24:117    | A*02:296+A*24:133       |
| A*02:182+A*24:118    | A*02:361+A*24:133       |
| A*02:182+A*24:160    | A*02:262+A*24:133       |
| A*02:182+A*24:165    | A*02:353+A*24:133       |
| A*02:182+A*24:174    | A*02:188+A*24:133       |
| A*02:182+A*24:181    | A*02:236+A*24:133       |
| A*02:182+A*24:192    | A*02:312+A*24:133       |
| A*02:182+A*24:198    | A*02:203+A*24:133       |
| A*02:182+A*24:206    | A*02:362+A*24:133       |
| A*02:183+A*11:15:01  | A*02:202+A*11:48        |
| A*02:183+A*11:30     | A*02:197+A*11:48        |
| A*02:183+A*11:41     | A*02:273+A*11:48        |
| A*02:183+A*11:72     | A*02:364+A*11:48        |
| A*02:183+A*11:82     | A*02:313+A*11:48        |
| A*02:183+A*11:96     | A*02:292+A*11:48        |
| A*02:183+A*11:111    | A*02:184+A*11:48        |
| A*02:183+A*11:112    | A*02:262+A*11:48        |
| A*02:183+A*11:125    | A*02:312+A*11:48        |
| A*02:183+A*11:128    | A*02:362+A*11:48        |
| A*02:184+A*11:15:01  | A*02:202+A*11:111       |
| A*02:184+A*11:30     | A*02:197+A*11:111       |
| A*02:184+A*11:41     | A*02:273+A*11:111       |
| A*02:184+A*11:72     | A*02:364+A*11:111       |
| A*02:184+A*11:82     | A*02:313+A*11:111       |
| A*02:184+A*11:96     | A*02:292+A*11:111       |
| A*02:184+A*11:112    | A*02:262+A*11:111       |
| A*02:184+A*11:125    | A*02:312+A*11:111       |
| A*02:184+A*11:128    | A*02:362+A*11:111       |
| A*02:187+A*23:05     | A*02:352+A*23:44        |
| A*02:187+A*23:06     | A*02:257+A*23:44        |
| A*02:187+A*23:28     | A*02:217:02+A*23:44     |
| A*02:187+A*23:41     | A*02:221+A*23:44        |
| A*02:187+A*23:53     | A*02:246+A*23:44        |
| A*02:187+A*26:23     | A*02:284N+A*26:41       |
| A*02:187+A*26:50     | A*02:210+A*26:41        |
| A*02:187+A*26:63     | A*02:236+A*26:41        |
| A*02:188+A*24:17     | A*02:246+A*24:174       |
| A*02:188+A*24:25     | A*02:352+A*24:174       |
| A*02:188+A*24:47     | A*02:205+A*24:174       |
| A*02:188+A*24:60N    | A*02:366N+A*24:174      |
| A*02:188+A*24:77     | A*02:217:02+A*24:174    |
| A*02:188+A*24:96     | A*02:254+A*24:174       |
| A*02:188+A*24:117    | A*02:296+A*24:174       |
| A*02:188+A*24:118    | A*02:361+A*24:174       |
| A*02:188+A*24:160    | A*02:262+A*24:174       |
| A*02:188+A*24:165    | A*02:353+A*24:174       |
| A*02:188+A*24:181    | A*02:236+A*24:174       |
| A*02:188+A*24:192    | A*02:312+A*24:174       |
| A*02:188+A*24:198    | A*02:203+A*24:174       |
| A*02:188+A*24:206    | A*02:362+A*24:174       |
| A*02:191+A*03:72     | A*02:319+A*03:50        |
| A*02:191+A*03:97     | A*02:255+A*03:50        |
| A*02:191+A*31:05     | A*02:255+A*31:30        |
| A*02:191+A*68:54     | A*02:323+A*68:82        |
| A*02:197+A*03:16     | A*02:341+A*03:87        |
| A*02:197+A*03:59     | A*02:352+A*03:87        |
| A*02:197+A*03:63     | A*02:346+A*03:87        |
| A*02:197+A*03:69N    | A*02:226N+A*03:87       |
| A*02:197+A*03:84     | A*02:349+A*03:87        |
| A*02:197+A*03:94     | A*02:322+A*03:87        |
| A*02:197+A*03:101    | A*02:306+A*03:87        |
| A*02:197+A*03:104    | A*02:332+A*03:87        |
| A*02:197+A*03:126    | A*02:198+A*03:87        |
| A*02:197+A*03:150    | A*02:262+A*03:87        |
| A*02:197+A*11:15:01  | A*02:202+A*11:30        |
| A*02:197+A*11:41     | A*02:273+A*11:30        |
| A*02:197+A*11:72     | A*02:364+A*11:30        |

|                         |                      |
|-------------------------|----------------------|
| A*02:197+A*11:82        | A*02:313+A*11:30     |
| A*02:197+A*11:96        | A*02:292+A*11:30     |
| A*02:197+A*11:112       | A*02:262+A*11:30     |
| A*02:197+A*11:125       | A*02:312+A*11:30     |
| A*02:197+A*11:128       | A*02:362+A*11:30     |
| A*02:198+A*03:16        | A*02:341+A*03:126    |
| A*02:198+A*03:59        | A*02:352+A*03:126    |
| A*02:198+A*03:63        | A*02:346+A*03:126    |
| A*02:198+A*03:69N       | A*02:226N+A*03:126   |
| A*02:198+A*03:84        | A*02:349+A*03:126    |
| A*02:198+A*03:94        | A*02:322+A*03:126    |
| A*02:198+A*03:101       | A*02:306+A*03:126    |
| A*02:198+A*03:104       | A*02:332+A*03:126    |
| A*02:198+A*03:150       | A*02:262+A*03:126    |
| A*02:199+A*68:19        | A*02:237+A*68:93     |
| A*02:199+A*68:24        | A*02:208+A*68:93     |
| A*02:199+A*68:76        | A*02:211:01+A*68:93  |
| A*02:202+A*11:41        | A*02:273+A*11:15:01  |
| A*02:202+A*11:72        | A*02:364+A*11:15:01  |
| A*02:202+A*11:82        | A*02:313+A*11:15:01  |
| A*02:202+A*11:96        | A*02:292+A*11:15:01  |
| A*02:202+A*11:112       | A*02:262+A*11:15:01  |
| A*02:202+A*11:125       | A*02:312+A*11:15:01  |
| A*02:202+A*11:128       | A*02:362+A*11:15:01  |
| A*02:202+A*30:31        | A*02:351+A*30:39     |
| A*02:202+A*31:13        | A*02:251+A*31:11     |
| A*02:202+A*31:15        | A*02:351+A*31:11     |
| A*02:202+A*31:31        | A*02:275+A*31:11     |
| A*02:202+A*31:36        | A*02:257+A*31:11     |
| A*02:202+A*31:50        | A*02:307+A*31:11     |
| A*02:202+A*31:63        | A*02:273+A*31:11     |
| A*02:203+A*24:17        | A*02:246+A*24:198    |
| A*02:203+A*24:25        | A*02:352+A*24:198    |
| A*02:203+A*24:47        | A*02:205+A*24:198    |
| A*02:203+A*24:60N       | A*02:366N+A*24:198   |
| A*02:203+A*24:77        | A*02:217:02+A*24:198 |
| A*02:203+A*24:96        | A*02:254+A*24:198    |
| A*02:203+A*24:117       | A*02:296+A*24:198    |
| A*02:203+A*24:118       | A*02:361+A*24:198    |
| A*02:203+A*24:160       | A*02:262+A*24:198    |
| A*02:203+A*24:165       | A*02:353+A*24:198    |
| A*02:203+A*24:181       | A*02:236+A*24:198    |
| A*02:203+A*24:192       | A*02:312+A*24:198    |
| A*02:203+A*24:206       | A*02:362+A*24:198    |
| A*02:204+A*29:29        | A*02:362+A*29:01:01G |
| A*02:204+A*29:30        | A*02:351+A*29:01:01G |
| A*02:205+A*24:17        | A*02:246+A*24:47     |
| A*02:205+A*24:25        | A*02:352+A*24:47     |
| A*02:205+A*24:60N       | A*02:366N+A*24:47    |
| A*02:205+A*24:77        | A*02:217:02+A*24:47  |
| A*02:205+A*24:96        | A*02:254+A*24:47     |
| A*02:205+A*24:117       | A*02:296+A*24:47     |
| A*02:205+A*24:118       | A*02:361+A*24:47     |
| A*02:205+A*24:160       | A*02:262+A*24:47     |
| A*02:205+A*24:165       | A*02:353+A*24:47     |
| A*02:205+A*24:181       | A*02:236+A*24:47     |
| A*02:205+A*24:192       | A*02:312+A*24:47     |
| A*02:205+A*24:206       | A*02:362+A*24:47     |
| A*02:208+A*68:19        | A*02:237+A*68:24     |
| A*02:208+A*68:76        | A*02:211:01+A*68:24  |
| A*02:210+A*26:23        | A*02:284N+A*26:50    |
| A*02:210+A*26:63        | A*02:236+A*26:50     |
| A*02:211:01+A*33:01:01G | A*02:332+A*33:40     |
| A*02:211:01+A*33:14     | A*02:367+A*33:40     |
| A*02:211:01+A*33:30     | A*02:342+A*33:40     |
| A*02:211:01+A*33:42     | A*02:292+A*33:40     |
| A*02:211:01+A*33:47     | A*02:306+A*33:40     |
| A*02:211:01+A*68:19     | A*02:237+A*68:76     |
| A*02:217:02+A*23:05     | A*02:352+A*23:28     |
| A*02:217:02+A*23:06     | A*02:257+A*23:28     |
| A*02:217:02+A*23:41     | A*02:221+A*23:28     |
| A*02:217:02+A*23:53     | A*02:246+A*23:28     |
| A*02:217:02+A*24:17     | A*02:246+A*24:77     |
| A*02:217:02+A*24:25     | A*02:352+A*24:77     |
| A*02:217:02+A*24:60N    | A*02:366N+A*24:77    |
| A*02:217:02+A*24:96     | A*02:254+A*24:77     |
| A*02:217:02+A*24:117    | A*02:296+A*24:77     |
| A*02:217:02+A*24:118    | A*02:361+A*24:77     |
| A*02:217:02+A*24:160    | A*02:262+A*24:77     |
| A*02:217:02+A*24:165    | A*02:353+A*24:77     |
| A*02:217:02+A*24:181    | A*02:236+A*24:77     |
| A*02:217:02+A*24:192    | A*02:312+A*24:77     |
| A*02:217:02+A*24:206    | A*02:362+A*24:77     |
| A*02:221+A*23:05        | A*02:352+A*23:41     |
| A*02:221+A*23:06        | A*02:257+A*23:41     |
| A*02:221+A*23:53        | A*02:246+A*23:41     |
| A*02:226N+A*03:16       | A*02:341+A*03:69N    |
| A*02:226N+A*03:59       | A*02:352+A*03:69N    |
| A*02:226N+A*03:63       | A*02:346+A*03:69N    |
| A*02:226N+A*03:84       | A*02:349+A*03:69N    |
| A*02:226N+A*03:94       | A*02:322+A*03:69N    |
| A*02:226N+A*03:101      | A*02:306+A*03:69N    |
| A*02:226N+A*03:104      | A*02:332+A*03:69N    |
| A*02:226N+A*03:150      | A*02:262+A*03:69N    |
| A*02:233+A*32:42        | A*02:243+A*32:09     |
| A*02:236+A*24:17        | A*02:246+A*24:181    |
| A*02:236+A*24:25        | A*02:352+A*24:181    |
| A*02:236+A*24:60N       | A*02:366N+A*24:181   |
| A*02:236+A*24:96        | A*02:254+A*24:181    |
| A*02:236+A*24:117       | A*02:296+A*24:181    |
| A*02:236+A*24:118       | A*02:361+A*24:181    |
| A*02:236+A*24:160       | A*02:262+A*24:181    |
| A*02:236+A*24:165       | A*02:353+A*24:181    |
| A*02:236+A*24:192       | A*02:312+A*24:181    |
| A*02:236+A*24:206       | A*02:362+A*24:181    |

|                      |                      |
|----------------------|----------------------|
| A*02:236+A*26:23     | A*02:284N+A*26:63    |
| A*02:237+A*24:125    | A*02:299+A*24:204    |
| A*02:237+A*36:01     | A*02:262+A*36:02     |
| A*02:242+A*03:103    | A*02:304+A*03:19     |
| A*02:243+A*11:41     | A*02:328+A*11:43     |
| A*02:243+A*68:35     | A*02:295+A*68:29     |
| A*02:245+A*26:70     | A*02:334+A*26:01:01G |
| A*02:245+A*68:01:02G | A*02:334+A*68:23     |
| A*02:246+A*23:05     | A*02:352+A*23:53     |
| A*02:246+A*23:06     | A*02:257+A*23:53     |
| A*02:246+A*24:25     | A*02:352+A*24:17     |
| A*02:246+A*24:60N    | A*02:366N+A*24:17    |
| A*02:246+A*24:96     | A*02:254+A*24:17     |
| A*02:246+A*24:117    | A*02:296+A*24:17     |
| A*02:246+A*24:118    | A*02:361+A*24:17     |
| A*02:246+A*24:160    | A*02:262+A*24:17     |
| A*02:246+A*24:165    | A*02:353+A*24:17     |
| A*02:246+A*24:192    | A*02:312+A*24:17     |
| A*02:246+A*24:206    | A*02:362+A*24:17     |
| A*02:251+A*31:15     | A*02:351+A*31:13     |
| A*02:251+A*31:31     | A*02:275+A*31:13     |
| A*02:251+A*31:36     | A*02:257+A*31:13     |
| A*02:251+A*31:50     | A*02:307+A*31:13     |
| A*02:251+A*31:63     | A*02:273+A*31:13     |
| A*02:254+A*24:25     | A*02:352+A*24:96     |
| A*02:254+A*24:60N    | A*02:366N+A*24:96    |
| A*02:254+A*24:117    | A*02:296+A*24:96     |
| A*02:254+A*24:118    | A*02:361+A*24:96     |
| A*02:254+A*24:160    | A*02:262+A*24:96     |
| A*02:254+A*24:165    | A*02:353+A*24:96     |
| A*02:254+A*24:192    | A*02:312+A*24:96     |
| A*02:254+A*24:206    | A*02:362+A*24:96     |
| A*02:255+A*03:72     | A*02:319+A*03:97     |
| A*02:255+A*32:07     | A*02:319+A*32:13     |
| A*02:257+A*23:05     | A*02:352+A*23:06     |
| A*02:257+A*31:15     | A*02:351+A*31:36     |
| A*02:257+A*31:31     | A*02:275+A*31:36     |
| A*02:257+A*31:50     | A*02:307+A*31:36     |
| A*02:257+A*31:63     | A*02:273+A*31:36     |
| A*02:259+A*24:69     | A*02:278+A*24:172    |
| A*02:262+A*03:16     | A*02:341+A*03:150    |
| A*02:262+A*03:59     | A*02:352+A*03:150    |
| A*02:262+A*03:63     | A*02:346+A*03:150    |
| A*02:262+A*03:84     | A*02:349+A*03:150    |
| A*02:262+A*03:94     | A*02:322+A*03:150    |
| A*02:262+A*03:101    | A*02:306+A*03:150    |
| A*02:262+A*03:104    | A*02:332+A*03:150    |
| A*02:262+A*11:41     | A*02:273+A*11:112    |
| A*02:262+A*11:72     | A*02:364+A*11:112    |
| A*02:262+A*11:82     | A*02:313+A*11:112    |
| A*02:262+A*11:96     | A*02:292+A*11:112    |
| A*02:262+A*11:125    | A*02:312+A*11:112    |
| A*02:262+A*11:128    | A*02:362+A*11:112    |
| A*02:262+A*24:25     | A*02:352+A*24:160    |
| A*02:262+A*24:60N    | A*02:366N+A*24:160   |
| A*02:262+A*24:117    | A*02:296+A*24:160    |
| A*02:262+A*24:118    | A*02:361+A*24:160    |
| A*02:262+A*24:165    | A*02:353+A*24:160    |
| A*02:262+A*24:192    | A*02:312+A*24:160    |
| A*02:262+A*24:206    | A*02:362+A*24:160    |
| A*02:267+A*03:12     | A*02:355+A*03:127    |
| A*02:267+A*03:85     | A*02:315+A*03:127    |
| A*02:267+A*03:92     | A*02:345+A*03:127    |
| A*02:273+A*03:12     | A*02:328+A*03:01:01G |
| A*02:273+A*11:72     | A*02:364+A*11:41     |
| A*02:273+A*11:82     | A*02:313+A*11:41     |
| A*02:273+A*11:96     | A*02:292+A*11:41     |
| A*02:273+A*11:125    | A*02:312+A*11:41     |
| A*02:273+A*11:128    | A*02:362+A*11:41     |
| A*02:273+A*24:50     | A*02:328+A*24:104    |
| A*02:273+A*25:01:01G | A*02:328+A*25:03     |
| A*02:273+A*31:15     | A*02:351+A*31:63     |
| A*02:273+A*31:31     | A*02:275+A*31:63     |
| A*02:273+A*31:50     | A*02:307+A*31:63     |
| A*02:273+A*34:02:01  | A*02:328+A*34:08     |
| A*02:273+A*68:01:01G | A*02:328+A*68:71     |
| A*02:275+A*31:15     | A*02:351+A*31:31     |
| A*02:275+A*31:50     | A*02:307+A*31:31     |
| A*02:279+A*03:103    | A*02:304+A*03:56     |
| A*02:279+A*24:62     | A*02:304+A*24:41     |
| A*02:279+A*29:32     | A*02:304+A*29:44     |
| A*02:280+A*26:57     | A*02:281+A*26:08     |
| A*02:281+A*26:14     | A*02:323+A*26:57     |
| A*02:292+A*11:72     | A*02:364+A*11:96     |
| A*02:292+A*11:82     | A*02:313+A*11:96     |
| A*02:292+A*11:125    | A*02:312+A*11:96     |
| A*02:292+A*11:128    | A*02:362+A*11:96     |
| A*02:292+A*33:01:01G | A*02:332+A*33:42     |
| A*02:292+A*33:14     | A*02:367+A*33:42     |
| A*02:292+A*33:30     | A*02:342+A*33:42     |
| A*02:292+A*33:47     | A*02:306+A*33:42     |
| A*02:296+A*24:25     | A*02:352+A*24:117    |
| A*02:296+A*24:60N    | A*02:366N+A*24:117   |
| A*02:296+A*24:118    | A*02:361+A*24:117    |
| A*02:296+A*24:165    | A*02:353+A*24:117    |
| A*02:296+A*24:192    | A*02:312+A*24:117    |
| A*02:296+A*24:206    | A*02:362+A*24:117    |
| A*02:306+A*03:16     | A*02:341+A*03:101    |
| A*02:306+A*03:59     | A*02:352+A*03:101    |
| A*02:306+A*03:63     | A*02:346+A*03:101    |
| A*02:306+A*03:84     | A*02:349+A*03:101    |
| A*02:306+A*03:94     | A*02:322+A*03:101    |
| A*02:306+A*03:104    | A*02:332+A*03:101    |
| A*02:306+A*33:01:01G | A*02:332+A*33:47     |
| A*02:306+A*33:14     | A*02:367+A*33:47     |

|                         |                        |                       |                       |                     |
|-------------------------|------------------------|-----------------------|-----------------------|---------------------|
| A*02:306+A*33:30        | A*02:342+A*33:47       |                       |                       |                     |
| A*02:307+A*31:15        | A*02:351+A*31:50       |                       |                       |                     |
| A*02:308+A*24:30        | A*02:311+A*24:34       |                       |                       |                     |
| A*02:308+A*26:03:01     | A*02:311+A*66:15       |                       |                       |                     |
| A*02:308+A*33:24        | A*02:311+A*33:03:01G   |                       |                       |                     |
| A*02:308+A*74:06        | A*02:311+A*74:07       |                       |                       |                     |
| A*02:312+A*11:72        | A*02:364+A*11:125      |                       |                       |                     |
| A*02:312+A*11:82        | A*02:313+A*11:125      |                       |                       |                     |
| A*02:312+A*11:128       | A*02:362+A*11:125      |                       |                       |                     |
| A*02:312+A*24:25        | A*02:352+A*24:192      |                       |                       |                     |
| A*02:312+A*24:60N       | A*02:366N+A*24:192     |                       |                       |                     |
| A*02:312+A*24:118       | A*02:361+A*24:192      |                       |                       |                     |
| A*02:312+A*24:165       | A*02:353+A*24:192      |                       |                       |                     |
| A*02:312+A*24:206       | A*02:362+A*24:192      |                       |                       |                     |
| A*02:313+A*11:72        | A*02:364+A*11:82       |                       |                       |                     |
| A*02:313+A*11:128       | A*02:362+A*11:82       |                       |                       |                     |
| A*02:315+A*03:12        | A*02:355+A*03:85       |                       |                       |                     |
| A*02:315+A*03:92        | A*02:345+A*03:85       |                       |                       |                     |
| A*02:322+A*03:16        | A*02:341+A*03:94       |                       |                       |                     |
| A*02:322+A*03:59        | A*02:352+A*03:94       |                       |                       |                     |
| A*02:322+A*03:63        | A*02:346+A*03:94       |                       |                       |                     |
| A*02:322+A*03:84        | A*02:349+A*03:94       |                       |                       |                     |
| A*02:322+A*03:104       | A*02:332+A*03:94       |                       |                       |                     |
| A*02:332+A*03:16        | A*02:341+A*03:104      |                       |                       |                     |
| A*02:332+A*03:59        | A*02:352+A*03:104      |                       |                       |                     |
| A*02:332+A*03:63        | A*02:346+A*03:104      |                       |                       |                     |
| A*02:332+A*03:84        | A*02:349+A*03:104      |                       |                       |                     |
| A*02:332+A*33:14        | A*02:367+A*33:01:01G   |                       |                       |                     |
| A*02:332+A*33:30        | A*02:342+A*33:01:01G   |                       |                       |                     |
| A*02:334+A*11:01:01G    | A*02:338+A*11:118      |                       |                       |                     |
| A*02:334+A*11:117       | A*02:338+A*11:26       |                       |                       |                     |
| A*02:334+A*24:51        | A*02:338+A*24:15       |                       |                       |                     |
| A*02:334+A*33:49        | A*02:338+A*33:01:01G   |                       |                       |                     |
| A*02:341+A*03:59        | A*02:352+A*03:16       |                       |                       |                     |
| A*02:341+A*03:63        | A*02:346+A*03:16       |                       |                       |                     |
| A*02:341+A*03:84        | A*02:349+A*03:16       |                       |                       |                     |
| A*02:342+A*33:14        | A*02:367+A*33:30       |                       |                       |                     |
| A*02:345+A*03:12        | A*02:355+A*03:92       |                       |                       |                     |
| A*02:346+A*03:59        | A*02:352+A*03:63       |                       |                       |                     |
| A*02:346+A*03:84        | A*02:349+A*03:63       |                       |                       |                     |
| A*02:349+A*03:59        | A*02:352+A*03:84       |                       |                       |                     |
| A*02:351+A*29:29        | A*02:362+A*29:30       |                       |                       |                     |
| A*02:352+A*24:60N       | A*02:366N+A*24:25      |                       |                       |                     |
| A*02:352+A*24:118       | A*02:361+A*24:25       |                       |                       |                     |
| A*02:352+A*24:165       | A*02:353+A*24:25       |                       |                       |                     |
| A*02:352+A*24:206       | A*02:362+A*24:25       |                       |                       |                     |
| A*02:353+A*24:60N       | A*02:366N+A*24:165     |                       |                       |                     |
| A*02:353+A*24:118       | A*02:361+A*24:165      |                       |                       |                     |
| A*02:353+A*24:206       | A*02:362+A*24:165      |                       |                       |                     |
| A*02:361+A*24:60N       | A*02:366N+A*24:118     |                       |                       |                     |
| A*02:361+A*24:206       | A*02:362+A*24:118      |                       |                       |                     |
| A*02:362+A*11:72        | A*02:364+A*11:128      |                       |                       |                     |
| A*02:362+A*24:60N       | A*02:366N+A*24:206     |                       |                       |                     |
| A*03:01:01G+A*03:02:01  | A*03:07+A*03:65        |                       |                       |                     |
| A*03:01:01G+A*03:05:02  | A*03:01:02+A*03:05:01  |                       |                       |                     |
| A*03:01:01G+A*03:10     | A*03:02:01+A*03:05:01  |                       |                       |                     |
| A*03:01:01G+A*03:22:02  | A*03:01:18+A*03:22:01  |                       |                       |                     |
| A*03:01:01G+A*03:23:01  | A*03:01:03+A*03:23:02  |                       |                       |                     |
| A*03:01:01G+A*03:65     | A*03:01:02+A*03:69N    |                       |                       |                     |
| A*03:01:01G+A*03:66     | A*03:01:02+A*03:50     |                       |                       |                     |
| A*03:01:01G+A*03:76     | A*03:02:01+A*03:47     |                       |                       |                     |
| A*03:01:01G+A*03:82     | A*03:02:01+A*03:43     |                       |                       |                     |
| A*03:01:01G+A*03:108    | A*03:08+A*03:09        |                       |                       |                     |
| A*03:01:01G+A*03:122    | A*03:05:01+A*03:97     |                       |                       |                     |
| A*03:01:01G+A*11:01:01G | A*03:56+A*11:117       | A*03:63+A*11:12       | A*03:65+A*11:24:02    | A*03:69N+A*11:24:01 |
|                         | A*03:127+A*11:20       |                       |                       |                     |
| A*03:01:01G+A*11:01:17  | A*03:01:16+A*11:01:01G |                       |                       |                     |
| A*03:01:01G+A*11:01:28  | A*03:01:18+A*11:01:07  |                       |                       |                     |
| A*03:01:01G+A*11:01:29  | A*03:01:13+A*11:01:01G |                       |                       |                     |
| A*03:01:01G+A*11:01:34  | A*03:01:12+A*11:01:01G |                       |                       |                     |
| A*03:01:01G+A*11:01:38  | A*03:01:25+A*11:01:01G |                       |                       |                     |
| A*03:01:01G+A*11:01:39  | A*03:01:14+A*11:01:01G |                       |                       |                     |
| A*03:01:01G+A*11:01:44  | A*03:105+A*11:04       |                       |                       |                     |
| A*03:01:01G+A*11:06     | A*03:09+A*11:01:01G    |                       |                       |                     |
| A*03:01:01G+A*11:08     | A*03:66+A*11:25        |                       |                       |                     |
| A*03:01:01G+A*11:10     | A*03:24+A*11:01:01G    |                       |                       |                     |
| A*03:01:01G+A*11:16     | A*03:123+A*11:02:01G   |                       |                       |                     |
| A*03:01:01G+A*11:17     | A*03:107+A*11:01:01G   |                       |                       |                     |
| A*03:01:01G+A*11:18     | A*03:108+A*11:12       |                       |                       |                     |
| A*03:01:01G+A*11:19     | A*03:08+A*11:01:01G    |                       |                       |                     |
| A*03:01:01G+A*11:20     | A*03:65+A*11:25        |                       |                       |                     |
| A*03:01:01G+A*11:24:01  | A*03:01:02+A*11:24:02  |                       |                       |                     |
| A*03:01:01G+A*11:24:02  | A*03:127+A*11:25       |                       |                       |                     |
| A*03:01:01G+A*11:27     | A*03:97+A*11:04        |                       |                       |                     |
| A*03:01:01G+A*11:30     | A*03:87+A*11:01:01G    |                       |                       |                     |
| A*03:01:01G+A*11:31     | A*03:07+A*11:25        |                       |                       |                     |
| A*03:01:01G+A*11:33:01  | A*03:22:01+A*11:01:07  |                       |                       |                     |
| A*03:01:01G+A*11:33:02  | A*03:22:01+A*11:01:01G |                       |                       |                     |
| A*03:01:01G+A*11:38     | A*03:97+A*11:02:01G    |                       |                       |                     |
| A*03:01:01G+A*11:39     | A*03:97+A*11:01:01G    |                       |                       |                     |
| A*03:01:01G+A*11:40     | A*03:41+A*11:12        | A*03:57+A*11:19       |                       |                     |
| A*03:01:01G+A*11:44     | A*03:50+A*11:24:01     | A*03:66+A*11:24:02    | A*03:127+A*11:08      |                     |
| A*03:01:01G+A*11:60     | A*03:07+A*11:03        | A*03:133+A*11:20      |                       |                     |
| A*03:01:01G+A*11:73     | A*03:123+A*11:01:01G   |                       |                       |                     |
| A*03:01:01G+A*11:75     | A*03:58+A*11:01:01G    |                       |                       |                     |
| A*03:01:01G+A*11:84     | A*03:85+A*11:01:01G    |                       |                       |                     |
| A*03:01:01G+A*11:105    | A*03:147+A*11:01:01G   |                       |                       |                     |
| A*03:01:01G+A*11:112    | A*03:150+A*11:01:01G   |                       |                       |                     |
| A*03:01:01G+A*11:113    | A*03:43+A*11:02:01G    |                       |                       |                     |
| A*03:01:01G+A*11:116    | A*03:103+A*11:01:01G   |                       |                       |                     |
| A*03:01:01G+A*11:118    | A*03:56+A*11:26        |                       |                       |                     |
| A*03:01:01G+A*11:119    | A*03:17:01+A*11:01:01G |                       |                       |                     |
| A*03:01:01G+A*11:121    | A*03:23:01+A*11:19     |                       |                       |                     |
| A*03:01:01G+A*11:122    | A*03:74+A*11:01:01G    |                       |                       |                     |
| A*03:01:01G+A*23:01:01G | A*03:08+A*23:13        | A*03:17:01+A*23:03:02 | A*03:22:01+A*23:14:02 | A*03:97+A*23:04     |

|                         |                        |                      |                      |                       |
|-------------------------|------------------------|----------------------|----------------------|-----------------------|
| A*03:01:01G+A*23:01:08  | A*03:01:33+A*23:01:01G |                      |                      |                       |
| A*03:01:01G+A*23:02     | A*03:50+A*23:01:01G    |                      |                      |                       |
| A*03:01:01G+A*23:03:01  | A*03:01:18+A*23:03:02  |                      |                      |                       |
| A*03:01:01G+A*23:04     | A*03:42+A*24:18        |                      |                      |                       |
| A*03:01:01G+A*23:05     | A*03:59+A*23:01:01G    |                      |                      |                       |
| A*03:01:01G+A*23:12     | A*03:09+A*23:01:01G    | A*03:108+A*23:13     |                      |                       |
| A*03:01:01G+A*23:14:01  | A*03:01:02+A*23:14:02  |                      |                      |                       |
| A*03:01:01G+A*23:24     | A*03:54+A*23:01:01G    |                      |                      |                       |
| A*03:01:01G+A*23:25     | A*03:04:01+A*23:01:01G |                      |                      |                       |
| A*03:01:01G+A*23:29     | A*03:71+A*23:01:01G    |                      |                      |                       |
| A*03:01:01G+A*23:42     | A*03:39+A*23:01:01G    |                      |                      |                       |
| A*03:01:01G+A*23:46     | A*03:43+A*23:53        |                      |                      |                       |
| A*03:01:01G+A*24:02:01G | A*03:07+A*24:56        | A*03:08+A*24:07      | A*03:15+A*24:53      | A*03:17:01+A*24:21:01 |
|                         | A*03:30+A*24:191       | A*03:65+A*24:13:01   | A*03:69N+A*24:13:02  | A*03:72+A*24:104      |
|                         | A*03:97+A*24:03:01G    | A*03:122+A*24:204    |                      |                       |
| A*03:01:01G+A*24:02:09  | A*03:01:14+A*24:02:01G |                      |                      |                       |
| A*03:01:01G+A*24:02:14  | A*03:01:16+A*24:02:01G |                      |                      |                       |
| A*03:01:01G+A*24:02:18  | A*03:97+A*24:03:02     |                      |                      |                       |
| A*03:01:01G+A*24:02:29  | A*03:01:20+A*24:02:01G |                      |                      |                       |
| A*03:01:01G+A*24:02:32  | A*03:01:29+A*24:02:01G |                      |                      |                       |
| A*03:01:01G+A*24:02:58  | A*03:01:12+A*24:02:01G |                      |                      |                       |
| A*03:01:01G+A*24:03:01G | A*03:05:01+A*24:204    | A*03:10+A*24:18      | A*03:65+A*24:207     |                       |
| A*03:01:01G+A*24:05:01G | A*03:22:01+A*24:02:01G |                      |                      |                       |
| A*03:01:01G+A*24:06     | A*03:50+A*24:13:01     | A*03:97+A*24:167     |                      |                       |
| A*03:01:01G+A*24:13:01  | A*03:97+A*24:207       |                      |                      |                       |
| A*03:01:01G+A*24:13:02  | A*03:01:02+A*24:13:01  |                      |                      |                       |
| A*03:01:01G+A*24:15     | A*03:56+A*24:53        | A*03:75+A*24:92      |                      |                       |
| A*03:01:01G+A*24:20     | A*03:72+A*24:88        |                      |                      |                       |
| A*03:01:01G+A*24:22     | A*03:150+A*24:167      |                      |                      |                       |
| A*03:01:01G+A*24:25     | A*03:59+A*24:02:01G    |                      |                      |                       |
| A*03:01:01G+A*24:30     | A*03:09+A*24:02:01G    | A*03:108+A*24:07     |                      |                       |
| A*03:01:01G+A*24:41     | A*03:56+A*24:17        |                      |                      |                       |
| A*03:01:01G+A*24:44     | A*03:08+A*24:19        |                      |                      |                       |
| A*03:01:01G+A*24:46     | A*03:97+A*24:10        |                      |                      |                       |
| A*03:01:01G+A*24:50     | A*03:12+A*24:104       |                      |                      |                       |
| A*03:01:01G+A*24:59     | A*03:127+A*24:56       |                      |                      |                       |
| A*03:01:01G+A*24:62     | A*03:103+A*24:17       |                      |                      |                       |
| A*03:01:01G+A*24:66     | A*03:43+A*24:17        |                      |                      |                       |
| A*03:01:01G+A*24:67     | A*03:24+A*24:191       |                      |                      |                       |
| A*03:01:01G+A*24:71     | A*03:07+A*24:177       | A*03:65+A*23:14:02   | A*03:69N+A*23:14:01  | A*03:133+A*24:56      |
| A*03:01:01G+A*24:72     | A*03:54+A*24:02:01G    |                      |                      |                       |
| A*03:01:01G+A*24:74     | A*03:151+A*24:02:01G   |                      |                      |                       |
| A*03:01:01G+A*24:84N    | A*03:11N+A*24:02:01G   |                      |                      |                       |
| A*03:01:01G+A*24:87     | A*03:01:02+A*24:06     | A*03:50+A*24:13:02   | A*03:66+A*24:13:01   |                       |
| A*03:01:01G+A*24:101    | A*03:14+A*24:02:01G    |                      |                      |                       |
| A*03:01:01G+A*24:109    | A*03:57+A*24:44        | A*03:63+A*24:04      |                      |                       |
| A*03:01:01G+A*24:113    | A*03:53+A*24:02:01G    |                      |                      |                       |
| A*03:01:01G+A*24:114    | A*03:28+A*24:02:01G    |                      |                      |                       |
| A*03:01:01G+A*24:120    | A*03:15+A*24:57        |                      |                      |                       |
| A*03:01:01G+A*24:128    | A*03:71+A*24:02:01G    |                      |                      |                       |
| A*03:01:01G+A*24:130    | A*03:131+A*24:02:01G   |                      |                      |                       |
| A*03:01:01G+A*24:131    | A*03:123+A*24:07       |                      |                      |                       |
| A*03:01:01G+A*24:159    | A*03:130+A*24:02:01G   |                      |                      |                       |
| A*03:01:01G+A*24:160    | A*03:150+A*24:02:01G   |                      |                      |                       |
| A*03:01:01G+A*24:167    | A*03:50+A*24:207       |                      |                      |                       |
| A*03:01:01G+A*24:169    | A*03:93+A*24:02:01G    |                      |                      |                       |
| A*03:01:01G+A*24:170    | A*03:98+A*24:02:01G    |                      |                      |                       |
| A*03:01:01G+A*24:173    | A*03:55+A*24:02:01G    |                      |                      |                       |
| A*03:01:01G+A*24:182    | A*03:80+A*24:02:01G    |                      |                      |                       |
| A*03:01:01G+A*24:190    | A*03:127+A*24:177      |                      |                      |                       |
| A*03:01:01G+A*24:197    | A*03:79+A*24:02:01G    |                      |                      |                       |
| A*03:01:01G+A*24:204    | A*03:02:01+A*24:18     |                      |                      |                       |
| A*03:01:01G+A*25:01:01G | A*03:08+A*25:02        | A*03:12+A*25:03      | A*03:50+A*25:19      | A*03:56+A*25:10       |
|                         | A*03:63+A*25:13        | A*32:04+A*66:01:01G  |                      |                       |
| A*03:01:01G+A*25:01:07  | A*03:01:12+A*25:01:01G |                      |                      |                       |
| A*03:01:01G+A*25:04     | A*03:65+A*25:19        |                      |                      |                       |
| A*03:01:01G+A*25:08     | A*03:79+A*25:01:01G    |                      |                      |                       |
| A*03:01:01G+A*25:11     | A*03:09+A*25:01:01G    | A*03:108+A*25:02     |                      |                       |
| A*03:01:01G+A*25:13     | A*32:04+A*66:12        |                      |                      |                       |
| A*03:01:01G+A*26:01:01G | A*03:08+A*26:13        | A*03:41+A*66:12      | A*03:50+A*26:43:01   | A*03:57+A*66:05       |
|                         | A*03:63+A*26:65        |                      |                      |                       |
| A*03:01:01G+A*26:01:12  | A*03:01:16+A*26:01:01G |                      |                      |                       |
| A*03:01:01G+A*26:01:20  | A*03:01:33+A*26:01:01G |                      |                      |                       |
| A*03:01:01G+A*26:01:21  | A*03:105+A*26:09       |                      |                      |                       |
| A*03:01:01G+A*26:03:01  | A*03:09+A*66:05        | A*03:63+A*26:30      | A*03:108+A*66:01:01G |                       |
| A*03:01:01G+A*26:06     | A*03:80+A*26:03:01     |                      |                      |                       |
| A*03:01:01G+A*26:07:02  | A*03:01:03+A*26:07:01  |                      |                      |                       |
| A*03:01:01G+A*26:08     | A*03:65+A*26:43:01     | A*03:69N+A*26:43:02  |                      |                       |
| A*03:01:01G+A*26:10     | A*03:17:01+A*26:01:01G |                      |                      |                       |
| A*03:01:01G+A*26:12     | A*03:07+A*26:01:01G    |                      |                      |                       |
| A*03:01:01G+A*26:13     | A*03:57+A*66:01:01G    |                      |                      |                       |
| A*03:01:01G+A*26:18     | A*03:07+A*26:28        | A*03:133+A*26:14     |                      |                       |
| A*03:01:01G+A*26:21     | A*03:146+A*26:03:01    |                      |                      |                       |
| A*03:01:01G+A*26:29     | A*03:97+A*26:15        |                      |                      |                       |
| A*03:01:01G+A*26:30     | A*03:108+A*66:12       |                      |                      |                       |
| A*03:01:01G+A*26:36     | A*03:09+A*26:01:01G    | A*03:57+A*26:03:01   | A*03:108+A*26:13     |                       |
| A*03:01:01G+A*26:39     | A*03:145+A*26:01:01G   |                      |                      |                       |
| A*03:01:01G+A*26:43:02  | A*03:01:02+A*26:43:01  |                      |                      |                       |
| A*03:01:01G+A*26:47     | A*03:79+A*26:01:01G    |                      |                      |                       |
| A*03:01:01G+A*26:49     | A*03:97+A*26:01:01G    |                      |                      |                       |
| A*03:01:01G+A*26:51     | A*03:116+A*26:01:01G   |                      |                      |                       |
| A*03:01:01G+A*26:62     | A*03:24+A*26:72        | A*03:107+A*66:01:01G |                      |                       |
| A*03:01:01G+A*26:64     | A*03:70+A*26:01:01G    |                      |                      |                       |
| A*03:01:01G+A*29:01:01G | A*03:01:18+A*29:01:02  |                      |                      |                       |
| A*03:01:01G+A*29:02:01G | A*03:22:01+A*29:09     |                      |                      |                       |
| A*03:01:01G+A*29:02:10  | A*03:01:16+A*29:02:01G |                      |                      |                       |
| A*03:01:01G+A*29:03     | A*03:97+A*29:02:01G    |                      |                      |                       |
| A*03:01:01G+A*29:16     | A*03:27+A*29:01:01G    |                      |                      |                       |
| A*03:01:01G+A*29:20     | A*03:08+A*29:01:01G    |                      |                      |                       |
| A*03:01:01G+A*29:25     | A*03:33+A*29:02:01G    |                      |                      |                       |
| A*03:01:01G+A*29:28     | A*03:50+A*29:01:01G    |                      |                      |                       |
| A*03:01:01G+A*29:32     | A*03:103+A*29:02:01G   |                      |                      |                       |
| A*03:01:01G+A*29:34     | A*03:08+A*29:02:01G    |                      |                      |                       |
| A*03:01:01G+A*29:35     | A*03:139+A*29:02:01G   |                      |                      |                       |
| A*03:01:01G+A*29:40     | A*03:49+A*29:02:01G    |                      |                      |                       |

|                         |                        |                      |                      |                    |
|-------------------------|------------------------|----------------------|----------------------|--------------------|
| A*03:01:01G+A*29:42     | A*03:100+A*29:02:01G   |                      |                      |                    |
| A*03:01:01G+A*29:44     | A*03:56+A*29:02:01G    |                      |                      |                    |
| A*03:01:01G+A*30:01:01G | A*03:22:01+A*30:54     | A*03:43+A*30:26      |                      |                    |
| A*03:01:01G+A*30:01:07  | A*03:01:14+A*30:01:01G |                      |                      |                    |
| A*03:01:01G+A*30:02:01G | A*03:08+A*30:25        |                      |                      |                    |
| A*03:01:01G+A*30:02:05  | A*03:01:02+A*30:02:01G |                      |                      |                    |
| A*03:01:01G+A*30:07     | A*03:30+A*30:02:01G    |                      |                      |                    |
| A*03:01:01G+A*30:16     | A*03:09+A*30:01:01G    |                      |                      |                    |
| A*03:01:01G+A*30:18     | A*03:72+A*30:55        |                      |                      |                    |
| A*03:01:01G+A*30:19     | A*03:92+A*30:01:01G    |                      |                      |                    |
| A*03:01:01G+A*30:30     | A*03:53+A*30:01:01G    |                      |                      |                    |
| A*03:01:01G+A*30:34     | A*03:04:02+A*30:02:01G |                      |                      |                    |
| A*03:01:01G+A*30:35     | A*03:131+A*30:01:01G   |                      |                      |                    |
| A*03:01:01G+A*30:43     | A*03:98+A*30:01:01G    |                      |                      |                    |
| A*03:01:01G+A*30:44     | A*03:08+A*30:16        | A*03:108+A*30:01:01G |                      |                    |
| A*03:01:01G+A*30:46     | A*03:108+A*30:17       |                      |                      |                    |
| A*03:01:01G+A*30:49     | A*03:141+A*30:01:01G   |                      |                      |                    |
| A*03:01:01G+A*30:61     | A*03:17:01+A*30:02:01G |                      |                      |                    |
| A*03:01:01G+A*30:64     | A*03:100+A*30:02:01G   |                      |                      |                    |
| A*03:01:01G+A*30:65     | A*03:128+A*30:01:01G   |                      |                      |                    |
| A*03:01:01G+A*31:01:02G | A*03:103+A*31:06       |                      |                      |                    |
| A*03:01:01G+A*31:01:05  | A*03:01:02+A*31:01:02G |                      |                      |                    |
| A*03:01:01G+A*31:01:15  | A*03:01:24+A*31:01:02G |                      |                      |                    |
| A*03:01:01G+A*31:03     | A*03:63+A*31:04        |                      |                      |                    |
| A*03:01:01G+A*31:05     | A*03:97+A*31:01:02G    |                      |                      |                    |
| A*03:01:01G+A*31:19     | A*03:52+A*31:01:02G    |                      |                      |                    |
| A*03:01:01G+A*31:25     | A*03:105+A*31:01:02G   |                      |                      |                    |
| A*03:01:01G+A*31:30     | A*03:50+A*31:01:02G    |                      |                      |                    |
| A*03:01:01G+A*31:40     | A*03:136+A*31:01:02G   |                      |                      |                    |
| A*03:01:01G+A*32:01:01G | A*03:01:18+A*32:01:12  | A*03:08+A*32:17      | A*03:103+A*32:30     | A*32:04+A*74:13    |
| A*03:01:01G+A*32:01:05  | A*03:01:29+A*32:01:01G |                      |                      |                    |
| A*03:01:01G+A*32:01:06  | A*03:01:02+A*32:01:01G |                      |                      |                    |
| A*03:01:01G+A*32:02     | A*03:65+A*32:06        |                      |                      |                    |
| A*03:01:01G+A*32:07     | A*03:72+A*32:01:01G    |                      |                      |                    |
| A*03:01:01G+A*32:08     | A*03:09+A*32:01:01G    | A*03:108+A*32:17     |                      |                    |
| A*03:01:01G+A*32:13     | A*03:97+A*32:01:01G    |                      |                      |                    |
| A*03:01:01G+A*32:15     | A*03:24+A*32:01:01G    |                      |                      |                    |
| A*03:01:01G+A*32:22     | A*03:65+A*32:01:01G    | A*03:69N+A*32:01:06  |                      |                    |
| A*03:01:01G+A*32:23     | A*03:140+A*32:01:01G   |                      |                      |                    |
| A*03:01:01G+A*32:26     | A*03:105+A*32:01:01G   |                      |                      |                    |
| A*03:01:01G+A*32:28     | A*03:17:01+A*32:01:12  |                      |                      |                    |
| A*03:01:01G+A*32:37     | A*03:93+A*32:01:01G    |                      |                      |                    |
| A*03:01:01G+A*33:01:01G | A*03:01:18+A*33:01:05  | A*03:22:01+A*33:34   | A*03:104+A*33:03:01G |                    |
| A*03:01:01G+A*33:01:02  | A*03:01:03+A*33:01:01G |                      |                      |                    |
| A*03:01:01G+A*33:03:01G | A*03:103+A*33:18       | A*03:133+A*33:28     |                      |                    |
| A*03:01:01G+A*33:03:05  | A*03:01:02+A*33:03:01G |                      |                      |                    |
| A*03:01:01G+A*33:04     | A*03:104+A*33:33       |                      |                      |                    |
| A*03:01:01G+A*33:05     | A*03:125+A*33:01:01G   |                      |                      |                    |
| A*03:01:01G+A*33:06     | A*03:71+A*33:03:01G    |                      |                      |                    |
| A*03:01:01G+A*33:10     | A*03:97+A*33:03:01G    |                      |                      |                    |
| A*03:01:01G+A*33:12     | A*03:83+A*33:03:01G    |                      |                      |                    |
| A*03:01:01G+A*33:13     | A*03:63+A*33:48        |                      |                      |                    |
| A*03:01:01G+A*33:24     | A*03:09+A*33:11        |                      |                      |                    |
| A*03:01:01G+A*33:32:01  | A*03:17:01+A*33:01:05  |                      |                      |                    |
| A*03:01:01G+A*33:32:02  | A*03:17:02+A*33:01:01G |                      |                      |                    |
| A*03:01:01G+A*33:43     | A*03:111+A*33:03:01G   |                      |                      |                    |
| A*03:01:01G+A*33:46     | A*03:140+A*33:03:01G   |                      |                      |                    |
| A*03:01:01G+A*33:47     | A*03:101+A*33:03:01G   |                      |                      |                    |
| A*03:01:01G+A*33:48     | A*03:57+A*33:11        |                      |                      |                    |
| A*03:01:01G+A*34:02:01  | A*03:12+A*34:08        | A*03:63+A*34:09      |                      |                    |
| A*03:01:01G+A*34:02:02  | A*03:01:02+A*34:02:01  |                      |                      |                    |
| A*03:01:01G+A*34:05     | A*03:94+A*34:01:01     |                      |                      |                    |
| A*03:01:01G+A*36:03     | A*03:75+A*36:01        |                      |                      |                    |
| A*03:01:01G+A*66:01:01G | A*03:63+A*66:12        |                      |                      |                    |
| A*03:01:01G+A*66:03     | A*03:08+A*66:02        |                      |                      |                    |
| A*03:01:01G+A*66:04     | A*03:104+A*66:01:01G   |                      |                      |                    |
| A*03:01:01G+A*66:05     | A*03:08+A*66:01:01G    |                      |                      |                    |
| A*03:01:01G+A*66:10     | A*03:97+A*66:01:01G    |                      |                      |                    |
| A*03:01:01G+A*66:13     | A*03:147+A*66:01:01G   |                      |                      |                    |
| A*03:01:01G+A*68:01:01G | A*03:07+A*68:42        | A*03:12+A*68:71      |                      |                    |
| A*03:01:01G+A*68:01:02G | A*03:05:01+A*68:19     | A*03:17:01+A*68:91   | A*03:24+A*68:66      | A*03:50+A*68:08:02 |
|                         | A*03:123+A*68:12       |                      |                      |                    |
| A*03:01:01G+A*68:01:10  | A*03:01:14+A*68:01:01G |                      |                      |                    |
| A*03:01:01G+A*68:02:01G | A*03:07+A*68:54        |                      |                      |                    |
| A*03:01:01G+A*68:03:01  | A*03:08+A*68:01:02G    |                      |                      |                    |
| A*03:01:01G+A*68:03:02  | A*03:01:12+A*68:03:01  |                      |                      |                    |
| A*03:01:01G+A*68:03:03  | A*03:08+A*68:01:01G    |                      |                      |                    |
| A*03:01:01G+A*68:05     | A*03:09+A*68:03:01     | A*03:108+A*68:01:02G |                      |                    |
| A*03:01:01G+A*68:06     | A*03:43+A*68:01:02G    |                      |                      |                    |
| A*03:01:01G+A*68:09     | A*03:65+A*68:08:02     | A*03:108+A*68:02:01G |                      |                    |
| A*03:01:01G+A*68:15     | A*03:09+A*68:31        |                      |                      |                    |
| A*03:01:01G+A*68:21:01  | A*03:04:01+A*68:01:02G |                      |                      |                    |
| A*03:01:01G+A*68:21:02  | A*03:04:02+A*68:01:01G |                      |                      |                    |
| A*03:01:01G+A*68:28     | A*03:01:02+A*68:02:01G |                      |                      |                    |
| A*03:01:01G+A*68:31     | A*03:08+A*68:02:01G    |                      |                      |                    |
| A*03:01:01G+A*68:34     | A*03:98+A*68:02:01G    |                      |                      |                    |
| A*03:01:01G+A*68:38     | A*03:114+A*68:01:02G   |                      |                      |                    |
| A*03:01:01G+A*68:42     | A*03:50+A*68:63        |                      |                      |                    |
| A*03:01:01G+A*68:45     | A*03:72+A*68:71        |                      |                      |                    |
| A*03:01:01G+A*68:51     | A*03:133+A*68:54       |                      |                      |                    |
| A*03:01:01G+A*68:56     | A*03:100+A*68:01:01G   |                      |                      |                    |
| A*03:01:01G+A*68:65     | A*03:97+A*68:01:02G    | A*03:122+A*68:19     |                      |                    |
| A*03:01:01G+A*68:70     | A*03:93+A*68:01:02G    |                      |                      |                    |
| A*03:01:01G+A*68:77     | A*03:04:02+A*68:02:01G |                      |                      |                    |
| A*03:01:01G+A*68:78     | A*03:136+A*68:02:01G   |                      |                      |                    |
| A*03:01:01G+A*68:84     | A*03:57+A*68:01:02G    |                      |                      |                    |
| A*03:01:01G+A*68:85     | A*03:29+A*68:01:02G    |                      |                      |                    |
| A*03:01:01G+A*68:89     | A*03:70+A*68:01:01G    |                      |                      |                    |
| A*03:01:01G+A*74:01:01G | A*03:08+A*74:13        |                      |                      |                    |
| A*03:01:01G+A*74:03     | A*03:110+A*74:01:01G   |                      |                      |                    |
| A*03:01:01G+A*74:04     | A*03:23:01+A*74:01:01G |                      |                      |                    |
| A*03:01:01G+A*74:06     | A*03:09+A*74:01:01G    | A*03:108+A*74:13     |                      |                    |
| A*03:01:01G+A*74:10     | A*03:41+A*74:13        |                      |                      |                    |
| A*03:01:02+A*03:10      | A*03:02:01+A*03:05:02  |                      |                      |                    |
| A*03:01:02+A*03:122     | A*03:05:02+A*03:97     |                      |                      |                    |



|                        |                       |                     |
|------------------------|-----------------------|---------------------|
| A*03:01:02+A*11:01:01G | A*03:65+A*11:24:01    |                     |
| A*03:01:02+A*11:44     | A*03:66+A*11:24:01    |                     |
| A*03:01:02+A*23:01:01G | A*03:22:01+A*23:14:01 |                     |
| A*03:01:02+A*23:02     | A*03:66+A*23:01:01G   |                     |
| A*03:01:02+A*24:02:01G | A*03:65+A*24:13:02    |                     |
| A*03:01:02+A*24:03:01G | A*03:05:02+A*24:20:04 |                     |
| A*03:01:02+A*24:71     | A*03:65+A*23:14:01    |                     |
| A*03:01:02+A*24:87     | A*03:66+A*24:13:02    |                     |
| A*03:01:02+A*24:167    | A*03:66+A*24:20:07    |                     |
| A*03:01:02+A*25:01:01G | A*03:66+A*25:19       |                     |
| A*03:01:02+A*26:01:01G | A*03:50+A*26:43:02    | A*03:66+A*26:43:01  |
| A*03:01:02+A*26:08     | A*03:65+A*26:43:02    |                     |
| A*03:01:02+A*29:28     | A*03:66+A*29:01:01G   |                     |
| A*03:01:02+A*30:07     | A*03:30+A*30:02:05    |                     |
| A*03:01:02+A*30:34     | A*03:04:02+A*30:02:05 |                     |
| A*03:01:02+A*30:61     | A*03:17:01+A*30:02:05 |                     |
| A*03:01:02+A*30:64     | A*03:100+A*30:02:05   |                     |
| A*03:01:02+A*31:01:15  | A*03:01:24+A*31:01:05 |                     |
| A*03:01:02+A*31:05     | A*03:97+A*31:01:05    |                     |
| A*03:01:02+A*31:19     | A*03:52+A*31:01:05    |                     |
| A*03:01:02+A*31:25     | A*03:105+A*31:01:05   |                     |
| A*03:01:02+A*31:30     | A*03:50+A*31:01:05    | A*03:66+A*31:01:02G |
| A*03:01:02+A*31:40     | A*03:136+A*31:01:05   |                     |
| A*03:01:02+A*32:01:05  | A*03:01:29+A*32:01:06 |                     |
| A*03:01:02+A*32:07     | A*03:72+A*32:01:06    |                     |
| A*03:01:02+A*32:08     | A*03:09+A*32:01:06    |                     |
| A*03:01:02+A*32:13     | A*03:97+A*32:01:06    |                     |
| A*03:01:02+A*32:15     | A*03:24+A*32:01:06    |                     |
| A*03:01:02+A*32:22     | A*03:65+A*32:01:06    |                     |
| A*03:01:02+A*32:23     | A*03:140+A*32:01:06   |                     |
| A*03:01:02+A*32:26     | A*03:105+A*32:01:06   |                     |
| A*03:01:02+A*32:37     | A*03:93+A*32:01:06    |                     |
| A*03:01:02+A*33:01:01G | A*03:104+A*33:03:05   |                     |
| A*03:01:02+A*33:06     | A*03:71+A*33:03:05    |                     |
| A*03:01:02+A*33:10     | A*03:97+A*33:03:05    |                     |
| A*03:01:02+A*33:12     | A*03:83+A*33:03:05    |                     |
| A*03:01:02+A*33:43     | A*03:111+A*33:03:05   |                     |
| A*03:01:02+A*33:46     | A*03:140+A*33:03:05   |                     |
| A*03:01:02+A*33:47     | A*03:101+A*33:03:05   |                     |
| A*03:01:02+A*68:01:01G | A*03:50+A*68:08:01    |                     |
| A*03:01:02+A*68:01:02G | A*03:05:02+A*68:19    | A*03:66+A*68:08:02  |
| A*03:01:02+A*68:15     | A*03:108+A*68:28      |                     |
| A*03:01:02+A*68:31     | A*03:08+A*68:28       |                     |
| A*03:01:02+A*68:34     | A*03:98+A*68:28       |                     |
| A*03:01:02+A*68:42     | A*03:66+A*68:63       |                     |
| A*03:01:02+A*68:77     | A*03:04:02+A*68:28    |                     |
| A*03:01:02+A*68:78     | A*03:136+A*68:28      |                     |
| A*03:01:03+A*33:05     | A*03:125+A*33:01:02   |                     |
| A*03:01:03+A*33:32:02  | A*03:17:02+A*33:01:02 |                     |
| A*03:01:12+A*11:01:17  | A*03:01:16+A*11:01:34 |                     |
| A*03:01:12+A*11:01:29  | A*03:01:13+A*11:01:34 |                     |
| A*03:01:12+A*11:01:38  | A*03:01:25+A*11:01:34 |                     |
| A*03:01:12+A*11:01:39  | A*03:01:14+A*11:01:34 |                     |
| A*03:01:12+A*11:06     | A*03:09+A*11:01:34    |                     |
| A*03:01:12+A*11:10     | A*03:24+A*11:01:34    |                     |
| A*03:01:12+A*11:17     | A*03:107+A*11:01:34   |                     |
| A*03:01:12+A*11:19     | A*03:08+A*11:01:34    |                     |
| A*03:01:12+A*11:30     | A*03:87+A*11:01:34    |                     |
| A*03:01:12+A*11:33:02  | A*03:22:01+A*11:01:34 |                     |
| A*03:01:12+A*11:39     | A*03:97+A*11:01:34    |                     |
| A*03:01:12+A*11:73     | A*03:123+A*11:01:34   |                     |
| A*03:01:12+A*11:75     | A*03:58+A*11:01:34    |                     |
| A*03:01:12+A*11:84     | A*03:85+A*11:01:34    |                     |
| A*03:01:12+A*11:105    | A*03:147+A*11:01:34   |                     |
| A*03:01:12+A*11:112    | A*03:150+A*11:01:34   |                     |
| A*03:01:12+A*11:116    | A*03:103+A*11:01:34   |                     |
| A*03:01:12+A*11:119    | A*03:17:01+A*11:01:34 |                     |
| A*03:01:12+A*11:122    | A*03:74+A*11:01:34    |                     |
| A*03:01:12+A*24:02:09  | A*03:01:14+A*24:02:58 |                     |
| A*03:01:12+A*24:02:14  | A*03:01:16+A*24:02:58 |                     |
| A*03:01:12+A*24:02:29  | A*03:01:20+A*24:02:58 |                     |
| A*03:01:12+A*24:02:32  | A*03:01:29+A*24:02:58 |                     |
| A*03:01:12+A*24:05:01G | A*03:22:01+A*24:02:58 |                     |
| A*03:01:12+A*24:25     | A*03:59+A*24:02:58    |                     |
| A*03:01:12+A*24:30     | A*03:09+A*24:02:58    |                     |
| A*03:01:12+A*24:72     | A*03:54+A*24:02:58    |                     |
| A*03:01:12+A*24:74     | A*03:151+A*24:02:58   |                     |
| A*03:01:12+A*24:84N    | A*03:11N+A*24:02:58   |                     |
| A*03:01:12+A*24:101    | A*03:14+A*24:02:58    |                     |
| A*03:01:12+A*24:113    | A*03:53+A*24:02:58    |                     |
| A*03:01:12+A*24:114    | A*03:28+A*24:02:58    |                     |
| A*03:01:12+A*24:128    | A*03:71+A*24:02:58    |                     |
| A*03:01:12+A*24:130    | A*03:131+A*24:02:58   |                     |
| A*03:01:12+A*24:159    | A*03:130+A*24:02:58   |                     |
| A*03:01:12+A*24:160    | A*03:150+A*24:02:58   |                     |
| A*03:01:12+A*24:169    | A*03:93+A*24:02:58    |                     |
| A*03:01:12+A*24:170    | A*03:98+A*24:02:58    |                     |
| A*03:01:12+A*24:173    | A*03:55+A*24:02:58    |                     |
| A*03:01:12+A*24:182    | A*03:80+A*24:02:58    |                     |
| A*03:01:12+A*24:197    | A*03:79+A*24:02:58    |                     |
| A*03:01:12+A*25:08     | A*03:79+A*25:01:07    |                     |
| A*03:01:12+A*25:11     | A*03:09+A*25:01:07    |                     |
| A*03:01:12+A*26:01:01G | A*03:12+A*26:20       |                     |
| A*03:01:12+A*26:16     | A*03:72+A*26:20       |                     |
| A*03:01:12+A*68:05     | A*03:09+A*68:03:02    |                     |
| A*03:01:13+A*11:01:17  | A*03:01:16+A*11:01:29 |                     |
| A*03:01:13+A*11:01:38  | A*03:01:25+A*11:01:29 |                     |
| A*03:01:13+A*11:01:39  | A*03:01:14+A*11:01:29 |                     |
| A*03:01:13+A*11:06     | A*03:09+A*11:01:29    |                     |
| A*03:01:13+A*11:10     | A*03:24+A*11:01:29    |                     |
| A*03:01:13+A*11:17     | A*03:107+A*11:01:29   |                     |
| A*03:01:13+A*11:19     | A*03:08+A*11:01:29    |                     |
| A*03:01:13+A*11:30     | A*03:87+A*11:01:29    |                     |
| A*03:01:13+A*11:33:02  | A*03:22:01+A*11:01:29 |                     |
| A*03:01:13+A*11:39     | A*03:97+A*11:01:29    |                     |

A\*03:01:13+A\*11:73  
A\*03:01:13+A\*11:75  
A\*03:01:13+A\*11:84  
A\*03:01:13+A\*11:105  
A\*03:01:13+A\*11:112  
A\*03:01:13+A\*11:116  
A\*03:01:13+A\*11:119  
A\*03:01:13+A\*11:122  
A\*03:01:14+A\*11:01:17  
A\*03:01:14+A\*11:01:38  
A\*03:01:14+A\*11:06  
A\*03:01:14+A\*11:10  
A\*03:01:14+A\*11:17  
A\*03:01:14+A\*11:19  
A\*03:01:14+A\*11:30  
A\*03:01:14+A\*11:33:02  
A\*03:01:14+A\*11:39  
A\*03:01:14+A\*11:73  
A\*03:01:14+A\*11:75  
A\*03:01:14+A\*11:84  
A\*03:01:14+A\*11:105  
A\*03:01:14+A\*11:112  
A\*03:01:14+A\*11:116  
A\*03:01:14+A\*11:119  
A\*03:01:14+A\*11:122  
A\*03:01:14+A\*24:02:14  
A\*03:01:14+A\*24:02:29  
A\*03:01:14+A\*24:02:32  
A\*03:01:14+A\*24:05:01G  
A\*03:01:14+A\*24:25  
A\*03:01:14+A\*24:30  
A\*03:01:14+A\*24:72  
A\*03:01:14+A\*24:74  
A\*03:01:14+A\*24:84N  
A\*03:01:14+A\*24:101  
A\*03:01:14+A\*24:113  
A\*03:01:14+A\*24:114  
A\*03:01:14+A\*24:128  
A\*03:01:14+A\*24:130  
A\*03:01:14+A\*24:159  
A\*03:01:14+A\*24:160  
A\*03:01:14+A\*24:169  
A\*03:01:14+A\*24:170  
A\*03:01:14+A\*24:173  
A\*03:01:14+A\*24:182  
A\*03:01:14+A\*24:197  
A\*03:01:14+A\*30:16  
A\*03:01:14+A\*30:19  
A\*03:01:14+A\*30:30  
A\*03:01:14+A\*30:35  
A\*03:01:14+A\*30:43  
A\*03:01:14+A\*30:44  
A\*03:01:14+A\*30:49  
A\*03:01:14+A\*30:65  
A\*03:01:14+A\*68:03:03  
A\*03:01:14+A\*68:21:02  
A\*03:01:14+A\*68:56  
A\*03:01:14+A\*68:89  
A\*03:01:16+A\*11:01:38  
A\*03:01:16+A\*11:06  
A\*03:01:16+A\*11:10  
A\*03:01:16+A\*11:17  
A\*03:01:16+A\*11:19  
A\*03:01:16+A\*11:30  
A\*03:01:16+A\*11:33:02  
A\*03:01:16+A\*11:39  
A\*03:01:16+A\*11:73  
A\*03:01:16+A\*11:75  
A\*03:01:16+A\*11:84  
A\*03:01:16+A\*11:105  
A\*03:01:16+A\*11:112  
A\*03:01:16+A\*11:116  
A\*03:01:16+A\*11:119  
A\*03:01:16+A\*11:122  
A\*03:01:16+A\*24:02:29  
A\*03:01:16+A\*24:02:32  
A\*03:01:16+A\*24:05:01G  
A\*03:01:16+A\*24:25  
A\*03:01:16+A\*24:30  
A\*03:01:16+A\*24:72  
A\*03:01:16+A\*24:74  
A\*03:01:16+A\*24:84N  
A\*03:01:16+A\*24:101  
A\*03:01:16+A\*24:113  
A\*03:01:16+A\*24:114  
A\*03:01:16+A\*24:128  
A\*03:01:16+A\*24:130  
A\*03:01:16+A\*24:159  
A\*03:01:16+A\*24:160  
A\*03:01:16+A\*24:169  
A\*03:01:16+A\*24:170  
A\*03:01:16+A\*24:173  
A\*03:01:16+A\*24:182  
A\*03:01:16+A\*24:197  
A\*03:01:16+A\*26:01:20  
A\*03:01:16+A\*26:10  
A\*03:01:16+A\*26:12  
A\*03:01:16+A\*26:36  
A\*03:01:16+A\*26:39  
A\*03:01:16+A\*26:47  
A\*03:01:16+A\*26:49  
A\*03:01:16+A\*26:51  
A\*03:01:16+A\*26:64  
A\*03:01:16+A\*29:03  
A\*03:01:16+A\*29:25

A\*03:123+A\*11:01:29  
A\*03:58+A\*11:01:29  
A\*03:85+A\*11:01:29  
A\*03:147+A\*11:01:29  
A\*03:150+A\*11:01:29  
A\*03:103+A\*11:01:29  
A\*03:17:01+A\*11:01:29  
A\*03:74+A\*11:01:29  
A\*03:01:16+A\*11:01:39  
A\*03:01:25+A\*11:01:39  
A\*03:09+A\*11:01:39  
A\*03:24+A\*11:01:39  
A\*03:107+A\*11:01:39  
A\*03:08+A\*11:01:39  
A\*03:87+A\*11:01:39  
A\*03:22:01+A\*11:01:39  
A\*03:97+A\*11:01:39  
A\*03:123+A\*11:01:39  
A\*03:58+A\*11:01:39  
A\*03:85+A\*11:01:39  
A\*03:147+A\*11:01:39  
A\*03:150+A\*11:01:39  
A\*03:103+A\*11:01:39  
A\*03:17:01+A\*11:01:39  
A\*03:74+A\*11:01:39  
A\*03:01:16+A\*24:02:09  
A\*03:01:20+A\*24:02:09  
A\*03:01:29+A\*24:02:09  
A\*03:22:01+A\*24:02:09  
A\*03:59+A\*24:02:09  
A\*03:09+A\*24:02:09  
A\*03:54+A\*24:02:09  
A\*03:151+A\*24:02:09  
A\*03:11N+A\*24:02:09  
A\*03:14+A\*24:02:09  
A\*03:53+A\*24:02:09  
A\*03:28+A\*24:02:09  
A\*03:71+A\*24:02:09  
A\*03:131+A\*24:02:09  
A\*03:130+A\*24:02:09  
A\*03:150+A\*24:02:09  
A\*03:93+A\*24:02:09  
A\*03:98+A\*24:02:09  
A\*03:55+A\*24:02:09  
A\*03:80+A\*24:02:09  
A\*03:79+A\*24:02:09  
A\*03:09+A\*30:01:07  
A\*03:92+A\*30:01:07  
A\*03:53+A\*30:01:07  
A\*03:131+A\*30:01:07  
A\*03:98+A\*30:01:07  
A\*03:108+A\*30:01:07  
A\*03:141+A\*30:01:07  
A\*03:128+A\*30:01:07  
A\*03:08+A\*68:01:10  
A\*03:04:02+A\*68:01:10  
A\*03:100+A\*68:01:10  
A\*03:70+A\*68:01:10  
A\*03:01:25+A\*11:01:17  
A\*03:09+A\*11:01:17  
A\*03:24+A\*11:01:17  
A\*03:107+A\*11:01:17  
A\*03:08+A\*11:01:17  
A\*03:87+A\*11:01:17  
A\*03:22:01+A\*11:01:17  
A\*03:97+A\*11:01:17  
A\*03:123+A\*11:01:17  
A\*03:58+A\*11:01:17  
A\*03:85+A\*11:01:17  
A\*03:147+A\*11:01:17  
A\*03:150+A\*11:01:17  
A\*03:103+A\*11:01:17  
A\*03:17:01+A\*11:01:17  
A\*03:74+A\*11:01:17  
A\*03:01:20+A\*24:02:14  
A\*03:01:29+A\*24:02:14  
A\*03:22:01+A\*24:02:14  
A\*03:59+A\*24:02:14  
A\*03:09+A\*24:02:14  
A\*03:54+A\*24:02:14  
A\*03:151+A\*24:02:14  
A\*03:11N+A\*24:02:14  
A\*03:14+A\*24:02:14  
A\*03:53+A\*24:02:14  
A\*03:28+A\*24:02:14  
A\*03:71+A\*24:02:14  
A\*03:131+A\*24:02:14  
A\*03:130+A\*24:02:14  
A\*03:150+A\*24:02:14  
A\*03:93+A\*24:02:14  
A\*03:98+A\*24:02:14  
A\*03:55+A\*24:02:14  
A\*03:80+A\*24:02:14  
A\*03:79+A\*24:02:14  
A\*03:01:33+A\*26:01:12  
A\*03:17:01+A\*26:01:12  
A\*03:07+A\*26:01:12  
A\*03:09+A\*26:01:12  
A\*03:145+A\*26:01:12  
A\*03:79+A\*26:01:12  
A\*03:97+A\*26:01:12  
A\*03:116+A\*26:01:12  
A\*03:70+A\*26:01:12  
A\*03:97+A\*29:02:10  
A\*03:33+A\*29:02:10

|                        |                        |                       |
|------------------------|------------------------|-----------------------|
| A*03:01:16+A*29:32     | A*03:103+A*29:02:10    |                       |
| A*03:01:16+A*29:34     | A*03:08+A*29:02:10     |                       |
| A*03:01:16+A*29:35     | A*03:139+A*29:02:10    |                       |
| A*03:01:16+A*29:40     | A*03:49+A*29:02:10     |                       |
| A*03:01:16+A*29:42     | A*03:100+A*29:02:10    |                       |
| A*03:01:16+A*29:44     | A*03:56+A*29:02:10     |                       |
| A*03:01:18+A*11:33:01  | A*03:22:01+A*11:01:28  | A*03:22:02+A*11:01:07 |
| A*03:01:18+A*11:33:02  | A*03:22:02+A*11:01:01G |                       |
| A*03:01:18+A*23:01:01G | A*03:17:01+A*23:03:01  | A*03:22:02+A*23:14:02 |
| A*03:01:18+A*24:05:01G | A*03:22:02+A*24:02:01G |                       |
| A*03:01:18+A*24:17     | A*03:17:01+A*24:20:08  |                       |
| A*03:01:18+A*29:02:01G | A*03:22:02+A*29:09     |                       |
| A*03:01:18+A*30:01:01G | A*03:22:02+A*30:54     |                       |
| A*03:01:18+A*32:28     | A*03:17:01+A*32:01:01G |                       |
| A*03:01:18+A*33:01:01G | A*03:22:02+A*33:34     |                       |
| A*03:01:18+A*33:32:01  | A*03:17:01+A*33:01:01G |                       |
| A*03:01:20+A*24:02:32  | A*03:01:29+A*24:02:29  |                       |
| A*03:01:20+A*24:05:01G | A*03:22:01+A*24:02:29  |                       |
| A*03:01:20+A*24:25     | A*03:59+A*24:02:29     |                       |
| A*03:01:20+A*24:30     | A*03:09+A*24:02:29     |                       |
| A*03:01:20+A*24:72     | A*03:54+A*24:02:29     |                       |
| A*03:01:20+A*24:74     | A*03:151+A*24:02:29    |                       |
| A*03:01:20+A*24:84N    | A*03:11N+A*24:02:29    |                       |
| A*03:01:20+A*24:101    | A*03:14+A*24:02:29     |                       |
| A*03:01:20+A*24:113    | A*03:53+A*24:02:29     |                       |
| A*03:01:20+A*24:114    | A*03:28+A*24:02:29     |                       |
| A*03:01:20+A*24:128    | A*03:71+A*24:02:29     |                       |
| A*03:01:20+A*24:130    | A*03:131+A*24:02:29    |                       |
| A*03:01:20+A*24:159    | A*03:130+A*24:02:29    |                       |
| A*03:01:20+A*24:160    | A*03:150+A*24:02:29    |                       |
| A*03:01:20+A*24:169    | A*03:93+A*24:02:29     |                       |
| A*03:01:20+A*24:170    | A*03:98+A*24:02:29     |                       |
| A*03:01:20+A*24:173    | A*03:55+A*24:02:29     |                       |
| A*03:01:20+A*24:182    | A*03:80+A*24:02:29     |                       |
| A*03:01:20+A*24:197    | A*03:79+A*24:02:29     |                       |
| A*03:01:24+A*31:05     | A*03:97+A*31:01:15     |                       |
| A*03:01:24+A*31:19     | A*03:52+A*31:01:15     |                       |
| A*03:01:24+A*31:25     | A*03:105+A*31:01:15    |                       |
| A*03:01:24+A*31:30     | A*03:50+A*31:01:15     |                       |
| A*03:01:24+A*31:40     | A*03:136+A*31:01:15    |                       |
| A*03:01:25+A*11:06     | A*03:09+A*11:01:38     |                       |
| A*03:01:25+A*11:10     | A*03:24+A*11:01:38     |                       |
| A*03:01:25+A*11:17     | A*03:107+A*11:01:38    |                       |
| A*03:01:25+A*11:19     | A*03:08+A*11:01:38     |                       |
| A*03:01:25+A*11:30     | A*03:87+A*11:01:38     |                       |
| A*03:01:25+A*11:33:02  | A*03:22:01+A*11:01:38  |                       |
| A*03:01:25+A*11:39     | A*03:97+A*11:01:38     |                       |
| A*03:01:25+A*11:73     | A*03:123+A*11:01:38    |                       |
| A*03:01:25+A*11:75     | A*03:58+A*11:01:38     |                       |
| A*03:01:25+A*11:84     | A*03:85+A*11:01:38     |                       |
| A*03:01:25+A*11:105    | A*03:147+A*11:01:38    |                       |
| A*03:01:25+A*11:112    | A*03:150+A*11:01:38    |                       |
| A*03:01:25+A*11:116    | A*03:103+A*11:01:38    |                       |
| A*03:01:25+A*11:119    | A*03:17:01+A*11:01:38  |                       |
| A*03:01:25+A*11:122    | A*03:74+A*11:01:38     |                       |
| A*03:01:29+A*24:05:01G | A*03:22:01+A*24:02:32  |                       |
| A*03:01:29+A*24:25     | A*03:59+A*24:02:32     |                       |
| A*03:01:29+A*24:30     | A*03:09+A*24:02:32     |                       |
| A*03:01:29+A*24:72     | A*03:54+A*24:02:32     |                       |
| A*03:01:29+A*24:74     | A*03:151+A*24:02:32    |                       |
| A*03:01:29+A*24:84N    | A*03:11N+A*24:02:32    |                       |
| A*03:01:29+A*24:101    | A*03:14+A*24:02:32     |                       |
| A*03:01:29+A*24:113    | A*03:53+A*24:02:32     |                       |
| A*03:01:29+A*24:114    | A*03:28+A*24:02:32     |                       |
| A*03:01:29+A*24:128    | A*03:71+A*24:02:32     |                       |
| A*03:01:29+A*24:130    | A*03:131+A*24:02:32    |                       |
| A*03:01:29+A*24:159    | A*03:130+A*24:02:32    |                       |
| A*03:01:29+A*24:160    | A*03:150+A*24:02:32    |                       |
| A*03:01:29+A*24:169    | A*03:93+A*24:02:32     |                       |
| A*03:01:29+A*24:170    | A*03:98+A*24:02:32     |                       |
| A*03:01:29+A*24:173    | A*03:55+A*24:02:32     |                       |
| A*03:01:29+A*24:182    | A*03:80+A*24:02:32     |                       |
| A*03:01:29+A*24:197    | A*03:79+A*24:02:32     |                       |
| A*03:01:29+A*32:07     | A*03:72+A*32:01:05     |                       |
| A*03:01:29+A*32:08     | A*03:09+A*32:01:05     |                       |
| A*03:01:29+A*32:13     | A*03:97+A*32:01:05     |                       |
| A*03:01:29+A*32:15     | A*03:24+A*32:01:05     |                       |
| A*03:01:29+A*32:22     | A*03:65+A*32:01:05     |                       |
| A*03:01:29+A*32:23     | A*03:140+A*32:01:05    |                       |
| A*03:01:29+A*32:26     | A*03:105+A*32:01:05    |                       |
| A*03:01:29+A*32:37     | A*03:93+A*32:01:05     |                       |
| A*03:01:33+A*23:02     | A*03:50+A*23:01:08     |                       |
| A*03:01:33+A*23:05     | A*03:59+A*23:01:08     |                       |
| A*03:01:33+A*23:12     | A*03:09+A*23:01:08     |                       |
| A*03:01:33+A*23:24     | A*03:54+A*23:01:08     |                       |
| A*03:01:33+A*23:25     | A*03:04:01+A*23:01:08  |                       |
| A*03:01:33+A*23:29     | A*03:71+A*23:01:08     |                       |
| A*03:01:33+A*23:42     | A*03:39+A*23:01:08     |                       |
| A*03:01:33+A*26:10     | A*03:17:01+A*26:01:20  |                       |
| A*03:01:33+A*26:12     | A*03:07+A*26:01:20     |                       |
| A*03:01:33+A*26:36     | A*03:09+A*26:01:20     |                       |
| A*03:01:33+A*26:39     | A*03:145+A*26:01:20    |                       |
| A*03:01:33+A*26:47     | A*03:79+A*26:01:20     |                       |
| A*03:01:33+A*26:49     | A*03:97+A*26:01:20     |                       |
| A*03:01:33+A*26:51     | A*03:116+A*26:01:20    |                       |
| A*03:01:33+A*26:64     | A*03:70+A*26:01:20     |                       |
| A*03:02:01+A*03:122    | A*03:10+A*03:97        |                       |
| A*03:02:01+A*11:03     | A*03:65+A*11:60        |                       |
| A*03:02:01+A*11:24:02  | A*03:07+A*11:01:01G    |                       |
| A*03:02:01+A*11:25     | A*03:07+A*11:20        | A*03:65+A*11:31       |
| A*03:02:01+A*11:98     | A*03:32+A*11:01:01G    |                       |
| A*03:02:01+A*11:113    | A*03:82+A*11:02:01G    |                       |
| A*03:02:01+A*23:01:01G | A*03:133+A*24:05:01G   |                       |
| A*03:02:01+A*23:04     | A*03:42+A*24:204       |                       |
| A*03:02:01+A*23:14:02  | A*03:07+A*24:71        | A*03:133+A*24:02:01G  |

|                        |                        |                  |
|------------------------|------------------------|------------------|
| A*03:02:01+A*23:46     | A*03:82+A*23:53        |                  |
| A*03:02:01+A*24:02:27  | A*03:113+A*24:145      |                  |
| A*03:02:01+A*24:03:01G | A*03:10+A*24:204       |                  |
| A*03:02:01+A*24:13:01  | A*03:07+A*24:02:01G    |                  |
| A*03:02:01+A*24:34     | A*03:32+A*24:07        |                  |
| A*03:02:01+A*24:56     | A*03:65+A*24:02:01G    |                  |
| A*03:02:01+A*24:66     | A*03:82+A*24:17        |                  |
| A*03:02:01+A*24:177    | A*03:65+A*24:71        |                  |
| A*03:02:01+A*24:207    | A*03:07+A*24:03:01G    |                  |
| A*03:02:01+A*25:19     | A*03:07+A*25:04        |                  |
| A*03:02:01+A*26:01:01G | A*03:65+A*26:12        |                  |
| A*03:02:01+A*26:01:04  | A*03:02:03+A*26:01:01G |                  |
| A*03:02:01+A*26:28     | A*03:65+A*26:18        |                  |
| A*03:02:01+A*26:43:01  | A*03:07+A*26:08        |                  |
| A*03:02:01+A*30:01:01G | A*03:82+A*30:26        |                  |
| A*03:02:01+A*32:01:01G | A*03:07+A*32:22        | A*03:133+A*32:02 |
| A*03:02:01+A*32:06     | A*03:07+A*32:02        |                  |
| A*03:02:01+A*32:10     | A*03:50+A*32:02        |                  |
| A*03:02:01+A*66:15     | A*03:32+A*66:01:01G    |                  |
| A*03:02:01+A*68:01:02G | A*03:10+A*68:19        |                  |
| A*03:02:01+A*68:02:04  | A*03:02:03+A*68:02:01G |                  |
| A*03:02:01+A*68:04     | A*03:32+A*68:01:01G    |                  |
| A*03:02:01+A*68:06     | A*03:82+A*68:01:02G    |                  |
| A*03:02:01+A*68:08:02  | A*03:07+A*68:09        |                  |
| A*03:02:01+A*68:42     | A*03:65+A*68:01:01G    |                  |
| A*03:02:01+A*68:54     | A*03:65+A*68:02:01G    | A*03:69N+A*68:28 |
| A*03:02:01+A*68:63     | A*03:69N+A*68:08:01    |                  |
| A*03:02:01+A*68:88     | A*03:31+A*68:01:01G    |                  |
| A*03:02:01+A*74:07     | A*03:32+A*74:13        |                  |
| A*03:02:03+A*68:54     | A*03:65+A*68:02:04     |                  |
| A*03:04:01+A*23:02     | A*03:50+A*23:25        |                  |
| A*03:04:01+A*23:05     | A*03:59+A*23:25        |                  |
| A*03:04:01+A*23:12     | A*03:09+A*23:25        |                  |
| A*03:04:01+A*23:24     | A*03:54+A*23:25        |                  |
| A*03:04:01+A*23:29     | A*03:71+A*23:25        |                  |
| A*03:04:01+A*23:42     | A*03:39+A*23:25        |                  |
| A*03:04:01+A*68:03:01  | A*03:08+A*68:21:01     |                  |
| A*03:04:01+A*68:05     | A*03:108+A*68:21:01    |                  |
| A*03:04:01+A*68:06     | A*03:43+A*68:21:01     |                  |
| A*03:04:01+A*68:38     | A*03:114+A*68:21:01    |                  |
| A*03:04:01+A*68:65     | A*03:97+A*68:21:01     |                  |
| A*03:04:01+A*68:70     | A*03:93+A*68:21:01     |                  |
| A*03:04:01+A*68:84     | A*03:57+A*68:21:01     |                  |
| A*03:04:01+A*68:85     | A*03:29+A*68:21:01     |                  |
| A*03:04:02+A*30:07     | A*03:30+A*30:34        |                  |
| A*03:04:02+A*30:61     | A*03:17:01+A*30:34     |                  |
| A*03:04:02+A*30:64     | A*03:100+A*30:34       |                  |
| A*03:04:02+A*68:03:03  | A*03:08+A*68:21:02     |                  |
| A*03:04:02+A*68:15     | A*03:108+A*68:77       |                  |
| A*03:04:02+A*68:31     | A*03:08+A*68:77        |                  |
| A*03:04:02+A*68:34     | A*03:98+A*68:77        |                  |
| A*03:04:02+A*68:56     | A*03:100+A*68:21:02    |                  |
| A*03:04:02+A*68:78     | A*03:136+A*68:77       |                  |
| A*03:04:02+A*68:89     | A*03:70+A*68:21:02     |                  |
| A*03:05:01+A*03:65     | A*03:05:02+A*03:69N    |                  |
| A*03:05:01+A*03:66     | A*03:05:02+A*03:50     |                  |
| A*03:05:01+A*03:76     | A*03:10+A*03:47        |                  |
| A*03:05:01+A*03:82     | A*03:10+A*03:43        |                  |
| A*03:05:01+A*11:24:01  | A*03:05:02+A*11:24:02  |                  |
| A*03:05:01+A*11:27     | A*03:122+A*11:04       |                  |
| A*03:05:01+A*11:38     | A*03:122+A*11:02:01G   |                  |
| A*03:05:01+A*11:39     | A*03:122+A*11:01:01G   |                  |
| A*03:05:01+A*23:01:01G | A*03:122+A*23:04       |                  |
| A*03:05:01+A*23:14:01  | A*03:05:02+A*23:14:02  |                  |
| A*03:05:01+A*24:02:01G | A*03:122+A*24:03:01G   |                  |
| A*03:05:01+A*24:02:18  | A*03:122+A*24:03:02    |                  |
| A*03:05:01+A*24:06     | A*03:122+A*24:167      |                  |
| A*03:05:01+A*24:13:01  | A*03:122+A*24:207      |                  |
| A*03:05:01+A*24:13:02  | A*03:05:02+A*24:13:01  |                  |
| A*03:05:01+A*24:46     | A*03:122+A*24:10       |                  |
| A*03:05:01+A*24:87     | A*03:05:02+A*24:06     |                  |
| A*03:05:01+A*26:29     | A*03:122+A*26:15       |                  |
| A*03:05:01+A*26:43:02  | A*03:05:02+A*26:43:01  |                  |
| A*03:05:01+A*26:49     | A*03:122+A*26:01:01G   |                  |
| A*03:05:01+A*29:03     | A*03:122+A*29:02:01G   |                  |
| A*03:05:01+A*30:02:05  | A*03:05:02+A*30:02:01G |                  |
| A*03:05:01+A*31:01:05  | A*03:05:02+A*31:01:02G |                  |
| A*03:05:01+A*31:05     | A*03:122+A*31:01:02G   |                  |
| A*03:05:01+A*32:01:06  | A*03:05:02+A*32:01:01G |                  |
| A*03:05:01+A*32:13     | A*03:122+A*32:01:01G   |                  |
| A*03:05:01+A*33:03:05  | A*03:05:02+A*33:03:01G |                  |
| A*03:05:01+A*33:10     | A*03:122+A*33:03:01G   |                  |
| A*03:05:01+A*34:02:02  | A*03:05:02+A*34:02:01  |                  |
| A*03:05:01+A*66:10     | A*03:122+A*66:01:01G   |                  |
| A*03:05:01+A*68:28     | A*03:05:02+A*68:02:01G |                  |
| A*03:05:01+A*68:65     | A*03:122+A*68:01:02G   |                  |
| A*03:05:02+A*31:05     | A*03:122+A*31:01:05    |                  |
| A*03:05:02+A*32:13     | A*03:122+A*32:01:06    |                  |
| A*03:05:02+A*33:10     | A*03:122+A*33:03:05    |                  |
| A*03:07+A*11:08        | A*03:66+A*11:31        |                  |
| A*03:07+A*11:24:02     | A*03:127+A*11:31       |                  |
| A*03:07+A*11:98        | A*03:32+A*11:24:02     |                  |
| A*03:07+A*23:14:01     | A*03:133+A*24:13:02    |                  |
| A*03:07+A*23:14:02     | A*03:133+A*24:13:01    |                  |
| A*03:07+A*24:59        | A*03:127+A*24:02:01G   |                  |
| A*03:07+A*24:190       | A*03:127+A*24:71       | A*03:133+A*24:59 |
| A*03:07+A*25:19        | A*32:04+A*66:06        |                  |
| A*03:07+A*26:10        | A*03:17:01+A*26:12     |                  |
| A*03:07+A*26:36        | A*03:09+A*26:12        |                  |
| A*03:07+A*26:39        | A*03:145+A*26:12       |                  |
| A*03:07+A*26:47        | A*03:79+A*26:12        |                  |
| A*03:07+A*26:49        | A*03:97+A*26:12        |                  |
| A*03:07+A*26:51        | A*03:116+A*26:12       |                  |
| A*03:07+A*26:52        | A*03:133+A*26:01:01G   |                  |
| A*03:07+A*26:64        | A*03:70+A*26:12        |                  |

|                     |                      |                      |                      |
|---------------------|----------------------|----------------------|----------------------|
| A*03:07+A*31:01:02G | A*03:133+A*31:41     |                      |                      |
| A*03:07+A*31:43     | A*03:127+A*31:01:02G |                      |                      |
| A*03:07+A*32:01:01G | A*03:133+A*32:06     |                      |                      |
| A*03:07+A*32:10     | A*03:50+A*32:06      |                      |                      |
| A*03:07+A*66:01:01G | A*03:50+A*66:06      |                      |                      |
| A*03:07+A*68:51     | A*03:133+A*68:02:01G |                      |                      |
| A*03:08+A*11:06     | A*03:09+A*11:19      | A*03:63+A*11:18      | A*03:108+A*11:01:01G |
| A*03:08+A*11:10     | A*03:24+A*11:19      |                      |                      |
| A*03:08+A*11:17     | A*03:107+A*11:19     |                      |                      |
| A*03:08+A*11:30     | A*03:87+A*11:19      |                      |                      |
| A*03:08+A*11:33:02  | A*03:22:01+A*11:19   |                      |                      |
| A*03:08+A*11:39     | A*03:97+A*11:19      |                      |                      |
| A*03:08+A*11:73     | A*03:123+A*11:19     |                      |                      |
| A*03:08+A*11:75     | A*03:58+A*11:19      |                      |                      |
| A*03:08+A*11:84     | A*03:85+A*11:19      |                      |                      |
| A*03:08+A*11:105    | A*03:147+A*11:19     |                      |                      |
| A*03:08+A*11:112    | A*03:150+A*11:19     |                      |                      |
| A*03:08+A*11:116    | A*03:103+A*11:19     |                      |                      |
| A*03:08+A*11:119    | A*03:17:01+A*11:19   |                      |                      |
| A*03:08+A*11:122    | A*03:74+A*11:19      |                      |                      |
| A*03:08+A*23:12     | A*03:108+A*23:01:01G |                      |                      |
| A*03:08+A*24:30     | A*03:108+A*24:02:01G |                      |                      |
| A*03:08+A*24:131    | A*03:123+A*24:02:01G |                      |                      |
| A*03:08+A*25:01:01G | A*32:04+A*66:05      |                      |                      |
| A*03:08+A*25:11     | A*03:108+A*25:01:01G | A*26:03:01+A*32:04   |                      |
| A*03:08+A*26:03:01  | A*03:108+A*66:05     |                      |                      |
| A*03:08+A*26:36     | A*03:41+A*26:30      | A*03:108+A*26:01:01G |                      |
| A*03:08+A*26:62     | A*03:107+A*66:05     |                      |                      |
| A*03:08+A*29:03     | A*03:97+A*29:34      |                      |                      |
| A*03:08+A*29:16     | A*03:27+A*29:20      |                      |                      |
| A*03:08+A*29:25     | A*03:33+A*29:34      |                      |                      |
| A*03:08+A*29:28     | A*03:50+A*29:20      |                      |                      |
| A*03:08+A*29:32     | A*03:103+A*29:34     |                      |                      |
| A*03:08+A*29:35     | A*03:139+A*29:34     |                      |                      |
| A*03:08+A*29:40     | A*03:49+A*29:34      |                      |                      |
| A*03:08+A*29:42     | A*03:100+A*29:34     |                      |                      |
| A*03:08+A*29:44     | A*03:56+A*29:34      |                      |                      |
| A*03:08+A*32:01:01G | A*32:04+A*74:01:01G  |                      |                      |
| A*03:08+A*32:08     | A*03:108+A*32:01:01G | A*32:04+A*74:06      |                      |
| A*03:08+A*33:13     | A*03:41+A*33:11      |                      |                      |
| A*03:08+A*33:24     | A*03:108+A*33:11     |                      |                      |
| A*03:08+A*66:04     | A*03:104+A*66:05     |                      |                      |
| A*03:08+A*66:10     | A*03:97+A*66:05      |                      |                      |
| A*03:08+A*66:13     | A*03:147+A*66:05     |                      |                      |
| A*03:08+A*68:05     | A*03:108+A*68:03:01  |                      |                      |
| A*03:08+A*68:06     | A*03:43+A*68:03:01   |                      |                      |
| A*03:08+A*68:15     | A*03:108+A*68:31     |                      |                      |
| A*03:08+A*68:34     | A*03:98+A*68:31      |                      |                      |
| A*03:08+A*68:38     | A*03:114+A*68:03:01  |                      |                      |
| A*03:08+A*68:56     | A*03:100+A*68:03:03  |                      |                      |
| A*03:08+A*68:65     | A*03:97+A*68:03:01   |                      |                      |
| A*03:08+A*68:70     | A*03:93+A*68:03:01   |                      |                      |
| A*03:08+A*68:78     | A*03:136+A*68:31     |                      |                      |
| A*03:08+A*68:84     | A*03:57+A*68:03:01   |                      |                      |
| A*03:08+A*68:85     | A*03:29+A*68:03:01   |                      |                      |
| A*03:08+A*68:89     | A*03:70+A*68:03:03   |                      |                      |
| A*03:08+A*74:06     | A*03:108+A*74:01:01G |                      |                      |
| A*03:08+A*74:10     | A*03:41+A*74:01:01G  |                      |                      |
| A*03:09+A*11:10     | A*03:24+A*11:06      |                      |                      |
| A*03:09+A*11:17     | A*03:107+A*11:06     |                      |                      |
| A*03:09+A*11:30     | A*03:87+A*11:06      |                      |                      |
| A*03:09+A*11:33:02  | A*03:22:01+A*11:06   |                      |                      |
| A*03:09+A*11:39     | A*03:97+A*11:06      |                      |                      |
| A*03:09+A*11:73     | A*03:123+A*11:06     |                      |                      |
| A*03:09+A*11:75     | A*03:58+A*11:06      |                      |                      |
| A*03:09+A*11:84     | A*03:85+A*11:06      |                      |                      |
| A*03:09+A*11:105    | A*03:147+A*11:06     |                      |                      |
| A*03:09+A*11:112    | A*03:150+A*11:06     |                      |                      |
| A*03:09+A*11:116    | A*03:103+A*11:06     |                      |                      |
| A*03:09+A*11:119    | A*03:17:01+A*11:06   |                      |                      |
| A*03:09+A*11:122    | A*03:74+A*11:06      |                      |                      |
| A*03:09+A*23:02     | A*03:50+A*23:12      |                      |                      |
| A*03:09+A*23:05     | A*03:59+A*23:12      |                      |                      |
| A*03:09+A*23:24     | A*03:54+A*23:12      |                      |                      |
| A*03:09+A*23:29     | A*03:71+A*23:12      |                      |                      |
| A*03:09+A*23:42     | A*03:39+A*23:12      |                      |                      |
| A*03:09+A*24:04     | A*03:57+A*24:28      |                      |                      |
| A*03:09+A*24:05:01G | A*03:22:01+A*24:30   |                      |                      |
| A*03:09+A*24:25     | A*03:59+A*24:30      |                      |                      |
| A*03:09+A*24:44     | A*03:63+A*24:28      | A*03:108+A*24:19     |                      |
| A*03:09+A*24:72     | A*03:54+A*24:30      |                      |                      |
| A*03:09+A*24:74     | A*03:151+A*24:30     |                      |                      |
| A*03:09+A*24:84N    | A*03:11N+A*24:30     |                      |                      |
| A*03:09+A*24:101    | A*03:14+A*24:30      |                      |                      |
| A*03:09+A*24:113    | A*03:53+A*24:30      |                      |                      |
| A*03:09+A*24:114    | A*03:28+A*24:30      |                      |                      |
| A*03:09+A*24:128    | A*03:71+A*24:30      |                      |                      |
| A*03:09+A*24:130    | A*03:131+A*24:30     |                      |                      |
| A*03:09+A*24:159    | A*03:130+A*24:30     |                      |                      |
| A*03:09+A*24:160    | A*03:150+A*24:30     |                      |                      |
| A*03:09+A*24:169    | A*03:93+A*24:30      |                      |                      |
| A*03:09+A*24:170    | A*03:98+A*24:30      |                      |                      |
| A*03:09+A*24:173    | A*03:55+A*24:30      |                      |                      |
| A*03:09+A*24:182    | A*03:80+A*24:30      |                      |                      |
| A*03:09+A*24:197    | A*03:79+A*24:30      |                      |                      |
| A*03:09+A*25:08     | A*03:79+A*25:11      |                      |                      |
| A*03:09+A*26:10     | A*03:17:01+A*26:36   |                      |                      |
| A*03:09+A*26:39     | A*03:145+A*26:36     |                      |                      |
| A*03:09+A*26:47     | A*03:79+A*26:36      |                      |                      |
| A*03:09+A*26:49     | A*03:97+A*26:36      |                      |                      |
| A*03:09+A*26:51     | A*03:116+A*26:36     |                      |                      |
| A*03:09+A*26:64     | A*03:70+A*26:36      |                      |                      |
| A*03:09+A*26:65     | A*03:57+A*26:30      |                      |                      |
| A*03:09+A*29:20     | A*03:108+A*29:01:01G |                      |                      |
| A*03:09+A*29:34     | A*03:57+A*29:19      | A*03:108+A*29:02:01G |                      |

|                       |                      |
|-----------------------|----------------------|
| A*03:09+A*30:02:01G   | A*03:108+A*30:25     |
| A*03:09+A*30:19       | A*03:92+A*30:16      |
| A*03:09+A*30:30       | A*03:53+A*30:16      |
| A*03:09+A*30:35       | A*03:131+A*30:16     |
| A*03:09+A*30:43       | A*03:98+A*30:16      |
| A*03:09+A*30:44       | A*03:108+A*30:16     |
| A*03:09+A*30:49       | A*03:141+A*30:16     |
| A*03:09+A*30:57       | A*03:57+A*30:13      |
| A*03:09+A*30:65       | A*03:128+A*30:16     |
| A*03:09+A*32:07       | A*03:72+A*32:08      |
| A*03:09+A*32:13       | A*03:97+A*32:08      |
| A*03:09+A*32:15       | A*03:24+A*32:08      |
| A*03:09+A*32:22       | A*03:65+A*32:08      |
| A*03:09+A*32:23       | A*03:140+A*32:08     |
| A*03:09+A*32:26       | A*03:105+A*32:08     |
| A*03:09+A*32:37       | A*03:93+A*32:08      |
| A*03:09+A*33:48       | A*03:57+A*33:24      |
| A*03:09+A*66:03       | A*03:108+A*66:02     |
| A*03:09+A*68:03:03    | A*03:108+A*68:01:01G |
| A*03:09+A*74:03       | A*03:110+A*74:06     |
| A*03:09+A*74:04       | A*03:23:01+A*74:06   |
| A*03:10+A*23:01:01G   | A*03:42+A*24:02:01G  |
| A*03:10+A*23:01:04    | A*03:42+A*24:02:24   |
| A*03:10+A*23:01:10    | A*03:42+A*24:02:47   |
| A*03:10+A*23:03:02    | A*03:42+A*24:21:01   |
| A*03:10+A*23:04       | A*03:42+A*24:03:01G  |
| A*03:10+A*23:05       | A*03:42+A*24:25      |
| A*03:10+A*23:10       | A*03:42+A*24:46      |
| A*03:10+A*23:12       | A*03:42+A*24:30      |
| A*03:10+A*23:13       | A*03:42+A*24:07      |
| A*03:10+A*23:24       | A*03:42+A*24:72      |
| A*03:10+A*23:28       | A*03:42+A*24:77      |
| A*03:10+A*23:29       | A*03:42+A*24:128     |
| A*03:10+A*23:36       | A*03:42+A*24:32      |
| A*03:10+A*23:46       | A*03:42+A*24:66      |
| A*03:10+A*23:51       | A*03:42+A*24:156     |
| A*03:10+A*23:53       | A*03:42+A*24:17      |
| A*03:11N+A*24:05:01G  | A*03:22:01+A*24:84N  |
| A*03:11N+A*24:25      | A*03:59+A*24:84N     |
| A*03:11N+A*24:72      | A*03:54+A*24:84N     |
| A*03:11N+A*24:74      | A*03:151+A*24:84N    |
| A*03:11N+A*24:101     | A*03:14+A*24:84N     |
| A*03:11N+A*24:113     | A*03:53+A*24:84N     |
| A*03:11N+A*24:114     | A*03:28+A*24:84N     |
| A*03:11N+A*24:128     | A*03:71+A*24:84N     |
| A*03:11N+A*24:130     | A*03:131+A*24:84N    |
| A*03:11N+A*24:159     | A*03:130+A*24:84N    |
| A*03:11N+A*24:160     | A*03:150+A*24:84N    |
| A*03:11N+A*24:169     | A*03:93+A*24:84N     |
| A*03:11N+A*24:170     | A*03:98+A*24:84N     |
| A*03:11N+A*24:173     | A*03:55+A*24:84N     |
| A*03:11N+A*24:182     | A*03:80+A*24:84N     |
| A*03:11N+A*24:197     | A*03:79+A*24:84N     |
| A*03:12+A*11:88       | A*03:72+A*11:01:01G  |
| A*03:12+A*24:02:01G   | A*03:72+A*24:50      |
| A*03:12+A*26:16       | A*03:72+A*26:01:01G  |
| A*03:12+A*68:45       | A*03:72+A*68:01:01G  |
| A*03:14+A*24:05:01G   | A*03:22:01+A*24:101  |
| A*03:14+A*24:25       | A*03:59+A*24:101     |
| A*03:14+A*24:72       | A*03:54+A*24:101     |
| A*03:14+A*24:74       | A*03:151+A*24:101    |
| A*03:14+A*24:113      | A*03:53+A*24:101     |
| A*03:14+A*24:114      | A*03:28+A*24:101     |
| A*03:14+A*24:128      | A*03:71+A*24:101     |
| A*03:14+A*24:130      | A*03:131+A*24:101    |
| A*03:14+A*24:159      | A*03:130+A*24:101    |
| A*03:14+A*24:160      | A*03:150+A*24:101    |
| A*03:14+A*24:169      | A*03:93+A*24:101     |
| A*03:14+A*24:170      | A*03:98+A*24:101     |
| A*03:14+A*24:173      | A*03:55+A*24:101     |
| A*03:14+A*24:182      | A*03:80+A*24:101     |
| A*03:14+A*24:197      | A*03:79+A*24:101     |
| A*03:15+A*23:01:01G   | A*03:19+A*23:53      |
| A*03:15+A*24:02:01G   | A*03:19+A*24:17      |
| A*03:15+A*24:15       | A*03:56+A*24:02:01G  |
| A*03:17:01+A*11:10    | A*03:24+A*11:119     |
| A*03:17:01+A*11:17    | A*03:107+A*11:119    |
| A*03:17:01+A*11:30    | A*03:87+A*11:119     |
| A*03:17:01+A*11:33:02 | A*03:22:01+A*11:119  |
| A*03:17:01+A*11:39    | A*03:97+A*11:119     |
| A*03:17:01+A*11:73    | A*03:123+A*11:119    |
| A*03:17:01+A*11:75    | A*03:58+A*11:119     |
| A*03:17:01+A*11:84    | A*03:85+A*11:119     |
| A*03:17:01+A*11:105   | A*03:147+A*11:119    |
| A*03:17:01+A*11:112   | A*03:150+A*11:119    |
| A*03:17:01+A*11:116   | A*03:103+A*11:119    |
| A*03:17:01+A*11:122   | A*03:74+A*11:119     |
| A*03:17:01+A*26:39    | A*03:145+A*26:10     |
| A*03:17:01+A*26:47    | A*03:79+A*26:10      |
| A*03:17:01+A*26:49    | A*03:97+A*26:10      |
| A*03:17:01+A*26:51    | A*03:116+A*26:10     |
| A*03:17:01+A*26:64    | A*03:70+A*26:10      |
| A*03:17:01+A*30:07    | A*03:30+A*30:61      |
| A*03:17:01+A*30:64    | A*03:100+A*30:61     |
| A*03:17:02+A*33:05    | A*03:125+A*33:32:02  |
| A*03:22:01+A*11:10    | A*03:24+A*11:33:02   |
| A*03:22:01+A*11:17    | A*03:107+A*11:33:02  |
| A*03:22:01+A*11:30    | A*03:87+A*11:33:02   |
| A*03:22:01+A*11:39    | A*03:97+A*11:33:02   |
| A*03:22:01+A*11:73    | A*03:123+A*11:33:02  |
| A*03:22:01+A*11:75    | A*03:58+A*11:33:02   |
| A*03:22:01+A*11:84    | A*03:85+A*11:33:02   |
| A*03:22:01+A*11:105   | A*03:147+A*11:33:02  |
| A*03:22:01+A*11:112   | A*03:150+A*11:33:02  |
| A*03:22:01+A*11:116   | A*03:103+A*11:33:02  |

|                        |                       |
|------------------------|-----------------------|
| A*03:22:01+A*11:122    | A*03:74+A*11:33:02    |
| A*03:22:01+A*23:03:01  | A*03:22:02+A*23:03:02 |
| A*03:22:01+A*24:25     | A*03:59+A*24:05:01G   |
| A*03:22:01+A*24:71     | A*03:65+A*23:01:01G   |
| A*03:22:01+A*24:72     | A*03:54+A*24:05:01G   |
| A*03:22:01+A*24:74     | A*03:151+A*24:05:01G  |
| A*03:22:01+A*24:113    | A*03:53+A*24:05:01G   |
| A*03:22:01+A*24:114    | A*03:28+A*24:05:01G   |
| A*03:22:01+A*24:128    | A*03:71+A*24:05:01G   |
| A*03:22:01+A*24:130    | A*03:131+A*24:05:01G  |
| A*03:22:01+A*24:159    | A*03:130+A*24:05:01G  |
| A*03:22:01+A*24:160    | A*03:150+A*24:05:01G  |
| A*03:22:01+A*24:169    | A*03:93+A*24:05:01G   |
| A*03:22:01+A*24:170    | A*03:98+A*24:05:01G   |
| A*03:22:01+A*24:173    | A*03:55+A*24:05:01G   |
| A*03:22:01+A*24:182    | A*03:80+A*24:05:01G   |
| A*03:22:01+A*24:197    | A*03:79+A*24:05:01G   |
| A*03:22:01+A*29:01:01G | A*03:22:02+A*29:01:02 |
| A*03:22:01+A*32:01:01G | A*03:22:02+A*32:01:12 |
| A*03:22:01+A*33:01:01G | A*03:22:02+A*33:01:05 |
| A*03:23:01+A*11:40     | A*03:57+A*11:121      |
| A*03:23:01+A*26:01:01G | A*03:24+A*26:07:02    |
| A*03:23:01+A*26:07:01  | A*03:23:02+A*26:07:02 |
| A*03:23:01+A*33:01:01G | A*03:23:02+A*33:01:02 |
| A*03:23:01+A*33:03:01G | A*03:24+A*33:08       |
| A*03:23:01+A*33:21     | A*03:30+A*33:09       |
| A*03:23:01+A*33:53     | A*03:30+A*33:08       |
| A*03:23:01+A*74:03     | A*03:110+A*74:04      |
| A*03:23:02+A*24:20     | A*03:30+A*24:08       |
| A*03:23:02+A*24:28     | A*03:30+A*24:89       |
| A*03:23:02+A*24:30     | A*03:30+A*24:42       |
| A*03:23:02+A*26:01:01G | A*03:24+A*26:07:01    |
| A*03:24+A*11:17        | A*03:107+A*11:10      |
| A*03:24+A*11:30        | A*03:87+A*11:10       |
| A*03:24+A*11:39        | A*03:97+A*11:10       |
| A*03:24+A*11:73        | A*03:123+A*11:10      |
| A*03:24+A*11:75        | A*03:58+A*11:10       |
| A*03:24+A*11:84        | A*03:85+A*11:10       |
| A*03:24+A*11:105       | A*03:147+A*11:10      |
| A*03:24+A*11:112       | A*03:150+A*11:10      |
| A*03:24+A*11:116       | A*03:103+A*11:10      |
| A*03:24+A*11:122       | A*03:74+A*11:10       |
| A*03:24+A*23:13        | A*03:30+A*24:24       |
| A*03:24+A*24:02:01G    | A*03:30+A*24:67       |
| A*03:24+A*32:07        | A*03:72+A*32:15       |
| A*03:24+A*32:13        | A*03:97+A*32:15       |
| A*03:24+A*32:22        | A*03:65+A*32:15       |
| A*03:24+A*32:23        | A*03:140+A*32:15      |
| A*03:24+A*32:26        | A*03:105+A*32:15      |
| A*03:24+A*32:37        | A*03:93+A*32:15       |
| A*03:24+A*33:53        | A*03:30+A*33:03:01G   |
| A*03:27+A*29:28        | A*03:50+A*29:16       |
| A*03:28+A*24:25        | A*03:59+A*24:114      |
| A*03:28+A*24:72        | A*03:54+A*24:114      |
| A*03:28+A*24:74        | A*03:151+A*24:114     |
| A*03:28+A*24:113       | A*03:53+A*24:114      |
| A*03:28+A*24:128       | A*03:71+A*24:114      |
| A*03:28+A*24:130       | A*03:131+A*24:114     |
| A*03:28+A*24:159       | A*03:130+A*24:114     |
| A*03:28+A*24:160       | A*03:150+A*24:114     |
| A*03:28+A*24:169       | A*03:93+A*24:114      |
| A*03:28+A*24:170       | A*03:98+A*24:114      |
| A*03:28+A*24:173       | A*03:55+A*24:114      |
| A*03:28+A*24:182       | A*03:80+A*24:114      |
| A*03:28+A*24:197       | A*03:79+A*24:114      |
| A*03:29+A*68:05        | A*03:108+A*68:85      |
| A*03:29+A*68:06        | A*03:43+A*68:85       |
| A*03:29+A*68:38        | A*03:114+A*68:85      |
| A*03:29+A*68:65        | A*03:97+A*68:85       |
| A*03:29+A*68:70        | A*03:93+A*68:85       |
| A*03:29+A*68:84        | A*03:57+A*68:85       |
| A*03:30+A*30:64        | A*03:100+A*30:07      |
| A*03:31+A*68:04        | A*03:32+A*68:88       |
| A*03:31+A*68:42        | A*03:65+A*68:88       |
| A*03:32+A*68:42        | A*03:65+A*68:04       |
| A*03:33+A*29:03        | A*03:97+A*29:25       |
| A*03:33+A*29:32        | A*03:103+A*29:25      |
| A*03:33+A*29:35        | A*03:139+A*29:25      |
| A*03:33+A*29:40        | A*03:49+A*29:25       |
| A*03:33+A*29:42        | A*03:100+A*29:25      |
| A*03:33+A*29:44        | A*03:56+A*29:25       |
| A*03:39+A*23:02        | A*03:50+A*23:42       |
| A*03:39+A*23:05        | A*03:59+A*23:42       |
| A*03:39+A*23:24        | A*03:54+A*23:42       |
| A*03:39+A*23:29        | A*03:71+A*23:42       |
| A*03:41+A*11:01:01G    | A*03:63+A*11:40       |
| A*03:41+A*11:18        | A*03:108+A*11:40      |
| A*03:41+A*24:19        | A*03:63+A*24:109      |
| A*03:41+A*24:28        | A*03:108+A*24:109     |
| A*03:41+A*24:32        | A*24:109+A*32:04      |
| A*03:41+A*25:13        | A*26:01:01G+A*32:04   |
| A*03:41+A*32:01:01G    | A*32:04+A*74:10       |
| A*03:41+A*33:24        | A*03:108+A*33:13      |
| A*03:41+A*66:01:01G    | A*03:63+A*26:01:01G   |
| A*03:41+A*66:09        | A*03:63+A*26:22       |
| A*03:41+A*66:10        | A*03:63+A*26:49       |
| A*03:41+A*74:06        | A*03:108+A*74:10      |
| A*03:43+A*03:76        | A*03:47+A*03:82       |
| A*03:43+A*11:16        | A*03:123+A*11:113     |
| A*03:43+A*11:38        | A*03:97+A*11:113      |
| A*03:43+A*24:41        | A*03:56+A*24:66       |
| A*03:43+A*24:62        | A*03:103+A*24:66      |
| A*03:43+A*24:204       | A*03:82+A*24:18       |
| A*03:43+A*68:05        | A*03:108+A*68:06      |
| A*03:43+A*68:38        | A*03:114+A*68:06      |

|                     |                     |                  |
|---------------------|---------------------|------------------|
| A*03:43+A*68:65     | A*03:97+A*68:06     |                  |
| A*03:43+A*68:70     | A*03:93+A*68:06     |                  |
| A*03:43+A*68:84     | A*03:57+A*68:06     |                  |
| A*03:47+A*24:204    | A*03:76+A*24:18     |                  |
| A*03:49+A*29:03     | A*03:97+A*29:40     |                  |
| A*03:49+A*29:32     | A*03:103+A*29:40    |                  |
| A*03:49+A*29:35     | A*03:139+A*29:40    |                  |
| A*03:49+A*29:42     | A*03:100+A*29:40    |                  |
| A*03:49+A*29:44     | A*03:56+A*29:40     |                  |
| A*03:50+A*03:65     | A*03:66+A*03:69N    |                  |
| A*03:50+A*11:01:01G | A*03:69N+A*11:44    |                  |
| A*03:50+A*11:20     | A*03:69N+A*11:08    |                  |
| A*03:50+A*23:05     | A*03:59+A*23:02     |                  |
| A*03:50+A*23:14:01  | A*03:66+A*23:14:02  |                  |
| A*03:50+A*23:24     | A*03:54+A*23:02     |                  |
| A*03:50+A*23:29     | A*03:71+A*23:02     |                  |
| A*03:50+A*24:02:01G | A*03:65+A*24:06     | A*03:69N+A*24:87 |
| A*03:50+A*24:03:01G | A*03:65+A*24:167    |                  |
| A*03:50+A*24:87     | A*03:66+A*24:06     |                  |
| A*03:50+A*25:04     | A*03:65+A*25:01:01G |                  |
| A*03:50+A*26:08     | A*03:65+A*26:01:01G |                  |
| A*03:50+A*26:48     | A*03:65+A*26:69     |                  |
| A*03:50+A*30:02:05  | A*03:66+A*30:02:01G |                  |
| A*03:50+A*31:05     | A*03:97+A*31:30     |                  |
| A*03:50+A*31:19     | A*03:52+A*31:30     |                  |
| A*03:50+A*31:25     | A*03:105+A*31:30    |                  |
| A*03:50+A*31:40     | A*03:136+A*31:30    |                  |
| A*03:50+A*32:01:01G | A*03:133+A*32:10    |                  |
| A*03:50+A*32:01:06  | A*03:66+A*32:01:01G |                  |
| A*03:50+A*33:03:05  | A*03:66+A*33:03:01G |                  |
| A*03:50+A*34:02:02  | A*03:66+A*34:02:01  |                  |
| A*03:50+A*68:09     | A*03:65+A*68:01:02G |                  |
| A*03:50+A*68:28     | A*03:66+A*68:02:01G |                  |
| A*03:52+A*31:05     | A*03:97+A*31:19     |                  |
| A*03:52+A*31:25     | A*03:105+A*31:19    |                  |
| A*03:52+A*31:40     | A*03:136+A*31:19    |                  |
| A*03:53+A*24:25     | A*03:59+A*24:113    |                  |
| A*03:53+A*24:72     | A*03:54+A*24:113    |                  |
| A*03:53+A*24:74     | A*03:151+A*24:113   |                  |
| A*03:53+A*24:128    | A*03:71+A*24:113    |                  |
| A*03:53+A*24:130    | A*03:131+A*24:113   |                  |
| A*03:53+A*24:159    | A*03:130+A*24:113   |                  |
| A*03:53+A*24:160    | A*03:150+A*24:113   |                  |
| A*03:53+A*24:169    | A*03:93+A*24:113    |                  |
| A*03:53+A*24:170    | A*03:98+A*24:113    |                  |
| A*03:53+A*24:173    | A*03:55+A*24:113    |                  |
| A*03:53+A*24:182    | A*03:80+A*24:113    |                  |
| A*03:53+A*24:197    | A*03:79+A*24:113    |                  |
| A*03:53+A*30:19     | A*03:92+A*30:30     |                  |
| A*03:53+A*30:35     | A*03:131+A*30:30    |                  |
| A*03:53+A*30:43     | A*03:98+A*30:30     |                  |
| A*03:53+A*30:44     | A*03:108+A*30:30    |                  |
| A*03:53+A*30:49     | A*03:141+A*30:30    |                  |
| A*03:53+A*30:65     | A*03:128+A*30:30    |                  |
| A*03:54+A*23:05     | A*03:59+A*23:24     |                  |
| A*03:54+A*23:29     | A*03:71+A*23:24     |                  |
| A*03:54+A*24:25     | A*03:59+A*24:72     |                  |
| A*03:54+A*24:74     | A*03:151+A*24:72    |                  |
| A*03:54+A*24:128    | A*03:71+A*24:72     |                  |
| A*03:54+A*24:130    | A*03:131+A*24:72    |                  |
| A*03:54+A*24:159    | A*03:130+A*24:72    |                  |
| A*03:54+A*24:160    | A*03:150+A*24:72    |                  |
| A*03:54+A*24:169    | A*03:93+A*24:72     |                  |
| A*03:54+A*24:170    | A*03:98+A*24:72     |                  |
| A*03:54+A*24:173    | A*03:55+A*24:72     |                  |
| A*03:54+A*24:182    | A*03:80+A*24:72     |                  |
| A*03:54+A*24:197    | A*03:79+A*24:72     |                  |
| A*03:55+A*24:25     | A*03:59+A*24:173    |                  |
| A*03:55+A*24:74     | A*03:151+A*24:173   |                  |
| A*03:55+A*24:128    | A*03:71+A*24:173    |                  |
| A*03:55+A*24:130    | A*03:131+A*24:173   |                  |
| A*03:55+A*24:159    | A*03:130+A*24:173   |                  |
| A*03:55+A*24:160    | A*03:150+A*24:173   |                  |
| A*03:55+A*24:169    | A*03:93+A*24:173    |                  |
| A*03:55+A*24:170    | A*03:98+A*24:173    |                  |
| A*03:55+A*24:182    | A*03:80+A*24:173    |                  |
| A*03:55+A*24:197    | A*03:79+A*24:173    |                  |
| A*03:56+A*24:62     | A*03:103+A*24:41    |                  |
| A*03:56+A*29:03     | A*03:97+A*29:44     |                  |
| A*03:56+A*29:32     | A*03:103+A*29:44    |                  |
| A*03:56+A*29:35     | A*03:139+A*29:44    |                  |
| A*03:56+A*29:42     | A*03:100+A*29:44    |                  |
| A*03:56+A*33:40     | A*03:99+A*33:03:01G |                  |
| A*03:56+A*68:76     | A*03:99+A*68:01:02G |                  |
| A*03:57+A*25:01:01G | A*26:13+A*32:04     |                  |
| A*03:57+A*26:06     | A*03:80+A*26:36     |                  |
| A*03:57+A*26:21     | A*03:146+A*26:36    |                  |
| A*03:57+A*26:62     | A*03:107+A*26:13    |                  |
| A*03:57+A*32:24     | A*03:107+A*32:17    |                  |
| A*03:57+A*66:04     | A*03:104+A*26:13    |                  |
| A*03:57+A*66:10     | A*03:97+A*26:13     |                  |
| A*03:57+A*66:13     | A*03:147+A*26:13    |                  |
| A*03:57+A*68:05     | A*03:108+A*68:84    |                  |
| A*03:57+A*68:38     | A*03:114+A*68:84    |                  |
| A*03:57+A*68:65     | A*03:97+A*68:84     |                  |
| A*03:57+A*68:70     | A*03:93+A*68:84     |                  |
| A*03:58+A*11:17     | A*03:107+A*11:75    |                  |
| A*03:58+A*11:30     | A*03:87+A*11:75     |                  |
| A*03:58+A*11:39     | A*03:97+A*11:75     |                  |
| A*03:58+A*11:73     | A*03:123+A*11:75    |                  |
| A*03:58+A*11:84     | A*03:85+A*11:75     |                  |
| A*03:58+A*11:105    | A*03:147+A*11:75    |                  |
| A*03:58+A*11:112    | A*03:150+A*11:75    |                  |
| A*03:58+A*11:116    | A*03:103+A*11:75    |                  |
| A*03:58+A*11:122    | A*03:74+A*11:75     |                  |



|                     |                     |
|---------------------|---------------------|
| A*03:59+A*23:29     | A*03:71+A*23:05     |
| A*03:59+A*24:74     | A*03:151+A*24:25    |
| A*03:59+A*24:128    | A*03:71+A*24:25     |
| A*03:59+A*24:130    | A*03:131+A*24:25    |
| A*03:59+A*24:159    | A*03:130+A*24:25    |
| A*03:59+A*24:160    | A*03:150+A*24:25    |
| A*03:59+A*24:169    | A*03:93+A*24:25     |
| A*03:59+A*24:170    | A*03:98+A*24:25     |
| A*03:59+A*24:182    | A*03:80+A*24:25     |
| A*03:59+A*24:197    | A*03:79+A*24:25     |
| A*03:63+A*24:32     | A*24:19+A*32:04     |
| A*03:65+A*11:08     | A*03:66+A*11:20     |
| A*03:65+A*11:44     | A*03:66+A*11:01:01G |
| A*03:65+A*24:87     | A*03:66+A*24:02:01G |
| A*03:65+A*29:02:01G | A*03:133+A*29:05    |
| A*03:65+A*30:02:01G | A*03:69N+A*30:02:05 |
| A*03:65+A*31:01:02G | A*03:69N+A*31:01:05 |
| A*03:65+A*32:07     | A*03:72+A*32:22     |
| A*03:65+A*32:13     | A*03:97+A*32:22     |
| A*03:65+A*32:23     | A*03:140+A*32:22    |
| A*03:65+A*32:26     | A*03:105+A*32:22    |
| A*03:65+A*32:37     | A*03:93+A*32:22     |
| A*03:65+A*33:03:01G | A*03:69N+A*33:03:05 |
| A*03:65+A*34:02:01  | A*03:69N+A*34:02:02 |
| A*03:70+A*26:39     | A*03:145+A*26:64    |
| A*03:70+A*26:47     | A*03:79+A*26:64     |
| A*03:70+A*26:49     | A*03:97+A*26:64     |
| A*03:70+A*26:51     | A*03:116+A*26:64    |
| A*03:70+A*68:56     | A*03:100+A*68:89    |
| A*03:71+A*24:74     | A*03:151+A*24:128   |
| A*03:71+A*24:130    | A*03:131+A*24:128   |
| A*03:71+A*24:159    | A*03:130+A*24:128   |
| A*03:71+A*24:160    | A*03:150+A*24:128   |
| A*03:71+A*24:169    | A*03:93+A*24:128    |
| A*03:71+A*24:170    | A*03:98+A*24:128    |
| A*03:71+A*24:182    | A*03:80+A*24:128    |
| A*03:71+A*24:197    | A*03:79+A*24:128    |
| A*03:71+A*33:01:01G | A*03:104+A*33:06    |
| A*03:71+A*33:10     | A*03:97+A*33:06     |
| A*03:71+A*33:12     | A*03:83+A*33:06     |
| A*03:71+A*33:43     | A*03:111+A*33:06    |
| A*03:71+A*33:46     | A*03:140+A*33:06    |
| A*03:71+A*33:47     | A*03:101+A*33:06    |
| A*03:72+A*32:13     | A*03:97+A*32:07     |
| A*03:72+A*32:23     | A*03:140+A*32:07    |
| A*03:72+A*32:26     | A*03:105+A*32:07    |
| A*03:72+A*32:37     | A*03:93+A*32:07     |
| A*03:74+A*11:17     | A*03:107+A*11:122   |
| A*03:74+A*11:30     | A*03:87+A*11:122    |
| A*03:74+A*11:39     | A*03:97+A*11:122    |
| A*03:74+A*11:73     | A*03:123+A*11:122   |
| A*03:74+A*11:84     | A*03:85+A*11:122    |
| A*03:74+A*11:105    | A*03:147+A*11:122   |
| A*03:74+A*11:112    | A*03:150+A*11:122   |
| A*03:74+A*11:116    | A*03:103+A*11:122   |
| A*03:79+A*24:74     | A*03:151+A*24:197   |
| A*03:79+A*24:130    | A*03:131+A*24:197   |
| A*03:79+A*24:159    | A*03:130+A*24:197   |
| A*03:79+A*24:160    | A*03:150+A*24:197   |
| A*03:79+A*24:169    | A*03:93+A*24:197    |
| A*03:79+A*24:170    | A*03:98+A*24:197    |
| A*03:79+A*24:182    | A*03:80+A*24:197    |
| A*03:79+A*26:39     | A*03:145+A*26:47    |
| A*03:79+A*26:49     | A*03:97+A*26:47     |
| A*03:79+A*26:51     | A*03:116+A*26:47    |
| A*03:80+A*24:74     | A*03:151+A*24:182   |
| A*03:80+A*24:130    | A*03:131+A*24:182   |
| A*03:80+A*24:159    | A*03:130+A*24:182   |
| A*03:80+A*24:160    | A*03:150+A*24:182   |
| A*03:80+A*24:169    | A*03:93+A*24:182    |
| A*03:80+A*24:170    | A*03:98+A*24:182    |
| A*03:80+A*26:21     | A*03:146+A*26:06    |
| A*03:83+A*33:01:01G | A*03:104+A*33:12    |
| A*03:83+A*33:10     | A*03:97+A*33:12     |
| A*03:83+A*33:43     | A*03:111+A*33:12    |
| A*03:83+A*33:46     | A*03:140+A*33:12    |
| A*03:83+A*33:47     | A*03:101+A*33:12    |
| A*03:85+A*11:17     | A*03:107+A*11:84    |
| A*03:85+A*11:30     | A*03:87+A*11:84     |
| A*03:85+A*11:39     | A*03:97+A*11:84     |
| A*03:85+A*11:73     | A*03:123+A*11:84    |
| A*03:85+A*11:105    | A*03:147+A*11:84    |
| A*03:85+A*11:112    | A*03:150+A*11:84    |
| A*03:85+A*11:116    | A*03:103+A*11:84    |
| A*03:87+A*11:17     | A*03:107+A*11:30    |
| A*03:87+A*11:39     | A*03:97+A*11:30     |
| A*03:87+A*11:73     | A*03:123+A*11:30    |
| A*03:87+A*11:105    | A*03:147+A*11:30    |
| A*03:87+A*11:112    | A*03:150+A*11:30    |
| A*03:87+A*11:116    | A*03:103+A*11:30    |
| A*03:92+A*30:35     | A*03:131+A*30:19    |
| A*03:92+A*30:43     | A*03:98+A*30:19     |
| A*03:92+A*30:44     | A*03:108+A*30:19    |
| A*03:92+A*30:49     | A*03:141+A*30:19    |
| A*03:92+A*30:65     | A*03:128+A*30:19    |
| A*03:93+A*24:74     | A*03:151+A*24:169   |
| A*03:93+A*24:130    | A*03:131+A*24:169   |
| A*03:93+A*24:159    | A*03:130+A*24:169   |
| A*03:93+A*24:160    | A*03:150+A*24:169   |
| A*03:93+A*24:170    | A*03:98+A*24:169    |
| A*03:93+A*32:13     | A*03:97+A*32:37     |
| A*03:93+A*32:23     | A*03:140+A*32:37    |
| A*03:93+A*32:26     | A*03:105+A*32:37    |
| A*03:93+A*68:05     | A*03:108+A*68:70    |
| A*03:93+A*68:38     | A*03:114+A*68:70    |

|                         |                        |                  |                       |                 |
|-------------------------|------------------------|------------------|-----------------------|-----------------|
| A*03:93+A*68:65         | A*03:97+A*68:70        |                  |                       |                 |
| A*03:95+A*33:49         | A*03:104+A*33:22       |                  |                       |                 |
| A*03:97+A*11:01:44      | A*03:105+A*11:27       |                  |                       |                 |
| A*03:97+A*11:16         | A*03:123+A*11:38       |                  |                       |                 |
| A*03:97+A*11:17         | A*03:107+A*11:39       |                  |                       |                 |
| A*03:97+A*11:73         | A*03:123+A*11:39       |                  |                       |                 |
| A*03:97+A*11:105        | A*03:147+A*11:39       |                  |                       |                 |
| A*03:97+A*11:112        | A*03:150+A*11:39       |                  |                       |                 |
| A*03:97+A*11:116        | A*03:103+A*11:39       |                  |                       |                 |
| A*03:97+A*24:22         | A*03:150+A*24:06       |                  |                       |                 |
| A*03:97+A*25:01:01G     | A*32:04+A*66:10        |                  |                       |                 |
| A*03:97+A*26:03:01      | A*03:108+A*66:10       |                  |                       |                 |
| A*03:97+A*26:39         | A*03:145+A*26:49       |                  |                       |                 |
| A*03:97+A*26:51         | A*03:116+A*26:49       |                  |                       |                 |
| A*03:97+A*26:62         | A*03:107+A*66:10       |                  |                       |                 |
| A*03:97+A*29:32         | A*03:103+A*29:03       |                  |                       |                 |
| A*03:97+A*29:35         | A*03:139+A*29:03       |                  |                       |                 |
| A*03:97+A*29:42         | A*03:100+A*29:03       |                  |                       |                 |
| A*03:97+A*31:25         | A*03:105+A*31:05       |                  |                       |                 |
| A*03:97+A*31:40         | A*03:136+A*31:05       |                  |                       |                 |
| A*03:97+A*32:23         | A*03:140+A*32:13       |                  |                       |                 |
| A*03:97+A*32:26         | A*03:105+A*32:13       |                  |                       |                 |
| A*03:97+A*33:01:01G     | A*03:104+A*33:10       |                  |                       |                 |
| A*03:97+A*33:43         | A*03:111+A*33:10       |                  |                       |                 |
| A*03:97+A*33:46         | A*03:140+A*33:10       |                  |                       |                 |
| A*03:97+A*33:47         | A*03:101+A*33:10       |                  |                       |                 |
| A*03:97+A*66:04         | A*03:104+A*66:10       |                  |                       |                 |
| A*03:97+A*66:13         | A*03:147+A*66:10       |                  |                       |                 |
| A*03:97+A*68:05         | A*03:108+A*68:65       |                  |                       |                 |
| A*03:97+A*68:38         | A*03:114+A*68:65       |                  |                       |                 |
| A*03:98+A*24:46         | A*03:105+A*24:143      |                  |                       |                 |
| A*03:98+A*24:74         | A*03:151+A*24:170      |                  |                       |                 |
| A*03:98+A*24:130        | A*03:131+A*24:170      |                  |                       |                 |
| A*03:98+A*24:159        | A*03:130+A*24:170      |                  |                       |                 |
| A*03:98+A*24:160        | A*03:150+A*24:170      |                  |                       |                 |
| A*03:98+A*26:01:01G     | A*03:105+A*26:04       |                  |                       |                 |
| A*03:98+A*30:35         | A*03:131+A*30:43       |                  |                       |                 |
| A*03:98+A*30:44         | A*03:108+A*30:43       |                  |                       |                 |
| A*03:98+A*30:49         | A*03:141+A*30:43       |                  |                       |                 |
| A*03:98+A*30:65         | A*03:128+A*30:43       |                  |                       |                 |
| A*03:98+A*68:15         | A*03:108+A*68:34       |                  |                       |                 |
| A*03:98+A*68:78         | A*03:136+A*68:34       |                  |                       |                 |
| A*03:100+A*29:32        | A*03:103+A*29:42       |                  |                       |                 |
| A*03:100+A*29:35        | A*03:139+A*29:42       |                  |                       |                 |
| A*03:101+A*33:01:01G    | A*03:104+A*33:47       |                  |                       |                 |
| A*03:101+A*33:43        | A*03:111+A*33:47       |                  |                       |                 |
| A*03:101+A*33:46        | A*03:140+A*33:47       |                  |                       |                 |
| A*03:103+A*11:17        | A*03:107+A*11:116      |                  |                       |                 |
| A*03:103+A*11:73        | A*03:123+A*11:116      |                  |                       |                 |
| A*03:103+A*11:105       | A*03:147+A*11:116      |                  |                       |                 |
| A*03:103+A*11:112       | A*03:150+A*11:116      |                  |                       |                 |
| A*03:103+A*29:35        | A*03:139+A*29:32       |                  |                       |                 |
| A*03:104+A*25:01:01G    | A*32:04+A*66:04        |                  |                       |                 |
| A*03:104+A*26:03:01     | A*03:108+A*66:04       |                  |                       |                 |
| A*03:104+A*26:62        | A*03:107+A*66:04       |                  |                       |                 |
| A*03:104+A*33:43        | A*03:111+A*33:01:01G   |                  |                       |                 |
| A*03:104+A*33:46        | A*03:140+A*33:01:01G   |                  |                       |                 |
| A*03:104+A*66:13        | A*03:147+A*66:04       |                  |                       |                 |
| A*03:105+A*31:40        | A*03:136+A*31:25       |                  |                       |                 |
| A*03:105+A*32:23        | A*03:140+A*32:26       |                  |                       |                 |
| A*03:107+A*11:73        | A*03:123+A*11:17       |                  |                       |                 |
| A*03:107+A*11:105       | A*03:147+A*11:17       |                  |                       |                 |
| A*03:107+A*11:112       | A*03:150+A*11:17       |                  |                       |                 |
| A*03:107+A*25:01:01G    | A*26:62+A*32:04        |                  |                       |                 |
| A*03:107+A*26:03:01     | A*03:108+A*26:62       |                  |                       |                 |
| A*03:107+A*66:13        | A*03:147+A*26:62       |                  |                       |                 |
| A*03:108+A*24:32        | A*24:28+A*32:04        |                  |                       |                 |
| A*03:108+A*24:131       | A*03:123+A*24:30       |                  |                       |                 |
| A*03:108+A*25:13        | A*26:30+A*32:04        |                  |                       |                 |
| A*03:108+A*30:35        | A*03:131+A*30:44       |                  |                       |                 |
| A*03:108+A*30:49        | A*03:141+A*30:44       |                  |                       |                 |
| A*03:108+A*30:65        | A*03:128+A*30:44       |                  |                       |                 |
| A*03:108+A*66:13        | A*03:147+A*26:03:01    |                  |                       |                 |
| A*03:108+A*68:38        | A*03:114+A*68:05       |                  |                       |                 |
| A*03:108+A*68:78        | A*03:136+A*68:15       |                  |                       |                 |
| A*03:111+A*33:46        | A*03:140+A*33:43       |                  |                       |                 |
| A*03:116+A*26:39        | A*03:145+A*26:51       |                  |                       |                 |
| A*03:123+A*11:105       | A*03:147+A*11:73       |                  |                       |                 |
| A*03:123+A*11:112       | A*03:150+A*11:73       |                  |                       |                 |
| A*03:127+A*11:60        | A*03:133+A*11:01:01G   |                  |                       |                 |
| A*03:128+A*30:35        | A*03:131+A*30:65       |                  |                       |                 |
| A*03:128+A*30:49        | A*03:141+A*30:65       |                  |                       |                 |
| A*03:130+A*24:74        | A*03:151+A*24:159      |                  |                       |                 |
| A*03:130+A*24:130       | A*03:131+A*24:159      |                  |                       |                 |
| A*03:130+A*24:160       | A*03:150+A*24:159      |                  |                       |                 |
| A*03:131+A*24:74        | A*03:151+A*24:130      |                  |                       |                 |
| A*03:131+A*24:160       | A*03:150+A*24:130      |                  |                       |                 |
| A*03:131+A*30:49        | A*03:141+A*30:35       |                  |                       |                 |
| A*03:147+A*11:112       | A*03:150+A*11:105      |                  |                       |                 |
| A*03:147+A*25:01:01G    | A*32:04+A*66:13        |                  |                       |                 |
| A*03:150+A*24:74        | A*03:151+A*24:160      |                  |                       |                 |
| A*11:01:01G+A*11:08     | A*11:20+A*11:44        |                  |                       |                 |
| A*11:01:01G+A*11:16     | A*11:02:01G+A*11:73    |                  |                       |                 |
| A*11:01:01G+A*11:25     | A*11:20+A*11:24:02     |                  |                       |                 |
| A*11:01:01G+A*11:26     | A*11:117+A*11:118      |                  |                       |                 |
| A*11:01:01G+A*11:27     | A*11:04+A*11:39        |                  |                       |                 |
| A*11:01:01G+A*11:33:01  | A*11:01:07+A*11:33:02  |                  |                       |                 |
| A*11:01:01G+A*11:38     | A*11:02:01G+A*11:39    |                  |                       |                 |
| A*11:01:01G+A*23:01:01G | A*11:04+A*23:10        | A*11:19+A*23:13  | A*11:33:02+A*23:14:02 | A*11:39+A*23:04 |
|                         | A*11:119+A*23:03:02    |                  |                       |                 |
| A*11:01:01G+A*23:01:10  | A*11:01:27+A*23:01:01G |                  |                       |                 |
| A*11:01:01G+A*23:12     | A*11:06+A*23:01:01G    |                  |                       |                 |
| A*11:01:01G+A*23:14:01  | A*11:24:01+A*24:71     |                  |                       |                 |
| A*11:01:01G+A*23:14:02  | A*11:24:02+A*24:71     | A*11:31+A*24:190 |                       |                 |
| A*11:01:01G+A*23:47     | A*11:32+A*23:01:01G    |                  |                       |                 |

|                         |                         |                        |                     |                  |
|-------------------------|-------------------------|------------------------|---------------------|------------------|
| A*11:01:01G+A*23:50     | A*11:79+A*23:01:01G     |                        |                     |                  |
| A*11:01:01G+A*24:02:01G | A*11:01:07+A*24:02:02   | A*11:04+A*24:46        | A*11:19+A*24:07     | A*11:27+A*24:10  |
|                         | A*11:39+A*24:03:01G     | A*11:88+A*24:50        | A*11:119+A*24:21:01 |                  |
| A*11:01:01G+A*24:02:09  | A*11:01:39+A*24:02:01G  |                        |                     |                  |
| A*11:01:01G+A*24:02:11  | A*11:01:37+A*24:02:01G  |                        |                     |                  |
| A*11:01:01G+A*24:02:14  | A*11:01:17+A*24:02:01G  |                        |                     |                  |
| A*11:01:01G+A*24:02:18  | A*11:39+A*24:03:02      |                        |                     |                  |
| A*11:01:01G+A*24:02:35  | A*11:01:05+A*24:02:01G  |                        |                     |                  |
| A*11:01:01G+A*24:02:47  | A*11:01:27+A*24:02:01G  |                        |                     |                  |
| A*11:01:01G+A*24:02:53  | A*11:01:25+A*24:02:01G  |                        |                     |                  |
| A*11:01:01G+A*24:02:54  | A*11:01:15+A*24:02:01G  |                        |                     |                  |
| A*11:01:01G+A*24:02:58  | A*11:01:34+A*24:02:01G  |                        |                     |                  |
| A*11:01:01G+A*24:03:01G | A*11:04+A*24:10         |                        |                     |                  |
| A*11:01:01G+A*24:04     | A*11:12+A*24:109        |                        |                     |                  |
| A*11:01:01G+A*24:05:01G | A*11:33:01+A*24:02:02   | A*11:33:02+A*24:02:01G |                     |                  |
| A*11:01:01G+A*24:06     | A*11:39+A*24:167        |                        |                     |                  |
| A*11:01:01G+A*24:13:01  | A*11:24:02+A*24:02:01G  | A*11:31+A*24:59        | A*11:39+A*24:207    |                  |
| A*11:01:01G+A*24:13:02  | A*11:24:01+A*24:02:01G  |                        |                     |                  |
| A*11:01:01G+A*24:15     | A*11:118+A*24:51        |                        |                     |                  |
| A*11:01:01G+A*24:17     | A*11:117+A*24:41        |                        |                     |                  |
| A*11:01:01G+A*24:22     | A*11:112+A*24:167       |                        |                     |                  |
| A*11:01:01G+A*24:28     | A*11:18+A*24:19         |                        |                     |                  |
| A*11:01:01G+A*24:30     | A*11:06+A*24:02:01G     |                        |                     |                  |
| A*11:01:01G+A*24:34     | A*11:98+A*24:07         |                        |                     |                  |
| A*11:01:01G+A*24:35     | A*11:37+A*24:02:01G     |                        |                     |                  |
| A*11:01:01G+A*24:37     | A*11:85+A*24:02:01G     |                        |                     |                  |
| A*11:01:01G+A*24:39     | A*11:66+A*24:02:01G     |                        |                     |                  |
| A*11:01:01G+A*24:44     | A*11:19+A*24:19         |                        |                     |                  |
| A*11:01:01G+A*24:46     | A*11:39+A*24:10         |                        |                     |                  |
| A*11:01:01G+A*24:53     | A*11:26+A*24:51         | A*11:117+A*24:15       |                     |                  |
| A*11:01:01G+A*24:55     | A*11:90+A*24:46         |                        |                     |                  |
| A*11:01:01G+A*24:56     | A*11:20+A*24:59         |                        |                     |                  |
| A*11:01:01G+A*24:57     | A*11:26+A*24:92         |                        |                     |                  |
| A*11:01:01G+A*24:62     | A*11:116+A*24:17        |                        |                     |                  |
| A*11:01:01G+A*24:63     | A*11:02:01G+A*24:02:01G | A*11:38+A*24:03:01G    |                     |                  |
| A*11:01:01G+A*24:67     | A*11:10+A*24:191        |                        |                     |                  |
| A*11:01:01G+A*24:71     | A*11:60+A*24:59         |                        |                     |                  |
| A*11:01:01G+A*24:78     | A*11:68+A*24:02:01G     |                        |                     |                  |
| A*11:01:01G+A*24:82     | A*11:43+A*24:50         |                        |                     |                  |
| A*11:01:01G+A*24:87     | A*11:44+A*24:02:01G     |                        |                     |                  |
| A*11:01:01G+A*24:109    | A*11:40+A*24:19         |                        |                     |                  |
| A*11:01:01G+A*24:131    | A*11:73+A*24:07         |                        |                     |                  |
| A*11:01:01G+A*24:133    | A*11:23+A*24:02:01G     |                        |                     |                  |
| A*11:01:01G+A*24:160    | A*11:112+A*24:02:01G    |                        |                     |                  |
| A*11:01:01G+A*24:170    | A*11:01:44+A*24:143     |                        |                     |                  |
| A*11:01:01G+A*24:177    | A*11:03+A*24:59         | A*11:20+A*24:190       |                     |                  |
| A*11:01:01G+A*24:192    | A*11:125+A*24:02:01G    |                        |                     |                  |
| A*11:01:01G+A*24:205    | A*11:114+A*24:02:01G    |                        |                     |                  |
| A*11:01:01G+A*24:206    | A*11:128+A*24:02:01G    |                        |                     |                  |
| A*11:01:01G+A*24:207    | A*11:24:02+A*24:03:01G  |                        |                     |                  |
| A*11:01:01G+A*25:01:01G | A*11:19+A*25:02         |                        |                     |                  |
| A*11:01:01G+A*25:01:05  | A*11:01:24+A*25:01:01G  |                        |                     |                  |
| A*11:01:01G+A*25:01:07  | A*11:01:34+A*25:01:01G  |                        |                     |                  |
| A*11:01:01G+A*25:06     | A*11:04+A*25:01:01G     |                        |                     |                  |
| A*11:01:01G+A*25:10     | A*11:117+A*25:01:01G    |                        |                     |                  |
| A*11:01:01G+A*25:11     | A*11:06+A*25:01:01G     |                        |                     |                  |
| A*11:01:01G+A*25:13     | A*11:12+A*25:01:01G     |                        |                     |                  |
| A*11:01:01G+A*25:19     | A*11:24:02+A*25:04      |                        |                     |                  |
| A*11:01:01G+A*26:01:01G | A*11:01:07+A*26:01:17   | A*11:19+A*26:13        | A*11:40+A*66:01:01G |                  |
| A*11:01:01G+A*26:01:06  | A*11:01:35+A*26:01:01G  |                        |                     |                  |
| A*11:01:01G+A*26:01:09  | A*11:01:40+A*26:01:01G  |                        |                     |                  |
| A*11:01:01G+A*26:01:10  | A*11:01:12+A*26:01:01G  |                        |                     |                  |
| A*11:01:01G+A*26:01:12  | A*11:01:17+A*26:01:01G  |                        |                     |                  |
| A*11:01:01G+A*26:01:19  | A*11:01:06+A*26:01:01G  |                        |                     |                  |
| A*11:01:01G+A*26:01:21  | A*11:01:44+A*26:01:01G  |                        |                     |                  |
| A*11:01:01G+A*26:03:01  | A*11:06+A*66:05         |                        |                     |                  |
| A*11:01:01G+A*26:09     | A*11:04+A*26:01:01G     |                        |                     |                  |
| A*11:01:01G+A*26:10     | A*11:119+A*26:01:01G    |                        |                     |                  |
| A*11:01:01G+A*26:15     | A*11:91+A*26:01:01G     |                        |                     |                  |
| A*11:01:01G+A*26:16     | A*11:88+A*26:01:01G     |                        |                     |                  |
| A*11:01:01G+A*26:22     | A*11:40+A*66:09         |                        |                     |                  |
| A*11:01:01G+A*26:29     | A*11:39+A*26:15         | A*11:91+A*26:49        |                     |                  |
| A*11:01:01G+A*26:30     | A*11:12+A*26:03:01      | A*11:18+A*66:01:01G    |                     |                  |
| A*11:01:01G+A*26:36     | A*11:06+A*26:01:01G     |                        |                     |                  |
| A*11:01:01G+A*26:43:01  | A*11:24:02+A*26:08      |                        |                     |                  |
| A*11:01:01G+A*26:43:02  | A*11:24:01+A*26:08      |                        |                     |                  |
| A*11:01:01G+A*26:49     | A*11:39+A*26:01:01G     | A*11:40+A*66:10        |                     |                  |
| A*11:01:01G+A*26:62     | A*11:10+A*26:72         | A*11:17+A*66:01:01G    |                     |                  |
| A*11:01:01G+A*26:65     | A*11:12+A*26:01:01G     | A*11:40+A*66:12        |                     |                  |
| A*11:01:01G+A*26:75     | A*11:34+A*26:01:01G     |                        |                     |                  |
| A*11:01:01G+A*29:02:01G | A*11:01:07+A*29:02:11   | A*11:01:42+A*29:02:04  | A*11:33:02+A*29:09  | A*11:117+A*29:44 |
| A*11:01:01G+A*29:02:02  | A*11:01:21+A*29:02:01G  |                        |                     |                  |
| A*11:01:01G+A*29:02:04  | A*11:11+A*29:18         |                        |                     |                  |
| A*11:01:01G+A*29:02:10  | A*11:01:17+A*29:02:01G  |                        |                     |                  |
| A*11:01:01G+A*29:02:13  | A*11:01:03+A*29:02:01G  |                        |                     |                  |
| A*11:01:01G+A*29:03     | A*11:39+A*29:02:01G     |                        |                     |                  |
| A*11:01:01G+A*29:06     | A*11:32+A*29:02:01G     |                        |                     |                  |
| A*11:01:01G+A*29:20     | A*11:19+A*29:01:01G     |                        |                     |                  |
| A*11:01:01G+A*29:29     | A*11:128+A*29:02:01G    |                        |                     |                  |
| A*11:01:01G+A*29:32     | A*11:116+A*29:02:01G    |                        |                     |                  |
| A*11:01:01G+A*29:34     | A*11:19+A*29:02:01G     |                        |                     |                  |
| A*11:01:01G+A*30:01:01G | A*11:33:02+A*30:54      |                        |                     |                  |
| A*11:01:01G+A*30:01:06  | A*11:01:02+A*30:01:01G  |                        |                     |                  |
| A*11:01:01G+A*30:01:07  | A*11:01:39+A*30:01:01G  |                        |                     |                  |
| A*11:01:01G+A*30:02:01G | A*11:19+A*30:25         |                        |                     |                  |
| A*11:01:01G+A*30:02:08  | A*11:01:03+A*30:02:06   |                        |                     |                  |
| A*11:01:01G+A*30:16     | A*11:06+A*30:01:01G     |                        |                     |                  |
| A*11:01:01G+A*30:39     | A*11:15:01+A*30:01:01G  |                        |                     |                  |
| A*11:01:01G+A*30:44     | A*11:19+A*30:16         |                        |                     |                  |
| A*11:01:01G+A*30:51     | A*11:32+A*30:02:01G     |                        |                     |                  |
| A*11:01:01G+A*30:60     | A*11:61+A*30:01:01G     |                        |                     |                  |
| A*11:01:01G+A*30:61     | A*11:119+A*30:02:01G    |                        |                     |                  |
| A*11:01:01G+A*31:01:02G | A*11:116+A*31:06        |                        |                     |                  |
| A*11:01:01G+A*31:01:03  | A*11:01:02+A*31:01:02G  |                        |                     |                  |
| A*11:01:01G+A*31:01:10  | A*11:01:35+A*31:01:02G  |                        |                     |                  |

|                         |                         |                     |                    |                  |
|-------------------------|-------------------------|---------------------|--------------------|------------------|
| A*11:01:01G+A*31:01:12  | A*11:01:32+A*31:01:02G  |                     |                    |                  |
| A*11:01:01G+A*31:01:14  | A*11:01:20+A*31:01:02G  |                     |                    |                  |
| A*11:01:01G+A*31:04     | A*11:12+A*31:03         |                     |                    |                  |
| A*11:01:01G+A*31:05     | A*11:39+A*31:01:02G     |                     |                    |                  |
| A*11:01:01G+A*31:11     | A*11:15:01+A*31:01:02G  |                     |                    |                  |
| A*11:01:01G+A*31:27     | A*11:37+A*31:01:02G     |                     |                    |                  |
| A*11:01:01G+A*31:32     | A*11:63+A*31:01:02G     |                     |                    |                  |
| A*11:01:01G+A*31:51     | A*11:32+A*31:01:02G     |                     |                    |                  |
| A*11:01:01G+A*31:57     | A*11:63+A*31:01:02G     |                     |                    |                  |
| A*11:01:01G+A*31:63     | A*11:41+A*31:01:02G     |                     |                    |                  |
| A*11:01:01G+A*31:65     | A*11:64+A*31:01:02G     |                     |                    |                  |
| A*11:01:01G+A*32:01:01G | A*11:19+A*32:17         | A*11:24:02+A*32:22  | A*11:33:01+A*32:33 | A*11:116+A*32:30 |
| A*11:01:01G+A*32:01:06  | A*11:24:01+A*32:22      |                     |                    |                  |
| A*11:01:01G+A*32:01:09  | A*11:01:40+A*32:01:01G  |                     |                    |                  |
| A*11:01:01G+A*32:06     | A*11:24:02+A*32:02      |                     |                    |                  |
| A*11:01:01G+A*32:08     | A*11:06+A*32:01:01G     |                     |                    |                  |
| A*11:01:01G+A*32:12     | A*11:32+A*32:01:01G     |                     |                    |                  |
| A*11:01:01G+A*32:13     | A*11:39+A*32:01:01G     |                     |                    |                  |
| A*11:01:01G+A*32:15     | A*11:10+A*32:01:01G     |                     |                    |                  |
| A*11:01:01G+A*32:20     | A*11:74+A*32:01:01G     |                     |                    |                  |
| A*11:01:01G+A*32:28     | A*11:119+A*32:01:12     |                     |                    |                  |
| A*11:01:01G+A*32:39     | A*11:103+A*32:01:01G    |                     |                    |                  |
| A*11:01:01G+A*32:41     | A*11:29+A*32:01:01G     |                     |                    |                  |
| A*11:01:01G+A*33:01:01G | A*11:33:02+A*33:34      | A*11:118+A*33:49    |                    |                  |
| A*11:01:01G+A*33:01:04  | A*11:01:37+A*33:01:01G  |                     |                    |                  |
| A*11:01:01G+A*33:03:01G | A*11:04+A*33:61         | A*11:43+A*33:51     | A*11:116+A*33:18   |                  |
| A*11:01:01G+A*33:03:06  | A*11:01:36+A*33:03:01G  |                     |                    |                  |
| A*11:01:01G+A*33:10     | A*11:27+A*33:61         | A*11:39+A*33:03:01G |                    |                  |
| A*11:01:01G+A*33:17     | A*11:45+A*33:03:01G     |                     |                    |                  |
| A*11:01:01G+A*33:24     | A*11:06+A*33:11         |                     |                    |                  |
| A*11:01:01G+A*33:28     | A*11:25+A*33:59         |                     |                    |                  |
| A*11:01:01G+A*33:32:01  | A*11:119+A*33:01:05     |                     |                    |                  |
| A*11:01:01G+A*33:42     | A*11:96+A*33:03:01G     |                     |                    |                  |
| A*11:01:01G+A*33:48     | A*11:12+A*33:13         |                     |                    |                  |
| A*11:01:01G+A*33:52     | A*11:79+A*33:03:01G     |                     |                    |                  |
| A*11:01:01G+A*34:07     | A*11:96+A*34:02:01      |                     |                    |                  |
| A*11:01:01G+A*34:09     | A*11:12+A*34:02:01      |                     |                    |                  |
| A*11:01:01G+A*36:01     | A*11:04+A*36:04         |                     |                    |                  |
| A*11:01:01G+A*66:02     | A*11:90+A*66:12         |                     |                    |                  |
| A*11:01:01G+A*66:03     | A*11:19+A*66:02         |                     |                    |                  |
| A*11:01:01G+A*66:05     | A*11:19+A*66:01:01G     |                     |                    |                  |
| A*11:01:01G+A*66:10     | A*11:39+A*66:01:01G     |                     |                    |                  |
| A*11:01:01G+A*66:11     | A*11:45+A*66:01:01G     |                     |                    |                  |
| A*11:01:01G+A*66:12     | A*11:12+A*66:01:01G     |                     |                    |                  |
| A*11:01:01G+A*66:13     | A*11:105+A*66:01:01G    |                     |                    |                  |
| A*11:01:01G+A*66:14     | A*11:32+A*66:01:01G     |                     |                    |                  |
| A*11:01:01G+A*66:15     | A*11:98+A*66:01:01G     |                     |                    |                  |
| A*11:01:01G+A*68:01:02G | A*11:10+A*68:66         | A*11:73+A*68:12     | A*11:119+A*68:91   |                  |
| A*11:01:01G+A*68:01:03  | A*11:01:25+A*68:01:01G  |                     |                    |                  |
| A*11:01:01G+A*68:01:05  | A*11:01:07+A*68:01:01G  |                     |                    |                  |
| A*11:01:01G+A*68:01:06  | A*11:01:40+A*68:01:02G  |                     |                    |                  |
| A*11:01:01G+A*68:01:10  | A*11:01:39+A*68:01:01G  |                     |                    |                  |
| A*11:01:01G+A*68:01:13  | A*11:01:27+A*68:01:02G  |                     |                    |                  |
| A*11:01:01G+A*68:03:01  | A*11:19+A*68:01:02G     |                     |                    |                  |
| A*11:01:01G+A*68:03:02  | A*11:01:34+A*68:03:01   |                     |                    |                  |
| A*11:01:01G+A*68:03:03  | A*11:19+A*68:01:01G     |                     |                    |                  |
| A*11:01:01G+A*68:04     | A*11:98+A*68:01:01G     |                     |                    |                  |
| A*11:01:01G+A*68:05     | A*11:06+A*68:03:01      |                     |                    |                  |
| A*11:01:01G+A*68:08:02  | A*11:24:02+A*68:09      |                     |                    |                  |
| A*11:01:01G+A*68:14     | A*11:32+A*68:10         |                     |                    |                  |
| A*11:01:01G+A*68:15     | A*11:06+A*68:31         |                     |                    |                  |
| A*11:01:01G+A*68:29     | A*11:43+A*68:01:01G     |                     |                    |                  |
| A*11:01:01G+A*68:31     | A*11:19+A*68:02:01G     |                     |                    |                  |
| A*11:01:01G+A*68:45     | A*11:88+A*68:01:01G     |                     |                    |                  |
| A*11:01:01G+A*68:53     | A*11:123+A*68:02:01G    |                     |                    |                  |
| A*11:01:01G+A*68:54     | A*11:04+A*68:61         |                     |                    |                  |
| A*11:01:01G+A*68:58     | A*11:128+A*68:01:01G    |                     |                    |                  |
| A*11:01:01G+A*68:65     | A*11:39+A*68:01:02G     |                     |                    |                  |
| A*11:01:01G+A*68:67     | A*11:41+A*68:02:01G     |                     |                    |                  |
| A*11:01:01G+A*68:81     | A*11:32+A*68:02:01G     |                     |                    |                  |
| A*11:01:01G+A*68:82     | A*11:36+A*68:02:01G     |                     |                    |                  |
| A*11:01:01G+A*68:84     | A*11:45+A*68:46         |                     |                    |                  |
| A*11:01:01G+A*68:92     | A*11:02:01G+A*68:02:01G |                     |                    |                  |
| A*11:01:01G+A*74:01:01G | A*11:19+A*74:13         |                     |                    |                  |
| A*11:01:01G+A*74:04     | A*11:121+A*74:13        |                     |                    |                  |
| A*11:01:01G+A*74:06     | A*11:06+A*74:01:01G     |                     |                    |                  |
| A*11:01:01G+A*74:07     | A*11:98+A*74:13         |                     |                    |                  |
| A*11:01:02+A*30:01:07   | A*11:01:39+A*30:01:06   |                     |                    |                  |
| A*11:01:02+A*30:16      | A*11:06+A*30:01:06      |                     |                    |                  |
| A*11:01:02+A*30:39      | A*11:15:01+A*30:01:06   |                     |                    |                  |
| A*11:01:02+A*30:60      | A*11:61+A*30:01:06      |                     |                    |                  |
| A*11:01:02+A*31:01:10   | A*11:01:35+A*31:01:03   |                     |                    |                  |
| A*11:01:02+A*31:01:12   | A*11:01:32+A*31:01:03   |                     |                    |                  |
| A*11:01:02+A*31:01:14   | A*11:01:20+A*31:01:03   |                     |                    |                  |
| A*11:01:02+A*31:05      | A*11:39+A*31:01:03      |                     |                    |                  |
| A*11:01:02+A*31:11      | A*11:15:01+A*31:01:03   |                     |                    |                  |
| A*11:01:02+A*31:27      | A*11:37+A*31:01:03      |                     |                    |                  |
| A*11:01:02+A*31:32      | A*11:83+A*31:01:03      |                     |                    |                  |
| A*11:01:02+A*31:51      | A*11:32+A*31:01:03      |                     |                    |                  |
| A*11:01:02+A*31:57      | A*11:63+A*31:01:03      |                     |                    |                  |
| A*11:01:02+A*31:63      | A*11:41+A*31:01:03      |                     |                    |                  |
| A*11:01:02+A*31:65      | A*11:64+A*31:01:03      |                     |                    |                  |
| A*11:01:03+A*29:02:02   | A*11:01:21+A*29:02:13   |                     |                    |                  |
| A*11:01:03+A*29:02:10   | A*11:01:17+A*29:02:13   |                     |                    |                  |
| A*11:01:03+A*29:03      | A*11:39+A*29:02:13      |                     |                    |                  |
| A*11:01:03+A*29:06      | A*11:32+A*29:02:13      |                     |                    |                  |
| A*11:01:03+A*29:29      | A*11:128+A*29:02:13     |                     |                    |                  |
| A*11:01:03+A*29:32      | A*11:116+A*29:02:13     |                     |                    |                  |
| A*11:01:03+A*29:34      | A*11:19+A*29:02:13      |                     |                    |                  |
| A*11:01:05+A*24:02:09   | A*11:01:39+A*24:02:35   |                     |                    |                  |
| A*11:01:05+A*24:02:11   | A*11:01:37+A*24:02:35   |                     |                    |                  |
| A*11:01:05+A*24:02:14   | A*11:01:17+A*24:02:35   |                     |                    |                  |
| A*11:01:05+A*24:02:47   | A*11:01:27+A*24:02:35   |                     |                    |                  |
| A*11:01:05+A*24:02:53   | A*11:01:25+A*24:02:35   |                     |                    |                  |
| A*11:01:05+A*24:02:54   | A*11:01:15+A*24:02:35   |                     |                    |                  |

|                        |                        |                    |
|------------------------|------------------------|--------------------|
| A*11:01:05+A*24:02:58  | A*11:01:34+A*24:02:35  |                    |
| A*11:01:05+A*24:05:01G | A*11:33:02+A*24:02:35  |                    |
| A*11:01:05+A*24:13:01  | A*11:24:02+A*24:02:35  |                    |
| A*11:01:05+A*24:13:02  | A*11:24:01+A*24:02:35  |                    |
| A*11:01:05+A*24:30     | A*11:06+A*24:02:35     |                    |
| A*11:01:05+A*24:35     | A*11:37+A*24:02:35     |                    |
| A*11:01:05+A*24:37     | A*11:85+A*24:02:35     |                    |
| A*11:01:05+A*24:39     | A*11:66+A*24:02:35     |                    |
| A*11:01:05+A*24:63     | A*11:02:01G+A*24:02:35 |                    |
| A*11:01:05+A*24:78     | A*11:68+A*24:02:35     |                    |
| A*11:01:05+A*24:87     | A*11:44+A*24:02:35     |                    |
| A*11:01:05+A*24:133    | A*11:23+A*24:02:35     |                    |
| A*11:01:05+A*24:160    | A*11:112+A*24:02:35    |                    |
| A*11:01:05+A*24:192    | A*11:125+A*24:02:35    |                    |
| A*11:01:05+A*24:205    | A*11:114+A*24:02:35    |                    |
| A*11:01:05+A*24:206    | A*11:128+A*24:02:35    |                    |
| A*11:01:06+A*26:01:06  | A*11:01:35+A*26:01:19  |                    |
| A*11:01:06+A*26:01:09  | A*11:01:40+A*26:01:19  |                    |
| A*11:01:06+A*26:01:10  | A*11:01:12+A*26:01:19  |                    |
| A*11:01:06+A*26:01:12  | A*11:01:17+A*26:01:19  |                    |
| A*11:01:06+A*26:01:21  | A*11:01:44+A*26:01:19  |                    |
| A*11:01:06+A*26:09     | A*11:04+A*26:01:19     |                    |
| A*11:01:06+A*26:10     | A*11:119+A*26:01:19    |                    |
| A*11:01:06+A*26:15     | A*11:91+A*26:01:19     |                    |
| A*11:01:06+A*26:16     | A*11:88+A*26:01:19     |                    |
| A*11:01:06+A*26:36     | A*11:06+A*26:01:19     |                    |
| A*11:01:06+A*26:49     | A*11:39+A*26:01:19     |                    |
| A*11:01:06+A*26:65     | A*11:12+A*26:01:19     |                    |
| A*11:01:06+A*26:75     | A*11:34+A*26:01:19     |                    |
| A*11:01:07+A*23:01:01G | A*11:33:01+A*23:14:02  |                    |
| A*11:01:07+A*23:03:01  | A*11:01:28+A*23:03:02  |                    |
| A*11:01:07+A*24:05:01G | A*11:33:01+A*24:02:01G |                    |
| A*11:01:07+A*29:01:01G | A*11:01:28+A*29:01:02  |                    |
| A*11:01:07+A*29:02:01G | A*11:33:01+A*29:09     |                    |
| A*11:01:07+A*30:01:01G | A*11:33:01+A*30:54     |                    |
| A*11:01:07+A*32:01:01G | A*11:01:28+A*32:01:12  |                    |
| A*11:01:07+A*33:01:01G | A*11:01:28+A*33:01:05  | A*11:33:01+A*33:34 |
| A*11:01:07+A*68:01:03  | A*11:01:25+A*68:01:05  |                    |
| A*11:01:07+A*68:01:10  | A*11:01:39+A*68:01:05  |                    |
| A*11:01:07+A*68:03:03  | A*11:19+A*68:01:05     |                    |
| A*11:01:07+A*68:04     | A*11:98+A*68:01:05     |                    |
| A*11:01:07+A*68:29     | A*11:43+A*68:01:05     |                    |
| A*11:01:07+A*68:45     | A*11:88+A*68:01:05     |                    |
| A*11:01:07+A*68:58     | A*11:128+A*68:01:05    |                    |
| A*11:01:12+A*26:01:06  | A*11:01:35+A*26:01:10  |                    |
| A*11:01:12+A*26:01:09  | A*11:01:40+A*26:01:10  |                    |
| A*11:01:12+A*26:01:12  | A*11:01:17+A*26:01:10  |                    |
| A*11:01:12+A*26:01:21  | A*11:01:44+A*26:01:10  |                    |
| A*11:01:12+A*26:09     | A*11:04+A*26:01:10     |                    |
| A*11:01:12+A*26:10     | A*11:119+A*26:01:10    |                    |
| A*11:01:12+A*26:15     | A*11:91+A*26:01:10     |                    |
| A*11:01:12+A*26:16     | A*11:88+A*26:01:10     |                    |
| A*11:01:12+A*26:36     | A*11:06+A*26:01:10     |                    |
| A*11:01:12+A*26:49     | A*11:39+A*26:01:10     |                    |
| A*11:01:12+A*26:65     | A*11:12+A*26:01:10     |                    |
| A*11:01:12+A*26:75     | A*11:34+A*26:01:10     |                    |
| A*11:01:15+A*24:02:09  | A*11:01:39+A*24:02:54  |                    |
| A*11:01:15+A*24:02:11  | A*11:01:37+A*24:02:54  |                    |
| A*11:01:15+A*24:02:14  | A*11:01:17+A*24:02:54  |                    |
| A*11:01:15+A*24:02:47  | A*11:01:27+A*24:02:54  |                    |
| A*11:01:15+A*24:02:53  | A*11:01:25+A*24:02:54  |                    |
| A*11:01:15+A*24:02:58  | A*11:01:34+A*24:02:54  |                    |
| A*11:01:15+A*24:05:01G | A*11:33:02+A*24:02:54  |                    |
| A*11:01:15+A*24:13:01  | A*11:24:02+A*24:02:54  |                    |
| A*11:01:15+A*24:13:02  | A*11:24:01+A*24:02:54  |                    |
| A*11:01:15+A*24:30     | A*11:06+A*24:02:54     |                    |
| A*11:01:15+A*24:35     | A*11:37+A*24:02:54     |                    |
| A*11:01:15+A*24:37     | A*11:85+A*24:02:54     |                    |
| A*11:01:15+A*24:39     | A*11:66+A*24:02:54     |                    |
| A*11:01:15+A*24:63     | A*11:02:01G+A*24:02:54 |                    |
| A*11:01:15+A*24:78     | A*11:68+A*24:02:54     |                    |
| A*11:01:15+A*24:87     | A*11:44+A*24:02:54     |                    |
| A*11:01:15+A*24:133    | A*11:23+A*24:02:54     |                    |
| A*11:01:15+A*24:160    | A*11:112+A*24:02:54    |                    |
| A*11:01:15+A*24:192    | A*11:125+A*24:02:54    |                    |
| A*11:01:15+A*24:205    | A*11:114+A*24:02:54    |                    |
| A*11:01:15+A*24:206    | A*11:128+A*24:02:54    |                    |
| A*11:01:17+A*24:02:09  | A*11:01:39+A*24:02:14  |                    |
| A*11:01:17+A*24:02:11  | A*11:01:37+A*24:02:14  |                    |
| A*11:01:17+A*24:02:47  | A*11:01:27+A*24:02:14  |                    |
| A*11:01:17+A*24:02:53  | A*11:01:25+A*24:02:14  |                    |
| A*11:01:17+A*24:02:58  | A*11:01:34+A*24:02:14  |                    |
| A*11:01:17+A*24:05:01G | A*11:33:02+A*24:02:14  |                    |
| A*11:01:17+A*24:13:01  | A*11:24:02+A*24:02:14  |                    |
| A*11:01:17+A*24:13:02  | A*11:24:01+A*24:02:14  |                    |
| A*11:01:17+A*24:30     | A*11:06+A*24:02:14     |                    |
| A*11:01:17+A*24:35     | A*11:37+A*24:02:14     |                    |
| A*11:01:17+A*24:37     | A*11:85+A*24:02:14     |                    |
| A*11:01:17+A*24:39     | A*11:66+A*24:02:14     |                    |
| A*11:01:17+A*24:63     | A*11:02:01G+A*24:02:14 |                    |
| A*11:01:17+A*24:78     | A*11:68+A*24:02:14     |                    |
| A*11:01:17+A*24:87     | A*11:44+A*24:02:14     |                    |
| A*11:01:17+A*24:133    | A*11:23+A*24:02:14     |                    |
| A*11:01:17+A*24:160    | A*11:112+A*24:02:14    |                    |
| A*11:01:17+A*24:192    | A*11:125+A*24:02:14    |                    |
| A*11:01:17+A*24:205    | A*11:114+A*24:02:14    |                    |
| A*11:01:17+A*24:206    | A*11:128+A*24:02:14    |                    |
| A*11:01:17+A*26:01:06  | A*11:01:35+A*26:01:12  |                    |
| A*11:01:17+A*26:01:09  | A*11:01:40+A*26:01:12  |                    |
| A*11:01:17+A*26:01:21  | A*11:01:44+A*26:01:12  |                    |
| A*11:01:17+A*26:09     | A*11:04+A*26:01:12     |                    |
| A*11:01:17+A*26:10     | A*11:119+A*26:01:12    |                    |
| A*11:01:17+A*26:15     | A*11:91+A*26:01:12     |                    |
| A*11:01:17+A*26:16     | A*11:88+A*26:01:12     |                    |
| A*11:01:17+A*26:36     | A*11:06+A*26:01:12     |                    |

|                        |                        |
|------------------------|------------------------|
| A*11:01:17+A*26:49     | A*11:39+A*26:01:12     |
| A*11:01:17+A*26:65     | A*11:12+A*26:01:12     |
| A*11:01:17+A*26:75     | A*11:34+A*26:01:12     |
| A*11:01:17+A*29:02:02  | A*11:01:21+A*29:02:10  |
| A*11:01:17+A*29:03     | A*11:39+A*29:02:10     |
| A*11:01:17+A*29:06     | A*11:32+A*29:02:10     |
| A*11:01:17+A*29:29     | A*11:128+A*29:02:10    |
| A*11:01:17+A*29:32     | A*11:116+A*29:02:10    |
| A*11:01:17+A*29:34     | A*11:19+A*29:02:10     |
| A*11:01:20+A*31:01:10  | A*11:01:35+A*31:01:14  |
| A*11:01:20+A*31:01:12  | A*11:01:32+A*31:01:14  |
| A*11:01:20+A*31:05     | A*11:39+A*31:01:14     |
| A*11:01:20+A*31:11     | A*11:15:01+A*31:01:14  |
| A*11:01:20+A*31:27     | A*11:37+A*31:01:14     |
| A*11:01:20+A*31:32     | A*11:83+A*31:01:14     |
| A*11:01:20+A*31:51     | A*11:32+A*31:01:14     |
| A*11:01:20+A*31:57     | A*11:63+A*31:01:14     |
| A*11:01:20+A*31:63     | A*11:41+A*31:01:14     |
| A*11:01:20+A*31:65     | A*11:64+A*31:01:14     |
| A*11:01:21+A*29:03     | A*11:39+A*29:02:02     |
| A*11:01:21+A*29:06     | A*11:32+A*29:02:02     |
| A*11:01:21+A*29:29     | A*11:128+A*29:02:02    |
| A*11:01:21+A*29:32     | A*11:116+A*29:02:02    |
| A*11:01:21+A*29:34     | A*11:19+A*29:02:02     |
| A*11:01:24+A*25:01:07  | A*11:01:34+A*25:01:05  |
| A*11:01:24+A*25:06     | A*11:04+A*25:01:05     |
| A*11:01:24+A*25:10     | A*11:117+A*25:01:05    |
| A*11:01:24+A*25:11     | A*11:06+A*25:01:05     |
| A*11:01:24+A*25:13     | A*11:12+A*25:01:05     |
| A*11:01:25+A*24:02:09  | A*11:01:39+A*24:02:53  |
| A*11:01:25+A*24:02:11  | A*11:01:37+A*24:02:53  |
| A*11:01:25+A*24:02:47  | A*11:01:27+A*24:02:53  |
| A*11:01:25+A*24:02:58  | A*11:01:34+A*24:02:53  |
| A*11:01:25+A*24:05:01G | A*11:33:02+A*24:02:53  |
| A*11:01:25+A*24:13:01  | A*11:24:02+A*24:02:53  |
| A*11:01:25+A*24:13:02  | A*11:24:01+A*24:02:53  |
| A*11:01:25+A*24:30     | A*11:06+A*24:02:53     |
| A*11:01:25+A*24:35     | A*11:37+A*24:02:53     |
| A*11:01:25+A*24:37     | A*11:85+A*24:02:53     |
| A*11:01:25+A*24:39     | A*11:66+A*24:02:53     |
| A*11:01:25+A*24:63     | A*11:02:01G+A*24:02:53 |
| A*11:01:25+A*24:78     | A*11:68+A*24:02:53     |
| A*11:01:25+A*24:87     | A*11:44+A*24:02:53     |
| A*11:01:25+A*24:133    | A*11:23+A*24:02:53     |
| A*11:01:25+A*24:160    | A*11:112+A*24:02:53    |
| A*11:01:25+A*24:192    | A*11:125+A*24:02:53    |
| A*11:01:25+A*24:205    | A*11:114+A*24:02:53    |
| A*11:01:25+A*24:206    | A*11:128+A*24:02:53    |
| A*11:01:25+A*68:01:10  | A*11:01:39+A*68:01:03  |
| A*11:01:25+A*68:03:03  | A*11:19+A*68:01:03     |
| A*11:01:25+A*68:04     | A*11:98+A*68:01:03     |
| A*11:01:25+A*68:29     | A*11:43+A*68:01:03     |
| A*11:01:25+A*68:45     | A*11:88+A*68:01:03     |
| A*11:01:25+A*68:58     | A*11:128+A*68:01:03    |
| A*11:01:27+A*23:12     | A*11:06+A*23:01:10     |
| A*11:01:27+A*23:47     | A*11:32+A*23:01:10     |
| A*11:01:27+A*23:50     | A*11:79+A*23:01:10     |
| A*11:01:27+A*24:02:09  | A*11:01:39+A*24:02:47  |
| A*11:01:27+A*24:02:11  | A*11:01:37+A*24:02:47  |
| A*11:01:27+A*24:02:58  | A*11:01:34+A*24:02:47  |
| A*11:01:27+A*24:05:01G | A*11:33:02+A*24:02:47  |
| A*11:01:27+A*24:13:01  | A*11:24:02+A*24:02:47  |
| A*11:01:27+A*24:13:02  | A*11:24:01+A*24:02:47  |
| A*11:01:27+A*24:30     | A*11:06+A*24:02:47     |
| A*11:01:27+A*24:35     | A*11:37+A*24:02:47     |
| A*11:01:27+A*24:37     | A*11:85+A*24:02:47     |
| A*11:01:27+A*24:39     | A*11:66+A*24:02:47     |
| A*11:01:27+A*24:63     | A*11:02:01G+A*24:02:47 |
| A*11:01:27+A*24:78     | A*11:68+A*24:02:47     |
| A*11:01:27+A*24:87     | A*11:44+A*24:02:47     |
| A*11:01:27+A*24:133    | A*11:23+A*24:02:47     |
| A*11:01:27+A*24:160    | A*11:112+A*24:02:47    |
| A*11:01:27+A*24:192    | A*11:125+A*24:02:47    |
| A*11:01:27+A*24:205    | A*11:114+A*24:02:47    |
| A*11:01:27+A*24:206    | A*11:128+A*24:02:47    |
| A*11:01:27+A*68:01:06  | A*11:01:40+A*68:01:13  |
| A*11:01:27+A*68:03:01  | A*11:19+A*68:01:13     |
| A*11:01:27+A*68:65     | A*11:39+A*68:01:13     |
| A*11:01:32+A*31:01:10  | A*11:01:35+A*31:01:12  |
| A*11:01:32+A*31:05     | A*11:39+A*31:01:12     |
| A*11:01:32+A*31:11     | A*11:15:01+A*31:01:12  |
| A*11:01:32+A*31:27     | A*11:37+A*31:01:12     |
| A*11:01:32+A*31:32     | A*11:83+A*31:01:12     |
| A*11:01:32+A*31:51     | A*11:32+A*31:01:12     |
| A*11:01:32+A*31:57     | A*11:63+A*31:01:12     |
| A*11:01:32+A*31:63     | A*11:41+A*31:01:12     |
| A*11:01:32+A*31:65     | A*11:64+A*31:01:12     |
| A*11:01:34+A*24:02:09  | A*11:01:39+A*24:02:58  |
| A*11:01:34+A*24:02:11  | A*11:01:37+A*24:02:58  |
| A*11:01:34+A*24:05:01G | A*11:33:02+A*24:02:58  |
| A*11:01:34+A*24:13:01  | A*11:24:02+A*24:02:58  |
| A*11:01:34+A*24:13:02  | A*11:24:01+A*24:02:58  |
| A*11:01:34+A*24:30     | A*11:06+A*24:02:58     |
| A*11:01:34+A*24:35     | A*11:37+A*24:02:58     |
| A*11:01:34+A*24:37     | A*11:85+A*24:02:58     |
| A*11:01:34+A*24:39     | A*11:66+A*24:02:58     |
| A*11:01:34+A*24:63     | A*11:02:01G+A*24:02:58 |
| A*11:01:34+A*24:78     | A*11:68+A*24:02:58     |
| A*11:01:34+A*24:87     | A*11:44+A*24:02:58     |
| A*11:01:34+A*24:133    | A*11:23+A*24:02:58     |
| A*11:01:34+A*24:160    | A*11:112+A*24:02:58    |
| A*11:01:34+A*24:192    | A*11:125+A*24:02:58    |
| A*11:01:34+A*24:205    | A*11:114+A*24:02:58    |
| A*11:01:34+A*24:206    | A*11:128+A*24:02:58    |
| A*11:01:34+A*25:06     | A*11:04+A*25:01:07     |

|                         |                        |
|-------------------------|------------------------|
| A*11:01:34+A*25:10      | A*11:117+A*25:01:07    |
| A*11:01:34+A*25:11      | A*11:06+A*25:01:07     |
| A*11:01:34+A*25:13      | A*11:12+A*25:01:07     |
| A*11:01:34+A*30:01:01G  | A*11:88+A*30:08        |
| A*11:01:34+A*68:05      | A*11:06+A*68:03:02     |
| A*11:01:35+A*26:01:09   | A*11:01:40+A*26:01:06  |
| A*11:01:35+A*26:01:21   | A*11:01:44+A*26:01:06  |
| A*11:01:35+A*26:09      | A*11:04+A*26:01:06     |
| A*11:01:35+A*26:10      | A*11:119+A*26:01:06    |
| A*11:01:35+A*26:15      | A*11:91+A*26:01:06     |
| A*11:01:35+A*26:16      | A*11:88+A*26:01:06     |
| A*11:01:35+A*26:36      | A*11:06+A*26:01:06     |
| A*11:01:35+A*26:49      | A*11:39+A*26:01:06     |
| A*11:01:35+A*26:65      | A*11:12+A*26:01:06     |
| A*11:01:35+A*26:75      | A*11:34+A*26:01:06     |
| A*11:01:35+A*31:05      | A*11:39+A*31:01:10     |
| A*11:01:35+A*31:11      | A*11:15:01+A*31:01:10  |
| A*11:01:35+A*31:27      | A*11:37+A*31:01:10     |
| A*11:01:35+A*31:32      | A*11:83+A*31:01:10     |
| A*11:01:35+A*31:51      | A*11:32+A*31:01:10     |
| A*11:01:35+A*31:57      | A*11:63+A*31:01:10     |
| A*11:01:35+A*31:63      | A*11:41+A*31:01:10     |
| A*11:01:35+A*31:65      | A*11:64+A*31:01:10     |
| A*11:01:36+A*33:10      | A*11:39+A*33:03:06     |
| A*11:01:36+A*33:17      | A*11:45+A*33:03:06     |
| A*11:01:36+A*33:42      | A*11:96+A*33:03:06     |
| A*11:01:36+A*33:52      | A*11:79+A*33:03:06     |
| A*11:01:37+A*24:02:09   | A*11:01:39+A*24:02:11  |
| A*11:01:37+A*24:05:01G  | A*11:33:02+A*24:02:11  |
| A*11:01:37+A*24:13:01   | A*11:24:02+A*24:02:11  |
| A*11:01:37+A*24:13:02   | A*11:24:01+A*24:02:11  |
| A*11:01:37+A*24:30      | A*11:06+A*24:02:11     |
| A*11:01:37+A*24:35      | A*11:37+A*24:02:11     |
| A*11:01:37+A*24:37      | A*11:85+A*24:02:11     |
| A*11:01:37+A*24:39      | A*11:66+A*24:02:11     |
| A*11:01:37+A*24:63      | A*11:02:01G+A*24:02:11 |
| A*11:01:37+A*24:78      | A*11:68+A*24:02:11     |
| A*11:01:37+A*24:87      | A*11:44+A*24:02:11     |
| A*11:01:37+A*24:133     | A*11:23+A*24:02:11     |
| A*11:01:37+A*24:160     | A*11:112+A*24:02:11    |
| A*11:01:37+A*24:192     | A*11:125+A*24:02:11    |
| A*11:01:37+A*24:205     | A*11:114+A*24:02:11    |
| A*11:01:37+A*24:206     | A*11:128+A*24:02:11    |
| A*11:01:39+A*24:05:01G  | A*11:33:02+A*24:02:09  |
| A*11:01:39+A*24:13:01   | A*11:24:02+A*24:02:09  |
| A*11:01:39+A*24:13:02   | A*11:24:01+A*24:02:09  |
| A*11:01:39+A*24:30      | A*11:06+A*24:02:09     |
| A*11:01:39+A*24:35      | A*11:37+A*24:02:09     |
| A*11:01:39+A*24:37      | A*11:85+A*24:02:09     |
| A*11:01:39+A*24:39      | A*11:66+A*24:02:09     |
| A*11:01:39+A*24:63      | A*11:02:01G+A*24:02:09 |
| A*11:01:39+A*24:78      | A*11:68+A*24:02:09     |
| A*11:01:39+A*24:87      | A*11:44+A*24:02:09     |
| A*11:01:39+A*24:133     | A*11:23+A*24:02:09     |
| A*11:01:39+A*24:160     | A*11:112+A*24:02:09    |
| A*11:01:39+A*24:192     | A*11:125+A*24:02:09    |
| A*11:01:39+A*24:205     | A*11:114+A*24:02:09    |
| A*11:01:39+A*24:206     | A*11:128+A*24:02:09    |
| A*11:01:39+A*30:16      | A*11:06+A*30:01:07     |
| A*11:01:39+A*30:39      | A*11:15:01+A*30:01:07  |
| A*11:01:39+A*30:60      | A*11:61+A*30:01:07     |
| A*11:01:39+A*68:03:03   | A*11:19+A*68:01:10     |
| A*11:01:39+A*68:04      | A*11:98+A*68:01:10     |
| A*11:01:39+A*68:29      | A*11:43+A*68:01:10     |
| A*11:01:39+A*68:45      | A*11:88+A*68:01:10     |
| A*11:01:39+A*68:58      | A*11:128+A*68:01:10    |
| A*11:01:40+A*26:01:21   | A*11:01:44+A*26:01:09  |
| A*11:01:40+A*26:09      | A*11:04+A*26:01:09     |
| A*11:01:40+A*26:10      | A*11:119+A*26:01:09    |
| A*11:01:40+A*26:15      | A*11:91+A*26:01:09     |
| A*11:01:40+A*26:16      | A*11:88+A*26:01:09     |
| A*11:01:40+A*26:36      | A*11:06+A*26:01:09     |
| A*11:01:40+A*26:49      | A*11:39+A*26:01:09     |
| A*11:01:40+A*26:65      | A*11:12+A*26:01:09     |
| A*11:01:40+A*26:75      | A*11:34+A*26:01:09     |
| A*11:01:40+A*32:08      | A*11:06+A*32:01:09     |
| A*11:01:40+A*32:12      | A*11:32+A*32:01:09     |
| A*11:01:40+A*32:13      | A*11:39+A*32:01:09     |
| A*11:01:40+A*32:15      | A*11:10+A*32:01:09     |
| A*11:01:40+A*32:20      | A*11:74+A*32:01:09     |
| A*11:01:40+A*32:39      | A*11:103+A*32:01:09    |
| A*11:01:40+A*32:41      | A*11:29+A*32:01:09     |
| A*11:01:40+A*68:03:01   | A*11:19+A*68:01:06     |
| A*11:01:40+A*68:65      | A*11:39+A*68:01:06     |
| A*11:01:44+A*26:09      | A*11:04+A*26:01:21     |
| A*11:01:44+A*26:10      | A*11:119+A*26:01:21    |
| A*11:01:44+A*26:15      | A*11:91+A*26:01:21     |
| A*11:01:44+A*26:16      | A*11:88+A*26:01:21     |
| A*11:01:44+A*26:36      | A*11:06+A*26:01:21     |
| A*11:01:44+A*26:49      | A*11:39+A*26:01:21     |
| A*11:01:44+A*26:65      | A*11:12+A*26:01:21     |
| A*11:01:44+A*26:75      | A*11:34+A*26:01:21     |
| A*11:01:44+A*31:01:02G  | A*11:04+A*31:25        |
| A*11:01:44+A*31:05      | A*11:27+A*31:25        |
| A*11:01:44+A*32:01:01G  | A*11:04+A*32:26        |
| A*11:01:44+A*32:13      | A*11:27+A*32:26        |
| A*11:02:01G+A*11:27     | A*11:04+A*11:38        |
| A*11:02:01G+A*23:01:01G | A*11:38+A*23:04        |
| A*11:02:01G+A*23:46     | A*11:113+A*23:53       |
| A*11:02:01G+A*24:02:18  | A*11:38+A*24:03:02     |
| A*11:02:01G+A*24:02:55  | A*11:02:02+A*24:02:01G |
| A*11:02:01G+A*24:05:01G | A*11:33:02+A*24:63     |
| A*11:02:01G+A*24:06     | A*11:38+A*24:167       |
| A*11:02:01G+A*24:13:01  | A*11:24:02+A*24:63     |
| A*11:02:01G+A*24:13:02  | A*11:24:01+A*24:63     |
|                         | A*11:38+A*24:207       |

|                         |                      |                 |                  |
|-------------------------|----------------------|-----------------|------------------|
| A*11:02:01G+A*24:30     | A*11:06+A*24:63      |                 |                  |
| A*11:02:01G+A*24:35     | A*11:37+A*24:63      |                 |                  |
| A*11:02:01G+A*24:37     | A*11:85+A*24:63      |                 |                  |
| A*11:02:01G+A*24:39     | A*11:66+A*24:63      |                 |                  |
| A*11:02:01G+A*24:46     | A*11:38+A*24:10      |                 |                  |
| A*11:02:01G+A*24:66     | A*11:113+A*24:17     |                 |                  |
| A*11:02:01G+A*24:78     | A*11:68+A*24:63      |                 |                  |
| A*11:02:01G+A*24:87     | A*11:44+A*24:63      |                 |                  |
| A*11:02:01G+A*24:131    | A*11:16+A*24:07      |                 |                  |
| A*11:02:01G+A*24:133    | A*11:23+A*24:63      |                 |                  |
| A*11:02:01G+A*24:160    | A*11:112+A*24:63     |                 |                  |
| A*11:02:01G+A*24:188    | A*11:57+A*24:13:01   |                 |                  |
| A*11:02:01G+A*24:192    | A*11:125+A*24:63     |                 |                  |
| A*11:02:01G+A*24:205    | A*11:114+A*24:63     |                 |                  |
| A*11:02:01G+A*24:206    | A*11:128+A*24:63     |                 |                  |
| A*11:02:01G+A*26:29     | A*11:38+A*26:15      |                 |                  |
| A*11:02:01G+A*26:49     | A*11:38+A*26:01:01G  |                 |                  |
| A*11:02:01G+A*29:03     | A*11:38+A*29:02:01G  |                 |                  |
| A*11:02:01G+A*30:01:01G | A*11:113+A*30:26     |                 |                  |
| A*11:02:01G+A*31:05     | A*11:38+A*31:01:02G  |                 |                  |
| A*11:02:01G+A*32:13     | A*11:38+A*32:01:01G  |                 |                  |
| A*11:02:01G+A*33:10     | A*11:38+A*33:03:01G  |                 |                  |
| A*11:02:01G+A*66:10     | A*11:38+A*66:01:01G  |                 |                  |
| A*11:02:01G+A*68:01:02G | A*11:16+A*68:12      |                 |                  |
| A*11:02:01G+A*68:01:05  | A*11:57+A*68:50      |                 |                  |
| A*11:02:01G+A*68:06     | A*11:113+A*68:01:02G |                 |                  |
| A*11:02:01G+A*68:31     | A*11:19+A*68:92      |                 |                  |
| A*11:02:01G+A*68:53     | A*11:123+A*68:92     |                 |                  |
| A*11:02:01G+A*68:65     | A*11:38+A*68:01:02G  |                 |                  |
| A*11:02:01G+A*68:67     | A*11:41+A*68:92      |                 |                  |
| A*11:02:01G+A*68:81     | A*11:32+A*68:92      |                 |                  |
| A*11:02:01G+A*68:82     | A*11:36+A*68:92      |                 |                  |
| A*11:03+A*11:31         | A*11:25+A*11:60      |                 |                  |
| A*11:03+A*24:02:01G     | A*11:20+A*24:71      | A*11:60+A*24:56 |                  |
| A*11:03+A*24:13:01      | A*11:20+A*23:14:02   | A*11:25+A*24:71 | A*11:31+A*24:177 |
| A*11:03+A*24:13:02      | A*11:20+A*23:14:01   |                 |                  |
| A*11:03+A*24:56         | A*11:20+A*24:177     |                 |                  |
| A*11:03+A*24:71         | A*11:60+A*24:177     |                 |                  |
| A*11:03+A*24:87         | A*11:08+A*24:71      |                 |                  |
| A*11:03+A*26:01:01G     | A*11:20+A*26:52      |                 |                  |
| A*11:03+A*26:12         | A*11:60+A*26:01:01G  |                 |                  |
| A*11:03+A*26:14         | A*11:20+A*26:28      |                 |                  |
| A*11:03+A*26:18         | A*11:60+A*26:28      |                 |                  |
| A*11:03+A*31:41         | A*11:20+A*31:01:02G  |                 |                  |
| A*11:03+A*32:02         | A*11:20+A*32:22      |                 |                  |
| A*11:03+A*32:06         | A*11:20+A*32:01:01G  | A*11:25+A*32:22 |                  |
| A*11:03+A*68:01:01G     | A*11:60+A*68:42      |                 |                  |
| A*11:03+A*68:02:01G     | A*11:20+A*68:51      | A*11:60+A*68:54 |                  |
| A*11:04+A*23:01:01G     | A*11:27+A*23:04      |                 |                  |
| A*11:04+A*24:02:01G     | A*11:27+A*24:03:01G  |                 |                  |
| A*11:04+A*24:02:18      | A*11:27+A*24:03:02   |                 |                  |
| A*11:04+A*24:06         | A*11:27+A*24:167     |                 |                  |
| A*11:04+A*24:13:01      | A*11:27+A*24:207     |                 |                  |
| A*11:04+A*24:55         | A*11:90+A*24:02:01G  |                 |                  |
| A*11:04+A*25:10         | A*11:117+A*25:06     |                 |                  |
| A*11:04+A*25:11         | A*11:06+A*25:06      |                 |                  |
| A*11:04+A*25:13         | A*11:12+A*25:06      |                 |                  |
| A*11:04+A*26:10         | A*11:119+A*26:09     |                 |                  |
| A*11:04+A*26:15         | A*11:91+A*26:09      |                 |                  |
| A*11:04+A*26:16         | A*11:88+A*26:09      |                 |                  |
| A*11:04+A*26:29         | A*11:27+A*26:15      |                 |                  |
| A*11:04+A*26:36         | A*11:06+A*26:09      |                 |                  |
| A*11:04+A*26:49         | A*11:27+A*26:01:01G  | A*11:39+A*26:09 |                  |
| A*11:04+A*26:65         | A*11:12+A*26:09      |                 |                  |
| A*11:04+A*26:69         | A*11:40+A*34:01:01   |                 |                  |
| A*11:04+A*26:75         | A*11:34+A*26:09      |                 |                  |
| A*11:04+A*29:03         | A*11:27+A*29:02:01G  |                 |                  |
| A*11:04+A*31:05         | A*11:27+A*31:01:02G  |                 |                  |
| A*11:04+A*32:13         | A*11:27+A*32:01:01G  |                 |                  |
| A*11:04+A*33:10         | A*11:27+A*33:03:01G  |                 |                  |
| A*11:04+A*66:10         | A*11:27+A*66:01:01G  |                 |                  |
| A*11:04+A*68:65         | A*11:27+A*68:01:02G  |                 |                  |
| A*11:06+A*23:47         | A*11:32+A*23:12      |                 |                  |
| A*11:06+A*23:50         | A*11:79+A*23:12      |                 |                  |
| A*11:06+A*24:05:01G     | A*11:33:02+A*24:30   |                 |                  |
| A*11:06+A*24:13:01      | A*11:24:02+A*24:30   |                 |                  |
| A*11:06+A*24:13:02      | A*11:24:01+A*24:30   |                 |                  |
| A*11:06+A*24:35         | A*11:37+A*24:30      |                 |                  |
| A*11:06+A*24:37         | A*11:85+A*24:30      |                 |                  |
| A*11:06+A*24:39         | A*11:66+A*24:30      |                 |                  |
| A*11:06+A*24:78         | A*11:68+A*24:30      |                 |                  |
| A*11:06+A*24:87         | A*11:44+A*24:30      |                 |                  |
| A*11:06+A*24:133        | A*11:23+A*24:30      |                 |                  |
| A*11:06+A*24:160        | A*11:112+A*24:30     |                 |                  |
| A*11:06+A*24:192        | A*11:125+A*24:30     |                 |                  |
| A*11:06+A*24:205        | A*11:114+A*24:30     |                 |                  |
| A*11:06+A*24:206        | A*11:128+A*24:30     |                 |                  |
| A*11:06+A*25:10         | A*11:117+A*25:11     |                 |                  |
| A*11:06+A*25:13         | A*11:12+A*25:11      | A*11:18+A*25:02 |                  |
| A*11:06+A*26:10         | A*11:119+A*26:36     |                 |                  |
| A*11:06+A*26:15         | A*11:91+A*26:36      |                 |                  |
| A*11:06+A*26:16         | A*11:88+A*26:36      |                 |                  |
| A*11:06+A*26:49         | A*11:39+A*26:36      |                 |                  |
| A*11:06+A*26:65         | A*11:12+A*26:36      | A*11:18+A*26:13 |                  |
| A*11:06+A*26:75         | A*11:34+A*26:36      |                 |                  |
| A*11:06+A*30:39         | A*11:15:01+A*30:16   |                 |                  |
| A*11:06+A*30:60         | A*11:61+A*30:16      |                 |                  |
| A*11:06+A*32:12         | A*11:32+A*32:08      |                 |                  |
| A*11:06+A*32:13         | A*11:39+A*32:08      |                 |                  |
| A*11:06+A*32:15         | A*11:10+A*32:08      |                 |                  |
| A*11:06+A*32:20         | A*11:74+A*32:08      |                 |                  |
| A*11:06+A*32:39         | A*11:103+A*32:08     |                 |                  |
| A*11:06+A*32:41         | A*11:29+A*32:08      |                 |                  |
| A*11:06+A*66:03         | A*11:90+A*26:30      |                 |                  |
| A*11:08+A*11:24:02      | A*11:25+A*11:44      |                 |                  |



|                     |                      |                 |
|---------------------|----------------------|-----------------|
| A*11:08+A*24:02:01G | A*11:20+A*24:87      |                 |
| A*11:08+A*24:13:01  | A*11:25+A*24:87      |                 |
| A*11:08+A*24:59     | A*11:44+A*24:56      |                 |
| A*11:08+A*24:190    | A*11:44+A*24:177     |                 |
| A*11:10+A*26:07:01  | A*11:70+A*26:69      |                 |
| A*11:10+A*26:07:02  | A*11:121+A*26:13     |                 |
| A*11:10+A*32:12     | A*11:32+A*32:15      |                 |
| A*11:10+A*32:13     | A*11:39+A*32:15      |                 |
| A*11:10+A*32:20     | A*11:74+A*32:15      |                 |
| A*11:10+A*32:39     | A*11:103+A*32:15     |                 |
| A*11:10+A*32:41     | A*11:29+A*32:15      |                 |
| A*11:10+A*43:01     | A*11:11+A*26:01:01G  |                 |
| A*11:10+A*68:13     | A*11:103+A*68:01:01G |                 |
| A*11:12+A*23:12     | A*11:18+A*23:13      |                 |
| A*11:12+A*24:30     | A*11:18+A*24:07      |                 |
| A*11:12+A*25:10     | A*11:117+A*25:13     |                 |
| A*11:12+A*26:10     | A*11:119+A*26:65     |                 |
| A*11:12+A*26:15     | A*11:91+A*26:65      |                 |
| A*11:12+A*26:16     | A*11:88+A*26:65      |                 |
| A*11:12+A*26:30     | A*11:18+A*66:12      |                 |
| A*11:12+A*26:49     | A*11:39+A*26:65      |                 |
| A*11:12+A*26:62     | A*11:17+A*66:12      |                 |
| A*11:12+A*26:75     | A*11:34+A*26:65      |                 |
| A*11:12+A*30:44     | A*11:18+A*30:01:01G  |                 |
| A*11:12+A*30:46     | A*11:18+A*30:17      |                 |
| A*11:12+A*32:08     | A*11:18+A*32:17      |                 |
| A*11:12+A*34:07     | A*11:96+A*34:09      |                 |
| A*11:12+A*66:05     | A*11:19+A*66:12      |                 |
| A*11:12+A*66:10     | A*11:39+A*66:12      |                 |
| A*11:12+A*66:11     | A*11:45+A*66:12      |                 |
| A*11:12+A*66:13     | A*11:105+A*66:12     |                 |
| A*11:12+A*66:14     | A*11:32+A*66:12      |                 |
| A*11:12+A*66:15     | A*11:98+A*66:12      |                 |
| A*11:12+A*68:05     | A*11:18+A*68:01:02G  |                 |
| A*11:12+A*68:15     | A*11:18+A*68:02:01G  |                 |
| A*11:12+A*74:06     | A*11:18+A*74:13      |                 |
| A*11:12+A*74:10     | A*11:40+A*74:13      |                 |
| A*11:15:01+A*30:60  | A*11:61+A*30:39      |                 |
| A*11:15:01+A*31:05  | A*11:39+A*31:11      |                 |
| A*11:15:01+A*31:27  | A*11:37+A*31:11      |                 |
| A*11:15:01+A*31:32  | A*11:83+A*31:11      |                 |
| A*11:15:01+A*31:51  | A*11:32+A*31:11      |                 |
| A*11:15:01+A*31:57  | A*11:63+A*31:11      |                 |
| A*11:15:01+A*31:63  | A*11:41+A*31:11      |                 |
| A*11:15:01+A*31:65  | A*11:64+A*31:11      |                 |
| A*11:16+A*11:39     | A*11:38+A*11:73      |                 |
| A*11:16+A*24:02:01G | A*11:73+A*24:63      |                 |
| A*11:16+A*24:94     | A*11:57+A*24:207     |                 |
| A*11:16+A*25:05     | A*11:57+A*25:01:01G  |                 |
| A*11:16+A*26:54     | A*11:57+A*26:01:01G  |                 |
| A*11:16+A*68:02:01G | A*11:57+A*68:48      | A*11:73+A*68:92 |
| A*11:17+A*26:01:01G | A*11:40+A*26:62      |                 |
| A*11:17+A*26:30     | A*11:18+A*26:62      |                 |
| A*11:17+A*32:01:01G | A*11:40+A*32:24      |                 |
| A*11:17+A*66:05     | A*11:19+A*26:62      |                 |
| A*11:17+A*66:10     | A*11:39+A*26:62      |                 |
| A*11:17+A*66:11     | A*11:45+A*26:62      |                 |
| A*11:17+A*66:13     | A*11:105+A*26:62     |                 |
| A*11:17+A*66:14     | A*11:32+A*26:62      |                 |
| A*11:17+A*66:15     | A*11:98+A*26:62      |                 |
| A*11:18+A*24:44     | A*11:19+A*24:28      |                 |
| A*11:18+A*24:109    | A*11:40+A*24:28      |                 |
| A*11:18+A*26:01:01G | A*11:40+A*26:30      |                 |
| A*11:18+A*33:13     | A*11:40+A*33:24      |                 |
| A*11:18+A*66:05     | A*11:19+A*26:30      |                 |
| A*11:18+A*66:10     | A*11:39+A*26:30      |                 |
| A*11:18+A*66:11     | A*11:45+A*26:30      |                 |
| A*11:18+A*66:13     | A*11:105+A*26:30     |                 |
| A*11:18+A*66:14     | A*11:32+A*26:30      |                 |
| A*11:18+A*66:15     | A*11:98+A*26:30      |                 |
| A*11:18+A*74:10     | A*11:40+A*74:06      |                 |
| A*11:19+A*24:34     | A*11:98+A*24:02:01G  |                 |
| A*11:19+A*24:109    | A*11:40+A*24:44      |                 |
| A*11:19+A*24:131    | A*11:73+A*24:02:01G  |                 |
| A*11:19+A*26:01:01G | A*11:40+A*66:05      |                 |
| A*11:19+A*26:36     | A*11:40+A*26:03:01   |                 |
| A*11:19+A*29:03     | A*11:39+A*29:34      |                 |
| A*11:19+A*29:06     | A*11:32+A*29:34      |                 |
| A*11:19+A*29:29     | A*11:128+A*29:34     |                 |
| A*11:19+A*29:32     | A*11:116+A*29:34     |                 |
| A*11:19+A*31:01:02G | A*11:98+A*31:66      |                 |
| A*11:19+A*33:03:01G | A*11:98+A*33:11      |                 |
| A*11:19+A*33:48     | A*11:40+A*33:11      |                 |
| A*11:19+A*66:10     | A*11:39+A*66:05      |                 |
| A*11:19+A*66:11     | A*11:45+A*66:05      |                 |
| A*11:19+A*66:13     | A*11:105+A*66:05     |                 |
| A*11:19+A*66:14     | A*11:32+A*66:05      |                 |
| A*11:19+A*66:15     | A*11:98+A*66:05      |                 |
| A*11:19+A*68:04     | A*11:98+A*68:03:03   |                 |
| A*11:19+A*68:29     | A*11:43+A*68:03:03   |                 |
| A*11:19+A*68:45     | A*11:88+A*68:03:03   |                 |
| A*11:19+A*68:53     | A*11:123+A*68:31     |                 |
| A*11:19+A*68:58     | A*11:128+A*68:03:03  |                 |
| A*11:19+A*68:65     | A*11:39+A*68:03:01   |                 |
| A*11:19+A*68:67     | A*11:41+A*68:31      |                 |
| A*11:19+A*68:81     | A*11:32+A*68:31      |                 |
| A*11:19+A*68:82     | A*11:36+A*68:31      |                 |
| A*11:19+A*68:84     | A*11:40+A*68:01:02G  |                 |
| A*11:19+A*74:04     | A*11:121+A*74:01:01G |                 |
| A*11:19+A*74:07     | A*11:98+A*74:01:01G  |                 |
| A*11:20+A*24:13:01  | A*11:25+A*24:02:01G  | A*11:31+A*24:56 |
| A*11:20+A*24:207    | A*11:25+A*24:03:01G  |                 |
| A*11:20+A*25:19     | A*11:25+A*25:04      |                 |
| A*11:20+A*26:18     | A*11:60+A*26:14      |                 |
| A*11:20+A*26:43:01  | A*11:25+A*26:08      |                 |

|                        |                        |                    |
|------------------------|------------------------|--------------------|
| A*11:20+A*32:06        | A*11:25+A*32:02        |                    |
| A*11:20+A*33:03:01G    | A*11:60+A*33:28        |                    |
| A*11:20+A*68:08:02     | A*11:25+A*68:09        |                    |
| A*11:23+A*24:05:01G    | A*11:33:02+A*24:133    |                    |
| A*11:23+A*24:13:01     | A*11:24:02+A*24:133    |                    |
| A*11:23+A*24:13:02     | A*11:24:01+A*24:133    |                    |
| A*11:23+A*24:35        | A*11:37+A*24:133       |                    |
| A*11:23+A*24:37        | A*11:85+A*24:133       |                    |
| A*11:23+A*24:39        | A*11:66+A*24:133       |                    |
| A*11:23+A*24:78        | A*11:68+A*24:133       |                    |
| A*11:23+A*24:87        | A*11:44+A*24:133       |                    |
| A*11:23+A*24:160       | A*11:112+A*24:133      |                    |
| A*11:23+A*24:192       | A*11:125+A*24:133      |                    |
| A*11:23+A*24:205       | A*11:114+A*24:133      |                    |
| A*11:23+A*24:206       | A*11:128+A*24:133      |                    |
| A*11:24:01+A*23:02     | A*11:44+A*23:01:01G    |                    |
| A*11:24:01+A*23:14:02  | A*11:24:02+A*23:14:01  |                    |
| A*11:24:01+A*24:05:01G | A*11:33:02+A*24:13:02  |                    |
| A*11:24:01+A*24:06     | A*11:24:02+A*24:87     | A*11:44+A*24:13:01 |
| A*11:24:01+A*24:13:01  | A*11:24:02+A*24:13:02  |                    |
| A*11:24:01+A*24:35     | A*11:37+A*24:13:02     |                    |
| A*11:24:01+A*24:37     | A*11:85+A*24:13:02     |                    |
| A*11:24:01+A*24:39     | A*11:66+A*24:13:02     |                    |
| A*11:24:01+A*24:78     | A*11:68+A*24:13:02     |                    |
| A*11:24:01+A*24:87     | A*11:44+A*24:13:02     |                    |
| A*11:24:01+A*24:160    | A*11:112+A*24:13:02    |                    |
| A*11:24:01+A*24:167    | A*11:44+A*24:207       |                    |
| A*11:24:01+A*24:192    | A*11:125+A*24:13:02    |                    |
| A*11:24:01+A*24:205    | A*11:114+A*24:13:02    |                    |
| A*11:24:01+A*24:206    | A*11:128+A*24:13:02    |                    |
| A*11:24:01+A*25:01:01G | A*11:44+A*25:19        |                    |
| A*11:24:01+A*26:01:01G | A*11:44+A*26:43:01     |                    |
| A*11:24:01+A*26:43:01  | A*11:24:02+A*26:43:02  |                    |
| A*11:24:01+A*29:28     | A*11:44+A*29:01:01G    |                    |
| A*11:24:01+A*30:02:01G | A*11:24:02+A*30:02:05  |                    |
| A*11:24:01+A*31:01:02G | A*11:24:02+A*31:01:05  |                    |
| A*11:24:01+A*31:30     | A*11:44+A*31:01:02G    |                    |
| A*11:24:01+A*32:01:01G | A*11:24:02+A*32:01:06  |                    |
| A*11:24:01+A*33:03:01G | A*11:24:02+A*33:03:05  |                    |
| A*11:24:01+A*34:02:01  | A*11:24:02+A*34:02:02  |                    |
| A*11:24:01+A*68:01:02G | A*11:44+A*68:08:02     |                    |
| A*11:24:01+A*68:02:01G | A*11:24:02+A*68:28     |                    |
| A*11:24:01+A*68:26     | A*11:39+A*68:08:01     |                    |
| A*11:24:01+A*68:42     | A*11:44+A*68:63        |                    |
| A*11:24:02+A*24:05:01G | A*11:33:02+A*24:13:01  |                    |
| A*11:24:02+A*24:35     | A*11:37+A*24:13:01     |                    |
| A*11:24:02+A*24:37     | A*11:85+A*24:13:01     |                    |
| A*11:24:02+A*24:39     | A*11:66+A*24:13:01     |                    |
| A*11:24:02+A*24:56     | A*11:25+A*24:59        |                    |
| A*11:24:02+A*24:78     | A*11:68+A*24:13:01     |                    |
| A*11:24:02+A*24:160    | A*11:112+A*24:13:01    |                    |
| A*11:24:02+A*24:177    | A*11:25+A*24:190       |                    |
| A*11:24:02+A*24:192    | A*11:125+A*24:13:01    |                    |
| A*11:24:02+A*24:205    | A*11:114+A*24:13:01    |                    |
| A*11:24:02+A*24:206    | A*11:128+A*24:13:01    |                    |
| A*11:24:02+A*31:01:02G | A*11:31+A*31:43        |                    |
| A*11:25+A*26:12        | A*11:31+A*26:01:01G    |                    |
| A*11:25+A*26:18        | A*11:31+A*26:28        |                    |
| A*11:25+A*68:01:01G    | A*11:31+A*68:42        |                    |
| A*11:25+A*68:02:01G    | A*11:31+A*68:54        |                    |
| A*11:26+A*24:15        | A*11:118+A*24:53       |                    |
| A*11:26+A*24:41        | A*11:118+A*24:17       |                    |
| A*11:26+A*25:01:01G    | A*11:118+A*25:10       |                    |
| A*11:26+A*29:44        | A*11:118+A*29:02:01G   |                    |
| A*11:26+A*33:49        | A*11:117+A*33:01:01G   |                    |
| A*11:27+A*23:10        | A*11:39+A*23:01:01G    |                    |
| A*11:27+A*24:46        | A*11:39+A*24:02:01G    |                    |
| A*11:27+A*25:01:01G    | A*11:39+A*25:06        |                    |
| A*11:27+A*68:61        | A*11:39+A*68:54        |                    |
| A*11:29+A*32:12        | A*11:32+A*32:41        |                    |
| A*11:29+A*32:13        | A*11:39+A*32:41        |                    |
| A*11:29+A*32:20        | A*11:74+A*32:41        |                    |
| A*11:29+A*32:39        | A*11:103+A*32:41       |                    |
| A*11:31+A*24:71        | A*11:60+A*24:13:01     |                    |
| A*11:31+A*32:22        | A*11:60+A*32:06        |                    |
| A*11:32+A*23:50        | A*11:79+A*23:47        |                    |
| A*11:32+A*26:01:01G    | A*11:40+A*66:14        |                    |
| A*11:32+A*29:03        | A*11:39+A*29:06        |                    |
| A*11:32+A*29:29        | A*11:128+A*29:06       |                    |
| A*11:32+A*29:32        | A*11:116+A*29:06       |                    |
| A*11:32+A*30:61        | A*11:119+A*30:51       |                    |
| A*11:32+A*31:05        | A*11:39+A*31:51        |                    |
| A*11:32+A*31:27        | A*11:37+A*31:51        |                    |
| A*11:32+A*31:32        | A*11:83+A*31:51        |                    |
| A*11:32+A*31:57        | A*11:63+A*31:51        |                    |
| A*11:32+A*31:63        | A*11:41+A*31:51        |                    |
| A*11:32+A*31:65        | A*11:64+A*31:51        |                    |
| A*11:32+A*32:13        | A*11:39+A*32:12        |                    |
| A*11:32+A*32:20        | A*11:74+A*32:12        |                    |
| A*11:32+A*32:39        | A*11:103+A*32:12       |                    |
| A*11:32+A*66:10        | A*11:39+A*66:14        |                    |
| A*11:32+A*66:11        | A*11:45+A*66:14        |                    |
| A*11:32+A*66:13        | A*11:105+A*66:14       |                    |
| A*11:32+A*66:15        | A*11:98+A*66:14        |                    |
| A*11:32+A*68:53        | A*11:123+A*68:81       |                    |
| A*11:32+A*68:67        | A*11:41+A*68:81        |                    |
| A*11:32+A*68:82        | A*11:36+A*68:81        |                    |
| A*11:33:01+A*26:01:17  | A*11:33:02+A*26:01:01G |                    |
| A*11:33:01+A*29:02:11  | A*11:33:02+A*29:02:01G |                    |
| A*11:33:01+A*68:01:01G | A*11:33:02+A*68:01:05  |                    |
| A*11:33:02+A*24:35     | A*11:37+A*24:05:01G    |                    |
| A*11:33:02+A*24:37     | A*11:85+A*24:05:01G    |                    |
| A*11:33:02+A*24:39     | A*11:66+A*24:05:01G    |                    |
| A*11:33:02+A*24:78     | A*11:68+A*24:05:01G    |                    |
| A*11:33:02+A*24:87     | A*11:44+A*24:05:01G    |                    |

|                     |                      |                  |
|---------------------|----------------------|------------------|
| A*11:33:02+A*24:160 | A*11:112+A*24:05:01G |                  |
| A*11:33:02+A*24:192 | A*11:125+A*24:05:01G |                  |
| A*11:33:02+A*24:205 | A*11:114+A*24:05:01G |                  |
| A*11:33:02+A*24:206 | A*11:128+A*24:05:01G |                  |
| A*11:34+A*26:10     | A*11:119+A*26:75     |                  |
| A*11:34+A*26:15     | A*11:91+A*26:75      |                  |
| A*11:34+A*26:16     | A*11:88+A*26:75      |                  |
| A*11:34+A*26:49     | A*11:39+A*26:75      |                  |
| A*11:36+A*68:53     | A*11:123+A*68:82     |                  |
| A*11:36+A*68:67     | A*11:41+A*68:82      |                  |
| A*11:37+A*24:37     | A*11:85+A*24:35      |                  |
| A*11:37+A*24:39     | A*11:66+A*24:35      |                  |
| A*11:37+A*24:78     | A*11:68+A*24:35      |                  |
| A*11:37+A*24:87     | A*11:44+A*24:35      |                  |
| A*11:37+A*24:160    | A*11:112+A*24:35     |                  |
| A*11:37+A*24:192    | A*11:125+A*24:35     |                  |
| A*11:37+A*24:205    | A*11:114+A*24:35     |                  |
| A*11:37+A*24:206    | A*11:128+A*24:35     |                  |
| A*11:37+A*31:05     | A*11:39+A*31:27      |                  |
| A*11:37+A*31:32     | A*11:83+A*31:27      |                  |
| A*11:37+A*31:57     | A*11:63+A*31:27      |                  |
| A*11:37+A*31:63     | A*11:41+A*31:27      |                  |
| A*11:37+A*31:65     | A*11:64+A*31:27      |                  |
| A*11:38+A*24:02:01G | A*11:39+A*24:63      |                  |
| A*11:38+A*68:02:01G | A*11:39+A*68:92      |                  |
| A*11:38+A*68:06     | A*11:113+A*68:65     |                  |
| A*11:39+A*24:22     | A*11:112+A*24:06     |                  |
| A*11:39+A*26:10     | A*11:119+A*26:49     |                  |
| A*11:39+A*26:16     | A*11:88+A*26:49      |                  |
| A*11:39+A*29:29     | A*11:128+A*29:03     |                  |
| A*11:39+A*29:32     | A*11:116+A*29:03     |                  |
| A*11:39+A*31:32     | A*11:83+A*31:05      |                  |
| A*11:39+A*31:57     | A*11:63+A*31:05      |                  |
| A*11:39+A*31:63     | A*11:41+A*31:05      |                  |
| A*11:39+A*31:65     | A*11:64+A*31:05      |                  |
| A*11:39+A*32:20     | A*11:74+A*32:13      |                  |
| A*11:39+A*32:39     | A*11:103+A*32:13     |                  |
| A*11:39+A*33:17     | A*11:45+A*33:10      |                  |
| A*11:39+A*33:42     | A*11:96+A*33:10      |                  |
| A*11:39+A*33:52     | A*11:79+A*33:10      |                  |
| A*11:39+A*66:11     | A*11:45+A*66:10      |                  |
| A*11:39+A*66:13     | A*11:105+A*66:10     |                  |
| A*11:39+A*66:15     | A*11:98+A*66:10      |                  |
| A*11:40+A*29:39     | A*11:98+A*29:02:01G  |                  |
| A*11:40+A*33:03:01G | A*11:98+A*33:48      |                  |
| A*11:40+A*66:02     | A*11:90+A*26:65      |                  |
| A*11:40+A*66:11     | A*11:45+A*26:01:01G  |                  |
| A*11:40+A*66:13     | A*11:105+A*26:01:01G |                  |
| A*11:40+A*66:15     | A*11:98+A*26:01:01G  |                  |
| A*11:41+A*31:32     | A*11:83+A*31:63      |                  |
| A*11:41+A*31:57     | A*11:63+A*31:63      |                  |
| A*11:41+A*31:65     | A*11:64+A*31:63      |                  |
| A*11:41+A*68:53     | A*11:123+A*68:67     |                  |
| A*11:43+A*24:02:01G | A*11:88+A*24:82      |                  |
| A*11:43+A*29:37     | A*11:88+A*29:02:01G  |                  |
| A*11:43+A*32:07     | A*11:88+A*32:42      |                  |
| A*11:43+A*68:04     | A*11:98+A*68:29      |                  |
| A*11:43+A*68:45     | A*11:88+A*68:29      |                  |
| A*11:43+A*68:58     | A*11:128+A*68:29     |                  |
| A*11:44+A*24:37     | A*11:85+A*24:87      |                  |
| A*11:44+A*24:39     | A*11:66+A*24:87      |                  |
| A*11:44+A*24:78     | A*11:68+A*24:87      |                  |
| A*11:44+A*24:160    | A*11:94+A*24:03:01G  | A*11:112+A*24:87 |
| A*11:44+A*24:192    | A*11:125+A*24:87     |                  |
| A*11:44+A*24:205    | A*11:114+A*24:87     |                  |
| A*11:44+A*24:206    | A*11:128+A*24:87     |                  |
| A*11:45+A*23:01:01G | A*11:111+A*23:40     |                  |
| A*11:45+A*26:05     | A*11:111+A*26:01:01G |                  |
| A*11:45+A*30:02:01G | A*11:111+A*30:57     |                  |
| A*11:45+A*33:42     | A*11:96+A*33:17      |                  |
| A*11:45+A*33:52     | A*11:79+A*33:17      |                  |
| A*11:45+A*66:13     | A*11:105+A*66:11     |                  |
| A*11:45+A*66:15     | A*11:98+A*66:11      |                  |
| A*11:63+A*31:32     | A*11:83+A*31:57      |                  |
| A*11:63+A*31:65     | A*11:64+A*31:57      |                  |
| A*11:64+A*31:32     | A*11:83+A*31:65      |                  |
| A*11:66+A*24:37     | A*11:85+A*24:39      |                  |
| A*11:66+A*24:78     | A*11:68+A*24:39      |                  |
| A*11:66+A*24:160    | A*11:112+A*24:39     |                  |
| A*11:66+A*24:192    | A*11:125+A*24:39     |                  |
| A*11:66+A*24:205    | A*11:114+A*24:39     |                  |
| A*11:66+A*24:206    | A*11:128+A*24:39     |                  |
| A*11:68+A*24:37     | A*11:85+A*24:78      |                  |
| A*11:68+A*24:160    | A*11:112+A*24:78     |                  |
| A*11:68+A*24:192    | A*11:125+A*24:78     |                  |
| A*11:68+A*24:205    | A*11:114+A*24:78     |                  |
| A*11:68+A*24:206    | A*11:128+A*24:78     |                  |
| A*11:70+A*23:28     | A*11:103+A*23:01:01G |                  |
| A*11:70+A*24:77     | A*11:103+A*24:02:01G |                  |
| A*11:70+A*24:191    | A*11:103+A*24:156    |                  |
| A*11:70+A*68:01:02G | A*11:103+A*68:75     |                  |
| A*11:73+A*24:34     | A*11:98+A*24:131     |                  |
| A*11:74+A*32:39     | A*11:103+A*32:20     |                  |
| A*11:79+A*33:42     | A*11:96+A*33:52      |                  |
| A*11:82+A*24:27     | A*11:93+A*24:02:01G  |                  |
| A*11:82+A*68:62     | A*11:93+A*68:02:01G  |                  |
| A*11:85+A*24:160    | A*11:112+A*24:37     |                  |
| A*11:85+A*24:192    | A*11:125+A*24:37     |                  |
| A*11:85+A*24:205    | A*11:114+A*24:37     |                  |
| A*11:85+A*24:206    | A*11:128+A*24:37     |                  |
| A*11:88+A*26:10     | A*11:119+A*26:16     |                  |
| A*11:88+A*26:15     | A*11:91+A*26:16      |                  |
| A*11:88+A*68:04     | A*11:98+A*68:45      |                  |
| A*11:88+A*68:58     | A*11:128+A*68:45     |                  |
| A*11:91+A*26:10     | A*11:119+A*26:15     |                  |

|                         |                         |                     |                    |                 |
|-------------------------|-------------------------|---------------------|--------------------|-----------------|
| A*11:98+A*66:13         | A*11:105+A*66:15        |                     |                    |                 |
| A*11:98+A*68:58         | A*11:128+A*68:04        |                     |                    |                 |
| A*11:98+A*74:04         | A*11:121+A*74:07        |                     |                    |                 |
| A*11:112+A*24:192       | A*11:125+A*24:160       |                     |                    |                 |
| A*11:112+A*24:205       | A*11:114+A*24:160       |                     |                    |                 |
| A*11:112+A*24:206       | A*11:128+A*24:160       |                     |                    |                 |
| A*11:114+A*24:192       | A*11:125+A*24:205       |                     |                    |                 |
| A*11:114+A*24:206       | A*11:128+A*24:205       |                     |                    |                 |
| A*11:116+A*29:29        | A*11:128+A*29:32        |                     |                    |                 |
| A*11:125+A*24:206       | A*11:128+A*24:192       |                     |                    |                 |
| A*23:01:01G+A*24:02:01G | A*23:14:02+A*24:05:01G  |                     |                    |                 |
| A*23:01:01G+A*24:02:24  | A*23:01:04+A*24:02:01G  |                     |                    |                 |
| A*23:01:01G+A*24:02:47  | A*23:01:10+A*24:02:01G  |                     |                    |                 |
| A*23:01:01G+A*24:03:01G | A*23:04+A*24:02:01G     |                     |                    |                 |
| A*23:01:01G+A*24:03:02  | A*23:04+A*24:02:18      |                     |                    |                 |
| A*23:01:01G+A*24:06     | A*23:02+A*24:13:01      |                     |                    |                 |
| A*23:01:01G+A*24:07     | A*23:13+A*24:02:01G     |                     |                    |                 |
| A*23:01:01G+A*24:10     | A*23:04+A*24:46         | A*23:10+A*24:03:01G |                    |                 |
| A*23:01:01G+A*24:17     | A*23:53+A*24:02:01G     |                     |                    |                 |
| A*23:01:01G+A*24:19     | A*23:13+A*24:44         |                     |                    |                 |
| A*23:01:01G+A*24:21:01  | A*23:03:02+A*24:02:01G  |                     |                    |                 |
| A*23:01:01G+A*24:25     | A*23:05+A*24:02:01G     |                     |                    |                 |
| A*23:01:01G+A*24:30     | A*23:12+A*24:02:01G     |                     |                    |                 |
| A*23:01:01G+A*24:32     | A*23:36+A*24:02:01G     |                     |                    |                 |
| A*23:01:01G+A*24:46     | A*23:10+A*24:02:01G     |                     |                    |                 |
| A*23:01:01G+A*24:66     | A*23:46+A*24:02:01G     |                     |                    |                 |
| A*23:01:01G+A*24:72     | A*23:24+A*24:02:01G     |                     |                    |                 |
| A*23:01:01G+A*24:77     | A*23:28+A*24:02:01G     |                     |                    |                 |
| A*23:01:01G+A*24:87     | A*23:02+A*24:13:02      |                     |                    |                 |
| A*23:01:01G+A*24:128    | A*23:29+A*24:02:01G     |                     |                    |                 |
| A*23:01:01G+A*24:129    | A*23:09+A*24:04         |                     |                    |                 |
| A*23:01:01G+A*24:156    | A*23:51+A*24:02:01G     |                     |                    |                 |
| A*23:01:01G+A*24:167    | A*23:02+A*24:207        | A*23:04+A*24:06     |                    |                 |
| A*23:01:01G+A*24:191    | A*23:28+A*24:156        | A*23:51+A*24:77     |                    |                 |
| A*23:01:01G+A*24:207    | A*23:04+A*24:13:01      |                     |                    |                 |
| A*23:01:01G+A*24:208    | A*23:03:01+A*24:17      |                     |                    |                 |
| A*23:01:01G+A*25:01:01G | A*23:02+A*25:19         | A*23:10+A*25:06     |                    |                 |
| A*23:01:01G+A*25:02     | A*23:13+A*25:01:01G     |                     |                    |                 |
| A*23:01:01G+A*25:11     | A*23:12+A*25:01:01G     |                     |                    |                 |
| A*23:01:01G+A*26:01:01G | A*23:02+A*26:43:01      | A*23:03:02+A*26:10  | A*23:04+A*26:49    | A*23:10+A*26:09 |
|                         | A*23:40+A*26:05         |                     |                    |                 |
| A*23:01:01G+A*26:01:20  | A*23:01:08+A*26:01:01G  |                     |                    |                 |
| A*23:01:01G+A*26:03:01  | A*23:12+A*66:05         |                     |                    |                 |
| A*23:01:01G+A*26:13     | A*23:13+A*26:01:01G     |                     |                    |                 |
| A*23:01:01G+A*26:15     | A*23:04+A*26:29         |                     |                    |                 |
| A*23:01:01G+A*26:36     | A*23:12+A*26:01:01G     |                     |                    |                 |
| A*23:01:01G+A*26:41     | A*23:44+A*26:01:01G     |                     |                    |                 |
| A*23:01:01G+A*26:76     | A*23:37:01+A*26:01:01G  |                     |                    |                 |
| A*23:01:01G+A*29:01:01G | A*23:13+A*29:20         |                     |                    |                 |
| A*23:01:01G+A*29:02:01G | A*23:04+A*29:03         | A*23:13+A*29:34     |                    |                 |
| A*23:01:01G+A*29:02:12  | A*23:01:07+A*29:02:01G  |                     |                    |                 |
| A*23:01:01G+A*29:06     | A*23:47+A*29:02:01G     |                     |                    |                 |
| A*23:01:01G+A*29:09     | A*23:14:02+A*29:02:01G  |                     |                    |                 |
| A*23:01:01G+A*29:15     | A*23:41+A*29:01:01G     |                     |                    |                 |
| A*23:01:01G+A*29:28     | A*23:02+A*29:01:01G     |                     |                    |                 |
| A*23:01:01G+A*30:01:01G | A*23:21+A*30:11:02      |                     |                    |                 |
| A*23:01:01G+A*30:02:01G | A*23:03:02+A*30:61      |                     |                    |                 |
| A*23:01:01G+A*30:06     | A*23:49+A*30:04:01      |                     |                    |                 |
| A*23:01:01G+A*30:16     | A*23:12+A*30:01:01G     | A*23:13+A*30:44     |                    |                 |
| A*23:01:01G+A*30:25     | A*23:13+A*30:02:01G     |                     |                    |                 |
| A*23:01:01G+A*30:38     | A*23:48+A*30:01:01G     |                     |                    |                 |
| A*23:01:01G+A*30:51     | A*23:47+A*30:02:01G     |                     |                    |                 |
| A*23:01:01G+A*30:54     | A*23:14:02+A*30:01:01G  |                     |                    |                 |
| A*23:01:01G+A*30:57     | A*23:40+A*30:02:01G     |                     |                    |                 |
| A*23:01:01G+A*31:01:02G | A*23:04+A*31:05         | A*23:21+A*31:44     |                    |                 |
| A*23:01:01G+A*31:30     | A*23:02+A*31:01:02G     |                     |                    |                 |
| A*23:01:01G+A*31:36     | A*23:06+A*31:01:02G     |                     |                    |                 |
| A*23:01:01G+A*31:51     | A*23:47+A*31:01:02G     |                     |                    |                 |
| A*23:01:01G+A*32:01:01G | A*23:03:01+A*32:28      | A*23:04+A*32:13     | A*23:36+A*32:03    | A*23:51+A*32:05 |
| A*23:01:01G+A*32:01:12  | A*23:03:02+A*32:28      |                     |                    |                 |
| A*23:01:01G+A*32:02     | A*24:05:01G+A*32:01:01G |                     |                    |                 |
| A*23:01:01G+A*32:08     | A*23:12+A*32:01:01G     |                     |                    |                 |
| A*23:01:01G+A*32:12     | A*23:47+A*32:01:01G     |                     |                    |                 |
| A*23:01:01G+A*32:17     | A*23:13+A*32:01:01G     |                     |                    |                 |
| A*23:01:01G+A*33:01:01G | A*23:03:01+A*33:32:01   |                     |                    |                 |
| A*23:01:01G+A*33:01:05  | A*23:03:02+A*33:32:01   |                     |                    |                 |
| A*23:01:01G+A*33:03:01G | A*23:04+A*33:10         |                     |                    |                 |
| A*23:01:01G+A*33:04     | A*23:23+A*33:01:01G     |                     |                    |                 |
| A*23:01:01G+A*33:06     | A*23:29+A*33:03:01G     |                     |                    |                 |
| A*23:01:01G+A*33:24     | A*23:12+A*33:11         |                     |                    |                 |
| A*23:01:01G+A*33:33     | A*23:23+A*33:03:01G     |                     |                    |                 |
| A*23:01:01G+A*33:34     | A*23:14:02+A*33:01:01G  |                     |                    |                 |
| A*23:01:01G+A*33:52     | A*23:50+A*33:03:01G     |                     |                    |                 |
| A*23:01:01G+A*33:61     | A*23:10+A*33:03:01G     |                     |                    |                 |
| A*23:01:01G+A*34:04     | A*23:21+A*34:02:01      |                     |                    |                 |
| A*23:01:01G+A*66:01:01G | A*23:04+A*66:10         | A*23:13+A*66:05     |                    |                 |
| A*23:01:01G+A*66:02     | A*23:13+A*66:03         |                     |                    |                 |
| A*23:01:01G+A*66:14     | A*23:47+A*66:01:01G     |                     |                    |                 |
| A*23:01:01G+A*68:01:01G | A*23:13+A*68:03:03      |                     |                    |                 |
| A*23:01:01G+A*68:01:02G | A*23:02+A*68:08:02      | A*23:04+A*68:65     | A*23:13+A*68:03:01 | A*23:28+A*68:75 |
| A*23:01:01G+A*68:01:13  | A*23:01:10+A*68:01:02G  |                     |                    |                 |
| A*23:01:01G+A*68:02:01G | A*23:13+A*68:31         |                     |                    |                 |
| A*23:01:01G+A*68:05     | A*23:12+A*68:03:01      |                     |                    |                 |
| A*23:01:01G+A*68:14     | A*23:47+A*68:10         |                     |                    |                 |
| A*23:01:01G+A*68:15     | A*23:12+A*68:31         |                     |                    |                 |
| A*23:01:01G+A*68:20     | A*23:44+A*68:05         |                     |                    |                 |
| A*23:01:01G+A*68:21:01  | A*23:25+A*68:01:02G     |                     |                    |                 |
| A*23:01:01G+A*68:42     | A*23:02+A*68:63         |                     |                    |                 |
| A*23:01:01G+A*68:61     | A*23:10+A*68:54         |                     |                    |                 |
| A*23:01:01G+A*68:81     | A*23:47+A*68:02:01G     |                     |                    |                 |
| A*23:01:01G+A*68:91     | A*23:03:02+A*68:01:02G  |                     |                    |                 |
| A*23:01:01G+A*74:06     | A*23:12+A*74:01:01G     |                     |                    |                 |
| A*23:01:01G+A*74:13     | A*23:13+A*74:01:01G     |                     |                    |                 |
| A*23:01:04+A*24:02:47   | A*23:01:10+A*24:02:24   |                     |                    |                 |
| A*23:01:04+A*24:03:01G  | A*23:04+A*24:02:24      |                     |                    |                 |

|                        |                         |                 |
|------------------------|-------------------------|-----------------|
| A*23:01:04+A*24:07     | A*23:13+A*24:02:24      |                 |
| A*23:01:04+A*24:17     | A*23:53+A*24:02:24      |                 |
| A*23:01:04+A*24:21:01  | A*23:03:02+A*24:02:24   |                 |
| A*23:01:04+A*24:25     | A*23:05+A*24:02:24      |                 |
| A*23:01:04+A*24:30     | A*23:12+A*24:02:24      |                 |
| A*23:01:04+A*24:32     | A*23:36+A*24:02:24      |                 |
| A*23:01:04+A*24:46     | A*23:10+A*24:02:24      |                 |
| A*23:01:04+A*24:66     | A*23:46+A*24:02:24      |                 |
| A*23:01:04+A*24:72     | A*23:24+A*24:02:24      |                 |
| A*23:01:04+A*24:77     | A*23:28+A*24:02:24      |                 |
| A*23:01:04+A*24:128    | A*23:29+A*24:02:24      |                 |
| A*23:01:04+A*24:156    | A*23:51+A*24:02:24      |                 |
| A*23:01:07+A*29:06     | A*23:47+A*29:02:12      |                 |
| A*23:01:07+A*29:09     | A*23:14:02+A*29:02:12   |                 |
| A*23:01:08+A*26:13     | A*23:13+A*26:01:20      |                 |
| A*23:01:08+A*26:36     | A*23:12+A*26:01:20      |                 |
| A*23:01:08+A*26:41     | A*23:44+A*26:01:20      |                 |
| A*23:01:08+A*26:76     | A*23:37:01+A*26:01:20   |                 |
| A*23:01:10+A*24:03:01G | A*23:04+A*24:02:47      |                 |
| A*23:01:10+A*24:07     | A*23:13+A*24:02:47      |                 |
| A*23:01:10+A*24:17     | A*23:53+A*24:02:47      |                 |
| A*23:01:10+A*24:21:01  | A*23:03:02+A*24:02:47   |                 |
| A*23:01:10+A*24:25     | A*23:05+A*24:02:47      |                 |
| A*23:01:10+A*24:30     | A*23:12+A*24:02:47      |                 |
| A*23:01:10+A*24:32     | A*23:36+A*24:02:47      |                 |
| A*23:01:10+A*24:46     | A*23:10+A*24:02:47      |                 |
| A*23:01:10+A*24:66     | A*23:46+A*24:02:47      |                 |
| A*23:01:10+A*24:72     | A*23:24+A*24:02:47      |                 |
| A*23:01:10+A*24:77     | A*23:28+A*24:02:47      |                 |
| A*23:01:10+A*24:128    | A*23:29+A*24:02:47      |                 |
| A*23:01:10+A*24:156    | A*23:51+A*24:02:47      |                 |
| A*23:01:10+A*68:21:01  | A*23:25+A*68:01:13      |                 |
| A*23:01:10+A*68:91     | A*23:03:02+A*68:01:13   |                 |
| A*23:02+A*26:08        | A*24:05:01G+A*26:52     |                 |
| A*23:02+A*29:15        | A*23:41+A*29:28         |                 |
| A*23:02+A*31:36        | A*23:06+A*31:30         |                 |
| A*23:02+A*31:51        | A*23:47+A*31:30         |                 |
| A*23:03:01+A*29:01:02  | A*23:03:02+A*29:01:01G  |                 |
| A*23:03:01+A*32:01:12  | A*23:03:02+A*32:01:01G  |                 |
| A*23:03:01+A*33:01:05  | A*23:03:02+A*33:01:01G  |                 |
| A*23:03:02+A*24:03:01G | A*23:04+A*24:21:01      |                 |
| A*23:03:02+A*24:07     | A*23:13+A*24:21:01      |                 |
| A*23:03:02+A*24:17     | A*23:53+A*24:21:01      |                 |
| A*23:03:02+A*24:25     | A*23:05+A*24:21:01      |                 |
| A*23:03:02+A*24:30     | A*23:12+A*24:21:01      |                 |
| A*23:03:02+A*24:32     | A*23:36+A*24:21:01      |                 |
| A*23:03:02+A*24:46     | A*23:10+A*24:21:01      |                 |
| A*23:03:02+A*24:66     | A*23:46+A*24:21:01      |                 |
| A*23:03:02+A*24:72     | A*23:24+A*24:21:01      |                 |
| A*23:03:02+A*24:77     | A*23:28+A*24:21:01      |                 |
| A*23:03:02+A*24:128    | A*23:29+A*24:21:01      |                 |
| A*23:03:02+A*24:156    | A*23:51+A*24:21:01      |                 |
| A*23:03:02+A*68:21:01  | A*23:25+A*68:91         |                 |
| A*23:04+A*24:07        | A*23:13+A*24:03:01G     |                 |
| A*23:04+A*24:17        | A*23:53+A*24:03:01G     |                 |
| A*23:04+A*24:25        | A*23:05+A*24:03:01G     |                 |
| A*23:04+A*24:30        | A*23:12+A*24:03:01G     |                 |
| A*23:04+A*24:32        | A*23:36+A*24:03:01G     |                 |
| A*23:04+A*24:66        | A*23:46+A*24:03:01G     |                 |
| A*23:04+A*24:72        | A*23:24+A*24:03:01G     |                 |
| A*23:04+A*24:77        | A*23:28+A*24:03:01G     |                 |
| A*23:04+A*24:128       | A*23:29+A*24:03:01G     |                 |
| A*23:04+A*24:156       | A*23:51+A*24:03:01G     |                 |
| A*23:04+A*29:33        | A*24:02:01G+A*29:01:01G | A*24:07+A*29:20 |
| A*23:05+A*24:07        | A*23:13+A*24:25         |                 |
| A*23:05+A*24:17        | A*23:53+A*24:25         |                 |
| A*23:05+A*24:30        | A*23:12+A*24:25         |                 |
| A*23:05+A*24:32        | A*23:36+A*24:25         |                 |
| A*23:05+A*24:46        | A*23:10+A*24:25         |                 |
| A*23:05+A*24:66        | A*23:46+A*24:25         |                 |
| A*23:05+A*24:72        | A*23:24+A*24:25         |                 |
| A*23:05+A*24:77        | A*23:28+A*24:25         |                 |
| A*23:05+A*24:128       | A*23:29+A*24:25         |                 |
| A*23:05+A*24:156       | A*23:51+A*24:25         |                 |
| A*23:06+A*31:51        | A*23:47+A*31:36         |                 |
| A*23:09+A*26:13        | A*24:24+A*26:72         |                 |
| A*23:09+A*32:05        | A*23:28+A*32:24         |                 |
| A*23:10+A*24:07        | A*23:13+A*24:46         |                 |
| A*23:10+A*24:17        | A*23:53+A*24:46         |                 |
| A*23:10+A*24:30        | A*23:12+A*24:46         |                 |
| A*23:10+A*24:32        | A*23:36+A*24:46         |                 |
| A*23:10+A*24:66        | A*23:46+A*24:46         |                 |
| A*23:10+A*24:72        | A*23:24+A*24:46         |                 |
| A*23:10+A*24:77        | A*23:28+A*24:46         |                 |
| A*23:10+A*24:128       | A*23:29+A*24:46         |                 |
| A*23:10+A*24:156       | A*23:51+A*24:46         |                 |
| A*23:10+A*33:06        | A*23:29+A*33:61         |                 |
| A*23:10+A*33:33        | A*23:23+A*33:61         |                 |
| A*23:10+A*33:52        | A*23:50+A*33:61         |                 |
| A*23:12+A*24:07        | A*23:13+A*24:30         |                 |
| A*23:12+A*24:17        | A*23:53+A*24:30         |                 |
| A*23:12+A*24:32        | A*23:36+A*24:30         |                 |
| A*23:12+A*24:66        | A*23:46+A*24:30         |                 |
| A*23:12+A*24:72        | A*23:24+A*24:30         |                 |
| A*23:12+A*24:77        | A*23:28+A*24:30         |                 |
| A*23:12+A*24:128       | A*23:29+A*24:30         |                 |
| A*23:12+A*24:156       | A*23:51+A*24:30         |                 |
| A*23:12+A*25:02        | A*23:13+A*25:11         |                 |
| A*23:12+A*26:13        | A*23:13+A*26:36         |                 |
| A*23:12+A*26:41        | A*23:44+A*26:36         |                 |
| A*23:12+A*26:76        | A*23:37:01+A*26:36      |                 |
| A*23:12+A*30:17        | A*23:13+A*30:46         |                 |
| A*23:12+A*30:38        | A*23:48+A*30:16         |                 |
| A*23:12+A*30:54        | A*23:14:02+A*30:16      |                 |
| A*23:12+A*32:02        | A*24:05:01G+A*32:08     |                 |

|                        |                         |                        |                    |                  |
|------------------------|-------------------------|------------------------|--------------------|------------------|
| A*23:12+A*32:12        | A*23:47+A*32:08         |                        |                    |                  |
| A*23:12+A*32:17        | A*23:13+A*32:08         |                        |                    |                  |
| A*23:12+A*66:01:01G    | A*23:13+A*26:03:01      |                        |                    |                  |
| A*23:12+A*66:12        | A*23:13+A*26:30         |                        |                    |                  |
| A*23:12+A*68:01:02G    | A*23:13+A*68:05         |                        |                    |                  |
| A*23:12+A*68:02:01G    | A*23:13+A*68:15         |                        |                    |                  |
| A*23:12+A*74:13        | A*23:13+A*74:06         |                        |                    |                  |
| A*23:13+A*24:17        | A*23:53+A*24:07         |                        |                    |                  |
| A*23:13+A*24:32        | A*23:36+A*24:07         |                        |                    |                  |
| A*23:13+A*24:66        | A*23:46+A*24:07         |                        |                    |                  |
| A*23:13+A*24:67        | A*24:02:01G+A*24:24     |                        |                    |                  |
| A*23:13+A*24:72        | A*23:24+A*24:07         |                        |                    |                  |
| A*23:13+A*24:77        | A*23:28+A*24:07         |                        |                    |                  |
| A*23:13+A*24:128       | A*23:29+A*24:07         |                        |                    |                  |
| A*23:13+A*24:156       | A*23:51+A*24:07         |                        |                    |                  |
| A*23:13+A*26:41        | A*23:44+A*26:13         |                        |                    |                  |
| A*23:13+A*26:76        | A*23:37:01+A*26:13      |                        |                    |                  |
| A*23:13+A*30:51        | A*23:47+A*30:25         |                        |                    |                  |
| A*23:13+A*30:57        | A*23:40+A*30:25         |                        |                    |                  |
| A*23:13+A*32:02        | A*24:05:01G+A*32:17     |                        |                    |                  |
| A*23:13+A*32:12        | A*23:47+A*32:17         |                        |                    |                  |
| A*23:13+A*33:03:01G    | A*24:24+A*33:53         |                        |                    |                  |
| A*23:14:01+A*24:02:01G | A*24:13:02+A*24:71      |                        |                    |                  |
| A*23:14:01+A*24:06     | A*23:14:02+A*24:87      |                        |                    |                  |
| A*23:14:01+A*24:13:01  | A*23:14:02+A*24:13:02   |                        |                    |                  |
| A*23:14:01+A*24:56     | A*24:13:02+A*24:177     |                        |                    |                  |
| A*23:14:01+A*24:59     | A*24:13:02+A*24:190     |                        |                    |                  |
| A*23:14:01+A*26:01:01G | A*24:13:02+A*26:52      |                        |                    |                  |
| A*23:14:01+A*26:08     | A*24:71+A*26:43:02      |                        |                    |                  |
| A*23:14:01+A*26:14     | A*24:13:02+A*26:28      |                        |                    |                  |
| A*23:14:01+A*26:43:01  | A*23:14:02+A*26:43:02   |                        |                    |                  |
| A*23:14:01+A*30:02:01G | A*23:14:02+A*30:02:05   |                        |                    |                  |
| A*23:14:01+A*30:04:01  | A*24:87+A*30:09         |                        |                    |                  |
| A*23:14:01+A*31:01:02G | A*23:14:02+A*31:01:05   | A*24:13:02+A*31:01:02G |                    |                  |
| A*23:14:01+A*31:41     | A*24:13:01+A*31:01:05   |                        |                    |                  |
| A*23:14:01+A*32:01:01G | A*23:14:02+A*32:01:06   | A*24:13:02+A*32:22     |                    |                  |
| A*23:14:01+A*32:02     | A*24:02:01G+A*32:01:06  | A*24:13:02+A*32:01:01G |                    |                  |
| A*23:14:01+A*32:06     | A*24:13:01+A*32:01:06   |                        |                    |                  |
| A*23:14:01+A*32:22     | A*24:71+A*32:01:06      |                        |                    |                  |
| A*23:14:01+A*33:03:01G | A*23:14:02+A*33:03:05   |                        |                    |                  |
| A*23:14:01+A*33:59     | A*24:59+A*33:03:05      |                        |                    |                  |
| A*23:14:01+A*34:02:01  | A*23:14:02+A*34:02:02   |                        |                    |                  |
| A*23:14:01+A*68:02:01G | A*23:14:02+A*68:28      | A*24:13:02+A*68:51     |                    |                  |
| A*23:14:02+A*24:02:01G | A*24:13:01+A*24:71      |                        |                    |                  |
| A*23:14:02+A*24:03:01G | A*24:71+A*24:207        |                        |                    |                  |
| A*23:14:02+A*24:56     | A*24:13:01+A*24:177     |                        |                    |                  |
| A*23:14:02+A*24:59     | A*24:13:01+A*24:190     |                        |                    |                  |
| A*23:14:02+A*25:04     | A*24:71+A*25:19         |                        |                    |                  |
| A*23:14:02+A*26:01:01G | A*24:13:01+A*26:52      |                        |                    |                  |
| A*23:14:02+A*26:08     | A*24:71+A*26:43:01      |                        |                    |                  |
| A*23:14:02+A*26:14     | A*24:13:01+A*26:28      |                        |                    |                  |
| A*23:14:02+A*29:05     | A*24:56+A*29:02:01G     |                        |                    |                  |
| A*23:14:02+A*29:06     | A*23:47+A*29:09         |                        |                    |                  |
| A*23:14:02+A*30:04:01  | A*24:06+A*30:09         |                        |                    |                  |
| A*23:14:02+A*30:38     | A*23:48+A*30:54         |                        |                    |                  |
| A*23:14:02+A*31:41     | A*24:13:01+A*31:01:02G  | A*24:207+A*31:05       |                    |                  |
| A*23:14:02+A*32:02     | A*24:02:01G+A*32:01:01G | A*24:03:01G+A*32:13    | A*24:13:01+A*32:22 | A*24:32+A*32:03  |
|                        | A*24:71+A*32:06         | A*24:104+A*32:07       | A*24:145+A*32:31   | A*24:156+A*32:05 |
|                        | A*24:13:01+A*32:01:01G  | A*24:207+A*32:13       |                    |                  |
| A*23:14:02+A*32:06     | A*24:71+A*32:01:01G     |                        |                    |                  |
| A*23:14:02+A*32:22     | A*23:23+A*33:34         |                        |                    |                  |
| A*23:14:02+A*33:04     | A*24:59+A*33:03:01G     |                        |                    |                  |
| A*23:14:02+A*33:59     | A*24:13:01+A*68:51      |                        |                    |                  |
| A*23:14:02+A*68:02:01G | A*24:71+A*68:08:02      |                        |                    |                  |
| A*23:14:02+A*68:09     | A*23:29+A*33:33         |                        |                    |                  |
| A*23:23+A*33:06        | A*23:50+A*33:33         |                        |                    |                  |
| A*23:23+A*33:52        | A*23:53+A*24:72         |                        |                    |                  |
| A*23:24+A*24:17        | A*23:36+A*24:72         |                        |                    |                  |
| A*23:24+A*24:32        | A*23:46+A*24:72         |                        |                    |                  |
| A*23:24+A*24:66        | A*23:28+A*24:72         |                        |                    |                  |
| A*23:24+A*24:77        | A*23:29+A*24:72         |                        |                    |                  |
| A*23:24+A*24:128       | A*23:51+A*24:72         |                        |                    |                  |
| A*23:24+A*24:156       | A*23:53+A*24:77         |                        |                    |                  |
| A*23:28+A*24:17        | A*23:36+A*24:77         |                        |                    |                  |
| A*23:28+A*24:32        | A*23:46+A*24:77         |                        |                    |                  |
| A*23:28+A*24:66        | A*23:29+A*24:77         |                        |                    |                  |
| A*23:28+A*24:128       | A*23:53+A*24:128        |                        |                    |                  |
| A*23:29+A*24:17        | A*23:36+A*24:128        |                        |                    |                  |
| A*23:29+A*24:32        | A*23:46+A*24:128        |                        |                    |                  |
| A*23:29+A*24:66        | A*23:51+A*24:128        |                        |                    |                  |
| A*23:29+A*24:156       | A*23:50+A*33:06         |                        |                    |                  |
| A*23:29+A*33:52        | A*23:45+A*24:106        |                        |                    |                  |
| A*23:31+A*24:62        | A*23:53+A*24:32         |                        |                    |                  |
| A*23:36+A*24:17        | A*23:46+A*24:32         |                        |                    |                  |
| A*23:36+A*24:66        | A*23:51+A*24:32         |                        |                    |                  |
| A*23:36+A*24:156       | A*23:44+A*26:76         |                        |                    |                  |
| A*23:37:01+A*26:41     | A*23:47+A*30:57         |                        |                    |                  |
| A*23:40+A*30:51        | A*23:53+A*24:66         |                        |                    |                  |
| A*23:46+A*24:17        | A*23:51+A*24:66         |                        |                    |                  |
| A*23:46+A*24:156       | A*23:53+A*30:01:01G     |                        |                    |                  |
| A*23:46+A*30:26        | A*23:53+A*68:06         |                        |                    |                  |
| A*23:46+A*68:01:02G    | A*24:05:01G+A*32:12     |                        |                    |                  |
| A*23:47+A*32:02        | A*23:53+A*24:156        |                        |                    |                  |
| A*23:51+A*24:17        | A*24:02:18+A*24:03:01G  |                        |                    |                  |
| A*24:02:01G+A*24:03:02 | A*24:03:01G+A*24:46     |                        |                    |                  |
| A*24:02:01G+A*24:10    | A*24:07+A*24:44         |                        |                    |                  |
| A*24:02:01G+A*24:19    | A*24:160+A*24:167       |                        |                    |                  |
| A*24:02:01G+A*24:22    | A*24:53+A*24:120        |                        |                    |                  |
| A*24:02:01G+A*24:57    | A*24:20+A*24:104        |                        |                    |                  |
| A*24:02:01G+A*24:88    | A*24:51+A*24:120        |                        |                    |                  |
| A*24:02:01G+A*24:92    | A*24:29+A*24:145        |                        |                    |                  |
| A*24:02:01G+A*24:156   | A*24:03:01G+A*24:06     |                        |                    |                  |
| A*24:02:01G+A*24:167   | A*24:56+A*24:71         |                        |                    |                  |
| A*24:02:01G+A*24:177   | A*24:59+A*24:71         |                        |                    |                  |
| A*24:02:01G+A*24:190   | A*24:77+A*24:156        |                        |                    |                  |
| A*24:02:01G+A*24:191   |                         |                        |                    |                  |

|                         |                        |                     |                    |                 |
|-------------------------|------------------------|---------------------|--------------------|-----------------|
| A*24:02:01G+A*24:207    | A*24:03:01G+A*24:13:01 |                     |                    |                 |
| A*24:02:01G+A*25:01:01G | A*24:06+A*25:04        | A*24:29+A*25:15     | A*24:46+A*25:06    | A*24:99+A*25:09 |
| A*24:02:01G+A*25:01:06  | A*24:02:18+A*25:01:01G |                     |                    |                 |
| A*24:02:01G+A*25:01:07  | A*24:02:58+A*25:01:01G |                     |                    |                 |
| A*24:02:01G+A*25:02     | A*24:07+A*25:01:01G    |                     |                    |                 |
| A*24:02:01G+A*25:08     | A*24:197+A*25:01:01G   |                     |                    |                 |
| A*24:02:01G+A*25:11     | A*24:30+A*25:01:01G    |                     |                    |                 |
| A*24:02:01G+A*25:19     | A*24:13:01+A*25:04     |                     |                    |                 |
| A*24:02:01G+A*26:01:01G | A*24:03:01G+A*26:49    | A*24:06+A*26:08     | A*24:21:01+A*26:10 | A*24:46+A*26:09 |
|                         | A*24:50+A*26:16        | A*24:52+A*26:70     | A*24:56+A*26:12    | A*24:99+A*26:14 |
|                         | A*24:145+A*26:69       |                     |                    |                 |
| A*24:02:01G+A*26:01:02  | A*24:02:07+A*26:01:01G |                     |                    |                 |
| A*24:02:01G+A*26:01:03  | A*24:02:18+A*26:01:01G | A*24:03:02+A*26:49  |                    |                 |
| A*24:02:01G+A*26:01:05  | A*24:02:16+A*26:01:01G |                     |                    |                 |
| A*24:02:01G+A*26:01:12  | A*24:02:14+A*26:01:01G |                     |                    |                 |
| A*24:02:01G+A*26:01:16  | A*24:02:37+A*26:01:01G |                     |                    |                 |
| A*24:02:01G+A*26:01:17  | A*24:02:02+A*26:01:01G |                     |                    |                 |
| A*24:02:01G+A*26:03:01  | A*24:30+A*66:05        |                     |                    |                 |
| A*24:02:01G+A*26:04     | A*24:143+A*26:09       |                     |                    |                 |
| A*24:02:01G+A*26:06     | A*24:182+A*26:03:01    |                     |                    |                 |
| A*24:02:01G+A*26:08     | A*24:145+A*26:48       |                     |                    |                 |
| A*24:02:01G+A*26:13     | A*24:07+A*26:01:01G    |                     |                    |                 |
| A*24:02:01G+A*26:15     | A*24:03:01G+A*26:29    |                     |                    |                 |
| A*24:02:01G+A*26:27     | A*24:91+A*26:01:01G    |                     |                    |                 |
| A*24:02:01G+A*26:28     | A*24:56+A*26:18        | A*24:71+A*26:14     |                    |                 |
| A*24:02:01G+A*26:36     | A*24:30+A*26:01:01G    |                     |                    |                 |
| A*24:02:01G+A*26:38     | A*24:49+A*26:01:01G    |                     |                    |                 |
| A*24:02:01G+A*26:43:01  | A*24:13:01+A*26:08     |                     |                    |                 |
| A*24:02:01G+A*26:43:02  | A*24:13:02+A*26:08     |                     |                    |                 |
| A*24:02:01G+A*26:47     | A*24:197+A*26:01:01G   |                     |                    |                 |
| A*24:02:01G+A*26:52     | A*24:71+A*26:01:01G    | A*24:99+A*26:28     | A*24:177+A*26:12   |                 |
| A*24:02:01G+A*26:63     | A*24:181+A*26:01:01G   |                     |                    |                 |
| A*24:02:01G+A*26:69     | A*24:06+A*26:48        |                     |                    |                 |
| A*24:02:01G+A*26:74     | A*24:172+A*26:01:01G   |                     |                    |                 |
| A*24:02:01G+A*29:02:01G | A*24:03:01G+A*29:03    | A*24:05:01G+A*29:09 | A*24:07+A*29:34    | A*24:57+A*29:07 |
|                         | A*24:82+A*29:37        |                     |                    |                 |
| A*24:02:01G+A*29:02:06  | A*24:02:22+A*29:02:01G |                     |                    |                 |
| A*24:02:01G+A*29:02:09  | A*24:02:05+A*29:02:01G |                     |                    |                 |
| A*24:02:01G+A*29:02:10  | A*24:02:14+A*29:02:01G |                     |                    |                 |
| A*24:02:01G+A*29:02:11  | A*24:02:02+A*29:02:01G |                     |                    |                 |
| A*24:02:01G+A*29:12     | A*24:58+A*29:01:01G    |                     |                    |                 |
| A*24:02:01G+A*29:29     | A*24:206+A*29:02:01G   |                     |                    |                 |
| A*24:02:01G+A*29:31     | A*24:203+A*29:02:01G   |                     |                    |                 |
| A*24:02:01G+A*29:36     | A*24:69+A*29:02:01G    |                     |                    |                 |
| A*24:02:01G+A*30:01:01G | A*24:05:01G+A*30:54    | A*24:124+A*30:11:01 |                    |                 |
| A*24:02:01G+A*30:01:07  | A*24:02:09+A*30:01:01G |                     |                    |                 |
| A*24:02:01G+A*30:02:01G | A*24:21:01+A*30:61     | A*24:124+A*30:03    | A*24:191+A*30:07   |                 |
| A*24:02:01G+A*30:02:06  | A*24:21:02+A*30:61     |                     |                    |                 |
| A*24:02:01G+A*30:04:01  | A*24:02:06+A*30:04:02  |                     |                    |                 |
| A*24:02:01G+A*30:16     | A*24:07+A*30:44        | A*24:30+A*30:01:01G |                    |                 |
| A*24:02:01G+A*30:23     | A*24:189+A*30:01:01G   |                     |                    |                 |
| A*24:02:01G+A*30:25     | A*24:07+A*30:02:01G    |                     |                    |                 |
| A*24:02:01G+A*30:30     | A*24:113+A*30:01:01G   |                     |                    |                 |
| A*24:02:01G+A*30:35     | A*24:130+A*30:01:01G   |                     |                    |                 |
| A*24:02:01G+A*30:37     | A*24:172+A*30:01:01G   |                     |                    |                 |
| A*24:02:01G+A*30:40     | A*24:135+A*30:01:01G   |                     |                    |                 |
| A*24:02:01G+A*30:43     | A*24:170+A*30:01:01G   |                     |                    |                 |
| A*24:02:01G+A*30:55     | A*24:104+A*30:18       |                     |                    |                 |
| A*24:02:01G+A*30:58     | A*24:127+A*30:01:01G   |                     |                    |                 |
| A*24:02:01G+A*31:01:02G | A*24:03:01G+A*31:05    | A*24:34+A*31:66     | A*24:57+A*31:29    | A*24:71+A*31:41 |
|                         | A*24:145+A*31:02       |                     |                    |                 |
| A*24:02:01G+A*31:01:06  | A*24:02:12+A*31:01:02G |                     |                    |                 |
| A*24:02:01G+A*31:01:11  | A*24:02:22+A*31:01:02G |                     |                    |                 |
| A*24:02:01G+A*31:10     | A*24:145+A*31:07       |                     |                    |                 |
| A*24:02:01G+A*31:16     | A*24:58+A*31:01:02G    |                     |                    |                 |
| A*24:02:01G+A*31:27     | A*24:35+A*31:01:02G    |                     |                    |                 |
| A*24:02:01G+A*31:43     | A*24:59+A*31:01:02G    | A*24:190+A*31:41    |                    |                 |
| A*24:02:01G+A*31:45     | A*24:176+A*31:01:02G   |                     |                    |                 |
| A*24:02:01G+A*31:54     | A*24:189+A*31:01:02G   |                     |                    |                 |
| A*24:02:01G+A*31:60N    | A*24:132N+A*31:01:02G  |                     |                    |                 |
| A*24:02:01G+A*32:01:03  | A*24:85+A*32:01:01G    |                     |                    |                 |
| A*24:02:01G+A*32:01:04  | A*24:02:36+A*32:01:01G |                     |                    |                 |
| A*24:02:01G+A*32:01:05  | A*24:02:32+A*32:01:01G |                     |                    |                 |
| A*24:02:01G+A*32:01:11  | A*24:02:21+A*32:01:01G |                     |                    |                 |
| A*24:02:01G+A*32:01:12  | A*24:21:01+A*32:28     |                     |                    |                 |
| A*24:02:01G+A*32:06     | A*24:13:01+A*32:02     |                     |                    |                 |
| A*24:02:01G+A*32:08     | A*24:30+A*32:01:01G    |                     |                    |                 |
| A*24:02:01G+A*32:14     | A*24:142+A*32:01:01G   |                     |                    |                 |
| A*24:02:01G+A*32:17     | A*24:07+A*32:01:01G    |                     |                    |                 |
| A*24:02:01G+A*32:21     | A*24:176+A*32:01:01G   |                     |                    |                 |
| A*24:02:01G+A*32:22     | A*24:71+A*32:02        |                     |                    |                 |
| A*24:02:01G+A*32:30     | A*24:135+A*32:32       |                     |                    |                 |
| A*24:02:01G+A*32:31     | A*24:29+A*32:05        |                     |                    |                 |
| A*24:02:01G+A*32:37     | A*24:169+A*32:01:01G   |                     |                    |                 |
| A*24:02:01G+A*32:42     | A*24:82+A*32:07        |                     |                    |                 |
| A*24:02:01G+A*32:46     | A*24:172+A*32:01:01G   |                     |                    |                 |
| A*24:02:01G+A*33:01:01G | A*24:05:01G+A*33:34    |                     |                    |                 |
| A*24:02:01G+A*33:01:04  | A*24:02:11+A*33:01:01G |                     |                    |                 |
| A*24:02:01G+A*33:01:05  | A*24:21:01+A*33:32:01  |                     |                    |                 |
| A*24:02:01G+A*33:03:01G | A*24:03:01G+A*33:10    | A*24:34+A*33:11     | A*24:67+A*33:53    |                 |
| A*24:02:01G+A*33:06     | A*24:128+A*33:03:01G   |                     |                    |                 |
| A*24:02:01G+A*33:07     | A*24:189+A*33:01:01G   |                     |                    |                 |
| A*24:02:01G+A*33:09     | A*24:145+A*33:08       |                     |                    |                 |
| A*24:02:01G+A*33:16     | A*24:176+A*33:01:01G   |                     |                    |                 |
| A*24:02:01G+A*33:21     | A*24:145+A*33:53       |                     |                    |                 |
| A*24:02:01G+A*33:24     | A*24:30+A*33:11        |                     |                    |                 |
| A*24:02:01G+A*33:36     | A*24:186+A*33:03:01G   |                     |                    |                 |
| A*24:02:01G+A*33:54     | A*24:127+A*33:03:01G   |                     |                    |                 |
| A*24:02:01G+A*33:58     | A*24:58+A*33:03:01G    |                     |                    |                 |
| A*24:02:01G+A*33:61     | A*24:10+A*33:10        | A*24:46+A*33:03:01G |                    |                 |
| A*24:02:01G+A*34:02:01  | A*24:99+A*34:03        |                     |                    |                 |
| A*24:02:01G+A*34:02:03  | A*24:02:42+A*34:02:01  |                     |                    |                 |
| A*24:02:01G+A*66:01:01G | A*24:03:01G+A*66:10    | A*24:07+A*66:05     |                    |                 |
| A*24:02:01G+A*66:02     | A*24:07+A*66:03        |                     |                    |                 |
| A*24:02:01G+A*66:15     | A*24:34+A*66:05        |                     |                    |                 |

|                         |                        |                     |                    |                  |
|-------------------------|------------------------|---------------------|--------------------|------------------|
| A*24:02:01G+A*66:16     | A*24:136+A*66:02       |                     |                    |                  |
| A*24:02:01G+A*68:01:01G | A*24:02:02+A*68:01:05  | A*24:07+A*68:03:03  | A*24:50+A*68:45    | A*24:167+A*68:26 |
| A*24:02:01G+A*68:01:02G | A*24:03:01G+A*68:65    | A*24:06+A*68:09     | A*24:07+A*68:03:01 | A*24:77+A*68:75  |
| A*24:02:01G+A*68:01:03  | A*24:02:53+A*68:01:01G |                     |                    |                  |
| A*24:02:01G+A*68:01:04  | A*24:02:18+A*68:01:01G |                     |                    |                  |
| A*24:02:01G+A*68:01:10  | A*24:02:09+A*68:01:01G |                     |                    |                  |
| A*24:02:01G+A*68:01:11  | A*24:02:06+A*68:01:01G |                     |                    |                  |
| A*24:02:01G+A*68:01:13  | A*24:02:47+A*68:01:02G |                     |                    |                  |
| A*24:02:01G+A*68:02:01G | A*24:07+A*68:31        |                     |                    |                  |
| A*24:02:01G+A*68:02:02  | A*24:02:18+A*68:02:01G |                     |                    |                  |
| A*24:02:01G+A*68:03:02  | A*24:02:58+A*68:03:01  |                     |                    |                  |
| A*24:02:01G+A*68:04     | A*24:34+A*68:03:03     |                     |                    |                  |
| A*24:02:01G+A*68:05     | A*24:30+A*68:03:01     |                     |                    |                  |
| A*24:02:01G+A*68:08:02  | A*24:13:01+A*68:09     |                     |                    |                  |
| A*24:02:01G+A*68:15     | A*24:30+A*68:31        |                     |                    |                  |
| A*24:02:01G+A*68:19     | A*24:204+A*68:65       |                     |                    |                  |
| A*24:02:01G+A*68:23     | A*24:52+A*68:01:02G    |                     |                    |                  |
| A*24:02:01G+A*68:29     | A*24:82+A*68:45        |                     |                    |                  |
| A*24:02:01G+A*68:34     | A*24:170+A*68:02:01G   |                     |                    |                  |
| A*24:02:01G+A*68:41     | A*24:136+A*68:01:02G   |                     |                    |                  |
| A*24:02:01G+A*68:42     | A*24:56+A*68:01:01G    |                     |                    |                  |
| A*24:02:01G+A*68:43     | A*24:151+A*68:01:01G   |                     |                    |                  |
| A*24:02:01G+A*68:51     | A*24:71+A*68:02:01G    |                     |                    |                  |
| A*24:02:01G+A*68:54     | A*24:56+A*68:02:01G    |                     |                    |                  |
| A*24:02:01G+A*68:55     | A*24:49+A*68:01:01G    |                     |                    |                  |
| A*24:02:01G+A*68:57     | A*24:108+A*68:03:01    |                     |                    |                  |
| A*24:02:01G+A*68:58     | A*24:206+A*68:01:01G   |                     |                    |                  |
| A*24:02:01G+A*68:61     | A*24:46+A*68:54        |                     |                    |                  |
| A*24:02:01G+A*68:62     | A*24:27+A*68:02:01G    |                     |                    |                  |
| A*24:02:01G+A*68:70     | A*24:169+A*68:01:02G   |                     |                    |                  |
| A*24:02:01G+A*68:71     | A*24:104+A*68:45       |                     |                    |                  |
| A*24:02:01G+A*68:80     | A*24:141+A*68:02:01G   |                     |                    |                  |
| A*24:02:01G+A*68:84     | A*24:04+A*68:36        |                     |                    |                  |
| A*24:02:01G+A*68:87     | A*24:139+A*68:01:01G   |                     |                    |                  |
| A*24:02:01G+A*68:91     | A*24:21:01+A*68:01:02G |                     |                    |                  |
| A*24:02:01G+A*68:92     | A*24:63+A*68:02:01G    |                     |                    |                  |
| A*24:02:01G+A*74:05     | A*24:119+A*74:01:01G   |                     |                    |                  |
| A*24:02:01G+A*74:06     | A*24:28+A*32:03        | A*24:30+A*74:01:01G |                    |                  |
| A*24:02:01G+A*74:07     | A*24:34+A*74:01:01G    |                     |                    |                  |
| A*24:02:01G+A*74:10     | A*24:109+A*32:03       |                     |                    |                  |
| A*24:02:01G+A*74:13     | A*24:07+A*74:01:01G    |                     |                    |                  |
| A*24:02:02+A*26:01:02   | A*24:02:07+A*26:01:17  |                     |                    |                  |
| A*24:02:02+A*26:01:03   | A*24:02:18+A*26:01:17  |                     |                    |                  |
| A*24:02:02+A*26:01:05   | A*24:02:16+A*26:01:17  |                     |                    |                  |
| A*24:02:02+A*26:01:12   | A*24:02:14+A*26:01:17  |                     |                    |                  |
| A*24:02:02+A*26:01:16   | A*24:02:37+A*26:01:17  |                     |                    |                  |
| A*24:02:02+A*26:13      | A*24:07+A*26:01:17     |                     |                    |                  |
| A*24:02:02+A*26:27      | A*24:91+A*26:01:17     |                     |                    |                  |
| A*24:02:02+A*26:36      | A*24:30+A*26:01:17     |                     |                    |                  |
| A*24:02:02+A*26:38      | A*24:49+A*26:01:17     |                     |                    |                  |
| A*24:02:02+A*26:47      | A*24:197+A*26:01:17    |                     |                    |                  |
| A*24:02:02+A*26:52      | A*24:71+A*26:01:17     |                     |                    |                  |
| A*24:02:02+A*26:63      | A*24:181+A*26:01:17    |                     |                    |                  |
| A*24:02:02+A*26:74      | A*24:172+A*26:01:17    |                     |                    |                  |
| A*24:02:02+A*29:02:06   | A*24:02:22+A*29:02:11  |                     |                    |                  |
| A*24:02:02+A*29:02:09   | A*24:02:05+A*29:02:11  |                     |                    |                  |
| A*24:02:02+A*29:02:10   | A*24:02:14+A*29:02:11  |                     |                    |                  |
| A*24:02:02+A*29:29      | A*24:206+A*29:02:11    |                     |                    |                  |
| A*24:02:02+A*29:31      | A*24:203+A*29:02:11    |                     |                    |                  |
| A*24:02:02+A*29:36      | A*24:69+A*29:02:11     |                     |                    |                  |
| A*24:02:02+A*32:01:01G  | A*24:05:01G+A*32:33    |                     |                    |                  |
| A*24:02:05+A*29:02:06   | A*24:02:22+A*29:02:09  |                     |                    |                  |
| A*24:02:05+A*29:02:10   | A*24:02:14+A*29:02:09  |                     |                    |                  |
| A*24:02:05+A*29:29      | A*24:206+A*29:02:09    |                     |                    |                  |
| A*24:02:05+A*29:31      | A*24:203+A*29:02:09    |                     |                    |                  |
| A*24:02:05+A*29:36      | A*24:69+A*29:02:09     |                     |                    |                  |
| A*24:02:06+A*68:01:03   | A*24:02:53+A*68:01:11  |                     |                    |                  |
| A*24:02:06+A*68:01:04   | A*24:02:18+A*68:01:11  |                     |                    |                  |
| A*24:02:06+A*68:01:10   | A*24:02:09+A*68:01:11  |                     |                    |                  |
| A*24:02:06+A*68:42      | A*24:56+A*68:01:11     |                     |                    |                  |
| A*24:02:06+A*68:43      | A*24:151+A*68:01:11    |                     |                    |                  |
| A*24:02:06+A*68:55      | A*24:49+A*68:01:11     |                     |                    |                  |
| A*24:02:06+A*68:58      | A*24:206+A*68:01:11    |                     |                    |                  |
| A*24:02:06+A*68:87      | A*24:139+A*68:01:11    |                     |                    |                  |
| A*24:02:07+A*26:01:03   | A*24:02:18+A*26:01:02  |                     |                    |                  |
| A*24:02:07+A*26:01:05   | A*24:02:16+A*26:01:02  |                     |                    |                  |
| A*24:02:07+A*26:01:12   | A*24:02:14+A*26:01:02  |                     |                    |                  |
| A*24:02:07+A*26:01:16   | A*24:02:37+A*26:01:02  |                     |                    |                  |
| A*24:02:07+A*26:13      | A*24:07+A*26:01:02     |                     |                    |                  |
| A*24:02:07+A*26:27      | A*24:91+A*26:01:02     |                     |                    |                  |
| A*24:02:07+A*26:36      | A*24:30+A*26:01:02     |                     |                    |                  |
| A*24:02:07+A*26:38      | A*24:49+A*26:01:02     |                     |                    |                  |
| A*24:02:07+A*26:47      | A*24:197+A*26:01:02    |                     |                    |                  |
| A*24:02:07+A*26:52      | A*24:71+A*26:01:02     |                     |                    |                  |
| A*24:02:07+A*26:63      | A*24:181+A*26:01:02    |                     |                    |                  |
| A*24:02:07+A*26:74      | A*24:172+A*26:01:02    |                     |                    |                  |
| A*24:02:09+A*30:16      | A*24:30+A*30:01:07     |                     |                    |                  |
| A*24:02:09+A*30:23      | A*24:189+A*30:01:07    |                     |                    |                  |
| A*24:02:09+A*30:30      | A*24:113+A*30:01:07    |                     |                    |                  |
| A*24:02:09+A*30:35      | A*24:130+A*30:01:07    |                     |                    |                  |
| A*24:02:09+A*30:37      | A*24:172+A*30:01:07    |                     |                    |                  |
| A*24:02:09+A*30:40      | A*24:135+A*30:01:07    |                     |                    |                  |
| A*24:02:09+A*30:43      | A*24:170+A*30:01:07    |                     |                    |                  |
| A*24:02:09+A*30:58      | A*24:127+A*30:01:07    |                     |                    |                  |
| A*24:02:09+A*68:01:03   | A*24:02:53+A*68:01:10  |                     |                    |                  |
| A*24:02:09+A*68:01:04   | A*24:02:18+A*68:01:10  |                     |                    |                  |
| A*24:02:09+A*68:42      | A*24:56+A*68:01:10     |                     |                    |                  |
| A*24:02:09+A*68:43      | A*24:151+A*68:01:10    |                     |                    |                  |
| A*24:02:09+A*68:55      | A*24:49+A*68:01:10     |                     |                    |                  |
| A*24:02:09+A*68:58      | A*24:206+A*68:01:10    |                     |                    |                  |
| A*24:02:09+A*68:87      | A*24:139+A*68:01:10    |                     |                    |                  |
| A*24:02:11+A*33:07      | A*24:189+A*33:01:04    |                     |                    |                  |
| A*24:02:11+A*33:16      | A*24:176+A*33:01:04    |                     |                    |                  |
| A*24:02:12+A*31:01:11   | A*24:02:22+A*31:01:06  |                     |                    |                  |
| A*24:02:12+A*31:16      | A*24:58+A*31:01:06     |                     |                    |                  |



|                        |                       |
|------------------------|-----------------------|
| A*24:02:12+A*31:27     | A*24:35+A*31:01:06    |
| A*24:02:12+A*31:43     | A*24:59+A*31:01:06    |
| A*24:02:12+A*31:45     | A*24:176+A*31:01:06   |
| A*24:02:12+A*31:54     | A*24:189+A*31:01:06   |
| A*24:02:12+A*31:60N    | A*24:132N+A*31:01:06  |
| A*24:02:14+A*26:01:03  | A*24:02:18+A*26:01:12 |
| A*24:02:14+A*26:01:05  | A*24:02:16+A*26:01:12 |
| A*24:02:14+A*26:01:16  | A*24:02:37+A*26:01:12 |
| A*24:02:14+A*26:13     | A*24:07+A*26:01:12    |
| A*24:02:14+A*26:27     | A*24:91+A*26:01:12    |
| A*24:02:14+A*26:36     | A*24:30+A*26:01:12    |
| A*24:02:14+A*26:38     | A*24:49+A*26:01:12    |
| A*24:02:14+A*26:47     | A*24:197+A*26:01:12   |
| A*24:02:14+A*26:52     | A*24:71+A*26:01:12    |
| A*24:02:14+A*26:63     | A*24:181+A*26:01:12   |
| A*24:02:14+A*26:74     | A*24:172+A*26:01:12   |
| A*24:02:14+A*29:02:06  | A*24:02:22+A*29:02:10 |
| A*24:02:14+A*29:29     | A*24:206+A*29:02:10   |
| A*24:02:14+A*29:31     | A*24:203+A*29:02:10   |
| A*24:02:14+A*29:36     | A*24:69+A*29:02:10    |
| A*24:02:16+A*26:01:03  | A*24:02:18+A*26:01:05 |
| A*24:02:16+A*26:01:16  | A*24:02:37+A*26:01:05 |
| A*24:02:16+A*26:13     | A*24:07+A*26:01:05    |
| A*24:02:16+A*26:27     | A*24:91+A*26:01:05    |
| A*24:02:16+A*26:36     | A*24:30+A*26:01:05    |
| A*24:02:16+A*26:38     | A*24:49+A*26:01:05    |
| A*24:02:16+A*26:47     | A*24:197+A*26:01:05   |
| A*24:02:16+A*26:52     | A*24:71+A*26:01:05    |
| A*24:02:16+A*26:63     | A*24:181+A*26:01:05   |
| A*24:02:16+A*26:74     | A*24:172+A*26:01:05   |
| A*24:02:18+A*24:10     | A*24:03:02+A*24:46    |
| A*24:02:18+A*24:167    | A*24:03:02+A*24:06    |
| A*24:02:18+A*24:207    | A*24:03:02+A*24:13:01 |
| A*24:02:18+A*25:01:07  | A*24:02:58+A*25:01:06 |
| A*24:02:18+A*25:02     | A*24:07+A*25:01:06    |
| A*24:02:18+A*25:08     | A*24:197+A*25:01:06   |
| A*24:02:18+A*25:11     | A*24:30+A*25:01:06    |
| A*24:02:18+A*26:01:16  | A*24:02:37+A*26:01:03 |
| A*24:02:18+A*26:13     | A*24:07+A*26:01:03    |
| A*24:02:18+A*26:15     | A*24:03:02+A*26:29    |
| A*24:02:18+A*26:27     | A*24:91+A*26:01:03    |
| A*24:02:18+A*26:36     | A*24:30+A*26:01:03    |
| A*24:02:18+A*26:38     | A*24:49+A*26:01:03    |
| A*24:02:18+A*26:47     | A*24:197+A*26:01:03   |
| A*24:02:18+A*26:52     | A*24:71+A*26:01:03    |
| A*24:02:18+A*26:63     | A*24:181+A*26:01:03   |
| A*24:02:18+A*26:74     | A*24:172+A*26:01:03   |
| A*24:02:18+A*29:02:01G | A*24:03:02+A*29:03    |
| A*24:02:18+A*31:01:02G | A*24:03:02+A*31:05    |
| A*24:02:18+A*32:01:01G | A*24:03:02+A*32:13    |
| A*24:02:18+A*33:03:01G | A*24:03:02+A*33:10    |
| A*24:02:18+A*66:01:01G | A*24:03:02+A*66:10    |
| A*24:02:18+A*68:01:02G | A*24:03:02+A*68:65    |
| A*24:02:18+A*68:01:03  | A*24:02:53+A*68:01:04 |
| A*24:02:18+A*68:34     | A*24:170+A*68:02:02   |
| A*24:02:18+A*68:42     | A*24:56+A*68:01:04    |
| A*24:02:18+A*68:43     | A*24:151+A*68:01:04   |
| A*24:02:18+A*68:51     | A*24:71+A*68:02:02    |
| A*24:02:18+A*68:54     | A*24:56+A*68:02:02    |
| A*24:02:18+A*68:55     | A*24:49+A*68:01:04    |
| A*24:02:18+A*68:58     | A*24:206+A*68:01:04   |
| A*24:02:18+A*68:62     | A*24:27+A*68:02:02    |
| A*24:02:18+A*68:80     | A*24:141+A*68:02:02   |
| A*24:02:18+A*68:87     | A*24:139+A*68:01:04   |
| A*24:02:18+A*68:92     | A*24:63+A*68:02:02    |
| A*24:02:21+A*32:01:03  | A*24:85+A*32:01:11    |
| A*24:02:21+A*32:01:04  | A*24:02:36+A*32:01:11 |
| A*24:02:21+A*32:01:05  | A*24:02:32+A*32:01:11 |
| A*24:02:21+A*32:08     | A*24:30+A*32:01:11    |
| A*24:02:21+A*32:14     | A*24:142+A*32:01:11   |
| A*24:02:21+A*32:17     | A*24:07+A*32:01:11    |
| A*24:02:21+A*32:21     | A*24:176+A*32:01:11   |
| A*24:02:21+A*32:37     | A*24:169+A*32:01:11   |
| A*24:02:21+A*32:46     | A*24:172+A*32:01:11   |
| A*24:02:22+A*29:29     | A*24:206+A*29:02:06   |
| A*24:02:22+A*29:31     | A*24:203+A*29:02:06   |
| A*24:02:22+A*29:36     | A*24:69+A*29:02:06    |
| A*24:02:22+A*31:16     | A*24:58+A*31:01:11    |
| A*24:02:22+A*31:27     | A*24:35+A*31:01:11    |
| A*24:02:22+A*31:43     | A*24:59+A*31:01:11    |
| A*24:02:22+A*31:45     | A*24:176+A*31:01:11   |
| A*24:02:22+A*31:54     | A*24:189+A*31:01:11   |
| A*24:02:22+A*31:60N    | A*24:132N+A*31:01:11  |
| A*24:02:32+A*32:01:03  | A*24:85+A*32:01:05    |
| A*24:02:32+A*32:01:04  | A*24:02:36+A*32:01:05 |
| A*24:02:32+A*32:08     | A*24:30+A*32:01:05    |
| A*24:02:32+A*32:14     | A*24:142+A*32:01:05   |
| A*24:02:32+A*32:17     | A*24:07+A*32:01:05    |
| A*24:02:32+A*32:21     | A*24:176+A*32:01:05   |
| A*24:02:32+A*32:37     | A*24:169+A*32:01:05   |
| A*24:02:32+A*32:46     | A*24:172+A*32:01:05   |
| A*24:02:36+A*32:01:03  | A*24:85+A*32:01:04    |
| A*24:02:36+A*32:08     | A*24:30+A*32:01:04    |
| A*24:02:36+A*32:14     | A*24:142+A*32:01:04   |
| A*24:02:36+A*32:17     | A*24:07+A*32:01:04    |
| A*24:02:36+A*32:21     | A*24:176+A*32:01:04   |
| A*24:02:36+A*32:37     | A*24:169+A*32:01:04   |
| A*24:02:36+A*32:46     | A*24:172+A*32:01:04   |
| A*24:02:37+A*26:13     | A*24:07+A*26:01:16    |
| A*24:02:37+A*26:27     | A*24:91+A*26:01:16    |
| A*24:02:37+A*26:36     | A*24:30+A*26:01:16    |
| A*24:02:37+A*26:38     | A*24:49+A*26:01:16    |
| A*24:02:37+A*26:47     | A*24:197+A*26:01:16   |
| A*24:02:37+A*26:52     | A*24:71+A*26:01:16    |
| A*24:02:37+A*26:63     | A*24:181+A*26:01:16   |

|                         |                        |                     |
|-------------------------|------------------------|---------------------|
| A*24:02:37+A*26:74      | A*24:172+A*26:01:16    |                     |
| A*24:02:47+A*68:23      | A*24:52+A*68:01:13     |                     |
| A*24:02:47+A*68:41      | A*24:136+A*68:01:13    |                     |
| A*24:02:47+A*68:70      | A*24:169+A*68:01:13    |                     |
| A*24:02:47+A*68:91      | A*24:21:01+A*68:01:13  |                     |
| A*24:02:53+A*68:42      | A*24:56+A*68:01:03     |                     |
| A*24:02:53+A*68:43      | A*24:151+A*68:01:03    |                     |
| A*24:02:53+A*68:55      | A*24:49+A*68:01:03     |                     |
| A*24:02:53+A*68:58      | A*24:206+A*68:01:03    |                     |
| A*24:02:53+A*68:87      | A*24:139+A*68:01:03    |                     |
| A*24:02:58+A*25:02      | A*24:07+A*25:01:07     |                     |
| A*24:02:58+A*25:08      | A*24:197+A*25:01:07    |                     |
| A*24:02:58+A*25:11      | A*24:30+A*25:01:07     |                     |
| A*24:02:58+A*68:01:02G  | A*24:07+A*68:03:02     |                     |
| A*24:02:58+A*68:05      | A*24:30+A*68:03:02     |                     |
| A*24:02:58+A*68:57      | A*24:108+A*68:03:02    |                     |
| A*24:03:01G+A*25:01:01G | A*24:10+A*25:06        | A*24:167+A*25:04    |
| A*24:03:01G+A*25:01:06  | A*24:03:02+A*25:01:01G |                     |
| A*24:03:01G+A*25:19     | A*24:207+A*25:04       |                     |
| A*24:03:01G+A*26:01:01G | A*24:10+A*26:09        | A*24:167+A*26:08    |
| A*24:03:01G+A*26:01:03  | A*24:03:02+A*26:01:01G |                     |
| A*24:03:01G+A*26:43:01  | A*24:207+A*26:08       |                     |
| A*24:03:01G+A*26:69     | A*24:167+A*26:48       |                     |
| A*24:03:01G+A*30:45     | A*24:23+A*30:02:01G    |                     |
| A*24:03:01G+A*32:01:01G | A*24:207+A*32:22       |                     |
| A*24:03:01G+A*32:06     | A*24:207+A*32:02       |                     |
| A*24:03:01G+A*33:61     | A*24:10+A*33:03:01G    |                     |
| A*24:03:01G+A*36:04     | A*24:10+A*36:01        |                     |
| A*24:03:01G+A*68:01:02G | A*24:167+A*68:09       |                     |
| A*24:03:01G+A*68:01:04  | A*24:03:02+A*68:01:01G |                     |
| A*24:03:01G+A*68:02:02  | A*24:03:02+A*68:02:01G |                     |
| A*24:03:01G+A*68:08:02  | A*24:207+A*68:09       |                     |
| A*24:03:01G+A*68:19     | A*24:204+A*68:01:02G   |                     |
| A*24:03:01G+A*68:61     | A*24:10+A*68:54        |                     |
| A*24:04+A*25:01:01G     | A*24:32+A*26:01:01G    | A*24:109+A*25:13    |
| A*24:04+A*25:01:06      | A*24:32+A*26:01:03     |                     |
| A*24:04+A*25:02         | A*24:32+A*26:13        |                     |
| A*24:04+A*25:04         | A*24:32+A*26:08        |                     |
| A*24:04+A*25:05         | A*24:32+A*26:54        |                     |
| A*24:04+A*25:06         | A*24:32+A*26:09        |                     |
| A*24:04+A*25:08         | A*24:32+A*26:47        |                     |
| A*24:04+A*25:09         | A*24:32+A*26:14        |                     |
| A*24:04+A*25:11         | A*24:32+A*26:36        |                     |
| A*24:04+A*25:13         | A*24:32+A*26:65        |                     |
| A*24:04+A*25:19         | A*24:32+A*26:43:01     |                     |
| A*24:04+A*26:01:01G     | A*24:109+A*26:65       |                     |
| A*24:04+A*26:03:01      | A*24:28+A*26:01:01G    | A*24:109+A*26:30    |
| A*24:04+A*26:30         | A*24:28+A*26:65        |                     |
| A*24:04+A*29:13         | A*24:32+A*29:02:01G    |                     |
| A*24:04+A*29:19         | A*24:28+A*29:34        |                     |
| A*24:04+A*30:13         | A*24:28+A*30:57        |                     |
| A*24:04+A*31:03         | A*24:109+A*31:04       |                     |
| A*24:04+A*33:13         | A*24:109+A*33:48       |                     |
| A*24:04+A*33:24         | A*24:28+A*33:48        |                     |
| A*24:04+A*34:02:01      | A*24:109+A*34:09       |                     |
| A*24:04+A*66:01:01G     | A*24:19+A*26:65        | A*24:109+A*66:12    |
| A*24:04+A*66:05         | A*24:44+A*26:65        |                     |
| A*24:06+A*24:10         | A*24:46+A*24:167       |                     |
| A*24:06+A*24:13:02      | A*24:13:01+A*24:87     |                     |
| A*24:06+A*24:207        | A*24:13:01+A*24:167    |                     |
| A*24:06+A*25:19         | A*24:13:01+A*25:01:01G |                     |
| A*24:06+A*26:01:01G     | A*24:167+A*26:49       |                     |
| A*24:06+A*26:15         | A*24:167+A*26:29       |                     |
| A*24:06+A*26:43:01      | A*24:13:01+A*26:01:01G | A*24:207+A*26:49    |
| A*24:06+A*26:43:02      | A*24:13:02+A*26:01:01G | A*24:87+A*26:43:01  |
| A*24:06+A*29:01:01G     | A*24:13:01+A*29:28     |                     |
| A*24:06+A*29:02:01G     | A*24:167+A*29:03       |                     |
| A*24:06+A*30:02:05      | A*24:87+A*30:02:01G    |                     |
| A*24:06+A*31:01:02G     | A*24:13:01+A*31:30     | A*24:167+A*31:05    |
| A*24:06+A*31:01:05      | A*24:13:02+A*31:30     | A*24:87+A*31:01:02G |
| A*24:06+A*32:01:01G     | A*24:167+A*32:13       |                     |
| A*24:06+A*32:01:06      | A*24:87+A*32:01:01G    |                     |
| A*24:06+A*33:03:01G     | A*24:167+A*33:10       |                     |
| A*24:06+A*33:03:05      | A*24:87+A*33:03:01G    |                     |
| A*24:06+A*34:02:02      | A*24:87+A*34:02:01     |                     |
| A*24:06+A*66:01:01G     | A*24:167+A*66:10       |                     |
| A*24:06+A*68:01:02G     | A*24:167+A*68:65       |                     |
| A*24:06+A*68:08:01      | A*24:13:02+A*68:01:01G |                     |
| A*24:06+A*68:08:02      | A*24:13:01+A*68:01:02G | A*24:207+A*68:65    |
| A*24:06+A*68:28         | A*24:87+A*68:02:01G    |                     |
| A*24:06+A*68:63         | A*24:13:01+A*68:42     |                     |
| A*24:07+A*25:08         | A*24:197+A*25:02       |                     |
| A*24:07+A*25:11         | A*24:30+A*25:02        |                     |
| A*24:07+A*26:03:01      | A*24:30+A*66:01:01G    |                     |
| A*24:07+A*26:27         | A*24:91+A*26:13        |                     |
| A*24:07+A*26:30         | A*24:30+A*66:12        |                     |
| A*24:07+A*26:36         | A*24:30+A*26:13        |                     |
| A*24:07+A*26:38         | A*24:49+A*26:13        |                     |
| A*24:07+A*26:47         | A*24:197+A*26:13       |                     |
| A*24:07+A*26:52         | A*24:71+A*26:13        |                     |
| A*24:07+A*26:63         | A*24:181+A*26:13       |                     |
| A*24:07+A*26:66         | A*24:108+A*26:01:01G   |                     |
| A*24:07+A*26:74         | A*24:172+A*26:13       |                     |
| A*24:07+A*30:46         | A*24:30+A*30:17        |                     |
| A*24:07+A*32:01:03      | A*24:85+A*32:17        |                     |
| A*24:07+A*32:08         | A*24:30+A*32:17        |                     |
| A*24:07+A*32:14         | A*24:142+A*32:17       |                     |
| A*24:07+A*32:21         | A*24:176+A*32:17       |                     |
| A*24:07+A*32:37         | A*24:169+A*32:17       |                     |
| A*24:07+A*32:46         | A*24:172+A*32:17       |                     |
| A*24:07+A*66:15         | A*24:34+A*66:01:01G    |                     |
| A*24:07+A*68:01:02G     | A*24:131+A*68:12       |                     |
| A*24:07+A*68:04         | A*24:34+A*68:01:01G    |                     |
| A*24:07+A*68:05         | A*24:28+A*68:36        | A*24:30+A*68:01:02G |
| A*24:07+A*68:15         | A*24:30+A*68:02:01G    |                     |

|                        |                        |                      |
|------------------------|------------------------|----------------------|
| A*24:07+A*68:57        | A*24:108+A*68:01:02G   |                      |
| A*24:07+A*74:05        | A*24:119+A*74:13       |                      |
| A*24:07+A*74:06        | A*24:30+A*74:13        |                      |
| A*24:07+A*74:07        | A*24:34+A*74:13        |                      |
| A*24:08+A*24:28        | A*24:20+A*24:89        |                      |
| A*24:08+A*24:30        | A*24:20+A*24:42        |                      |
| A*24:10+A*24:13:01     | A*24:46+A*24:207       |                      |
| A*24:10+A*26:29        | A*24:46+A*26:15        |                      |
| A*24:10+A*26:49        | A*24:46+A*26:01:01G    |                      |
| A*24:10+A*29:03        | A*24:46+A*29:02:01G    |                      |
| A*24:10+A*31:05        | A*24:46+A*31:01:02G    |                      |
| A*24:10+A*32:13        | A*24:46+A*32:01:01G    |                      |
| A*24:10+A*66:10        | A*24:46+A*66:01:01G    |                      |
| A*24:10+A*68:65        | A*24:46+A*68:01:02G    |                      |
| A*24:13:01+A*26:15     | A*24:207+A*26:29       |                      |
| A*24:13:01+A*26:43:02  | A*24:13:02+A*26:43:01  |                      |
| A*24:13:01+A*26:54     | A*24:94+A*26:49        |                      |
| A*24:13:01+A*29:02:01G | A*24:207+A*29:03       |                      |
| A*24:13:01+A*30:02:05  | A*24:13:02+A*30:02:01G |                      |
| A*24:13:01+A*33:03:01G | A*24:207+A*33:10       |                      |
| A*24:13:01+A*33:03:05  | A*24:13:02+A*33:03:01G |                      |
| A*24:13:01+A*34:02:02  | A*24:13:02+A*34:02:01  |                      |
| A*24:13:01+A*66:01:01G | A*24:207+A*66:10       |                      |
| A*24:13:01+A*68:01:05  | A*24:188+A*68:50       |                      |
| A*24:13:01+A*68:28     | A*24:13:02+A*68:02:01G |                      |
| A*24:13:02+A*24:167    | A*24:87+A*24:207       |                      |
| A*24:13:02+A*25:01:01G | A*24:87+A*25:19        |                      |
| A*24:13:02+A*29:28     | A*24:87+A*29:01:01G    |                      |
| A*24:13:02+A*68:01:02G | A*24:87+A*68:08:02     |                      |
| A*24:13:02+A*68:42     | A*24:87+A*68:63        |                      |
| A*24:15+A*24:17        | A*24:41+A*24:53        |                      |
| A*24:15+A*25:10        | A*24:53+A*25:01:01G    |                      |
| A*24:15+A*29:02:01G    | A*24:53+A*29:44        |                      |
| A*24:15+A*33:49        | A*24:51+A*33:01:01G    |                      |
| A*24:15+A*36:01        | A*24:92+A*36:03        |                      |
| A*24:17+A*25:01:01G    | A*24:41+A*25:10        |                      |
| A*24:17+A*29:32        | A*24:62+A*29:02:01G    |                      |
| A*24:17+A*29:44        | A*24:41+A*29:02:01G    |                      |
| A*24:17+A*30:01:01G    | A*24:66+A*30:26        |                      |
| A*24:17+A*31:01:02G    | A*24:62+A*31:06        |                      |
| A*24:17+A*32:01:01G    | A*24:62+A*32:30        | A*24:208+A*32:28     |
| A*24:17+A*33:01:01G    | A*24:208+A*33:32:01    |                      |
| A*24:17+A*33:03:01G    | A*24:62+A*33:18        |                      |
| A*24:17+A*68:06        | A*24:66+A*68:01:02G    |                      |
| A*24:19+A*25:01:01G    | A*24:44+A*25:02        |                      |
| A*24:19+A*25:13        | A*24:32+A*66:01:01G    |                      |
| A*24:19+A*26:01:01G    | A*24:44+A*26:13        | A*24:109+A*66:01:01G |
| A*24:19+A*26:22        | A*24:109+A*66:09       |                      |
| A*24:19+A*26:30        | A*24:28+A*66:01:01G    |                      |
| A*24:19+A*26:49        | A*24:109+A*66:10       |                      |
| A*24:19+A*29:20        | A*24:44+A*29:01:01G    |                      |
| A*24:19+A*29:34        | A*24:44+A*29:02:01G    |                      |
| A*24:19+A*30:02:01G    | A*24:44+A*30:25        |                      |
| A*24:19+A*30:44        | A*24:44+A*30:16        |                      |
| A*24:19+A*32:01:01G    | A*24:44+A*32:17        |                      |
| A*24:19+A*66:03        | A*24:44+A*66:02        |                      |
| A*24:19+A*66:05        | A*24:44+A*66:01:01G    |                      |
| A*24:19+A*68:03:01     | A*24:44+A*68:01:02G    |                      |
| A*24:19+A*68:03:03     | A*24:44+A*68:01:01G    |                      |
| A*24:19+A*68:31        | A*24:44+A*68:02:01G    |                      |
| A*24:19+A*74:01:01G    | A*24:44+A*74:13        |                      |
| A*24:20+A*30:55        | A*24:88+A*30:18        |                      |
| A*24:20+A*32:01:01G    | A*24:88+A*32:07        |                      |
| A*24:20+A*68:71        | A*24:88+A*68:45        |                      |
| A*24:21:01+A*30:02:06  | A*24:21:02+A*30:02:01G |                      |
| A*24:21:01+A*32:01:07  | A*24:21:02+A*32:01:01G |                      |
| A*24:21:01+A*68:23     | A*24:52+A*68:91        |                      |
| A*24:21:01+A*68:41     | A*24:136+A*68:91       |                      |
| A*24:21:01+A*68:70     | A*24:169+A*68:91       |                      |
| A*24:22+A*68:26        | A*24:160+A*68:01:01G   |                      |
| A*24:27+A*68:34        | A*24:170+A*68:62       |                      |
| A*24:27+A*68:51        | A*24:71+A*68:62        |                      |
| A*24:27+A*68:54        | A*24:56+A*68:62        |                      |
| A*24:27+A*68:80        | A*24:141+A*68:62       |                      |
| A*24:27+A*68:92        | A*24:63+A*68:62        |                      |
| A*24:28+A*24:42        | A*24:30+A*24:89        |                      |
| A*24:28+A*25:01:01G    | A*24:32+A*26:03:01     |                      |
| A*24:28+A*25:13        | A*24:32+A*26:30        |                      |
| A*24:28+A*31:10        | A*24:30+A*31:66        |                      |
| A*24:28+A*32:01:01G    | A*24:32+A*74:06        |                      |
| A*24:28+A*33:13        | A*24:109+A*33:24       |                      |
| A*24:28+A*66:05        | A*24:44+A*26:30        |                      |
| A*24:28+A*74:10        | A*24:109+A*74:06       |                      |
| A*24:29+A*26:01:01G    | A*24:156+A*26:69       |                      |
| A*24:29+A*26:08        | A*24:156+A*26:48       |                      |
| A*24:29+A*31:01:02G    | A*24:156+A*31:02       |                      |
| A*24:29+A*31:10        | A*24:156+A*31:07       |                      |
| A*24:29+A*32:01:01G    | A*24:156+A*32:31       |                      |
| A*24:29+A*33:09        | A*24:156+A*33:08       |                      |
| A*24:29+A*33:21        | A*24:156+A*33:53       |                      |
| A*24:30+A*25:08        | A*24:197+A*25:11       |                      |
| A*24:30+A*26:27        | A*24:91+A*26:36        |                      |
| A*24:30+A*26:38        | A*24:49+A*26:36        |                      |
| A*24:30+A*26:47        | A*24:197+A*26:36       |                      |
| A*24:30+A*26:52        | A*24:71+A*26:36        |                      |
| A*24:30+A*26:63        | A*24:181+A*26:36       |                      |
| A*24:30+A*26:74        | A*24:172+A*26:36       |                      |
| A*24:30+A*30:23        | A*24:189+A*30:16       |                      |
| A*24:30+A*30:30        | A*24:113+A*30:16       |                      |
| A*24:30+A*30:35        | A*24:130+A*30:16       |                      |
| A*24:30+A*30:37        | A*24:172+A*30:16       |                      |
| A*24:30+A*30:40        | A*24:135+A*30:16       |                      |
| A*24:30+A*30:43        | A*24:170+A*30:16       |                      |
| A*24:30+A*30:58        | A*24:127+A*30:16       |                      |
| A*24:30+A*32:01:03     | A*24:85+A*32:08        |                      |

|                     |                      |                      |
|---------------------|----------------------|----------------------|
| A*24:30+A*32:14     | A*24:142+A*32:08     |                      |
| A*24:30+A*32:21     | A*24:176+A*32:08     |                      |
| A*24:30+A*32:37     | A*24:169+A*32:08     |                      |
| A*24:30+A*32:46     | A*24:172+A*32:08     |                      |
| A*24:30+A*33:03:01G | A*24:34+A*33:24      |                      |
| A*24:30+A*66:15     | A*24:34+A*26:03:01   |                      |
| A*24:30+A*68:57     | A*24:108+A*66:05     |                      |
| A*24:30+A*74:05     | A*24:119+A*74:06     |                      |
| A*24:30+A*74:07     | A*24:34+A*74:06      |                      |
| A*24:32+A*66:05     | A*24:44+A*25:13      |                      |
| A*24:32+A*74:10     | A*24:109+A*32:01:01G |                      |
| A*24:34+A*74:05     | A*24:119+A*74:07     |                      |
| A*24:35+A*31:16     | A*24:58+A*31:27      |                      |
| A*24:35+A*31:43     | A*24:59+A*31:27      |                      |
| A*24:35+A*31:45     | A*24:176+A*31:27     |                      |
| A*24:35+A*31:54     | A*24:189+A*31:27     |                      |
| A*24:35+A*31:60N    | A*24:132N+A*31:27    |                      |
| A*24:41+A*29:32     | A*24:62+A*29:44      |                      |
| A*24:42+A*31:66     | A*24:89+A*31:10      |                      |
| A*24:42+A*68:01:02G | A*24:89+A*68:36      |                      |
| A*24:42+A*74:01:01G | A*24:89+A*32:03      |                      |
| A*24:44+A*26:01:01G | A*24:109+A*66:05     |                      |
| A*24:44+A*26:36     | A*24:109+A*26:03:01  |                      |
| A*24:44+A*33:48     | A*24:109+A*33:11     |                      |
| A*24:44+A*68:84     | A*24:109+A*68:01:02G |                      |
| A*24:46+A*26:04     | A*24:143+A*26:01:01G |                      |
| A*24:46+A*33:06     | A*24:128+A*33:61     |                      |
| A*24:46+A*33:36     | A*24:186+A*33:61     |                      |
| A*24:46+A*33:54     | A*24:127+A*33:61     |                      |
| A*24:46+A*33:58     | A*24:58+A*33:61      |                      |
| A*24:46+A*66:02     | A*24:55+A*66:12      |                      |
| A*24:49+A*26:27     | A*24:91+A*26:38      |                      |
| A*24:49+A*26:47     | A*24:197+A*26:38     |                      |
| A*24:49+A*26:52     | A*24:71+A*26:38      |                      |
| A*24:49+A*26:63     | A*24:181+A*26:38     |                      |
| A*24:49+A*26:74     | A*24:172+A*26:38     |                      |
| A*24:49+A*68:42     | A*24:56+A*68:55      |                      |
| A*24:49+A*68:43     | A*24:151+A*68:55     |                      |
| A*24:49+A*68:58     | A*24:206+A*68:55     |                      |
| A*24:49+A*68:87     | A*24:139+A*68:55     |                      |
| A*24:50+A*25:03     | A*24:104+A*25:01:01G |                      |
| A*24:50+A*33:03:01G | A*24:82+A*33:51      |                      |
| A*24:50+A*34:08     | A*24:104+A*34:02:01  |                      |
| A*24:50+A*68:29     | A*24:82+A*68:01:01G  |                      |
| A*24:50+A*68:71     | A*24:104+A*68:01:01G |                      |
| A*24:51+A*24:57     | A*24:53+A*24:92      |                      |
| A*24:52+A*68:41     | A*24:136+A*68:23     |                      |
| A*24:52+A*68:70     | A*24:169+A*68:23     |                      |
| A*24:56+A*24:190    | A*24:59+A*24:177     |                      |
| A*24:56+A*26:28     | A*24:177+A*26:14     |                      |
| A*24:56+A*26:52     | A*24:177+A*26:01:01G |                      |
| A*24:56+A*31:01:02G | A*24:177+A*31:41     |                      |
| A*24:56+A*32:01:01G | A*24:177+A*32:06     |                      |
| A*24:56+A*32:22     | A*24:177+A*32:02     |                      |
| A*24:56+A*33:03:01G | A*24:71+A*33:28      |                      |
| A*24:56+A*68:34     | A*24:170+A*68:54     |                      |
| A*24:56+A*68:43     | A*24:151+A*68:42     |                      |
| A*24:56+A*68:51     | A*24:71+A*68:54      | A*24:177+A*68:02:01G |
| A*24:56+A*68:58     | A*24:206+A*68:42     |                      |
| A*24:56+A*68:80     | A*24:141+A*68:54     |                      |
| A*24:56+A*68:87     | A*24:139+A*68:42     |                      |
| A*24:56+A*68:92     | A*24:63+A*68:54      |                      |
| A*24:58+A*31:43     | A*24:59+A*31:16      |                      |
| A*24:58+A*31:45     | A*24:176+A*31:16     |                      |
| A*24:58+A*31:54     | A*24:189+A*31:16     |                      |
| A*24:58+A*31:60N    | A*24:132N+A*31:16    |                      |
| A*24:58+A*33:06     | A*24:128+A*33:58     |                      |
| A*24:58+A*33:36     | A*24:186+A*33:58     |                      |
| A*24:58+A*33:54     | A*24:127+A*33:58     |                      |
| A*24:59+A*26:28     | A*24:190+A*26:14     |                      |
| A*24:59+A*26:52     | A*24:190+A*26:01:01G |                      |
| A*24:59+A*31:45     | A*24:176+A*31:43     |                      |
| A*24:59+A*31:54     | A*24:189+A*31:43     |                      |
| A*24:59+A*31:60N    | A*24:132N+A*31:43    |                      |
| A*24:59+A*32:01:01G | A*24:190+A*32:06     |                      |
| A*24:59+A*32:22     | A*24:190+A*32:02     |                      |
| A*24:59+A*68:51     | A*24:190+A*68:02:01G |                      |
| A*24:63+A*68:34     | A*24:170+A*68:92     |                      |
| A*24:63+A*68:51     | A*24:71+A*68:92      |                      |
| A*24:63+A*68:80     | A*24:141+A*68:92     |                      |
| A*24:67+A*26:72     | A*24:191+A*26:62     |                      |
| A*24:67+A*32:01:01G | A*24:191+A*32:15     |                      |
| A*24:67+A*32:05     | A*24:77+A*32:15      |                      |
| A*24:67+A*33:21     | A*24:145+A*33:03:01G |                      |
| A*24:67+A*68:10     | A*24:156+A*68:01:01G |                      |
| A*24:67+A*68:66     | A*24:191+A*68:01:02G |                      |
| A*24:69+A*29:29     | A*24:206+A*29:36     |                      |
| A*24:69+A*29:31     | A*24:203+A*29:36     |                      |
| A*24:71+A*26:12     | A*24:99+A*26:18      |                      |
| A*24:71+A*26:27     | A*24:91+A*26:52      |                      |
| A*24:71+A*26:28     | A*24:177+A*26:18     |                      |
| A*24:71+A*26:47     | A*24:197+A*26:52     |                      |
| A*24:71+A*26:63     | A*24:181+A*26:52     |                      |
| A*24:71+A*26:74     | A*24:172+A*26:52     |                      |
| A*24:71+A*31:43     | A*24:190+A*31:01:02G |                      |
| A*24:71+A*68:34     | A*24:170+A*68:51     |                      |
| A*24:71+A*68:42     | A*24:177+A*68:01:01G |                      |
| A*24:71+A*68:80     | A*24:141+A*68:51     |                      |
| A*24:73+A*24:121    | A*24:157+A*24:174    |                      |
| A*24:77+A*32:01:01G | A*24:191+A*32:05     |                      |
| A*24:82+A*31:21     | A*24:104+A*31:01:02G |                      |
| A*24:82+A*32:01:01G | A*24:104+A*32:42     |                      |
| A*24:82+A*33:03:01G | A*31:08+A*33:19      |                      |
| A*24:82+A*68:71     | A*24:104+A*68:29     |                      |
| A*24:85+A*32:14     | A*24:142+A*32:01:03  |                      |

|                         |                        |                     |                     |
|-------------------------|------------------------|---------------------|---------------------|
| A*24:85+A*32:21         | A*24:176+A*32:01:03    |                     |                     |
| A*24:85+A*32:37         | A*24:169+A*32:01:03    |                     |                     |
| A*24:85+A*32:46         | A*24:172+A*32:01:03    |                     |                     |
| A*24:91+A*26:47         | A*24:197+A*26:27       |                     |                     |
| A*24:91+A*26:63         | A*24:181+A*26:27       |                     |                     |
| A*24:91+A*26:74         | A*24:172+A*26:27       |                     |                     |
| A*24:93+A*26:01:01G     | A*24:120+A*26:22       |                     |                     |
| A*24:93+A*30:02:01G     | A*24:120+A*30:47       |                     |                     |
| A*24:93+A*66:01:01G     | A*24:120+A*66:09       |                     |                     |
| A*24:93+A*68:01:02G     | A*24:120+A*68:83       |                     |                     |
| A*24:94+A*25:01:01G     | A*24:207+A*25:05       |                     |                     |
| A*24:94+A*26:01:01G     | A*24:207+A*26:54       |                     |                     |
| A*24:94+A*68:48         | A*24:207+A*68:02:01G   |                     |                     |
| A*24:94+A*68:65         | A*24:188+A*68:12       |                     |                     |
| A*24:96+A*68:01:02G     | A*24:146+A*68:17       |                     |                     |
| A*24:113+A*30:23        | A*24:189+A*30:30       |                     |                     |
| A*24:113+A*30:35        | A*24:130+A*30:30       |                     |                     |
| A*24:113+A*30:37        | A*24:172+A*30:30       |                     |                     |
| A*24:113+A*30:40        | A*24:135+A*30:30       |                     |                     |
| A*24:113+A*30:43        | A*24:170+A*30:30       |                     |                     |
| A*24:113+A*30:58        | A*24:127+A*30:30       |                     |                     |
| A*24:127+A*30:23        | A*24:189+A*30:58       |                     |                     |
| A*24:127+A*30:35        | A*24:130+A*30:58       |                     |                     |
| A*24:127+A*30:37        | A*24:172+A*30:58       |                     |                     |
| A*24:127+A*30:40        | A*24:135+A*30:58       |                     |                     |
| A*24:127+A*30:43        | A*24:170+A*30:58       |                     |                     |
| A*24:127+A*33:06        | A*24:128+A*33:54       |                     |                     |
| A*24:127+A*33:36        | A*24:186+A*33:54       |                     |                     |
| A*24:128+A*33:36        | A*24:186+A*33:06       |                     |                     |
| A*24:130+A*30:23        | A*24:189+A*30:35       |                     |                     |
| A*24:130+A*30:37        | A*24:172+A*30:35       |                     |                     |
| A*24:130+A*30:40        | A*24:135+A*30:35       |                     |                     |
| A*24:130+A*30:43        | A*24:170+A*30:35       |                     |                     |
| A*24:132N+A*31:45       | A*24:176+A*31:60N      |                     |                     |
| A*24:132N+A*31:54       | A*24:189+A*31:60N      |                     |                     |
| A*24:135+A*30:23        | A*24:189+A*30:40       |                     |                     |
| A*24:135+A*30:37        | A*24:172+A*30:40       |                     |                     |
| A*24:135+A*30:43        | A*24:170+A*30:40       |                     |                     |
| A*24:136+A*68:70        | A*24:169+A*68:41       |                     |                     |
| A*24:138+A*68:50        | A*24:167+A*68:01:01G   |                     |                     |
| A*24:139+A*68:43        | A*24:151+A*68:87       |                     |                     |
| A*24:139+A*68:58        | A*24:206+A*68:87       |                     |                     |
| A*24:141+A*68:34        | A*24:170+A*68:80       |                     |                     |
| A*24:142+A*32:21        | A*24:176+A*32:14       |                     |                     |
| A*24:142+A*32:37        | A*24:169+A*32:14       |                     |                     |
| A*24:142+A*32:46        | A*24:172+A*32:14       |                     |                     |
| A*24:143+A*26:01:21     | A*24:170+A*26:01:01G   |                     |                     |
| A*24:145+A*25:01:01G    | A*24:156+A*25:15       |                     |                     |
| A*24:151+A*68:58        | A*24:206+A*68:43       |                     |                     |
| A*24:156+A*68:01:02G    | A*24:191+A*68:75       |                     |                     |
| A*24:167+A*25:19        | A*24:207+A*25:01:01G   |                     |                     |
| A*24:167+A*26:43:01     | A*24:207+A*26:01:01G   |                     |                     |
| A*24:167+A*29:01:01G    | A*24:207+A*29:28       |                     |                     |
| A*24:167+A*31:01:02G    | A*24:207+A*31:30       |                     |                     |
| A*24:167+A*68:08:02     | A*24:207+A*68:01:02G   |                     |                     |
| A*24:167+A*68:63        | A*24:207+A*68:42       |                     |                     |
| A*24:169+A*32:21        | A*24:176+A*32:37       |                     |                     |
| A*24:169+A*32:46        | A*24:172+A*32:37       |                     |                     |
| A*24:170+A*30:23        | A*24:189+A*30:43       |                     |                     |
| A*24:170+A*30:37        | A*24:172+A*30:43       |                     |                     |
| A*24:172+A*26:47        | A*24:197+A*26:74       |                     |                     |
| A*24:172+A*26:63        | A*24:181+A*26:74       |                     |                     |
| A*24:172+A*30:23        | A*24:189+A*30:37       |                     |                     |
| A*24:172+A*32:21        | A*24:176+A*32:46       |                     |                     |
| A*24:176+A*31:54        | A*24:189+A*31:45       |                     |                     |
| A*24:176+A*33:07        | A*24:189+A*33:16       |                     |                     |
| A*24:181+A*26:47        | A*24:197+A*26:63       |                     |                     |
| A*24:203+A*29:29        | A*24:206+A*29:31       |                     |                     |
| A*25:01:01G+A*26:01:03  | A*25:01:06+A*26:01:01G |                     |                     |
| A*25:01:01G+A*26:03:01  | A*25:11+A*66:05        |                     |                     |
| A*25:01:01G+A*26:08     | A*25:04+A*26:01:01G    |                     |                     |
| A*25:01:01G+A*26:09     | A*25:06+A*26:01:01G    |                     |                     |
| A*25:01:01G+A*26:13     | A*25:02+A*26:01:01G    |                     |                     |
| A*25:01:01G+A*26:14     | A*25:09+A*26:01:01G    |                     |                     |
| A*25:01:01G+A*26:28     | A*25:09+A*26:52        |                     |                     |
| A*25:01:01G+A*26:30     | A*25:13+A*26:03:01     |                     |                     |
| A*25:01:01G+A*26:36     | A*25:11+A*26:01:01G    |                     |                     |
| A*25:01:01G+A*26:43:01  | A*25:19+A*26:01:01G    |                     |                     |
| A*25:01:01G+A*26:47     | A*25:08+A*26:01:01G    |                     |                     |
| A*25:01:01G+A*26:48     | A*25:04+A*26:69        |                     |                     |
| A*25:01:01G+A*26:54     | A*25:05+A*26:01:01G    |                     |                     |
| A*25:01:01G+A*26:65     | A*25:13+A*26:01:01G    |                     |                     |
| A*25:01:01G+A*29:01:01G | A*25:02+A*29:20        | A*25:19+A*29:28     |                     |
| A*25:01:01G+A*29:02:01G | A*25:02+A*29:34        | A*25:10+A*29:44     | A*26:01:01G+A*29:13 |
| A*25:01:01G+A*29:02:10  | A*26:01:12+A*29:13     |                     |                     |
| A*25:01:01G+A*29:02:11  | A*26:01:17+A*29:13     |                     |                     |
| A*25:01:01G+A*29:03     | A*26:49+A*29:13        |                     |                     |
| A*25:01:01G+A*29:08N    | A*26:71N+A*29:13       |                     |                     |
| A*25:01:01G+A*29:27     | A*26:55+A*29:13        |                     |                     |
| A*25:01:01G+A*29:39     | A*29:13+A*66:15        |                     |                     |
| A*25:01:01G+A*30:16     | A*25:02+A*30:44        | A*25:11+A*30:01:01G |                     |
| A*25:01:01G+A*30:25     | A*25:02+A*30:02:01G    |                     |                     |
| A*25:01:01G+A*31:01:02G | A*25:19+A*31:30        |                     |                     |
| A*25:01:01G+A*31:04     | A*25:13+A*31:03        |                     |                     |
| A*25:01:01G+A*32:05     | A*25:15+A*32:31        |                     |                     |
| A*25:01:01G+A*32:08     | A*25:11+A*32:01:01G    |                     |                     |
| A*25:01:01G+A*32:17     | A*25:02+A*32:01:01G    |                     |                     |
| A*25:01:01G+A*33:03:01G | A*25:06+A*33:61        |                     |                     |
| A*25:01:01G+A*33:24     | A*25:11+A*33:11        |                     |                     |
| A*25:01:01G+A*33:48     | A*25:13+A*33:13        |                     |                     |
| A*25:01:01G+A*34:03     | A*25:09+A*34:02:01     |                     |                     |
| A*25:01:01G+A*34:08     | A*25:03+A*34:02:01     |                     |                     |
| A*25:01:01G+A*34:09     | A*25:13+A*34:02:01     |                     |                     |
| A*25:01:01G+A*36:01     | A*25:06+A*36:04        |                     |                     |
| A*25:01:01G+A*66:01:01G | A*25:02+A*66:05        |                     |                     |

|                         |                         |                         |                     |
|-------------------------|-------------------------|-------------------------|---------------------|
| A*25:01:01G+A*66:02     | A*25:02+A*66:03         |                         |                     |
| A*25:01:01G+A*66:12     | A*25:13+A*66:01:01G     |                         |                     |
| A*25:01:01G+A*68:01:01G | A*25:02+A*68:03:03      |                         |                     |
| A*25:01:01G+A*68:01:02G | A*25:02+A*68:03:01      |                         |                     |
| A*25:01:01G+A*68:01:04  | A*25:01:06+A*68:01:01G  | A*25:05+A*68:48         |                     |
| A*25:01:01G+A*68:02:01G | A*25:02+A*68:31         |                         |                     |
| A*25:01:01G+A*68:02:02  | A*25:01:06+A*68:02:01G  |                         |                     |
| A*25:01:01G+A*68:03:02  | A*25:01:07+A*68:03:01   |                         |                     |
| A*25:01:01G+A*68:05     | A*25:11+A*68:03:01      |                         |                     |
| A*25:01:01G+A*68:08:02  | A*25:19+A*68:01:02G     |                         |                     |
| A*25:01:01G+A*68:09     | A*25:04+A*68:01:02G     |                         |                     |
| A*25:01:01G+A*68:15     | A*25:11+A*68:31         |                         |                     |
| A*25:01:01G+A*68:54     | A*25:06+A*68:61         |                         |                     |
| A*25:01:01G+A*68:63     | A*25:19+A*68:42         |                         |                     |
| A*25:01:01G+A*68:71     | A*25:03+A*68:01:01G     |                         |                     |
| A*25:01:01G+A*74:01:01G | A*32:01:01G+A*66:05     |                         |                     |
| A*25:01:01G+A*74:06     | A*25:11+A*74:01:01G     | A*26:03:01+A*32:01:01G  | A*32:08+A*66:05     |
| A*25:01:01G+A*74:07     | A*32:01:01G+A*66:15     |                         |                     |
| A*25:01:01G+A*74:13     | A*25:02+A*74:01:01G     | A*32:01:01G+A*66:01:01G | A*32:17+A*66:05     |
| A*25:01:06+A*26:08      | A*25:04+A*26:01:03      |                         |                     |
| A*25:01:06+A*26:09      | A*25:06+A*26:01:03      |                         |                     |
| A*25:01:06+A*26:13      | A*25:02+A*26:01:03      |                         |                     |
| A*25:01:06+A*26:14      | A*25:09+A*26:01:03      |                         |                     |
| A*25:01:06+A*26:36      | A*25:11+A*26:01:03      |                         |                     |
| A*25:01:06+A*26:43:01   | A*25:19+A*26:01:03      |                         |                     |
| A*25:01:06+A*26:47      | A*25:08+A*26:01:03      |                         |                     |
| A*25:01:06+A*26:54      | A*25:05+A*26:01:03      |                         |                     |
| A*25:01:06+A*26:65      | A*25:13+A*26:01:03      |                         |                     |
| A*25:01:06+A*29:02:01G  | A*26:01:03+A*29:13      |                         |                     |
| A*25:01:06+A*68:71      | A*25:03+A*68:01:04      |                         |                     |
| A*25:01:07+A*68:01:02G  | A*25:02+A*68:03:02      |                         |                     |
| A*25:01:07+A*68:05      | A*25:11+A*68:03:02      |                         |                     |
| A*25:02+A*26:03:01      | A*25:11+A*66:01:01G     |                         |                     |
| A*25:02+A*26:08         | A*25:04+A*26:13         |                         |                     |
| A*25:02+A*26:09         | A*25:06+A*26:13         |                         |                     |
| A*25:02+A*26:14         | A*25:09+A*26:13         |                         |                     |
| A*25:02+A*26:30         | A*25:11+A*66:12         |                         |                     |
| A*25:02+A*26:36         | A*25:11+A*26:13         |                         |                     |
| A*25:02+A*26:43:01      | A*25:19+A*26:13         |                         |                     |
| A*25:02+A*26:47         | A*25:08+A*26:13         |                         |                     |
| A*25:02+A*26:54         | A*25:05+A*26:13         |                         |                     |
| A*25:02+A*26:65         | A*25:13+A*26:13         |                         |                     |
| A*25:02+A*29:02:01G     | A*26:13+A*29:13         |                         |                     |
| A*25:02+A*29:19         | A*26:03:01+A*29:13      |                         |                     |
| A*25:02+A*30:46         | A*25:11+A*30:17         |                         |                     |
| A*25:02+A*32:08         | A*25:11+A*32:17         |                         |                     |
| A*25:02+A*68:05         | A*25:11+A*68:01:02G     |                         |                     |
| A*25:02+A*68:15         | A*25:11+A*68:02:01G     |                         |                     |
| A*25:02+A*74:06         | A*25:11+A*74:13         | A*26:03:01+A*32:17      | A*32:08+A*66:01:01G |
| A*25:02+A*74:07         | A*32:17+A*66:15         |                         |                     |
| A*25:02+A*74:13         | A*32:17+A*66:01:01G     |                         |                     |
| A*25:03+A*34:03         | A*25:09+A*34:08         |                         |                     |
| A*25:03+A*34:09         | A*25:13+A*34:08         |                         |                     |
| A*25:04+A*26:09         | A*25:06+A*26:08         |                         |                     |
| A*25:04+A*26:14         | A*25:09+A*26:08         |                         |                     |
| A*25:04+A*26:36         | A*25:11+A*26:08         |                         |                     |
| A*25:04+A*26:43:01      | A*25:19+A*26:08         |                         |                     |
| A*25:04+A*26:47         | A*25:08+A*26:08         |                         |                     |
| A*25:04+A*26:54         | A*25:05+A*26:08         |                         |                     |
| A*25:04+A*26:65         | A*25:13+A*26:08         |                         |                     |
| A*25:04+A*29:02:01G     | A*26:08+A*29:13         |                         |                     |
| A*25:04+A*32:01:01G     | A*25:19+A*32:22         |                         |                     |
| A*25:04+A*32:06         | A*25:19+A*32:02         |                         |                     |
| A*25:04+A*68:08:02      | A*25:19+A*68:09         |                         |                     |
| A*25:05+A*26:09         | A*25:06+A*26:54         |                         |                     |
| A*25:05+A*26:14         | A*25:09+A*26:54         |                         |                     |
| A*25:05+A*26:36         | A*25:11+A*26:54         |                         |                     |
| A*25:05+A*26:43:01      | A*25:19+A*26:54         |                         |                     |
| A*25:05+A*26:47         | A*25:08+A*26:54         |                         |                     |
| A*25:05+A*26:65         | A*25:13+A*26:54         |                         |                     |
| A*25:05+A*29:02:01G     | A*26:54+A*29:13         |                         |                     |
| A*25:06+A*26:14         | A*25:09+A*26:09         |                         |                     |
| A*25:06+A*26:36         | A*25:11+A*26:09         |                         |                     |
| A*25:06+A*26:43:01      | A*25:19+A*26:09         |                         |                     |
| A*25:06+A*26:47         | A*25:08+A*26:09         |                         |                     |
| A*25:06+A*26:65         | A*25:13+A*26:09         |                         |                     |
| A*25:06+A*29:02:01G     | A*26:09+A*29:13         |                         |                     |
| A*25:08+A*26:14         | A*25:09+A*26:47         |                         |                     |
| A*25:08+A*26:36         | A*25:11+A*26:47         |                         |                     |
| A*25:08+A*26:43:01      | A*25:19+A*26:47         |                         |                     |
| A*25:08+A*26:65         | A*25:13+A*26:47         |                         |                     |
| A*25:08+A*29:02:01G     | A*26:47+A*29:13         |                         |                     |
| A*25:09+A*26:36         | A*25:11+A*26:14         |                         |                     |
| A*25:09+A*26:43:01      | A*25:19+A*26:14         |                         |                     |
| A*25:09+A*26:65         | A*25:13+A*26:14         |                         |                     |
| A*25:09+A*29:02:01G     | A*26:14+A*29:13         |                         |                     |
| A*25:09+A*34:09         | A*25:13+A*34:03         |                         |                     |
| A*25:11+A*26:43:01      | A*25:19+A*26:36         |                         |                     |
| A*25:11+A*26:65         | A*25:13+A*26:36         |                         |                     |
| A*25:11+A*29:02:01G     | A*26:36+A*29:13         |                         |                     |
| A*25:11+A*74:06         | A*26:03:01+A*32:08      |                         |                     |
| A*25:11+A*74:07         | A*32:08+A*66:15         |                         |                     |
| A*25:13+A*26:43:01      | A*25:19+A*26:65         |                         |                     |
| A*25:13+A*29:02:01G     | A*26:65+A*29:13         |                         |                     |
| A*25:13+A*74:06         | A*26:30+A*32:01:01G     |                         |                     |
| A*25:13+A*74:10         | A*26:01:01G+A*32:01:01G | A*26:52+A*32:06         |                     |
| A*25:13+A*74:13         | A*32:01:01G+A*66:12     |                         |                     |
| A*25:19+A*29:02:01G     | A*26:43:01+A*29:13      |                         |                     |
| A*26:01:01G+A*26:03:01  | A*26:36+A*66:05         |                         |                     |
| A*26:01:01G+A*26:18     | A*26:12+A*26:28         |                         |                     |
| A*26:01:01G+A*26:28     | A*26:14+A*26:52         |                         |                     |
| A*26:01:01G+A*26:29     | A*26:15+A*26:49         |                         |                     |
| A*26:01:01G+A*26:30     | A*26:03:01+A*26:65      |                         |                     |
| A*26:01:01G+A*26:48     | A*26:08+A*26:69         |                         |                     |
| A*26:01:01G+A*29:01:01G | A*26:13+A*29:20         | A*26:43:01+A*29:28      |                     |

|                         |                        |                     |                    |                 |
|-------------------------|------------------------|---------------------|--------------------|-----------------|
| A*26:01:01G+A*29:02:01G | A*26:13+A*29:34        |                     |                    |                 |
| A*26:01:01G+A*29:02:10  | A*26:01:12+A*29:02:01G |                     |                    |                 |
| A*26:01:01G+A*29:02:11  | A*26:01:17+A*29:02:01G |                     |                    |                 |
| A*26:01:01G+A*29:03     | A*26:49+A*29:02:01G    |                     |                    |                 |
| A*26:01:01G+A*29:08N    | A*26:71N+A*29:02:01G   |                     |                    |                 |
| A*26:01:01G+A*29:19     | A*26:03:01+A*29:34     |                     |                    |                 |
| A*26:01:01G+A*29:27     | A*26:55+A*29:02:01G    |                     |                    |                 |
| A*26:01:01G+A*29:39     | A*29:02:01G+A*66:15    |                     |                    |                 |
| A*26:01:01G+A*30:02:01G | A*26:05+A*30:57        |                     |                    |                 |
| A*26:01:01G+A*30:11:02  | A*26:01:23+A*30:11:01  |                     |                    |                 |
| A*26:01:01G+A*30:13     | A*26:03:01+A*30:57     |                     |                    |                 |
| A*26:01:01G+A*30:16     | A*26:13+A*30:44        | A*26:36+A*30:01:01G |                    |                 |
| A*26:01:01G+A*30:25     | A*26:13+A*30:02:01G    |                     |                    |                 |
| A*26:01:01G+A*30:37     | A*26:74+A*30:01:01G    |                     |                    |                 |
| A*26:01:01G+A*30:47     | A*26:22+A*30:02:01G    |                     |                    |                 |
| A*26:01:01G+A*30:61     | A*26:10+A*30:02:01G    |                     |                    |                 |
| A*26:01:01G+A*31:01:02G | A*26:01:23+A*31:01:07  | A*26:43:01+A*31:30  | A*26:52+A*31:41    |                 |
| A*26:01:01G+A*31:01:05  | A*26:43:02+A*31:30     |                     |                    |                 |
| A*26:01:01G+A*31:01:10  | A*26:01:06+A*31:01:02G |                     |                    |                 |
| A*26:01:01G+A*31:01:16  | A*26:01:18+A*31:01:02G |                     |                    |                 |
| A*26:01:01G+A*31:02     | A*26:69+A*31:01:02G    |                     |                    |                 |
| A*26:01:01G+A*31:04     | A*26:65+A*31:03        |                     |                    |                 |
| A*26:01:01G+A*31:05     | A*26:49+A*31:01:02G    |                     |                    |                 |
| A*26:01:01G+A*31:07     | A*26:69+A*31:10        |                     |                    |                 |
| A*26:01:01G+A*32:01:08  | A*26:01:18+A*32:01:01G |                     |                    |                 |
| A*26:01:01G+A*32:01:09  | A*26:01:09+A*32:01:01G |                     |                    |                 |
| A*26:01:01G+A*32:08     | A*26:36+A*32:01:01G    |                     |                    |                 |
| A*26:01:01G+A*32:13     | A*26:49+A*32:01:01G    |                     |                    |                 |
| A*26:01:01G+A*32:17     | A*26:13+A*32:01:01G    |                     |                    |                 |
| A*26:01:01G+A*32:22     | A*26:52+A*32:02        |                     |                    |                 |
| A*26:01:01G+A*32:24     | A*26:62+A*32:01:01G    | A*26:72+A*32:15     |                    |                 |
| A*26:01:01G+A*32:28     | A*26:10+A*32:01:12     |                     |                    |                 |
| A*26:01:01G+A*32:31     | A*26:69+A*32:01:01G    |                     |                    |                 |
| A*26:01:01G+A*32:46     | A*26:74+A*32:01:01G    |                     |                    |                 |
| A*26:01:01G+A*33:03:01G | A*26:09+A*33:61        | A*33:48+A*66:15     |                    |                 |
| A*26:01:01G+A*33:08     | A*26:07:02+A*33:03:01G | A*26:69+A*33:09     |                    |                 |
| A*26:01:01G+A*33:10     | A*26:49+A*33:03:01G    |                     |                    |                 |
| A*26:01:01G+A*33:11     | A*33:48+A*66:05        |                     |                    |                 |
| A*26:01:01G+A*33:24     | A*26:03:01+A*33:48     | A*26:30+A*33:13     | A*26:36+A*33:11    |                 |
| A*26:01:01G+A*33:32:01  | A*26:10+A*33:01:05     |                     |                    |                 |
| A*26:01:01G+A*33:48     | A*26:65+A*33:13        |                     |                    |                 |
| A*26:01:01G+A*33:53     | A*26:69+A*33:21        |                     |                    |                 |
| A*26:01:01G+A*34:03     | A*26:14+A*34:02:01     |                     |                    |                 |
| A*26:01:01G+A*34:09     | A*26:65+A*34:02:01     |                     |                    |                 |
| A*26:01:01G+A*36:01     | A*26:09+A*36:04        |                     |                    |                 |
| A*26:01:01G+A*66:01:01G | A*26:13+A*66:05        |                     |                    |                 |
| A*26:01:01G+A*66:02     | A*26:13+A*66:03        |                     |                    |                 |
| A*26:01:01G+A*66:09     | A*26:22+A*66:01:01G    |                     |                    |                 |
| A*26:01:01G+A*66:10     | A*26:49+A*66:01:01G    |                     |                    |                 |
| A*26:01:01G+A*66:12     | A*26:65+A*66:01:01G    |                     |                    |                 |
| A*26:01:01G+A*68:01:01G | A*26:01:17+A*68:01:05  | A*26:12+A*68:42     | A*26:13+A*68:03:03 |                 |
| A*26:01:01G+A*68:01:02G | A*26:10+A*68:91        | A*26:13+A*68:03:01  | A*26:70+A*68:23    | A*66:05+A*68:84 |
| A*26:01:01G+A*68:01:04  | A*26:01:03+A*68:01:01G |                     |                    |                 |
| A*26:01:01G+A*68:01:06  | A*26:01:09+A*68:01:02G |                     |                    |                 |
| A*26:01:01G+A*68:01:15  | A*26:01:18+A*68:01:02G |                     |                    |                 |
| A*26:01:01G+A*68:02:01G | A*26:12+A*68:54        | A*26:13+A*68:31     | A*26:54+A*68:48    |                 |
| A*26:01:01G+A*68:02:02  | A*26:01:03+A*68:02:01G |                     |                    |                 |
| A*26:01:01G+A*68:02:04  | A*26:01:04+A*68:02:01G |                     |                    |                 |
| A*26:01:01G+A*68:05     | A*26:36+A*68:03:01     |                     |                    |                 |
| A*26:01:01G+A*68:08:01  | A*26:43:02+A*68:01:01G |                     |                    |                 |
| A*26:01:01G+A*68:08:02  | A*26:43:01+A*68:01:02G |                     |                    |                 |
| A*26:01:01G+A*68:09     | A*26:08+A*68:01:02G    |                     |                    |                 |
| A*26:01:01G+A*68:15     | A*26:36+A*68:31        |                     |                    |                 |
| A*26:01:01G+A*68:20     | A*26:41+A*68:05        |                     |                    |                 |
| A*26:01:01G+A*68:45     | A*26:16+A*68:01:01G    |                     |                    |                 |
| A*26:01:01G+A*68:51     | A*26:52+A*68:02:01G    |                     |                    |                 |
| A*26:01:01G+A*68:54     | A*26:09+A*68:61        |                     |                    |                 |
| A*26:01:01G+A*68:55     | A*26:38+A*68:01:01G    |                     |                    |                 |
| A*26:01:01G+A*68:57     | A*26:66+A*68:01:02G    |                     |                    |                 |
| A*26:01:01G+A*68:63     | A*26:43:01+A*68:42     |                     |                    |                 |
| A*26:01:01G+A*68:65     | A*26:49+A*68:01:02G    |                     |                    |                 |
| A*26:01:01G+A*68:83     | A*26:22+A*68:01:02G    |                     |                    |                 |
| A*26:01:01G+A*68:86     | A*26:57+A*68:02:01G    |                     |                    |                 |
| A*26:01:01G+A*68:89     | A*26:64+A*68:01:01G    |                     |                    |                 |
| A*26:01:01G+A*68:94N    | A*26:71N+A*68:01:01G   |                     |                    |                 |
| A*26:01:01G+A*74:06     | A*26:30+A*74:10        | A*26:36+A*74:01:01G |                    |                 |
| A*26:01:01G+A*74:13     | A*26:13+A*74:01:01G    | A*66:12+A*74:10     |                    |                 |
| A*26:01:03+A*68:02:04   | A*26:01:04+A*68:02:02  |                     |                    |                 |
| A*26:01:03+A*68:08:01   | A*26:43:02+A*68:01:04  |                     |                    |                 |
| A*26:01:03+A*68:45      | A*26:16+A*68:01:04     |                     |                    |                 |
| A*26:01:03+A*68:51      | A*26:52+A*68:02:02     |                     |                    |                 |
| A*26:01:03+A*68:55      | A*26:38+A*68:01:04     |                     |                    |                 |
| A*26:01:03+A*68:86      | A*26:57+A*68:02:02     |                     |                    |                 |
| A*26:01:03+A*68:89      | A*26:64+A*68:01:04     |                     |                    |                 |
| A*26:01:03+A*68:94N     | A*26:71N+A*68:01:04    |                     |                    |                 |
| A*26:01:04+A*68:51      | A*26:52+A*68:02:04     |                     |                    |                 |
| A*26:01:04+A*68:86      | A*26:57+A*68:02:04     |                     |                    |                 |
| A*26:01:06+A*31:01:16   | A*26:01:18+A*31:01:10  |                     |                    |                 |
| A*26:01:06+A*31:02      | A*26:69+A*31:01:10     |                     |                    |                 |
| A*26:01:06+A*31:05      | A*26:49+A*31:01:10     |                     |                    |                 |
| A*26:01:09+A*32:01:08   | A*26:01:18+A*32:01:09  |                     |                    |                 |
| A*26:01:09+A*32:08      | A*26:36+A*32:01:09     |                     |                    |                 |
| A*26:01:09+A*32:13      | A*26:49+A*32:01:09     |                     |                    |                 |
| A*26:01:09+A*32:17      | A*26:13+A*32:01:09     |                     |                    |                 |
| A*26:01:09+A*32:24      | A*26:62+A*32:01:09     |                     |                    |                 |
| A*26:01:09+A*32:31      | A*26:69+A*32:01:09     |                     |                    |                 |
| A*26:01:09+A*32:46      | A*26:74+A*32:01:09     |                     |                    |                 |
| A*26:01:09+A*68:01:15   | A*26:01:18+A*68:01:06  |                     |                    |                 |
| A*26:01:09+A*68:08:02   | A*26:43:01+A*68:01:06  |                     |                    |                 |
| A*26:01:09+A*68:09      | A*26:08+A*68:01:06     |                     |                    |                 |
| A*26:01:09+A*68:57      | A*26:66+A*68:01:06     |                     |                    |                 |
| A*26:01:09+A*68:65      | A*26:49+A*68:01:06     |                     |                    |                 |
| A*26:01:09+A*68:83      | A*26:22+A*68:01:06     |                     |                    |                 |
| A*26:01:12+A*29:02:11   | A*26:01:17+A*29:02:10  |                     |                    |                 |
| A*26:01:12+A*29:03      | A*26:49+A*29:02:10     |                     |                    |                 |

|                        |                        |                     |
|------------------------|------------------------|---------------------|
| A*26:01:12+A*29:08N    | A*26:71N+A*29:02:10    |                     |
| A*26:01:12+A*29:27     | A*26:55+A*29:02:10     |                     |
| A*26:01:12+A*29:39     | A*29:02:10+A*66:15     |                     |
| A*26:01:17+A*29:03     | A*26:49+A*29:02:11     |                     |
| A*26:01:17+A*29:08N    | A*26:71N+A*29:02:11    |                     |
| A*26:01:17+A*29:27     | A*26:55+A*29:02:11     |                     |
| A*26:01:17+A*29:39     | A*29:02:11+A*66:15     |                     |
| A*26:01:18+A*31:02     | A*26:69+A*31:01:16     |                     |
| A*26:01:18+A*31:05     | A*26:49+A*31:01:16     |                     |
| A*26:01:18+A*32:08     | A*26:36+A*32:01:08     |                     |
| A*26:01:18+A*32:13     | A*26:49+A*32:01:08     |                     |
| A*26:01:18+A*32:17     | A*26:13+A*32:01:08     |                     |
| A*26:01:18+A*32:24     | A*26:62+A*32:01:08     |                     |
| A*26:01:18+A*32:31     | A*26:69+A*32:01:08     |                     |
| A*26:01:18+A*32:46     | A*26:74+A*32:01:08     |                     |
| A*26:01:18+A*68:08:02  | A*26:43:01+A*68:01:15  |                     |
| A*26:01:18+A*68:09     | A*26:08+A*68:01:15     |                     |
| A*26:01:18+A*68:57     | A*26:66+A*68:01:15     |                     |
| A*26:01:18+A*68:65     | A*26:49+A*68:01:15     |                     |
| A*26:01:18+A*68:83     | A*26:22+A*68:01:15     |                     |
| A*26:01:21+A*31:01:02G | A*26:09+A*31:25        |                     |
| A*26:01:21+A*32:01:01G | A*26:09+A*32:26        |                     |
| A*26:03:01+A*26:13     | A*26:36+A*66:01:01G    |                     |
| A*26:03:01+A*29:02:01G | A*26:13+A*29:19        |                     |
| A*26:03:01+A*30:01:01G | A*30:16+A*66:05        | A*30:44+A*66:01:01G |
| A*26:03:01+A*30:02:01G | A*26:05+A*30:13        |                     |
| A*26:03:01+A*30:04:01  | A*26:05+A*30:46        |                     |
| A*26:03:01+A*30:17     | A*30:46+A*66:01:01G    |                     |
| A*26:03:01+A*31:04     | A*26:30+A*31:03        |                     |
| A*26:03:01+A*33:03:01G | A*33:24+A*66:15        |                     |
| A*26:03:01+A*33:11     | A*33:24+A*66:05        |                     |
| A*26:03:01+A*34:09     | A*26:30+A*34:02:01     |                     |
| A*26:03:01+A*66:12     | A*26:30+A*66:01:01G    |                     |
| A*26:03:01+A*68:01:02G | A*66:01:01G+A*68:05    |                     |
| A*26:03:01+A*68:02:01G | A*66:01:01G+A*68:15    |                     |
| A*26:03:01+A*68:03:01  | A*66:05+A*68:05        |                     |
| A*26:03:01+A*68:31     | A*66:05+A*68:15        |                     |
| A*26:03:01+A*68:65     | A*66:10+A*68:05        |                     |
| A*26:03:01+A*68:81     | A*66:14+A*68:15        |                     |
| A*26:03:01+A*68:83     | A*66:09+A*68:05        |                     |
| A*26:03:01+A*68:84     | A*26:13+A*68:05        | A*26:36+A*68:01:02G |
| A*26:03:01+A*74:01:01G | A*66:05+A*74:06        |                     |
| A*26:03:01+A*74:07     | A*66:15+A*74:06        |                     |
| A*26:03:01+A*74:13     | A*66:01:01G+A*74:06    |                     |
| A*26:05+A*30:17        | A*30:04:01+A*66:01:01G |                     |
| A*26:07:01+A*33:01:02  | A*26:07:02+A*33:01:01G |                     |
| A*26:07:02+A*33:10     | A*26:49+A*33:08        |                     |
| A*26:07:02+A*68:01:02G | A*26:69+A*68:30        |                     |
| A*26:07:02+A*68:09     | A*26:48+A*68:30        |                     |
| A*26:08+A*31:02        | A*26:48+A*31:01:02G    |                     |
| A*26:08+A*31:07        | A*26:48+A*31:10        |                     |
| A*26:08+A*32:01:01G    | A*26:43:01+A*32:22     |                     |
| A*26:08+A*32:01:06     | A*26:43:02+A*32:22     |                     |
| A*26:08+A*32:06        | A*26:43:01+A*32:02     |                     |
| A*26:08+A*32:31        | A*26:48+A*32:01:01G    |                     |
| A*26:08+A*33:08        | A*26:48+A*33:09        |                     |
| A*26:08+A*33:53        | A*26:48+A*33:21        |                     |
| A*26:08+A*68:08:02     | A*26:43:01+A*68:09     |                     |
| A*26:08+A*68:57        | A*26:66+A*68:09        |                     |
| A*26:08+A*68:65        | A*26:49+A*68:09        |                     |
| A*26:08+A*68:83        | A*26:22+A*68:09        |                     |
| A*26:10+A*30:25        | A*26:13+A*30:61        |                     |
| A*26:10+A*30:47        | A*26:22+A*30:61        |                     |
| A*26:12+A*68:63        | A*26:43:01+A*68:01:01G |                     |
| A*26:13+A*26:30        | A*26:36+A*66:12        |                     |
| A*26:13+A*30:46        | A*26:36+A*30:17        |                     |
| A*26:13+A*30:47        | A*26:22+A*30:25        |                     |
| A*26:13+A*31:01:02G    | A*26:19+A*33:03:01G    |                     |
| A*26:13+A*31:01:05     | A*26:19+A*33:03:05     |                     |
| A*26:13+A*31:05        | A*26:19+A*33:10        |                     |
| A*26:13+A*31:06        | A*26:19+A*33:18        |                     |
| A*26:13+A*31:16        | A*26:19+A*33:58        |                     |
| A*26:13+A*31:66        | A*26:19+A*33:11        |                     |
| A*26:13+A*32:08        | A*26:36+A*32:17        |                     |
| A*26:13+A*32:13        | A*26:49+A*32:17        |                     |
| A*26:13+A*32:24        | A*26:62+A*32:17        |                     |
| A*26:13+A*32:31        | A*26:69+A*32:17        |                     |
| A*26:13+A*32:46        | A*26:74+A*32:17        |                     |
| A*26:13+A*33:11        | A*33:13+A*66:12        | A*33:48+A*66:01:01G |
| A*26:13+A*68:01:02G    | A*66:01:01G+A*68:84    | A*66:11+A*68:46     |
| A*26:13+A*68:15        | A*26:36+A*68:02:01G    |                     |
| A*26:13+A*68:65        | A*66:10+A*68:84        |                     |
| A*26:13+A*68:83        | A*66:09+A*68:84        |                     |
| A*26:13+A*74:06        | A*26:36+A*74:13        |                     |
| A*26:14+A*31:01:02G    | A*26:28+A*31:41        |                     |
| A*26:14+A*32:01:01G    | A*26:28+A*32:06        |                     |
| A*26:14+A*32:22        | A*26:28+A*32:02        |                     |
| A*26:14+A*33:03:01G    | A*26:18+A*33:28        |                     |
| A*26:14+A*34:09        | A*26:65+A*34:03        |                     |
| A*26:14+A*68:51        | A*26:18+A*68:54        |                     |
| A*26:15+A*29:03        | A*26:29+A*29:02:01G    | A*26:28+A*68:02:01G |
| A*26:15+A*31:05        | A*26:29+A*31:01:02G    |                     |
| A*26:15+A*32:13        | A*26:29+A*32:01:01G    |                     |
| A*26:15+A*33:10        | A*26:29+A*33:03:01G    |                     |
| A*26:15+A*66:10        | A*26:29+A*66:01:01G    |                     |
| A*26:15+A*68:65        | A*26:29+A*68:01:02G    |                     |
| A*26:16+A*68:08:01     | A*26:43:02+A*68:45     |                     |
| A*26:16+A*68:55        | A*26:38+A*68:45        |                     |
| A*26:16+A*68:89        | A*26:64+A*68:45        |                     |
| A*26:16+A*68:94N       | A*26:71N+A*68:45       |                     |
| A*26:18+A*68:42        | A*26:28+A*68:01:01G    |                     |
| A*26:19+A*29:34        | A*29:14+A*43:01        |                     |
| A*26:22+A*29:02:01G    | A*26:70+A*29:22        |                     |
| A*26:22+A*33:03:01G    | A*26:70+A*33:22        |                     |
| A*26:22+A*66:10        | A*26:49+A*66:09        |                     |



|                         |                        |                 |
|-------------------------|------------------------|-----------------|
| A*26:22+A*66:12         | A*26:65+A*66:09        |                 |
| A*26:22+A*68:08:02      | A*26:43:01+A*68:83     |                 |
| A*26:22+A*68:57         | A*26:66+A*68:83        |                 |
| A*26:22+A*68:65         | A*26:49+A*68:83        |                 |
| A*26:28+A*34:02:01      | A*26:52+A*34:03        |                 |
| A*26:30+A*29:34         | A*26:65+A*29:19        |                 |
| A*26:30+A*30:01:01G     | A*30:44+A*66:12        |                 |
| A*26:30+A*30:17         | A*30:46+A*66:12        |                 |
| A*26:30+A*30:57         | A*26:65+A*30:13        |                 |
| A*26:30+A*32:17         | A*32:08+A*66:12        |                 |
| A*26:30+A*33:48         | A*26:65+A*33:24        |                 |
| A*26:30+A*68:01:02G     | A*66:12+A*68:05        |                 |
| A*26:30+A*68:02:01G     | A*66:12+A*68:15        |                 |
| A*26:30+A*74:13         | A*66:12+A*74:06        |                 |
| A*26:36+A*30:37         | A*26:74+A*30:16        |                 |
| A*26:36+A*32:13         | A*26:49+A*32:08        |                 |
| A*26:36+A*32:24         | A*26:62+A*32:08        |                 |
| A*26:36+A*32:31         | A*26:69+A*32:08        |                 |
| A*26:36+A*32:46         | A*26:74+A*32:08        |                 |
| A*26:38+A*68:08:01      | A*26:43:02+A*68:55     |                 |
| A*26:38+A*68:89         | A*26:64+A*68:55        |                 |
| A*26:38+A*68:94N        | A*26:71N+A*68:55       |                 |
| A*26:43:01+A*30:02:05   | A*26:43:02+A*30:02:01G |                 |
| A*26:43:01+A*31:01:05   | A*26:43:02+A*31:01:02G |                 |
| A*26:43:01+A*32:01:06   | A*26:43:02+A*32:01:01G |                 |
| A*26:43:01+A*33:03:05   | A*26:43:02+A*33:03:01G |                 |
| A*26:43:01+A*34:02:02   | A*26:43:02+A*34:02:01  |                 |
| A*26:43:01+A*68:28      | A*26:43:02+A*68:02:01G |                 |
| A*26:43:01+A*68:57      | A*26:66+A*68:08:02     |                 |
| A*26:43:01+A*68:65      | A*26:49+A*68:08:02     |                 |
| A*26:43:02+A*68:89      | A*26:64+A*68:08:01     |                 |
| A*26:43:02+A*68:94N     | A*26:71N+A*68:08:01    |                 |
| A*26:48+A*68:01:02G     | A*26:69+A*68:09        |                 |
| A*26:49+A*29:08N        | A*26:71N+A*29:03       |                 |
| A*26:49+A*29:27         | A*26:55+A*29:03        |                 |
| A*26:49+A*29:39         | A*29:03+A*66:15        |                 |
| A*26:49+A*31:02         | A*26:69+A*31:05        |                 |
| A*26:49+A*32:24         | A*26:62+A*32:13        |                 |
| A*26:49+A*32:31         | A*26:69+A*32:13        |                 |
| A*26:49+A*32:46         | A*26:74+A*32:13        |                 |
| A*26:49+A*66:12         | A*26:65+A*66:10        |                 |
| A*26:49+A*68:57         | A*26:66+A*68:65        |                 |
| A*26:52+A*68:86         | A*26:57+A*68:51        |                 |
| A*26:55+A*29:08N        | A*26:71N+A*29:27       |                 |
| A*26:55+A*29:39         | A*29:27+A*66:15        |                 |
| A*26:62+A*32:31         | A*26:69+A*32:24        |                 |
| A*26:62+A*32:46         | A*26:74+A*32:24        |                 |
| A*26:62+A*68:66         | A*26:72+A*68:01:02G    |                 |
| A*26:64+A*68:94N        | A*26:71N+A*68:89       |                 |
| A*26:69+A*32:46         | A*26:74+A*32:31        |                 |
| A*26:71N+A*29:39        | A*29:08N+A*66:15       |                 |
| A*29:01:01G+A*29:34     | A*29:02:01G+A*29:20    |                 |
| A*29:01:01G+A*30:02:01G | A*29:20+A*30:25        |                 |
| A*29:01:01G+A*30:44     | A*29:20+A*30:16        |                 |
| A*29:01:01G+A*31:01:08  | A*29:01:03+A*31:01:02G |                 |
| A*29:01:01G+A*31:16     | A*29:12+A*31:01:02G    |                 |
| A*29:01:01G+A*31:30     | A*29:28+A*31:01:02G    |                 |
| A*29:01:01G+A*32:01:01G | A*29:20+A*32:17        |                 |
| A*29:01:01G+A*32:01:12  | A*29:01:02+A*32:01:01G |                 |
| A*29:01:01G+A*33:01:05  | A*29:01:02+A*33:01:01G |                 |
| A*29:01:01G+A*33:58     | A*29:12+A*33:03:01G    |                 |
| A*29:01:01G+A*66:03     | A*29:20+A*66:02        |                 |
| A*29:01:01G+A*66:05     | A*29:20+A*66:01:01G    |                 |
| A*29:01:01G+A*68:01:02G | A*29:28+A*68:08:02     |                 |
| A*29:01:01G+A*68:01:14  | A*29:01:03+A*68:01:01G |                 |
| A*29:01:01G+A*68:03:01  | A*29:20+A*68:01:02G    |                 |
| A*29:01:01G+A*68:03:03  | A*29:20+A*68:01:01G    |                 |
| A*29:01:01G+A*68:31     | A*29:20+A*68:02:01G    |                 |
| A*29:01:01G+A*68:42     | A*29:28+A*68:63        |                 |
| A*29:01:01G+A*74:01:01G | A*29:20+A*74:13        |                 |
| A*29:01:03+A*31:16      | A*29:12+A*31:01:08     |                 |
| A*29:01:03+A*31:30      | A*29:28+A*31:01:08     |                 |
| A*29:01:03+A*68:03:03   | A*29:20+A*68:01:14     |                 |
| A*29:02:01G+A*30:02:01G | A*29:34+A*30:25        |                 |
| A*29:02:01G+A*30:02:08  | A*29:02:13+A*30:02:06  |                 |
| A*29:02:01G+A*30:31     | A*29:30+A*30:01:01G    |                 |
| A*29:02:01G+A*30:44     | A*29:34+A*30:16        |                 |
| A*29:02:01G+A*30:51     | A*29:06+A*30:02:01G    |                 |
| A*29:02:01G+A*30:54     | A*29:09+A*30:01:01G    |                 |
| A*29:02:01G+A*30:64     | A*29:42+A*30:02:01G    |                 |
| A*29:02:01G+A*31:01:02G | A*29:32+A*31:06        |                 |
| A*29:02:01G+A*31:01:09  | A*29:02:08+A*31:01:02G |                 |
| A*29:02:01G+A*31:01:11  | A*29:02:06+A*31:01:02G |                 |
| A*29:02:01G+A*31:05     | A*29:03+A*31:01:02G    |                 |
| A*29:02:01G+A*31:15     | A*29:30+A*31:01:02G    |                 |
| A*29:02:01G+A*31:29     | A*29:07+A*31:01:02G    |                 |
| A*29:02:01G+A*31:51     | A*29:06+A*31:01:02G    |                 |
| A*29:02:01G+A*32:01:01G | A*29:32+A*32:30        | A*29:34+A*32:17 |
| A*29:02:01G+A*32:07     | A*29:37+A*32:42        |                 |
| A*29:02:01G+A*32:12     | A*29:06+A*32:01:01G    |                 |
| A*29:02:01G+A*32:13     | A*29:03+A*32:01:01G    |                 |
| A*29:02:01G+A*33:03:01G | A*29:32+A*33:18        | A*29:39+A*33:48 |
| A*29:02:01G+A*33:10     | A*29:03+A*33:03:01G    |                 |
| A*29:02:01G+A*33:22     | A*29:22+A*33:03:01G    |                 |
| A*29:02:01G+A*33:34     | A*29:09+A*33:01:01G    |                 |
| A*29:02:01G+A*66:03     | A*29:34+A*66:02        |                 |
| A*29:02:01G+A*66:05     | A*29:34+A*66:01:01G    |                 |
| A*29:02:01G+A*66:10     | A*29:03+A*66:01:01G    |                 |
| A*29:02:01G+A*66:14     | A*29:06+A*66:01:01G    |                 |
| A*29:02:01G+A*68:01:01G | A*29:02:11+A*68:01:05  |                 |
| A*29:02:01G+A*68:02:03  | A*29:02:08+A*68:02:01G |                 |
| A*29:02:01G+A*68:03:01  | A*29:34+A*68:01:02G    |                 |
| A*29:02:01G+A*68:03:03  | A*29:34+A*68:01:01G    |                 |
| A*29:02:01G+A*68:05     | A*29:19+A*68:84        |                 |
| A*29:02:01G+A*68:14     | A*29:06+A*68:10        |                 |

|                         |                        |                     |
|-------------------------|------------------------|---------------------|
| A*29:02:01G+A*68:31     | A*29:34+A*68:02:01G    |                     |
| A*29:02:01G+A*68:45     | A*29:37+A*68:29        |                     |
| A*29:02:01G+A*68:56     | A*29:42+A*68:01:01G    |                     |
| A*29:02:01G+A*68:58     | A*29:29+A*68:01:01G    |                     |
| A*29:02:01G+A*68:65     | A*29:03+A*68:01:02G    |                     |
| A*29:02:01G+A*68:69     | A*29:10+A*68:01:02G    |                     |
| A*29:02:01G+A*68:81     | A*29:06+A*68:02:01G    |                     |
| A*29:02:01G+A*68:94N    | A*29:08N+A*68:01:01G   |                     |
| A*29:02:01G+A*74:01:01G | A*29:34+A*74:13        |                     |
| A*29:02:06+A*31:01:09   | A*29:02:08+A*31:01:11  |                     |
| A*29:02:06+A*31:05      | A*29:03+A*31:01:11     |                     |
| A*29:02:06+A*31:15      | A*29:30+A*31:01:11     |                     |
| A*29:02:06+A*31:29      | A*29:07+A*31:01:11     |                     |
| A*29:02:06+A*31:51      | A*29:06+A*31:01:11     |                     |
| A*29:02:08+A*31:05      | A*29:03+A*31:01:09     |                     |
| A*29:02:08+A*31:15      | A*29:30+A*31:01:09     |                     |
| A*29:02:08+A*31:29      | A*29:07+A*31:01:09     |                     |
| A*29:02:08+A*31:51      | A*29:06+A*31:01:09     |                     |
| A*29:02:08+A*68:31      | A*29:34+A*68:02:03     |                     |
| A*29:02:08+A*68:81      | A*29:06+A*68:02:03     |                     |
| A*29:03+A*31:15         | A*29:30+A*31:05        |                     |
| A*29:03+A*31:29         | A*29:07+A*31:05        |                     |
| A*29:03+A*31:51         | A*29:06+A*31:05        |                     |
| A*29:03+A*32:12         | A*29:06+A*32:13        |                     |
| A*29:03+A*33:22         | A*29:22+A*33:10        |                     |
| A*29:03+A*66:05         | A*29:34+A*66:10        |                     |
| A*29:03+A*66:14         | A*29:06+A*66:10        |                     |
| A*29:03+A*68:03:01      | A*29:34+A*68:65        |                     |
| A*29:03+A*68:69         | A*29:10+A*68:65        |                     |
| A*29:06+A*30:64         | A*29:42+A*30:51        |                     |
| A*29:06+A*31:15         | A*29:30+A*31:51        |                     |
| A*29:06+A*31:29         | A*29:07+A*31:51        |                     |
| A*29:06+A*66:05         | A*29:34+A*66:14        |                     |
| A*29:06+A*68:31         | A*29:34+A*68:81        |                     |
| A*29:07+A*31:15         | A*29:30+A*31:29        |                     |
| A*29:08N+A*68:03:03     | A*29:34+A*68:94N       |                     |
| A*29:08N+A*68:56        | A*29:42+A*68:94N       |                     |
| A*29:08N+A*68:58        | A*29:29+A*68:94N       |                     |
| A*29:09+A*30:31         | A*29:30+A*30:54        |                     |
| A*29:10+A*68:03:01      | A*29:34+A*68:69        |                     |
| A*29:12+A*31:30         | A*29:28+A*31:16        |                     |
| A*29:13+A*74:06         | A*29:19+A*32:17        |                     |
| A*29:13+A*74:07         | A*29:39+A*32:01:01G    |                     |
| A*29:19+A*30:57         | A*29:34+A*30:13        |                     |
| A*29:19+A*33:48         | A*29:34+A*33:24        |                     |
| A*29:29+A*68:03:03      | A*29:34+A*68:58        |                     |
| A*29:29+A*68:56         | A*29:42+A*68:58        |                     |
| A*29:34+A*68:56         | A*29:42+A*68:03:03     |                     |
| A*30:01:01G+A*30:03     | A*30:02:01G+A*30:11:01 |                     |
| A*30:01:01G+A*30:12     | A*30:02:01G+A*30:18    |                     |
| A*30:01:01G+A*30:46     | A*30:17+A*30:44        |                     |
| A*30:01:01G+A*31:01:03  | A*30:01:06+A*31:01:02G |                     |
| A*30:01:01G+A*31:11     | A*30:39+A*31:01:02G    |                     |
| A*30:01:01G+A*31:15     | A*30:31+A*31:01:02G    |                     |
| A*30:01:01G+A*31:44     | A*30:11:02+A*31:01:02G |                     |
| A*30:01:01G+A*31:54     | A*30:23+A*31:01:02G    |                     |
| A*30:01:01G+A*32:08     | A*30:16+A*32:01:01G    | A*30:44+A*32:17     |
| A*30:01:01G+A*32:30     | A*30:40+A*32:32        |                     |
| A*30:01:01G+A*32:46     | A*30:37+A*32:01:01G    |                     |
| A*30:01:01G+A*33:03:09  | A*30:01:03+A*33:03:01G |                     |
| A*30:01:01G+A*33:07     | A*30:23+A*33:01:01G    |                     |
| A*30:01:01G+A*33:24     | A*30:16+A*33:11        |                     |
| A*30:01:01G+A*33:34     | A*30:54+A*33:01:01G    |                     |
| A*30:01:01G+A*33:54     | A*30:58+A*33:03:01G    |                     |
| A*30:01:01G+A*34:02:01  | A*30:11:02+A*34:04     |                     |
| A*30:01:01G+A*68:01:02G | A*30:26+A*68:06        |                     |
| A*30:01:01G+A*68:01:10  | A*30:01:07+A*68:01:01G |                     |
| A*30:01:01G+A*68:01:12  | A*30:01:03+A*68:01:01G |                     |
| A*30:01:01G+A*68:05     | A*30:16+A*68:03:01     | A*30:44+A*68:01:02G |
| A*30:01:01G+A*68:15     | A*30:16+A*68:31        | A*30:44+A*68:02:01G |
| A*30:01:01G+A*68:34     | A*30:43+A*68:02:01G    |                     |
| A*30:01:01G+A*74:06     | A*30:16+A*74:01:01G    | A*30:44+A*74:13     |
| A*30:01:03+A*33:54      | A*30:58+A*33:03:09     |                     |
| A*30:01:03+A*68:01:10   | A*30:01:07+A*68:01:12  |                     |
| A*30:01:06+A*31:11      | A*30:39+A*31:01:03     |                     |
| A*30:01:06+A*31:15      | A*30:31+A*31:01:03     |                     |
| A*30:01:06+A*31:44      | A*30:11:02+A*31:01:03  |                     |
| A*30:01:06+A*31:54      | A*30:23+A*31:01:03     |                     |
| A*30:02:01G+A*30:16     | A*30:25+A*30:44        |                     |
| A*30:02:01G+A*30:46     | A*30:04:01+A*30:13     |                     |
| A*30:02:01G+A*31:01:05  | A*30:02:05+A*31:01:02G |                     |
| A*30:02:01G+A*31:51     | A*30:51+A*31:01:02G    |                     |
| A*30:02:01G+A*32:01:06  | A*30:02:05+A*32:01:01G |                     |
| A*30:02:01G+A*32:01:07  | A*30:02:06+A*32:01:01G |                     |
| A*30:02:01G+A*32:12     | A*30:51+A*32:01:01G    |                     |
| A*30:02:01G+A*32:17     | A*30:25+A*32:01:01G    |                     |
| A*30:02:01G+A*32:28     | A*30:61+A*32:01:12     |                     |
| A*30:02:01G+A*33:03:05  | A*30:02:05+A*33:03:01G |                     |
| A*30:02:01G+A*33:32:01  | A*30:61+A*33:01:05     |                     |
| A*30:02:01G+A*34:02:02  | A*30:02:05+A*34:02:01  |                     |
| A*30:02:01G+A*66:01:01G | A*30:25+A*66:05        |                     |
| A*30:02:01G+A*66:02     | A*30:25+A*66:03        |                     |
| A*30:02:01G+A*66:09     | A*30:47+A*66:01:01G    |                     |
| A*30:02:01G+A*66:14     | A*30:51+A*66:01:01G    |                     |
| A*30:02:01G+A*68:01:01G | A*30:25+A*68:03:03     |                     |
| A*30:02:01G+A*68:01:02G | A*30:25+A*68:03:01     | A*30:61+A*68:91     |
| A*30:02:01G+A*68:02:01G | A*30:25+A*68:31        |                     |
| A*30:02:01G+A*68:14     | A*30:51+A*68:10        |                     |
| A*30:02:01G+A*68:21:02  | A*30:34+A*68:01:01G    |                     |
| A*30:02:01G+A*68:28     | A*30:02:05+A*68:02:01G |                     |
| A*30:02:01G+A*68:56     | A*30:64+A*68:01:01G    |                     |
| A*30:02:01G+A*68:77     | A*30:34+A*68:02:01G    |                     |
| A*30:02:01G+A*68:81     | A*30:51+A*68:02:01G    |                     |
| A*30:02:01G+A*68:83     | A*30:47+A*68:01:02G    |                     |
| A*30:02:01G+A*74:13     | A*30:25+A*74:01:01G    |                     |

|                         |                        |                 |
|-------------------------|------------------------|-----------------|
| A*30:02:05+A*31:51      | A*30:51+A*31:01:05     |                 |
| A*30:02:05+A*32:01:07   | A*30:02:06+A*32:01:06  |                 |
| A*30:02:05+A*32:12      | A*30:51+A*32:01:06     |                 |
| A*30:02:05+A*32:17      | A*30:25+A*32:01:06     |                 |
| A*30:02:05+A*68:77      | A*30:34+A*68:28        |                 |
| A*30:02:05+A*68:81      | A*30:51+A*68:28        |                 |
| A*30:02:06+A*32:12      | A*30:51+A*32:01:07     |                 |
| A*30:02:06+A*32:17      | A*30:25+A*32:01:07     |                 |
| A*30:03+A*30:18         | A*30:11:01+A*30:12     |                 |
| A*30:04:01+A*68:01:01G  | A*30:04:02+A*68:01:11  |                 |
| A*30:11:01+A*31:01:02G  | A*30:11:02+A*31:01:07  |                 |
| A*30:11:02+A*31:11      | A*30:39+A*31:44        |                 |
| A*30:11:02+A*31:15      | A*30:31+A*31:44        |                 |
| A*30:11:02+A*31:54      | A*30:23+A*31:44        |                 |
| A*30:13+A*33:48         | A*30:57+A*33:24        |                 |
| A*30:16+A*32:46         | A*30:37+A*32:08        |                 |
| A*30:16+A*66:03         | A*30:44+A*66:02        |                 |
| A*30:16+A*68:03:03      | A*30:44+A*68:01:01G    |                 |
| A*30:17+A*32:08         | A*30:46+A*32:17        |                 |
| A*30:17+A*68:05         | A*30:46+A*68:01:02G    |                 |
| A*30:17+A*68:15         | A*30:46+A*68:02:01G    |                 |
| A*30:17+A*74:06         | A*30:46+A*74:13        |                 |
| A*30:18+A*32:01:01G     | A*30:55+A*32:07        |                 |
| A*30:18+A*68:71         | A*30:55+A*68:45        |                 |
| A*30:23+A*31:11         | A*30:39+A*31:54        |                 |
| A*30:23+A*31:15         | A*30:31+A*31:54        |                 |
| A*30:23+A*33:34         | A*30:54+A*33:07        |                 |
| A*30:25+A*32:12         | A*30:51+A*32:17        |                 |
| A*30:31+A*31:11         | A*30:39+A*31:15        |                 |
| A*30:34+A*68:56         | A*30:64+A*68:21:02     |                 |
| A*30:34+A*68:81         | A*30:51+A*68:77        |                 |
| A*30:43+A*68:15         | A*30:44+A*68:34        |                 |
| A*30:47+A*66:14         | A*30:51+A*66:09        |                 |
| A*31:01:02G+A*31:07     | A*31:02+A*31:10        |                 |
| A*31:01:02G+A*31:08     | A*31:07+A*33:21        | A*31:10+A*33:53 |
| A*31:01:02G+A*32:01:01G | A*31:21+A*32:42        |                 |
| A*31:01:02G+A*32:01:06  | A*31:01:05+A*32:01:01G |                 |
| A*31:01:02G+A*32:01:08  | A*31:01:16+A*32:01:01G |                 |
| A*31:01:02G+A*32:02     | A*31:41+A*32:22        |                 |
| A*31:01:02G+A*32:03     | A*31:10+A*74:07        |                 |
| A*31:01:02G+A*32:06     | A*31:41+A*32:01:01G    |                 |
| A*31:01:02G+A*32:12     | A*31:51+A*32:01:01G    |                 |
| A*31:01:02G+A*32:13     | A*31:05+A*32:01:01G    |                 |
| A*31:01:02G+A*32:21     | A*31:45+A*32:01:01G    |                 |
| A*31:01:02G+A*32:26     | A*31:25+A*32:01:01G    |                 |
| A*31:01:02G+A*32:30     | A*31:06+A*32:01:01G    |                 |
| A*31:01:02G+A*32:31     | A*31:02+A*32:01:01G    |                 |
| A*31:01:02G+A*32:36     | A*31:26+A*32:01:01G    |                 |
| A*31:01:02G+A*33:03:05  | A*31:01:05+A*33:03:01G |                 |
| A*31:01:02G+A*33:07     | A*31:54+A*33:01:01G    |                 |
| A*31:01:02G+A*33:08     | A*31:02+A*33:09        |                 |
| A*31:01:02G+A*33:10     | A*31:05+A*33:03:01G    |                 |
| A*31:01:02G+A*33:11     | A*31:66+A*33:03:01G    |                 |
| A*31:01:02G+A*33:16     | A*31:45+A*33:01:01G    |                 |
| A*31:01:02G+A*33:18     | A*31:06+A*33:03:01G    |                 |
| A*31:01:02G+A*33:53     | A*31:02+A*33:21        |                 |
| A*31:01:02G+A*33:58     | A*31:16+A*33:03:01G    |                 |
| A*31:01:02G+A*34:02:01  | A*31:44+A*34:04        |                 |
| A*31:01:02G+A*34:02:02  | A*31:01:05+A*34:02:01  |                 |
| A*31:01:02G+A*66:05     | A*31:66+A*66:15        |                 |
| A*31:01:02G+A*66:10     | A*31:05+A*66:01:01G    |                 |
| A*31:01:02G+A*66:14     | A*31:51+A*66:01:01G    |                 |
| A*31:01:02G+A*68:01:02G | A*31:30+A*68:08:02     |                 |
| A*31:01:02G+A*68:01:14  | A*31:01:08+A*68:01:01G |                 |
| A*31:01:02G+A*68:01:15  | A*31:01:16+A*68:01:02G |                 |
| A*31:01:02G+A*68:02:01G | A*31:41+A*68:51        |                 |
| A*31:01:02G+A*68:02:03  | A*31:01:09+A*68:02:01G |                 |
| A*31:01:02G+A*68:03:03  | A*31:66+A*68:04        |                 |
| A*31:01:02G+A*68:14     | A*31:51+A*68:10        |                 |
| A*31:01:02G+A*68:28     | A*31:01:05+A*68:02:01G |                 |
| A*31:01:02G+A*68:40     | A*31:09+A*68:02:01G    |                 |
| A*31:01:02G+A*68:42     | A*31:30+A*68:63        |                 |
| A*31:01:02G+A*68:64     | A*31:37+A*68:02:01G    |                 |
| A*31:01:02G+A*68:65     | A*31:05+A*68:01:02G    |                 |
| A*31:01:02G+A*68:67     | A*31:63+A*68:02:01G    |                 |
| A*31:01:02G+A*68:71     | A*31:21+A*68:29        |                 |
| A*31:01:02G+A*68:72     | A*31:28+A*68:01:01G    |                 |
| A*31:01:02G+A*68:78     | A*31:40+A*68:02:01G    |                 |
| A*31:01:02G+A*68:81     | A*31:51+A*68:02:01G    |                 |
| A*31:01:02G+A*74:01:01G | A*31:66+A*74:07        |                 |
| A*31:01:05+A*32:01:08   | A*31:01:16+A*32:01:06  |                 |
| A*31:01:05+A*32:06      | A*31:41+A*32:01:06     |                 |
| A*31:01:05+A*32:12      | A*31:51+A*32:01:06     |                 |
| A*31:01:05+A*32:13      | A*31:05+A*32:01:06     |                 |
| A*31:01:05+A*32:21      | A*31:45+A*32:01:06     |                 |
| A*31:01:05+A*32:26      | A*31:25+A*32:01:06     |                 |
| A*31:01:05+A*32:30      | A*31:06+A*32:01:06     |                 |
| A*31:01:05+A*32:31      | A*31:02+A*32:01:06     |                 |
| A*31:01:05+A*32:36      | A*31:26+A*32:01:06     |                 |
| A*31:01:05+A*33:10      | A*31:05+A*33:03:05     |                 |
| A*31:01:05+A*33:11      | A*31:66+A*33:03:05     |                 |
| A*31:01:05+A*33:18      | A*31:06+A*33:03:05     |                 |
| A*31:01:05+A*33:58      | A*31:16+A*33:03:05     |                 |
| A*31:01:05+A*68:01:01G  | A*31:30+A*68:08:01     |                 |
| A*31:01:05+A*68:02:03   | A*31:01:09+A*68:28     |                 |
| A*31:01:05+A*68:40      | A*31:09+A*68:28        |                 |
| A*31:01:05+A*68:64      | A*31:37+A*68:28        |                 |
| A*31:01:05+A*68:67      | A*31:63+A*68:28        |                 |
| A*31:01:05+A*68:78      | A*31:40+A*68:28        |                 |
| A*31:01:05+A*68:81      | A*31:51+A*68:28        |                 |
| A*31:01:08+A*68:72      | A*31:28+A*68:01:14     |                 |
| A*31:01:09+A*68:40      | A*31:09+A*68:02:03     |                 |
| A*31:01:09+A*68:64      | A*31:37+A*68:02:03     |                 |
| A*31:01:09+A*68:67      | A*31:63+A*68:02:03     |                 |
| A*31:01:09+A*68:78      | A*31:40+A*68:02:03     |                 |

|                         |                        |                    |
|-------------------------|------------------------|--------------------|
| A*31:01:09+A*68:81      | A*31:51+A*68:02:03     |                    |
| A*31:01:16+A*32:06      | A*31:41+A*32:01:08     |                    |
| A*31:01:16+A*32:12      | A*31:51+A*32:01:08     |                    |
| A*31:01:16+A*32:13      | A*31:05+A*32:01:08     |                    |
| A*31:01:16+A*32:21      | A*31:45+A*32:01:08     |                    |
| A*31:01:16+A*32:26      | A*31:25+A*32:01:08     |                    |
| A*31:01:16+A*32:30      | A*31:06+A*32:01:08     |                    |
| A*31:01:16+A*32:31      | A*31:02+A*32:01:08     |                    |
| A*31:01:16+A*32:36      | A*31:26+A*32:01:08     |                    |
| A*31:01:16+A*68:65      | A*31:05+A*68:01:15     |                    |
| A*31:02+A*31:08         | A*31:07+A*33:53        |                    |
| A*31:02+A*32:03         | A*31:07+A*74:07        |                    |
| A*31:02+A*32:06         | A*31:41+A*32:31        |                    |
| A*31:02+A*32:12         | A*31:51+A*32:31        |                    |
| A*31:02+A*32:13         | A*31:05+A*32:31        |                    |
| A*31:02+A*32:21         | A*31:45+A*32:31        |                    |
| A*31:02+A*32:26         | A*31:25+A*32:31        |                    |
| A*31:02+A*32:30         | A*31:06+A*32:31        |                    |
| A*31:02+A*32:36         | A*31:26+A*32:31        |                    |
| A*31:03+A*33:48         | A*31:04+A*33:13        |                    |
| A*31:03+A*34:09         | A*31:04+A*34:02:01     |                    |
| A*31:03+A*66:12         | A*31:04+A*66:01:01G    |                    |
| A*31:05+A*32:06         | A*31:41+A*32:13        |                    |
| A*31:05+A*32:12         | A*31:51+A*32:13        |                    |
| A*31:05+A*32:21         | A*31:45+A*32:13        |                    |
| A*31:05+A*32:26         | A*31:25+A*32:13        |                    |
| A*31:05+A*32:30         | A*31:06+A*32:13        |                    |
| A*31:05+A*32:36         | A*31:26+A*32:13        |                    |
| A*31:05+A*33:11         | A*31:66+A*33:10        |                    |
| A*31:05+A*33:18         | A*31:06+A*33:10        |                    |
| A*31:05+A*33:58         | A*31:16+A*33:10        |                    |
| A*31:05+A*66:14         | A*31:51+A*66:10        |                    |
| A*31:06+A*32:06         | A*31:41+A*32:30        |                    |
| A*31:06+A*32:12         | A*31:51+A*32:30        |                    |
| A*31:06+A*32:21         | A*31:45+A*32:30        |                    |
| A*31:06+A*32:26         | A*31:25+A*32:30        |                    |
| A*31:06+A*32:36         | A*31:26+A*32:30        |                    |
| A*31:06+A*33:11         | A*31:66+A*33:18        |                    |
| A*31:06+A*33:58         | A*31:16+A*33:18        |                    |
| A*31:07+A*32:01:01G     | A*31:10+A*32:31        |                    |
| A*31:07+A*33:09         | A*31:10+A*33:08        |                    |
| A*31:08+A*74:07         | A*32:03+A*33:53        |                    |
| A*31:09+A*68:64         | A*31:37+A*68:40        |                    |
| A*31:09+A*68:67         | A*31:63+A*68:40        |                    |
| A*31:09+A*68:78         | A*31:40+A*68:40        |                    |
| A*31:09+A*68:81         | A*31:51+A*68:40        |                    |
| A*31:10+A*68:01:02G     | A*31:66+A*68:36        |                    |
| A*31:10+A*74:01:01G     | A*31:66+A*32:03        |                    |
| A*31:16+A*33:11         | A*31:66+A*33:58        |                    |
| A*31:25+A*32:06         | A*31:41+A*32:26        |                    |
| A*31:25+A*32:12         | A*31:51+A*32:26        |                    |
| A*31:25+A*32:21         | A*31:45+A*32:26        |                    |
| A*31:25+A*32:36         | A*31:26+A*32:26        |                    |
| A*31:26+A*32:06         | A*31:41+A*32:36        |                    |
| A*31:26+A*32:12         | A*31:51+A*32:36        |                    |
| A*31:26+A*32:21         | A*31:45+A*32:36        |                    |
| A*31:37+A*68:67         | A*31:63+A*68:64        |                    |
| A*31:37+A*68:78         | A*31:40+A*68:64        |                    |
| A*31:37+A*68:81         | A*31:51+A*68:64        |                    |
| A*31:40+A*68:67         | A*31:63+A*68:78        |                    |
| A*31:40+A*68:81         | A*31:51+A*68:78        |                    |
| A*31:41+A*32:12         | A*31:51+A*32:06        |                    |
| A*31:41+A*32:21         | A*31:45+A*32:06        |                    |
| A*31:45+A*32:12         | A*31:51+A*32:21        |                    |
| A*31:45+A*33:07         | A*31:54+A*33:16        |                    |
| A*31:51+A*68:67         | A*31:63+A*68:81        |                    |
| A*32:01:01G+A*32:02     | A*32:06+A*32:22        |                    |
| A*32:01:01G+A*33:01:05  | A*32:01:12+A*33:01:01G |                    |
| A*32:01:01G+A*33:01:06  | A*32:01:10+A*33:01:01G |                    |
| A*32:01:01G+A*33:03:05  | A*32:01:06+A*33:03:01G |                    |
| A*32:01:01G+A*33:08     | A*32:31+A*33:09        |                    |
| A*32:01:01G+A*33:10     | A*32:13+A*33:03:01G    |                    |
| A*32:01:01G+A*33:16     | A*32:21+A*33:01:01G    |                    |
| A*32:01:01G+A*33:18     | A*32:30+A*33:03:01G    |                    |
| A*32:01:01G+A*33:24     | A*32:08+A*33:11        |                    |
| A*32:01:01G+A*33:32:01  | A*32:28+A*33:01:01G    |                    |
| A*32:01:01G+A*33:46     | A*32:23+A*33:03:01G    |                    |
| A*32:01:01G+A*33:53     | A*32:31+A*33:21        |                    |
| A*32:01:01G+A*34:02:02  | A*32:01:06+A*34:02:01  |                    |
| A*32:01:01G+A*66:02     | A*32:17+A*66:03        |                    |
| A*32:01:01G+A*66:10     | A*32:13+A*66:01:01G    |                    |
| A*32:01:01G+A*66:14     | A*32:12+A*66:01:01G    |                    |
| A*32:01:01G+A*68:01:01G | A*32:17+A*68:03:03     |                    |
| A*32:01:01G+A*68:01:02G | A*32:15+A*68:66        | A*32:17+A*68:03:01 |
| A*32:01:01G+A*68:01:06  | A*32:01:09+A*68:01:02G |                    |
| A*32:01:01G+A*68:01:15  | A*32:01:08+A*68:01:02G |                    |
| A*32:01:01G+A*68:02:01G | A*32:06+A*68:51        | A*32:17+A*68:31    |
| A*32:01:01G+A*68:05     | A*32:08+A*68:03:01     |                    |
| A*32:01:01G+A*68:09     | A*32:22+A*68:08:02     |                    |
| A*32:01:01G+A*68:14     | A*32:12+A*68:10        |                    |
| A*32:01:01G+A*68:15     | A*32:08+A*68:31        |                    |
| A*32:01:01G+A*68:28     | A*32:01:06+A*68:02:01G |                    |
| A*32:01:01G+A*68:29     | A*32:42+A*68:71        |                    |
| A*32:01:01G+A*68:45     | A*32:07+A*68:71        |                    |
| A*32:01:01G+A*68:65     | A*32:13+A*68:01:02G    |                    |
| A*32:01:01G+A*68:70     | A*32:37+A*68:01:02G    |                    |
| A*32:01:01G+A*68:81     | A*32:12+A*68:02:01G    |                    |
| A*32:01:01G+A*74:06     | A*32:08+A*74:01:01G    |                    |
| A*32:01:01G+A*74:13     | A*32:17+A*74:01:01G    |                    |
| A*32:01:06+A*33:10      | A*32:13+A*33:03:05     |                    |
| A*32:01:06+A*33:18      | A*32:30+A*33:03:05     |                    |
| A*32:01:06+A*33:46      | A*32:23+A*33:03:05     |                    |
| A*32:01:06+A*68:81      | A*32:12+A*68:28        |                    |
| A*32:01:08+A*68:01:06   | A*32:01:09+A*68:01:15  |                    |
| A*32:01:08+A*68:65      | A*32:13+A*68:01:15     |                    |

|                         |                        |
|-------------------------|------------------------|
| A*32:01:08+A*68:70      | A*32:37+A*68:01:15     |
| A*32:01:09+A*68:65      | A*32:13+A*68:01:06     |
| A*32:01:09+A*68:70      | A*32:37+A*68:01:06     |
| A*32:01:10+A*33:01:05   | A*32:01:12+A*33:01:06  |
| A*32:01:10+A*33:16      | A*32:21+A*33:01:06     |
| A*32:01:10+A*33:32:01   | A*32:28+A*33:01:06     |
| A*32:01:12+A*33:16      | A*32:21+A*33:01:05     |
| A*32:01:12+A*33:32:01   | A*32:28+A*33:01:05     |
| A*32:01:12+A*68:01:02G  | A*32:28+A*68:91        |
| A*32:02+A*68:08:02      | A*32:06+A*68:09        |
| A*32:02+A*68:51         | A*32:22+A*68:02:01G    |
| A*32:03+A*68:01:02G     | A*68:36+A*74:01:01G    |
| A*32:06+A*66:01:01G     | A*32:10+A*66:06        |
| A*32:07+A*68:29         | A*32:42+A*68:45        |
| A*32:08+A*68:01:02G     | A*32:17+A*68:05        |
| A*32:08+A*68:02:01G     | A*32:17+A*68:15        |
| A*32:08+A*74:13         | A*32:17+A*74:06        |
| A*32:12+A*66:10         | A*32:13+A*66:14        |
| A*32:13+A*33:18         | A*32:30+A*33:10        |
| A*32:13+A*33:46         | A*32:23+A*33:10        |
| A*32:13+A*68:70         | A*32:37+A*68:65        |
| A*32:15+A*68:13         | A*32:39+A*68:01:01G    |
| A*32:21+A*33:32:01      | A*32:28+A*33:16        |
| A*32:23+A*33:18         | A*32:30+A*33:46        |
| A*33:01:01G+A*33:33     | A*33:03:01G+A*33:04    |
| A*33:01:01G+A*66:01:01G | A*33:03:01G+A*66:04    |
| A*33:01:01G+A*66:10     | A*33:10+A*66:04        |
| A*33:01:01G+A*66:11     | A*33:17+A*66:04        |
| A*33:01:05+A*68:01:02G  | A*33:32:01+A*68:91     |
| A*33:03:01G+A*34:02:02  | A*33:03:05+A*34:02:01  |
| A*33:03:01G+A*34:07     | A*33:42+A*34:02:01     |
| A*33:03:01G+A*36:04     | A*33:61+A*36:01        |
| A*33:03:01G+A*66:05     | A*33:11+A*66:15        |
| A*33:03:01G+A*66:10     | A*33:10+A*66:01:01G    |
| A*33:03:01G+A*66:11     | A*33:17+A*66:01:01G    |
| A*33:03:01G+A*68:01:01G | A*33:51+A*68:29        |
| A*33:03:01G+A*68:01:12  | A*33:03:09+A*68:01:01G |
| A*33:03:01G+A*68:03:03  | A*33:11+A*68:04        |
| A*33:03:01G+A*68:28     | A*33:03:05+A*68:02:01G |
| A*33:03:01G+A*68:30     | A*33:09+A*68:01:02G    |
| A*33:03:01G+A*68:54     | A*33:28+A*68:51        |
| A*33:03:01G+A*68:61     | A*33:61+A*68:54        |
| A*33:03:01G+A*68:65     | A*33:10+A*68:01:02G    |
| A*33:03:01G+A*68:68     | A*33:29+A*68:01:01G    |
| A*33:03:01G+A*68:76     | A*33:40+A*68:01:02G    |
| A*33:03:01G+A*68:84     | A*33:17+A*68:46        |
| A*33:03:01G+A*74:01:01G | A*33:11+A*74:07        |
| A*33:03:01G+A*74:06     | A*33:24+A*74:07        |
| A*33:03:01G+A*74:10     | A*33:13+A*74:07        |
| A*33:03:05+A*34:07      | A*33:42+A*34:02:02     |
| A*33:03:09+A*68:68      | A*33:29+A*68:01:12     |
| A*33:04+A*66:01:01G     | A*33:33+A*66:04        |
| A*33:08+A*33:21         | A*33:09+A*33:53        |
| A*33:09+A*68:65         | A*33:10+A*68:30        |
| A*33:09+A*68:76         | A*33:40+A*68:30        |
| A*33:10+A*66:11         | A*33:17+A*66:10        |
| A*33:10+A*68:76         | A*33:40+A*68:65        |
| A*33:11+A*68:05         | A*33:24+A*68:03:01     |
| A*33:11+A*68:15         | A*33:24+A*68:31        |
| A*33:11+A*68:84         | A*33:48+A*68:01:02G    |
| A*33:11+A*74:06         | A*33:24+A*74:01:01G    |
| A*33:11+A*74:10         | A*33:13+A*74:01:01G    |
| A*33:13+A*34:09         | A*33:48+A*34:02:01     |
| A*33:13+A*74:06         | A*33:24+A*74:10        |
| A*34:01:01+A*68:01:16   | A*34:01:02+A*68:01:02G |
| A*34:02:01+A*66:12      | A*34:09+A*66:01:01G    |
| A*34:02:01+A*68:28      | A*34:02:02+A*68:02:01G |
| A*34:02:01+A*68:71      | A*34:08+A*68:01:01G    |
| A*36:01+A*68:61         | A*36:04+A*68:54        |
| A*66:01:01G+A*66:03     | A*66:02+A*66:05        |
| A*66:01:01G+A*68:03:01  | A*66:05+A*68:01:02G    |
| A*66:01:01G+A*68:03:03  | A*66:05+A*68:01:01G    |
| A*66:01:01G+A*68:04     | A*66:15+A*68:01:01G    |
| A*66:01:01G+A*68:14     | A*66:14+A*68:10        |
| A*66:01:01G+A*68:31     | A*66:05+A*68:02:01G    |
| A*66:01:01G+A*68:65     | A*66:10+A*68:01:02G    |
| A*66:01:01G+A*68:81     | A*66:14+A*68:02:01G    |
| A*66:01:01G+A*68:83     | A*66:09+A*68:01:02G    |
| A*66:01:01G+A*74:01:01G | A*66:05+A*74:13        |
| A*66:01:01G+A*74:07     | A*66:15+A*74:13        |
| A*66:02+A*68:03:01      | A*66:03+A*68:01:02G    |
| A*66:02+A*68:03:03      | A*66:03+A*68:01:01G    |
| A*66:02+A*68:31         | A*66:03+A*68:02:01G    |
| A*66:02+A*68:41         | A*66:16+A*68:01:02G    |
| A*66:02+A*74:01:01G     | A*66:03+A*74:13        |
| A*66:03+A*68:41         | A*66:16+A*68:03:01     |
| A*66:05+A*68:04         | A*66:15+A*68:03:03     |
| A*66:05+A*68:65         | A*66:10+A*68:03:01     |
| A*66:05+A*68:81         | A*66:14+A*68:31        |
| A*66:05+A*68:83         | A*66:09+A*68:03:01     |
| A*66:05+A*74:07         | A*66:15+A*74:01:01G    |
| A*66:09+A*68:65         | A*66:10+A*68:83        |
| A*68:01:01G+A*68:02:01G | A*68:27+A*68:39        |
| A*68:01:01G+A*68:02:02  | A*68:01:04+A*68:02:01G |
| A*68:01:01G+A*68:03:01  | A*68:01:02G+A*68:03:03 |
| A*68:01:01G+A*68:31     | A*68:02:01G+A*68:03:03 |
| A*68:01:01G+A*68:54     | A*68:02:01G+A*68:42    |
| A*68:01:01G+A*68:77     | A*68:02:01G+A*68:21:02 |
| A*68:01:01G+A*74:01:01G | A*68:03:03+A*74:13     |
| A*68:01:01G+A*74:07     | A*68:04+A*74:13        |
| A*68:01:02G+A*68:15     | A*68:02:01G+A*68:05    |
| A*68:01:02G+A*68:31     | A*68:02:01G+A*68:03:01 |
| A*68:01:02G+A*68:63     | A*68:08:02+A*68:42     |
| A*68:01:02G+A*74:01:01G | A*68:03:01+A*74:13     |
| A*68:01:02G+A*74:06     | A*68:05+A*74:13        |

---

|                         |                       |
|-------------------------|-----------------------|
| A*68:01:04+A*68:31      | A*68:02:02+A*68:03:03 |
| A*68:01:04+A*68:54      | A*68:02:02+A*68:42    |
| A*68:01:04+A*68:77      | A*68:02:02+A*68:21:02 |
| A*68:02:01G+A*68:14     | A*68:10+A*68:81       |
| A*68:02:01G+A*74:01:01G | A*68:31+A*74:13       |
| A*68:02:01G+A*74:06     | A*68:15+A*74:13       |
| A*68:03:01+A*68:15      | A*68:05+A*68:31       |
| A*68:03:01+A*74:06      | A*68:05+A*74:01:01G   |
| A*68:03:03+A*68:54      | A*68:31+A*68:42       |
| A*68:03:03+A*68:77      | A*68:21:02+A*68:31    |
| A*68:03:03+A*74:07      | A*68:04+A*74:01:01G   |
| A*68:08:01+A*68:54      | A*68:28+A*68:63       |
| A*68:15+A*74:01:01G     | A*68:31+A*74:06       |
| A*68:21:02+A*68:54      | A*68:42+A*68:77       |

---

# HLA-B Ambiguities, Release 3.9.0

## Sequences identical over exons 2+3

| Code in table | Allele 1      | Allele 2       | Allele 3      | Allele 4   | Allele 5   | Allele 6   | Allele 7 | Allele 8   | Allele 9 | Allele 10 |
|---------------|---------------|----------------|---------------|------------|------------|------------|----------|------------|----------|-----------|
| B*07:02:01G   | B*07:02:01    | B*07:02:06     | B*07:02:09    | B*07:44    | B*07:49N   | B*07:58    | B*07:59  | B*07:61    | B*07:120 | B*07:128  |
| B*07:05:01G   | B*07:129      | B*07:130       | B*07:156      | B*07:161N  |            |            |          |            |          |           |
| B*08:01:01G   | B*07:05:01    | B*07:06        |               |            |            |            |          |            |          |           |
| B*13:01:01G   | B*08:01:01    | B*08:01:14     | B*08:19N      |            |            |            |          |            |          |           |
| B*13:02:01G   | B*13:01:01    | B*13:01:05     | B*13:52       |            |            |            |          |            |          |           |
| B*15:01:01G   | B*13:02:01    | B*13:02:05     | B*13:02:09    | B*13:38    |            |            |          |            |          |           |
| B*15:01:01G   | B*15:01:01:01 | B*15:01:01:02N | B*15:01:06    | B*15:01:07 | B*15:01:20 | B*15:01:22 | B*15:102 | B*15:104   | B*15:140 | B*15:146  |
|               | B*15:201      | B*15:227       | B*15:228      | B*15:247   |            |            |          |            |          |           |
| B*15:02:01G   | B*15:02:01    | B*15:02:06     | B*15:214      |            |            |            |          |            |          |           |
| B*15:03:01G   | B*15:03:01    | B*15:103       | B*15:220      |            |            |            |          |            |          |           |
| B*15:07:01G   | B*15:07:01    | B*15:07:02     |               |            |            |            |          |            |          |           |
| B*15:11:01G   | B*15:11:01    | B*15:11:05     |               |            |            |            |          |            |          |           |
| B*15:12:01G   | B*15:12       | B*15:19        |               |            |            |            |          |            |          |           |
| B*15:123:01G  | B*15:123      | B*15:151       |               |            |            |            |          |            |          |           |
| B*15:17:01G   | B*15:17:01:01 | B*15:17:01:02  |               |            |            |            |          |            |          |           |
| B*15:18:01G   | B*15:18:01    | B*15:198       |               |            |            |            |          |            |          |           |
| B*15:25:01G   | B*15:25:01    | B*15:25:03     |               |            |            |            |          |            |          |           |
| B*18:01:01G   | B*18:01:01:01 | B*18:01:01:02  | B*18:01:03    | B*18:17N   | B*18:53    |            |          |            |          |           |
| B*27:04:01G   | B*27:04:01    | B*27:68        | B*27:69       |            |            |            |          |            |          |           |
| B*27:05:02G   | B*27:05:02    | B*27:05:04     | B*27:13       |            |            |            |          |            |          |           |
| B*27:07:01G   | B*27:07:01    | B*27:07:02     |               |            |            |            |          |            |          |           |
| B*35:01:01G   | B*35:01:01:01 | B*35:01:01:02  | B*35:01:03    | B*35:01:23 | B*35:01:25 | B*35:01:28 | B*35:40N | B*35:42:01 | B*35:57  | B*35:94   |
|               | B*35:134N     | B*35:161       |               |            |            |            |          |            |          |           |
| B*35:03:01G   | B*35:03:01    | B*35:70        |               |            |            |            |          |            |          |           |
| B*35:137:01G  | B*35:137      | B*35:147       |               |            |            |            |          |            |          |           |
| B*35:43:01G   | B*35:43:01    | B*35:67        | B*35:79       |            |            |            |          |            |          |           |
| B*37:01:01G   | B*37:01:01    | B*37:23        |               |            |            |            |          |            |          |           |
| B*38:02:01G   | B*38:02:01    | B*38:18        |               |            |            |            |          |            |          |           |
| B*39:01:01G   | B*39:01:01:01 | B*39:01:01:02L | B*39:01:01:03 | B*39:01:03 | B*39:46    | B*39:59    |          |            |          |           |
| B*40:01:01G   | B*40:01:01    | B*40:01:02     | B*40:01:25    | B*40:55    | B*40:141   | B*40:150   | B*40:151 | B*40:179   |          |           |
| B*40:02:01G   | B*40:02:01    | B*40:56        | B*40:97       | B*40:144N  | B*40:176   |            |          |            |          |           |
| B*40:06:01G   | B*40:06:01:01 | B*40:06:01:02  | B*40:06:03    | B*40:06:04 |            |            |          |            |          |           |
| B*44:02:01G   | B*44:02:01:01 | B*44:02:01:02S | B*44:02:25    | B*44:19N   | B*44:27:01 | B*44:66    | B*44:118 |            |          |           |
| B*44:03:01G   | B*44:03:01    | B*44:03:03     | B*44:03:04    |            |            |            |          |            |          |           |
| B*45:01:01G   | B*45:01       | B*45:07        | B*45:13       |            |            |            |          |            |          |           |
| B*46:01:01G   | B*46:01:01    | B*46:15N       | B*46:24       | B*46:34    |            |            |          |            |          |           |
| B*47:01:01G   | B*47:01:01:01 | B*47:01:01:02  | B*47:01:02    |            |            |            |          |            |          |           |
| B*48:01:01G   | B*48:01:01    | B*48:01:03     | B*48:09       |            |            |            |          |            |          |           |
| B*51:01:01G   | B*51:01:01    | B*51:01:05     | B*51:01:07    | B*51:01:23 | B*51:11N   | B*51:30    | B*51:32  | B*51:48    | B*51:51  |           |
| B*52:01:01G   | B*52:01:01:01 | B*52:01:01:02  | B*52:01:08    | B*52:07    |            |            |          |            |          |           |
| B*54:01:01G   | B*54:01:01    | B*54:17        |               |            |            |            |          |            |          |           |
| B*55:01:01G   | B*55:01:01    | B*55:01:03     |               |            |            |            |          |            |          |           |
| B*55:02:01G   | B*55:02:01    | B*55:02:05     |               |            |            |            |          |            |          |           |
| B*56:01:01G   | B*56:01:01    | B*56:24        |               |            |            |            |          |            |          |           |
| B*57:01:01G   | B*57:01:01    | B*57:01:11     | B*57:29       | B*57:37    | B*57:55    |            |          |            |          |           |
| B*58:01:01G   | B*58:01:01    | B*58:01:04     | B*58:01:06    | B*58:01:07 | B*58:11    | B*58:30    | B*58:31N |            |          |           |
| B*59:01:01G   | B*59:01:01:01 | B*59:01:01:02  |               |            |            |            |          |            |          |           |
| B*81:01:01G   | B*81:01       | B*81:02        | B*81:03       |            |            |            |          |            |          |           |

## Alleles extended due to unsequenced regions

The following alleles do not contain the complete exon 2 + 3 sequence. For these alleles, the sequence of an alternate allele has been used to extend the sequence to cover this region.

| Incomplete allele | Sequence extended with |
|-------------------|------------------------|
| B*45:05           | B*45:01                |

## Alleles removed from analysis due to insertions or deletions

| Allele    |
|-----------|
| B*07:67N  |
| B*08:08N  |
| B*13:07N  |
| B*15:79N  |
| B*15:111N |
| B*15:149N |
| B*15:246N |
| B*27:66N  |
| B*35:53N  |
| B*35:145N |
| B*39:25N  |
| B*40:142N |
| B*40:155N |
| B*44:52N  |
| B*44:138Q |
| B*51:118N |
| B*54:05N  |
| B*58:10N  |
| B*58:17N  |

## Ambiguous typing combinations over exon 2 + 3

| Combination 1           | Combination 2          | Combination 3         | Combination 4          | Combination 5     |
|-------------------------|------------------------|-----------------------|------------------------|-------------------|
| B*07:02:01G+B*07:05:03  | B*07:02:11+B*07:05:01G |                       |                        |                   |
| B*07:02:01G+B*07:05:04  | B*07:02:03+B*07:05:01G |                       |                        |                   |
| B*07:02:01G+B*07:05:05  | B*07:02:16+B*07:05:01G |                       |                        |                   |
| B*07:02:01G+B*07:08     | B*07:03+B*07:83        |                       |                        |                   |
| B*07:02:01G+B*07:11     | B*07:09+B*07:57        |                       |                        |                   |
| B*07:02:01G+B*07:14     | B*07:18:02+B*07:96:01  |                       |                        |                   |
| B*07:02:01G+B*07:15     | B*07:92+B*07:160       |                       |                        |                   |
| B*07:02:01G+B*07:16     | B*07:03+B*07:91        | B*07:37+B*07:125      |                        |                   |
| B*07:02:01G+B*07:17     | B*07:09+B*07:96:01     |                       |                        |                   |
| B*07:02:01G+B*07:20     | B*07:24+B*07:153       |                       |                        |                   |
| B*07:02:01G+B*07:22:02  | B*07:02:13+B*07:22:01  |                       |                        |                   |
| B*07:02:01G+B*07:28     | B*07:96:01+B*07:118    |                       |                        |                   |
| B*07:02:01G+B*07:32     | B*07:05:01G+B*07:08    |                       |                        |                   |
| B*07:02:01G+B*07:34     | B*07:05:01G+B*07:43    | B*07:31+B*07:80       |                        |                   |
| B*07:02:01G+B*07:36     | B*07:57+B*07:81        |                       |                        |                   |
| B*07:02:01G+B*07:43     | B*07:26+B*07:31        |                       |                        |                   |
| B*07:02:01G+B*07:53     | B*07:05:01G+B*07:33    |                       |                        |                   |
| B*07:02:01G+B*07:56:01  | B*07:02:03+B*07:56:02  |                       |                        |                   |
| B*07:02:01G+B*07:60     | B*07:24+B*07:33        |                       |                        |                   |
| B*07:02:01G+B*07:68:01  | B*07:02:14+B*07:68:03  |                       |                        |                   |
| B*07:02:01G+B*07:68:02  | B*07:02:13+B*07:68:01  |                       |                        |                   |
| B*07:02:01G+B*07:69     | B*07:05:01G+B*07:85    |                       |                        |                   |
| B*07:02:01G+B*07:72     | B*07:56:02+B*07:86     |                       |                        |                   |
| B*07:02:01G+B*07:75     | B*07:57+B*07:91        |                       |                        |                   |
| B*07:02:01G+B*07:80     | B*07:05:01G+B*07:26    |                       |                        |                   |
| B*07:02:01G+B*07:85     | B*07:03+B*07:10        |                       |                        |                   |
| B*07:02:01G+B*07:96:02  | B*07:02:29+B*07:96:01  |                       |                        |                   |
| B*07:02:01G+B*07:123    | B*07:05:01G+B*07:54    |                       |                        |                   |
| B*07:02:01G+B*07:131    | B*07:24+B*07:26        |                       |                        |                   |
| B*07:02:01G+B*07:137    | B*07:05:01G+B*07:18:01 |                       |                        |                   |
| B*07:02:01G+B*07:138    | B*07:05:01G+B*07:158   |                       |                        |                   |
| B*07:02:01G+B*07:140    | B*07:05:01G+B*07:153   |                       |                        |                   |
| B*07:02:01G+B*07:147    | B*07:26+B*07:151       |                       |                        |                   |
| B*07:02:01G+B*07:162    | B*07:09+B*07:12        |                       |                        |                   |
| B*07:02:01G+B*08:01:01G | B*07:02:03+B*08:01:11  | B*07:02:14+B*08:01:13 | B*07:05:01G+B*08:07    | B*07:29+B*08:94   |
|                         | B*08:79+B*42:16        |                       |                        |                   |
| B*07:02:01G+B*08:01:13  | B*07:02:13+B*08:01:02  | B*07:25+B*08:20       |                        |                   |
| B*07:02:01G+B*08:01:17  | B*07:02:17+B*08:01:01G |                       |                        |                   |
| B*07:02:01G+B*08:02     | B*07:149+B*08:01:01G   |                       |                        |                   |
| B*07:02:01G+B*08:03     | B*07:36+B*08:23        | B*07:75+B*08:52       | B*07:91+B*08:78        |                   |
| B*07:02:01G+B*08:12:01  | B*07:07+B*08:01:01G    |                       |                        |                   |
| B*07:02:01G+B*08:12:02  | B*07:07+B*08:01:12     |                       |                        |                   |
| B*07:02:01G+B*08:13     | B*07:43+B*08:40        |                       |                        |                   |
| B*07:02:01G+B*08:15     | B*07:92+B*08:01:01G    |                       |                        |                   |
| B*07:02:01G+B*08:16     | B*07:160+B*08:12:01    |                       |                        |                   |
| B*07:02:01G+B*08:18     | B*07:102+B*08:01:01G   |                       |                        |                   |
| B*07:02:01G+B*08:23     | B*07:91+B*08:01:01G    |                       |                        |                   |
| B*07:02:01G+B*08:25     | B*07:131+B*08:40       |                       |                        |                   |
| B*07:02:01G+B*08:26     | B*07:56:02+B*08:50     | B*07:72+B*08:94       |                        |                   |
| B*07:02:01G+B*08:28     | B*07:17+B*08:07        | B*07:96:01+B*08:37    |                        |                   |
| B*07:02:01G+B*08:32     | B*07:134+B*08:01:01G   |                       |                        |                   |
| B*07:02:01G+B*08:35     | B*07:05:01G+B*08:37    | B*07:09+B*08:01:01G   |                        |                   |
| B*07:02:01G+B*08:37     | B*07:09+B*08:07        |                       |                        |                   |
| B*07:02:01G+B*08:39     | B*07:93+B*08:01:01G    |                       |                        |                   |
| B*07:02:01G+B*08:43     | B*07:124+B*08:01:01G   |                       |                        |                   |
| B*07:02:01G+B*08:47     | B*07:57+B*08:01:01G    |                       |                        |                   |
| B*07:02:01G+B*08:50     | B*07:86+B*08:94        |                       |                        |                   |
| B*07:02:01G+B*08:52     | B*07:81+B*08:01:01G    |                       |                        |                   |
| B*07:02:01G+B*08:55     | B*07:45+B*08:13        |                       |                        |                   |
| B*07:02:01G+B*08:56     | B*07:56:02+B*08:01:11  |                       |                        |                   |
| B*07:02:01G+B*08:58     | B*07:138+B*08:07       | B*07:158+B*08:01:01G  |                        |                   |
| B*07:02:01G+B*08:62     | B*07:143+B*08:50       |                       |                        |                   |
| B*07:02:01G+B*08:64     | B*07:113+B*08:01:01G   |                       |                        |                   |
| B*07:02:01G+B*08:71     | B*07:68:01+B*08:01:13  | B*07:68:02+B*08:01:02 | B*07:68:03+B*08:01:01G |                   |
| B*07:02:01G+B*08:74     | B*07:96:01+B*08:01:01G |                       |                        |                   |
| B*07:02:01G+B*08:77     | B*07:74+B*08:01:01G    |                       |                        |                   |
| B*07:02:01G+B*08:78     | B*07:36+B*08:01:01G    | B*07:57+B*08:52       | B*07:81+B*08:47        |                   |
| B*07:02:01G+B*08:84     | B*07:106+B*08:09       |                       |                        |                   |
| B*07:02:01G+B*08:87     | B*07:28+B*08:07        |                       |                        |                   |
| B*07:02:01G+B*08:88     | B*07:73+B*08:01:11     |                       |                        |                   |
| B*07:02:01G+B*08:89     | B*07:07+B*08:37        |                       |                        |                   |
| B*07:02:01G+B*13:01:01G | B*07:54+B*13:36        | B*07:57+B*13:25       |                        |                   |
| B*07:02:01G+B*13:02:01G | B*07:26+B*13:18        | B*07:86+B*13:14       | B*07:125+B*13:54       | B*07:149+B*13:09  |
| B*07:02:01G+B*13:02:03  | B*07:02:21+B*13:02:01G |                       |                        |                   |
| B*07:02:01G+B*13:03     | B*07:24+B*13:45        |                       |                        |                   |
| B*07:02:01G+B*13:06     | B*07:31+B*13:01:01G    |                       |                        |                   |
| B*07:02:01G+B*13:22:02  | B*07:02:13+B*13:22:01  |                       |                        |                   |
| B*07:02:01G+B*13:23     | B*07:143+B*13:01:01G   |                       |                        |                   |
| B*07:02:01G+B*13:41     | B*07:55+B*13:18        |                       |                        |                   |
| B*07:02:01G+B*13:53     | B*07:31+B*13:02:01G    | B*07:43+B*13:18       |                        |                   |
| B*07:02:01G+B*13:55     | B*07:143+B*13:02:01G   |                       |                        |                   |
| B*07:02:01G+B*14:02:01  | B*07:02:32+B*14:02:03  | B*07:26+B*14:03       | B*07:115+B*14:23       |                   |
| B*07:02:01G+B*14:02:03  | B*07:85+B*14:21        |                       |                        |                   |
| B*07:02:01G+B*14:02:06  | B*07:02:08+B*14:02:03  |                       |                        |                   |
| B*07:02:01G+B*14:06:01  | B*07:07+B*14:05        |                       |                        |                   |
| B*07:02:01G+B*14:11     | B*07:86+B*14:01:01     | B*07:114+B*14:02:01   |                        |                   |
| B*07:02:01G+B*14:14     | B*07:91+B*14:01:01     |                       |                        |                   |
| B*07:02:01G+B*14:17     | B*07:76+B*14:02:01     |                       |                        |                   |
| B*07:02:01G+B*14:18     | B*07:91+B*14:02:01     |                       |                        |                   |
| B*07:02:01G+B*14:25     | B*07:136+B*14:02:01    |                       |                        |                   |
| B*07:02:01G+B*14:28     | B*07:29+B*14:01:01     |                       |                        |                   |
| B*07:02:01G+B*15:01:01G | B*07:07+B*15:07:01G    | B*07:09+B*15:63       | B*07:24+B*15:117       | B*07:50+B*15:101  |
|                         | B*07:54+B*15:15        | B*07:55+B*15:65       | B*07:56:02+B*15:251    | B*07:60+B*15:241  |
|                         | B*07:68:01+B*15:78:02  | B*07:68:03+B*15:78:01 | B*07:91+B*15:70        | B*07:114+B*15:125 |
|                         | B*15:76+B*48:08        |                       |                        |                   |
| B*07:02:01G+B*15:01:02  | B*07:02:11+B*15:01:01G |                       |                        |                   |
| B*07:02:01G+B*15:01:03  | B*07:02:07+B*15:01:01G |                       |                        |                   |
| B*07:02:01G+B*15:01:08  | B*07:02:20+B*15:01:01G |                       |                        |                   |
| B*07:02:01G+B*15:01:17  | B*07:68:03+B*15:78:03  |                       |                        |                   |



|                         |                        |                        |                     |                     |
|-------------------------|------------------------|------------------------|---------------------|---------------------|
| B*07:02:01G+B*15:01:24  | B*07:02:16+B*15:01:01G |                        |                     |                     |
| B*07:02:01G+B*15:02:01G | B*07:02:08+B*15:02:02  | B*07:02:14+B*15:02:03  | B*07:96:01+B*15:223 | B*07:125+B*15:139   |
| B*07:02:01G+B*15:03:01G | B*07:02:03+B*15:03:03  | B*07:54+B*15:64        | B*07:91+B*15:61     | B*07:131+B*15:47:01 |
| B*07:02:01G+B*15:05:01  | B*07:26+B*15:237       | B*07:48+B*15:65        | B*07:68:01+B*15:107 |                     |
| B*07:02:01G+B*15:05:02  | B*07:02:13+B*15:05:01  | B*07:68:02+B*15:107    |                     |                     |
| B*07:02:01G+B*15:06     | B*07:96:01+B*15:195    |                        |                     |                     |
| B*07:02:01G+B*15:07:01G | B*07:09+B*15:45        |                        |                     |                     |
| B*07:02:01G+B*15:08     | B*07:83+B*15:11:01G    |                        |                     |                     |
| B*07:02:01G+B*15:09     | B*07:05:03+B*15:10:01  |                        |                     |                     |
| B*07:02:01G+B*15:10:01  | B*07:02:03+B*15:10:02  | B*07:26+B*15:99        |                     |                     |
| B*07:02:01G+B*15:11:01G | B*07:16+B*15:76        |                        |                     |                     |
| B*07:02:01G+B*15:11:04  | B*07:02:03+B*15:11:01G |                        |                     |                     |
| B*07:02:01G+B*15:12:01G | B*07:64+B*15:01:01G    |                        |                     |                     |
| B*07:02:01G+B*15:13:01  | B*07:36+B*15:02:01G    |                        |                     |                     |
| B*07:02:01G+B*15:13:02  | B*07:02:13+B*15:13:01  |                        |                     |                     |
| B*07:02:01G+B*15:14     | B*07:20+B*15:117       | B*07:153+B*15:01:01G   |                     |                     |
| B*07:02:01G+B*15:15     | B*07:50+B*15:76        |                        |                     |                     |
| B*07:02:01G+B*15:17:01G | B*07:33+B*15:230       |                        |                     |                     |
| B*07:02:01G+B*15:18:01G | B*07:09+B*15:10:01     | B*07:24+B*15:238       | B*07:26+B*15:221    | B*07:68:03+B*15:72  |
| B*07:02:01G+B*15:23     | B*07:36+B*15:18:01G    |                        |                     |                     |
| B*07:02:01G+B*15:24     | B*07:36+B*15:01:01G    | B*07:57+B*15:87        | B*07:81+B*15:135    |                     |
| B*07:02:01G+B*15:25:01G | B*07:54+B*15:02:01G    |                        |                     |                     |
| B*07:02:01G+B*15:25:02  | B*07:54+B*15:02:05     |                        |                     |                     |
| B*07:02:01G+B*15:27:03  | B*07:02:13+B*15:27:01  |                        |                     |                     |
| B*07:02:01G+B*15:30     | B*07:05:01G+B*15:63    | B*07:68:01+B*15:150    |                     |                     |
| B*07:02:01G+B*15:31     | B*07:07+B*15:55        |                        |                     |                     |
| B*07:02:01G+B*15:32     | B*07:77+B*15:07:01G    |                        |                     |                     |
| B*07:02:01G+B*15:33     | B*07:09+B*15:248       |                        |                     |                     |
| B*07:02:01G+B*15:35     | B*07:68:01+B*15:141    |                        |                     |                     |
| B*07:02:01G+B*15:36     | B*07:54+B*15:89        | B*07:149+B*15:25:01G   |                     |                     |
| B*07:02:01G+B*15:38:02  | B*07:02:13+B*15:38:01  |                        |                     |                     |
| B*07:02:01G+B*15:39:01  | B*07:24+B*15:40        | B*07:26+B*15:65        | B*07:60+B*15:138    |                     |
| B*07:02:01G+B*15:39:02  | B*07:02:13+B*15:39:01  |                        |                     |                     |
| B*07:02:01G+B*15:40     | B*07:33+B*15:138       |                        |                     |                     |
| B*07:02:01G+B*15:43     | B*07:27+B*15:101       |                        |                     |                     |
| B*07:02:01G+B*15:47:01  | B*07:02:14+B*15:47:02  |                        |                     |                     |
| B*07:02:01G+B*15:49     | B*07:47+B*15:47:01     |                        |                     |                     |
| B*07:02:01G+B*15:50     | B*07:31+B*15:117       |                        |                     |                     |
| B*07:02:01G+B*15:51     | B*07:25+B*15:221       |                        |                     |                     |
| B*07:02:01G+B*15:56     | B*07:54+B*15:08        | B*07:83+B*15:152       | B*07:91+B*15:236    |                     |
| B*07:02:01G+B*15:57     | B*07:92+B*15:135       |                        |                     |                     |
| B*07:02:01G+B*15:60     | B*07:117+B*15:01:01G   |                        |                     |                     |
| B*07:02:01G+B*15:63     | B*07:07+B*15:45        |                        |                     |                     |
| B*07:02:01G+B*15:66     | B*07:10+B*15:152       |                        |                     |                     |
| B*07:02:01G+B*15:74     | B*07:116+B*15:03:01G   |                        |                     |                     |
| B*07:02:01G+B*15:78:01  | B*07:02:14+B*15:78:02  |                        |                     |                     |
| B*07:02:01G+B*15:85     | B*07:12+B*15:07:01G    | B*07:162+B*15:45       |                     |                     |
| B*07:02:01G+B*15:87     | B*07:81+B*15:01:01G    |                        |                     |                     |
| B*07:02:01G+B*15:89     | B*07:149+B*15:02:01G   |                        |                     |                     |
| B*07:02:01G+B*15:90     | B*07:52+B*15:10:01     |                        |                     |                     |
| B*07:02:01G+B*15:91     | B*07:153+B*15:123:01G  |                        |                     |                     |
| B*07:02:01G+B*15:93     | B*07:31+B*15:238       |                        |                     |                     |
| B*07:02:01G+B*15:101    | B*07:54+B*15:76        |                        |                     |                     |
| B*07:02:01G+B*15:108    | B*07:45+B*15:18:01G    |                        |                     |                     |
| B*07:02:01G+B*15:117    | B*07:33+B*15:241       |                        |                     |                     |
| B*07:02:01G+B*15:122    | B*07:127+B*15:01:01G   |                        |                     |                     |
| B*07:02:01G+B*15:128    | B*07:17+B*15:63        | B*07:96:01+B*15:01:01G |                     |                     |
| B*07:02:01G+B*15:131    | B*07:153+B*15:03:01G   |                        |                     |                     |
| B*07:02:01G+B*15:135    | B*07:11+B*15:63        | B*07:57+B*15:01:01G    | B*07:75+B*15:70     |                     |
| B*07:02:01G+B*15:136    | B*07:45+B*15:05:01     |                        |                     |                     |
| B*07:02:01G+B*15:152    | B*07:16+B*15:101       | B*07:54+B*15:11:01G    |                     |                     |
| B*07:02:01G+B*15:154    | B*07:18:02+B*15:07:01G |                        |                     |                     |
| B*07:02:01G+B*15:156    | B*07:96:01+B*15:03:01G |                        |                     |                     |
| B*07:02:01G+B*15:157    | B*07:46+B*15:24        |                        |                     |                     |
| B*07:02:01G+B*15:159    | B*07:23+B*15:01:01G    |                        |                     |                     |
| B*07:02:01G+B*15:161    | B*07:20+B*15:238       | B*07:153+B*15:18:01G   |                     |                     |
| B*07:02:01G+B*15:162    | B*07:51+B*15:17:01G    |                        |                     |                     |
| B*07:02:01G+B*15:204    | B*07:143+B*15:25:01G   |                        |                     |                     |
| B*07:02:01G+B*15:210    | B*07:143+B*15:03:01G   |                        |                     |                     |
| B*07:02:01G+B*15:212    | B*07:143+B*15:53       |                        |                     |                     |
| B*07:02:01G+B*15:221    | B*07:09+B*15:99        |                        |                     |                     |
| B*07:02:01G+B*15:225    | B*07:86+B*15:71        | B*07:143+B*15:01:01G   |                     |                     |
| B*07:02:01G+B*15:229    | B*07:05:01G+B*15:133   |                        |                     |                     |
| B*07:02:01G+B*15:233    | B*07:28+B*15:63        |                        |                     |                     |
| B*07:02:01G+B*15:235    | B*07:45+B*15:123:01G   |                        |                     |                     |
| B*07:02:01G+B*15:236    | B*07:08+B*15:101       |                        |                     |                     |
| B*07:02:01G+B*15:243    | B*07:54+B*15:09        |                        |                     |                     |
| B*07:02:01G+B*15:249    | B*07:45+B*15:01:01G    |                        |                     |                     |
| B*07:02:01G+B*18:01:01G | B*07:02:13+B*18:01:10  | B*07:07+B*18:14        | B*07:26+B*18:13     | B*07:31+B*18:50     |
|                         | B*07:48+B*18:30        | B*07:68:03+B*18:40     | B*07:91+B*18:03     | B*07:109+B*18:72    |
|                         | B*07:143+B*18:43       |                        |                     |                     |
| B*07:02:01G+B*18:01:12  | B*07:134+B*18:37       |                        |                     |                     |
| B*07:02:01G+B*18:01:14  | B*07:02:18+B*18:01:01G |                        |                     |                     |
| B*07:02:01G+B*18:05     | B*07:136+B*18:01:01G   |                        |                     |                     |
| B*07:02:01G+B*18:06     | B*07:92+B*18:01:01G    |                        |                     |                     |
| B*07:02:01G+B*18:09     | B*07:149+B*18:01:01G   |                        |                     |                     |
| B*07:02:01G+B*18:11     | B*07:31+B*18:10        |                        |                     |                     |
| B*07:02:01G+B*18:12     | B*07:54+B*18:01:01G    |                        |                     |                     |
| B*07:02:01G+B*18:15     | B*07:26+B*18:30        |                        |                     |                     |
| B*07:02:01G+B*18:18     | B*07:77+B*18:14        |                        |                     |                     |
| B*07:02:01G+B*18:19     | B*07:55+B*18:30        |                        |                     |                     |
| B*07:02:01G+B*18:20     | B*07:96:01+B*18:01:01G |                        |                     |                     |
| B*07:02:01G+B*18:25     | B*07:86+B*18:43        |                        |                     |                     |
| B*07:02:01G+B*18:26     | B*07:68:03+B*18:61     |                        |                     |                     |
| B*07:02:01G+B*18:36     | B*07:24+B*18:50        |                        |                     |                     |
| B*07:02:01G+B*18:49     | B*07:57+B*18:01:01G    | B*07:75+B*18:03        |                     |                     |
| B*07:02:01G+B*18:58     | B*07:24+B*18:10        |                        |                     |                     |
| B*07:02:01G+B*18:67     | B*07:81+B*18:01:01G    |                        |                     |                     |
| B*07:02:01G+B*18:68     | B*07:86+B*18:01:01G    | B*07:143+B*18:25       |                     |                     |
| B*07:02:01G+B*18:70     | B*07:71+B*18:01:01G    |                        |                     |                     |
| B*07:02:01G+B*18:71     | B*07:127+B*18:01:01G   |                        |                     |                     |
| B*07:02:01G+B*27:01     | B*07:149+B*27:44       |                        |                     |                     |
| B*07:02:01G+B*27:02:01  | B*07:36+B*27:08        | B*07:81+B*27:89        |                     |                     |
| B*07:02:01G+B*27:02:02  | B*07:02:20+B*27:02:01  |                        |                     |                     |
| B*07:02:01G+B*27:04:03  | B*07:02:11+B*27:04:01G |                        |                     |                     |

|                          |                         |                       |                       |                       |
|--------------------------|-------------------------|-----------------------|-----------------------|-----------------------|
| B*07:02:01G+B*27:05:02G  | B*07:26+B*27:45         | B*07:118+B*27:46      | B*07:143+B*27:37      |                       |
| B*07:02:01G+B*27:05:06   | B*07:02:21+B*27:05:02G  |                       |                       |                       |
| B*07:02:01G+B*27:05:15   | B*07:02:07+B*27:05:02G  |                       |                       |                       |
| B*07:02:01G+B*27:05:19   | B*07:02:30+B*27:05:02G  |                       |                       |                       |
| B*07:02:01G+B*27:12      | B*07:03+B*27:26         |                       |                       |                       |
| B*07:02:01G+B*27:14      | B*07:84+B*27:32         |                       |                       |                       |
| B*07:02:01G+B*27:15      | B*07:31+B*27:04:01G     |                       |                       |                       |
| B*07:02:01G+B*27:19      | B*07:18:02+B*27:32      |                       |                       |                       |
| B*07:02:01G+B*27:38      | B*07:24+B*27:05:02G     | B*07:131+B*27:45      |                       |                       |
| B*07:02:01G+B*27:44      | B*07:91+B*27:08         |                       |                       |                       |
| B*07:02:01G+B*27:50      | B*07:153+B*27:05:03     |                       |                       |                       |
| B*07:02:01G+B*27:53      | B*07:81+B*27:42         |                       |                       |                       |
| B*07:02:01G+B*27:55      | B*07:87+B*27:05:02G     |                       |                       |                       |
| B*07:02:01G+B*27:63      | B*07:24+B*27:04:01G     |                       |                       |                       |
| B*07:02:01G+B*27:70      | B*07:07+B*27:32         |                       |                       |                       |
| B*07:02:01G+B*27:71      | B*07:31+B*27:05:02G     | B*07:43+B*27:45       |                       |                       |
| B*07:02:01G+B*27:78      | B*07:09+B*27:46         |                       |                       |                       |
| B*07:02:01G+B*27:89      | B*07:57+B*27:08         |                       |                       |                       |
| B*07:02:01G+B*35:01:01G  | B*07:02:08+B*35:01:08   | B*07:09+B*35:34       | B*07:12+B*35:51       | B*07:18:01+B*35:05:01 |
|                          | B*07:24+B*35:15         | B*07:26+B*35:08:01    | B*07:56:02+B*35:124   | B*07:68:02+B*35:64    |
|                          | B*07:86+B*35:197        | B*07:91+B*35:29:01    | B*07:114+B*35:54      | B*07:125+B*35:78      |
|                          | B*07:134+B*35:49        | B*07:162+B*35:199     |                       |                       |
|                          | B*07:07+B*35:30         | B*07:18:02+B*35:05:01 | B*07:26+B*35:08:03    |                       |
| B*07:02:01G+B*35:01:04   | B*07:02:16+B*35:01:01G  |                       |                       |                       |
| B*07:02:01G+B*35:01:06   | B*07:02:11+B*35:01:01G  |                       |                       |                       |
| B*07:02:01G+B*35:01:10   | B*07:02:24+B*35:01:01G  |                       |                       |                       |
| B*07:02:01G+B*35:01:11   | B*07:91+B*35:29:02      |                       |                       |                       |
| B*07:02:01G+B*35:01:15   | B*07:02:08+B*35:01:15   |                       |                       |                       |
| B*07:02:01G+B*35:01:19   | B*07:63+B*35:01:01G     |                       |                       |                       |
| B*07:02:01G+B*35:01:24   | B*07:02:02+B*35:01:01G  |                       |                       |                       |
| B*07:02:01G+B*35:01:31   | B*07:26+B*35:172        | B*07:154+B*35:04:01   |                       |                       |
| B*07:02:01G+B*35:02:01   | B*07:02:13+B*35:03:02   | B*07:02:14+B*35:03:11 | B*07:24+B*35:33       | B*07:26+B*35:156      |
| B*07:02:01G+B*35:03:01G  | B*07:68:02+B*35:205     | B*07:91+B*35:136      |                       |                       |
|                          | B*07:68:01+B*35:205     |                       |                       |                       |
| B*07:02:01G+B*35:03:02   | B*07:02:20+B*35:03:01G  |                       |                       |                       |
| B*07:02:01G+B*35:03:09   | B*07:05:01G+B*35:34     | B*07:12+B*35:22       | B*07:68:01+B*35:09:03 | B*07:68:02+B*35:09:02 |
| B*07:02:01G+B*35:04:01   | B*07:68:03+B*35:09:01   |                       |                       |                       |
|                          | B*07:02:11+B*35:04:01   | B*07:05:03+B*35:34    |                       |                       |
| B*07:02:01G+B*35:04:02   | B*07:68:02+B*35:114     |                       |                       |                       |
| B*07:02:01G+B*35:05:01   | B*07:05:01G+B*35:03:01G | B*07:80+B*35:156      |                       |                       |
| B*07:02:01G+B*35:06      | B*07:56:02+B*35:142     | B*07:68:03+B*35:174   |                       |                       |
| B*07:02:01G+B*35:08:01   | B*07:02:14+B*35:09:03   |                       |                       |                       |
| B*07:02:01G+B*35:09:01   | B*07:26+B*35:18         |                       |                       |                       |
| B*07:02:01G+B*35:09:02   | B*07:02:13+B*35:09:02   |                       |                       |                       |
| B*07:02:01G+B*35:09:03   | B*07:26+B*35:80         | B*07:54+B*35:01:01G   | B*07:91+B*35:69       |                       |
| B*07:02:01G+B*35:10      | B*07:02:13+B*35:11:02   | B*07:18:01+B*35:58    |                       |                       |
| B*07:02:01G+B*35:11:01   | B*07:05:01G+B*35:39     | B*07:18:02+B*35:22    |                       |                       |
| B*07:02:01G+B*35:12:01   | B*07:18:01+B*35:22      | B*07:137+B*35:199     |                       |                       |
| B*07:02:01G+B*35:12:02   | B*07:54+B*35:03:01G     |                       |                       |                       |
| B*07:02:01G+B*35:13      | B*07:02:13+B*35:14:02   |                       |                       |                       |
| B*07:02:01G+B*35:14:01   | B*07:54+B*35:17         |                       |                       |                       |
| B*07:02:01G+B*35:16      | B*07:56:02+B*35:125     |                       |                       |                       |
| B*07:02:01G+B*35:17      | B*07:18:01+B*35:72      | B*07:50+B*35:76       |                       |                       |
| B*07:02:01G+B*35:20:01   | B*07:05:01G+B*35:199    |                       |                       |                       |
| B*07:02:01G+B*35:22      | B*07:11+B*35:34         | B*07:57+B*35:01:01G   | B*07:75+B*35:29:01    |                       |
| B*07:02:01G+B*35:27      | B*07:54+B*35:20:01      | B*35:76+B*48:08       |                       |                       |
| B*07:02:01G+B*35:28      | B*07:08+B*35:76         |                       |                       |                       |
| B*07:02:01G+B*35:29:01   | B*07:07+B*35:51         |                       |                       |                       |
| B*07:02:01G+B*35:32:02   | B*07:12+B*35:199        |                       |                       |                       |
| B*07:02:01G+B*35:34      | B*07:45+B*35:93         |                       |                       |                       |
| B*07:02:01G+B*35:35      | B*07:04+B*35:156        |                       |                       |                       |
| B*07:02:01G+B*35:38      | B*07:18:02+B*35:199     |                       |                       |                       |
| B*07:02:01G+B*35:39      | B*07:24+B*35:86         | B*07:55+B*35:99       | B*07:68:01+B*35:118   |                       |
| B*07:02:01G+B*35:43:01G  | B*07:153+B*35:08:01     |                       |                       |                       |
| B*07:02:01G+B*35:45      | B*07:77+B*35:30         |                       |                       |                       |
| B*07:02:01G+B*35:48      | B*07:143+B*35:197       |                       |                       |                       |
| B*07:02:01G+B*35:50      | B*07:09+B*35:199        |                       |                       |                       |
| B*07:02:01G+B*35:51      | B*07:57+B*35:03:01G     | B*07:75+B*35:136      |                       |                       |
| B*07:02:01G+B*35:56      | B*07:55+B*35:08:01      |                       |                       |                       |
| B*07:02:01G+B*35:62      | B*07:18:01+B*35:114     |                       |                       |                       |
| B*07:02:01G+B*35:64      | B*07:07+B*35:05:01      |                       |                       |                       |
| B*07:02:01G+B*35:68:02   | B*07:54+B*35:29:01      |                       |                       |                       |
| B*07:02:01G+B*35:69      | B*07:20+B*35:15         | B*07:26+B*35:45       | B*07:153+B*35:01:01G  |                       |
| B*07:02:01G+B*35:71      | B*07:92+B*35:03:01G     |                       |                       |                       |
| B*07:02:01G+B*35:74      | B*07:54+B*35:08:01      |                       |                       |                       |
| B*07:02:01G+B*35:80      | B*07:160+B*35:01:01G    |                       |                       |                       |
| B*07:02:01G+B*35:92      | B*07:31+B*35:15         |                       |                       |                       |
| B*07:02:01G+B*35:93      | B*07:93+B*35:01:01G     |                       |                       |                       |
| B*07:02:01G+B*35:101:02  | B*07:04+B*35:08:01      |                       |                       |                       |
| B*07:02:01G+B*35:115     | B*07:26+B*35:142        |                       |                       |                       |
| B*07:02:01G+B*35:124     | B*07:134+B*35:198       |                       |                       |                       |
| B*07:02:01G+B*35:136     | B*07:73+B*35:01:01G     |                       |                       |                       |
| B*07:02:01G+B*35:137:01G | B*07:154+B*35:01:01G    |                       |                       |                       |
| B*07:02:01G+B*35:146     | B*07:26+B*35:105        |                       |                       |                       |
| B*07:02:01G+B*35:159     | B*07:55+B*35:156        |                       |                       |                       |
| B*07:02:01G+B*35:163     | B*07:153+B*35:38        |                       |                       |                       |
| B*07:02:01G+B*35:169     | B*07:102+B*35:01:01G    |                       |                       |                       |
| B*07:02:01G+B*35:178     | B*07:73+B*35:02:01      |                       |                       |                       |
| B*07:02:01G+B*35:182     | B*07:93+B*35:03:01G     |                       |                       |                       |
| B*07:02:01G+B*35:195     | B*07:142+B*35:01:01G    |                       |                       |                       |
| B*07:02:01G+B*35:196     | B*07:02:19+B*37:01:01G  |                       |                       |                       |
| B*07:02:01G+B*37:01:04   | B*07:149+B*37:11        |                       |                       |                       |
| B*07:02:01G+B*37:10      | B*07:62+B*37:01:01G     |                       |                       |                       |
| B*07:02:01G+B*37:18      | B*07:36+B*37:11         |                       |                       |                       |
| B*07:02:01G+B*37:34      | B*07:02:13+B*38:01:03   | B*07:07+B*38:19       | B*07:36+B*39:05:01    | B*07:45+B*38:36       |
| B*07:02:01G+B*38:01:01   | B*07:91+B*38:14         |                       |                       |                       |
|                          | B*07:02:12+B*38:01:01   |                       |                       |                       |
| B*07:02:01G+B*38:01:06   | B*07:02:32+B*38:02:03   | B*07:05:01G+B*38:29   | B*07:149+B*39:05:01   |                       |
| B*07:02:01G+B*38:02:01G  | B*07:54+B*38:02:03      |                       |                       |                       |
| B*07:02:01G+B*38:04      | B*07:110+B*38:01:01     |                       |                       |                       |
| B*07:02:01G+B*38:11      | B*07:36+B*39:01:01G     | B*07:85+B*38:26       |                       |                       |
| B*07:02:01G+B*38:14      | B*07:36+B*39:37         |                       |                       |                       |
| B*07:02:01G+B*38:19      | B*07:18:02+B*38:19      |                       |                       |                       |
| B*07:02:01G+B*38:20      | B*07:95+B*38:02:01G     |                       |                       |                       |
| B*07:02:01G+B*38:23      | B*07:36+B*67:01:01      |                       |                       |                       |
| B*07:02:01G+B*38:26      |                         |                       |                       |                       |

|                         |                        |                        |                       |                     |
|-------------------------|------------------------|------------------------|-----------------------|---------------------|
| B*07:02:01G+B*38:27     | B*07:93+B*38:01:01     |                        |                       |                     |
| B*07:02:01G+B*38:28     | B*07:56:02+B*38:01:01  |                        |                       |                     |
| B*07:02:01G+B*38:29     | B*07:149+B*39:55       |                        |                       |                     |
| B*07:02:01G+B*38:32     | B*07:45+B*38:10        |                        |                       |                     |
| B*07:02:01G+B*38:33     | B*07:86+B*38:01:01     | B*07:114+B*38:05       |                       |                     |
| B*07:02:01G+B*39:01:01G | B*07:02:03+B*39:01:14  | B*07:02:13+B*39:01:05  | B*07:02:32+B*39:01:09 | B*07:05:01G+B*39:15 |
|                         | B*07:07+B*39:03        | B*07:31+B*39:47        | B*07:45+B*39:30       | B*07:68:03+B*39:68  |
|                         | B*07:85+B*67:01:01     |                        |                       |                     |
| B*07:02:01G+B*39:01:09  | B*07:10+B*39:10:01     | B*07:85+B*67:01:02     |                       |                     |
| B*07:02:01G+B*39:02:01  | B*07:02:32+B*39:02:02  | B*07:54+B*39:39:01     |                       |                     |
| B*07:02:01G+B*39:04     | B*07:86+B*39:01:01G    |                        |                       |                     |
| B*07:02:01G+B*39:05:01  | B*07:05:01G+B*39:55    | B*07:07+B*39:37        | B*07:26+B*39:11       | B*07:91+B*39:01:01G |
| B*07:02:01G+B*39:06:02  | B*07:31+B*39:50        | B*07:45+B*39:34        |                       |                     |
| B*07:02:01G+B*39:09     | B*07:77+B*39:03        |                        |                       |                     |
| B*07:02:01G+B*39:10:01  | B*07:03+B*67:01:02     |                        |                       |                     |
| B*07:02:01G+B*39:13:01  | B*07:02:03+B*39:13:02  | B*07:05:01G+B*39:49    | B*07:91+B*39:02:02    | B*48:08+B*67:01:02  |
| B*07:02:01G+B*39:14     | B*07:05:01G+B*39:29    |                        |                       |                     |
| B*07:02:01G+B*39:19:01  | B*07:134+B*39:01:09    |                        |                       |                     |
| B*07:02:01G+B*39:20     | B*07:75+B*39:10:01     |                        |                       |                     |
| B*07:02:01G+B*39:22     | B*07:54+B*39:01:01G    | B*07:123+B*39:15       |                       |                     |
| B*07:02:01G+B*39:27     | B*07:92+B*39:01:01G    |                        |                       |                     |
| B*07:02:01G+B*39:31     | B*07:143+B*39:01:01G   |                        |                       |                     |
| B*07:02:01G+B*39:37     | B*07:91+B*39:03        |                        |                       |                     |
| B*07:02:01G+B*39:42     | B*07:18:02+B*39:03     |                        |                       |                     |
| B*07:02:01G+B*39:44     | B*07:90+B*39:15        |                        |                       |                     |
| B*07:02:01G+B*39:55     | B*07:91+B*39:15        |                        |                       |                     |
| B*07:02:01G+B*39:58     | B*07:08+B*67:01:01     |                        |                       |                     |
| B*07:02:01G+B*39:60     | B*07:51+B*39:35        |                        |                       |                     |
| B*07:02:01G+B*39:69     | B*07:133+B*39:01:01G   |                        |                       |                     |
| B*07:02:01G+B*39:70     | B*07:07+B*39:14        |                        |                       |                     |
| B*07:02:01G+B*39:72     | B*07:70+B*39:01:01G    |                        |                       |                     |
| B*07:02:01G+B*39:73     | B*07:95+B*39:01:01G    |                        |                       |                     |
| B*07:02:01G+B*39:74     | B*07:24+B*39:47        |                        |                       |                     |
| B*07:02:01G+B*40:01:01G | B*07:05:01G+B*40:33    | B*07:07+B*40:80        | B*07:26+B*40:128      | B*07:48+B*40:198    |
|                         | B*07:54+B*40:25        | B*07:86+B*40:74        | B*07:91+B*40:43       | B*07:143+B*40:49    |
|                         | B*07:151+B*40:114      | B*40:166+B*48:08       |                       |                     |
|                         | B*07:02:11+B*40:01:01G | B*07:05:03+B*40:33     |                       |                     |
| B*07:02:01G+B*40:01:06  | B*07:02:21+B*40:01:01G |                        |                       |                     |
| B*07:02:01G+B*40:01:10  | B*07:02:14+B*40:01:01G |                        |                       |                     |
| B*07:02:01G+B*40:01:14  | B*07:106+B*40:01:01G   |                        |                       |                     |
| B*07:02:01G+B*40:01:20  | B*07:02:33+B*40:01:01G |                        |                       |                     |
| B*07:02:01G+B*40:01:24  | B*07:02:03+B*40:02:04  | B*07:05:01G+B*40:18    | B*07:91+B*40:50       | B*07:143+B*40:40    |
| B*07:02:01G+B*40:02:01G | B*07:02:21+B*40:02:01G |                        |                       |                     |
| B*07:02:01G+B*40:02:11  | B*07:09+B*40:18        |                        |                       |                     |
| B*07:02:01G+B*40:03     | B*07:05:01G+B*40:44    | B*07:48+B*40:161       |                       |                     |
| B*07:02:01G+B*40:06:01G | B*07:54+B*40:106       | B*07:83+B*40:61        |                       |                     |
| B*07:02:01G+B*40:07     | B*07:96:01+B*40:18     |                        |                       |                     |
| B*07:02:01G+B*40:09     | B*07:02:03+B*40:10:02  |                        |                       |                     |
| B*07:02:01G+B*40:10:01  | B*07:07+B*40:02:01G    |                        |                       |                     |
| B*07:02:01G+B*40:11:01  | B*07:07+B*40:02:09     |                        |                       |                     |
| B*07:02:01G+B*40:11:02  | B*07:02:13+B*40:14:02  |                        |                       |                     |
| B*07:02:01G+B*40:14:01  | B*07:02:14+B*40:14:03  |                        |                       |                     |
| B*07:02:01G+B*40:14:02  | B*07:05:01G+B*40:32    |                        |                       |                     |
| B*07:02:01G+B*40:16     | B*07:36+B*40:02:01G    | B*07:81+B*40:37        |                       |                     |
| B*07:02:01G+B*40:19     | B*07:07+B*40:03        |                        |                       |                     |
| B*07:02:01G+B*40:20     | B*07:50+B*40:166       |                        |                       |                     |
| B*07:02:01G+B*40:25     | B*07:86+B*40:98        |                        |                       |                     |
| B*07:02:01G+B*40:32     | B*07:07+B*40:31        |                        |                       |                     |
| B*07:02:01G+B*40:33     | B*07:68:03+B*40:02:01G |                        |                       |                     |
| B*07:02:01G+B*40:35     | B*07:57+B*40:02:01G    | B*07:75+B*40:50        |                       |                     |
| B*07:02:01G+B*40:37     | B*07:05:01G+B*40:52    | B*07:09+B*40:01:01G    |                       |                     |
| B*07:02:01G+B*40:38     | B*07:31+B*40:02:01G    |                        |                       |                     |
| B*07:02:01G+B*40:39     | B*07:96:01+B*40:33     |                        |                       |                     |
| B*07:02:01G+B*40:42     | B*07:149+B*40:01:01G   |                        |                       |                     |
| B*07:02:01G+B*40:47     | B*07:86+B*40:210       |                        |                       |                     |
| B*07:02:01G+B*40:49     | B*07:09+B*40:33        |                        |                       |                     |
| B*07:02:01G+B*40:52     | B*07:86+B*40:06:01G    |                        |                       |                     |
| B*07:02:01G+B*40:53     | B*07:71+B*40:02:01G    |                        |                       |                     |
| B*07:02:01G+B*40:57     | B*07:162+B*40:31       |                        |                       |                     |
| B*07:02:01G+B*40:59     | B*07:24+B*40:01:01G    | B*07:131+B*40:128      |                       |                     |
| B*07:02:01G+B*40:63     | B*07:18:01+B*40:02:01G | B*07:18:02+B*40:02:09  | B*07:137+B*40:18      |                     |
| B*07:02:01G+B*40:64     | B*07:87+B*40:01:01G    |                        |                       |                     |
| B*07:02:01G+B*40:65     | B*07:84+B*40:02:01G    |                        |                       |                     |
| B*07:02:01G+B*40:70     | B*07:151+B*40:14:01    |                        |                       |                     |
| B*07:02:01G+B*40:72:01  | B*07:151+B*40:14:03    |                        |                       |                     |
| B*07:02:01G+B*40:72:02  | B*07:92+B*40:01:01G    |                        |                       |                     |
| B*07:02:01G+B*40:73     | B*07:143+B*40:210      |                        |                       |                     |
| B*07:02:01G+B*40:74     | B*07:23+B*40:01:01G    |                        |                       |                     |
| B*07:02:01G+B*40:79     | B*07:05:01G+B*40:31    | B*07:151+B*40:45       | B*40:32+B*81:01:01G   |                     |
| B*07:02:01G+B*40:80     | B*07:02:14+B*40:87:02  | B*07:68:01+B*40:01:01G | B*07:68:03+B*40:01:14 |                     |
| B*07:02:01G+B*40:87:01  | B*07:68:03+B*40:01:01G |                        |                       |                     |
| B*07:02:01G+B*40:87:02  | B*07:05:01G+B*40:09    |                        |                       |                     |
| B*07:02:01G+B*40:89     | B*07:33+B*40:63        | B*07:96:01+B*40:02:01G |                       |                     |
| B*07:02:01G+B*40:92     | B*07:149+B*40:06:01G   | B*07:60+B*40:01:01G    |                       |                     |
| B*07:02:01G+B*40:96     | B*07:05:01G+B*40:03    |                        |                       |                     |
| B*07:02:01G+B*40:105    | B*07:159+B*40:01:01G   | B*07:09+B*40:02:01G    |                       |                     |
| B*07:02:01G+B*40:108    | B*07:81+B*40:06:01G    |                        |                       |                     |
| B*07:02:01G+B*40:109    | B*07:07+B*40:45        | B*07:48+B*40:23        |                       |                     |
| B*07:02:01G+B*40:114    | B*07:94+B*40:02:01G    |                        |                       |                     |
| B*07:02:01G+B*40:115    | B*07:36+B*40:01:01G    |                        |                       |                     |
| B*07:02:01G+B*40:117    | B*07:12+B*40:18        |                        |                       |                     |
| B*07:02:01G+B*40:120    | B*07:68:02+B*40:14:03  | B*07:18:01+B*40:24     |                       |                     |
| B*07:02:01G+B*40:121    | B*07:140+B*40:33       | B*07:68:03+B*40:14:01  |                       |                     |
| B*07:02:01G+B*40:132    | B*07:26+B*40:161       | B*07:153+B*40:01:01G   |                       |                     |
| B*07:02:01G+B*40:148    | B*07:57+B*40:201       |                        |                       |                     |
| B*07:02:01G+B*40:157    | B*07:09+B*40:44        | B*07:149+B*40:02:01G   |                       |                     |
| B*07:02:01G+B*40:159    | B*07:18:02+B*40:80     |                        |                       |                     |
| B*07:02:01G+B*40:160    | B*07:05:01G+B*40:42    | B*07:96:01+B*40:01:01G |                       |                     |
| B*07:02:01G+B*40:172    | B*07:33+B*40:132       |                        |                       |                     |
| B*07:02:01G+B*40:178    | B*07:26+B*40:198       | B*07:147+B*40:23       |                       |                     |
| B*07:02:01G+B*40:183    | B*07:23+B*40:06:01G    |                        |                       |                     |
| B*07:02:01G+B*40:190    | B*07:113+B*40:01:01G   |                        |                       |                     |
| B*07:02:01G+B*40:192    | B*07:148+B*40:01:01G   |                        |                       |                     |
| B*07:02:01G+B*40:193    | B*07:151+B*40:23       |                        |                       |                     |
| B*07:02:01G+B*40:198    | B*07:31+B*40:01:01G    | B*07:43+B*40:128       |                       |                     |
| B*07:02:01G+B*40:199    |                        |                        |                       |                     |

|                         |                        |                       |                       |                     |
|-------------------------|------------------------|-----------------------|-----------------------|---------------------|
| B*07:02:01G+B*41:01     | B*07:05:01G+B*41:21    |                       |                       |                     |
| B*07:02:01G+B*41:02:01  | B*07:31+B*41:19        | B*40:16+B*42:16       | B*40:32+B*42:01:01    |                     |
| B*07:02:01G+B*41:03:01  | B*07:02:05+B*41:03:02  |                       |                       |                     |
| B*07:02:01G+B*41:03:02  | B*07:07+B*41:02:01     |                       |                       |                     |
| B*07:02:01G+B*41:09     | B*07:107+B*41:06       |                       |                       |                     |
| B*07:02:01G+B*41:14     | B*07:23+B*41:01        |                       |                       |                     |
| B*07:02:01G+B*41:15     | B*40:32+B*42:14        |                       |                       |                     |
| B*07:02:01G+B*42:01:01  | B*07:05:01G+B*42:16    |                       |                       |                     |
| B*07:02:01G+B*42:02     | B*07:143+B*42:01:01    |                       |                       |                     |
| B*07:02:01G+B*42:05:02  | B*07:02:33+B*42:05:01  |                       |                       |                     |
| B*07:02:01G+B*42:07     | B*07:03+B*42:01:01     |                       |                       |                     |
| B*07:02:01G+B*42:08     | B*07:33+B*42:05:01     | B*07:107+B*42:14      |                       |                     |
| B*07:02:01G+B*42:10     | B*07:68:03+B*42:01:01  |                       |                       |                     |
| B*07:02:01G+B*42:11     | B*42:01:01+B*48:08     |                       |                       |                     |
| B*07:02:01G+B*42:13     | B*07:18:01+B*42:01:01  | B*07:137+B*42:16      |                       |                     |
| B*07:02:01G+B*42:15     | B*07:57+B*42:01:01     |                       |                       |                     |
| B*07:02:01G+B*42:17     | B*07:68:03+B*42:02     | B*07:143+B*42:10      |                       |                     |
| B*07:02:01G+B*44:02:01G | B*07:02:13+B*44:02:09  | B*07:04+B*44:28:02    | B*07:18:02+B*44:106   | B*07:20+B*44:16     |
|                         | B*07:24+B*44:21        | B*07:25+B*44:76       | B*07:28+B*44:123      | B*07:54+B*44:12     |
|                         | B*07:68:03+B*44:53     | B*07:73+B*44:84       | B*07:96:01+B*44:51    | B*07:114+B*44:22    |
|                         | B*07:118+B*44:05:01    | B*07:149+B*44:09      | B*07:153+B*44:91      |                     |
|                         | B*07:02:10+B*44:02:01G |                       |                       |                     |
| B*07:02:01G+B*44:02:06  | B*07:04+B*44:28:01     | B*07:18:01+B*44:106   |                       |                     |
| B*07:02:01G+B*44:02:07  | B*07:07+B*44:110       | B*07:14+B*44:135      | B*07:18:02+B*44:54    | B*07:20+B*44:64:02  |
| B*07:02:01G+B*44:03:01G | B*07:26+B*44:28:02     | B*07:28+B*44:107      | B*07:48+B*44:76       | B*07:57+B*44:109    |
|                         | B*07:96:01+B*44:45     | B*07:114+B*44:105     | B*07:149+B*44:46      | B*07:153+B*44:37:01 |
| B*07:02:01G+B*44:03:02  | B*07:18:01+B*44:54     | B*07:20+B*44:64:01    | B*07:24+B*44:124      | B*07:26+B*44:28:01  |
|                         | B*07:153+B*44:37:02    |                       |                       |                     |
| B*07:02:01G+B*44:03:08  | B*07:02:21+B*44:03:01G |                       |                       |                     |
| B*07:02:01G+B*44:03:13  | B*07:02:05+B*44:03:02  |                       |                       |                     |
| B*07:02:01G+B*44:05:01  | B*07:96:01+B*44:123    | B*07:153+B*44:42      |                       |                     |
| B*07:02:01G+B*44:09     | B*07:50+B*44:90        |                       |                       |                     |
| B*07:02:01G+B*44:14     | B*07:05:01G+B*44:51    |                       |                       |                     |
| B*07:02:01G+B*44:17     | B*07:09+B*44:123       |                       |                       |                     |
| B*07:02:01G+B*44:18     | B*07:36+B*45:01:01G    |                       |                       |                     |
| B*07:02:01G+B*44:21     | B*07:153+B*44:16       |                       |                       |                     |
| B*07:02:01G+B*44:25     | B*07:81+B*44:75        |                       |                       |                     |
| B*07:02:01G+B*44:29     | B*07:45+B*44:03:01G    |                       |                       |                     |
| B*07:02:01G+B*44:33     | B*07:150+B*44:02:01G   |                       |                       |                     |
| B*07:02:01G+B*44:37:01  | B*07:24+B*44:64:02     |                       |                       |                     |
| B*07:02:01G+B*44:37:02  | B*07:24+B*44:64:01     |                       |                       |                     |
| B*07:02:01G+B*44:41:01  | B*07:07+B*44:106       |                       |                       |                     |
| B*07:02:01G+B*44:43:01  | B*07:09+B*44:107       |                       |                       |                     |
| B*07:02:01G+B*44:45     | B*07:18:02+B*44:135    | B*07:118+B*44:107     |                       |                     |
| B*07:02:01G+B*44:50     | B*07:36+B*44:46        |                       |                       |                     |
| B*07:02:01G+B*44:51     | B*07:118+B*44:123      |                       |                       |                     |
| B*07:02:01G+B*44:54     | B*07:96:01+B*44:135    |                       |                       |                     |
| B*07:02:01G+B*44:55     | B*07:143+B*44:02:01G   |                       |                       |                     |
| B*07:02:01G+B*44:59     | B*07:136+B*44:02:01G   |                       |                       |                     |
| B*07:02:01G+B*44:62     | B*07:05:03+B*44:123    |                       |                       |                     |
| B*07:02:01G+B*44:65     | B*07:07+B*44:54        |                       |                       |                     |
| B*07:02:01G+B*44:68     | B*07:113+B*44:02:01G   |                       |                       |                     |
| B*07:02:01G+B*44:69     | B*07:94+B*44:03:01G    |                       |                       |                     |
| B*07:02:01G+B*44:77     | B*07:05:01G+B*44:107   |                       |                       |                     |
| B*07:02:01G+B*44:79     | B*07:26+B*44:76        |                       |                       |                     |
| B*07:02:01G+B*44:89     | B*07:45+B*44:02:01G    |                       |                       |                     |
| B*07:02:01G+B*44:91     | B*07:24+B*44:16        | B*07:118+B*44:42      |                       |                     |
| B*07:02:01G+B*44:93     | B*07:118+B*44:139      |                       |                       |                     |
| B*07:02:01G+B*44:95     | B*07:36+B*44:09        | B*07:118+B*44:25      |                       |                     |
| B*07:02:01G+B*44:124    | B*07:153+B*44:64:01    |                       |                       |                     |
| B*07:02:01G+B*44:129    | B*07:82+B*44:46        |                       |                       |                     |
| B*07:02:01G+B*44:132    | B*07:31+B*44:16        |                       |                       |                     |
| B*07:02:01G+B*44:144    | B*07:17+B*44:107       | B*07:96:01+B*44:43:01 |                       |                     |
| B*07:02:01G+B*44:146    | B*07:55+B*44:76        |                       |                       |                     |
| B*07:02:01G+B*45:01:01G | B*07:20+B*45:10        | B*07:50+B*45:06       | B*07:153+B*45:04      |                     |
| B*07:02:01G+B*45:04     | B*07:24+B*45:10        |                       |                       |                     |
| B*07:02:01G+B*45:05     | B*07:52+B*45:01:01G    |                       |                       |                     |
| B*07:02:01G+B*45:08     | B*07:31+B*45:10        |                       |                       |                     |
| B*07:02:01G+B*45:12     | B*07:154+B*45:01:01G   |                       |                       |                     |
| B*07:02:01G+B*46:01:01G | B*07:07+B*46:12        | B*07:24+B*46:30       | B*07:114+B*46:05      |                     |
| B*07:02:01G+B*46:01:03  | B*07:02:13+B*46:01:01G |                       |                       |                     |
| B*07:02:01G+B*46:01:04  | B*07:02:30+B*46:01:01G |                       |                       |                     |
| B*07:02:01G+B*46:13:01  | B*07:02:13+B*46:13:03  |                       |                       |                     |
| B*07:02:01G+B*46:14     | B*07:143+B*46:01:01G   |                       |                       |                     |
| B*07:02:01G+B*46:16     | B*07:83+B*46:01:01G    |                       |                       |                     |
| B*07:02:01G+B*46:17     | B*07:20+B*46:30        | B*07:153+B*46:01:01G  |                       |                     |
| B*07:02:01G+B*46:19     | B*07:45+B*46:13:03     |                       |                       |                     |
| B*07:02:01G+B*46:20     | B*07:145+B*46:01:01G   |                       |                       |                     |
| B*07:02:01G+B*46:21:01  | B*07:48+B*46:03        |                       |                       |                     |
| B*07:02:01G+B*46:21:02  | B*07:02:13+B*46:21:01  |                       |                       |                     |
| B*07:02:01G+B*46:29     | B*07:31+B*46:30        | B*07:55+B*46:03       |                       |                     |
| B*07:02:01G+B*47:08     | B*07:31+B*47:01:01G    |                       |                       |                     |
| B*07:02:01G+B*48:01:01G | B*48:08+B*81:01:01G    |                       |                       |                     |
| B*07:02:01G+B*48:03:01  | B*07:07+B*48:01:01G    |                       |                       |                     |
| B*07:02:01G+B*48:04     | B*07:33+B*48:01:01G    |                       |                       |                     |
| B*07:02:01G+B*48:06     | B*07:16+B*81:05        |                       |                       |                     |
| B*07:02:01G+B*48:08     | B*07:50+B*07:54        |                       |                       |                     |
| B*07:02:01G+B*48:12     | B*07:68:02+B*48:10     |                       |                       |                     |
| B*07:02:01G+B*48:13     | B*07:33+B*48:10        |                       |                       |                     |
| B*07:02:01G+B*48:18     | B*07:81+B*48:01:01G    |                       |                       |                     |
| B*07:02:01G+B*48:27     | B*07:74+B*48:01:01G    |                       |                       |                     |
| B*07:02:01G+B*48:28     | B*07:109+B*48:01:01G   |                       |                       |                     |
| B*07:02:01G+B*49:01:01  | B*07:24+B*49:07        | B*07:36+B*50:01:01    | B*07:143+B*49:10      |                     |
| B*07:02:01G+B*49:02     | B*07:149+B*50:01:01    |                       |                       |                     |
| B*07:02:01G+B*49:10     | B*07:36+B*50:13        |                       |                       |                     |
| B*07:02:01G+B*49:17     | B*07:113+B*49:01:01    |                       |                       |                     |
| B*07:02:01G+B*49:18     | B*07:36+B*50:14        |                       |                       |                     |
| B*07:02:01G+B*49:20     | B*07:20+B*49:07        | B*07:36+B*50:02       | B*07:153+B*49:01:01   |                     |
| B*07:02:01G+B*50:01:01  | B*07:54+B*50:15        | B*07:143+B*50:13      |                       |                     |
| B*07:02:01G+B*50:02     | B*07:153+B*50:01:01    |                       |                       |                     |
| B*07:02:01G+B*50:05     | B*07:39+B*50:01:01     |                       |                       |                     |
| B*07:02:01G+B*51:01:01G | B*07:02:08+B*51:01:33  | B*07:02:11+B*51:01:04 | B*07:02:14+B*51:01:21 | B*07:05:01G+B*51:90 |
|                         | B*07:24+B*51:16        | B*07:26+B*51:29       | B*07:36+B*78:02:02    | B*07:38+B*56:06     |
|                         | B*07:68:01+B*51:24:04  | B*07:68:02+B*51:24:03 | B*07:86+B*51:57       | B*07:131+B*51:82    |
| B*07:02:01G+B*51:01:02  | B*07:02:14+B*51:01:09  | B*07:36+B*78:02:01    |                       |                     |

|                         |                        |                       |                       |                       |
|-------------------------|------------------------|-----------------------|-----------------------|-----------------------|
| B*07:02:01G+B*51:01:04  | B*07:68:02+B*51:24:02  | B*07:68:03+B*51:24:01 |                       |                       |
| B*07:02:01G+B*51:01:18  | B*07:02:19+B*51:01:01G |                       |                       |                       |
| B*07:02:01G+B*51:01:21  | B*07:02:13+B*51:01:25  | B*07:68:03+B*51:24:04 |                       |                       |
| B*07:02:01G+B*51:01:24  | B*07:02:21+B*51:01:01G |                       |                       |                       |
| B*07:02:01G+B*51:01:25  | B*07:68:03+B*51:24:03  |                       |                       |                       |
| B*07:02:01G+B*51:01:28  | B*07:02:22+B*51:01:01G |                       |                       |                       |
| B*07:02:01G+B*51:02:01  | B*07:02:11+B*51:02:04  | B*07:02:13+B*51:02:05 | B*07:24+B*51:34       |                       |
| B*07:02:01G+B*51:04     | B*07:18:01+B*51:64     |                       |                       |                       |
| B*07:02:01G+B*51:06:01  | B*07:05:01G+B*51:135   | B*07:07+B*51:64       |                       |                       |
| B*07:02:01G+B*51:08     | B*07:25+B*51:29        | B*07:91+B*51:20       |                       |                       |
| B*07:02:01G+B*51:09:01  | B*07:24+B*51:31        | B*07:48+B*51:29       |                       |                       |
| B*07:02:01G+B*51:13:01  | B*07:05:01G+B*51:92    |                       |                       |                       |
| B*07:02:01G+B*51:13:02  | B*07:02:11+B*51:13:01  | B*07:05:03+B*51:92    |                       |                       |
| B*07:02:01G+B*51:16     | B*07:26+B*51:82        |                       |                       |                       |
| B*07:02:01G+B*51:19     | B*07:45+B*51:09:01     |                       |                       |                       |
| B*07:02:01G+B*51:21     | B*07:31+B*51:16        | B*07:43+B*51:82       |                       |                       |
| B*07:02:01G+B*51:23     | B*07:20+B*51:34        | B*07:153+B*51:02:01   |                       |                       |
| B*07:02:01G+B*51:24:03  | B*07:02:11+B*51:24:02  |                       |                       |                       |
| B*07:02:01G+B*51:24:04  | B*07:02:13+B*51:24:03  |                       |                       |                       |
| B*07:02:01G+B*51:29     | B*07:24+B*51:82        |                       |                       |                       |
| B*07:02:01G+B*51:31     | B*07:48+B*51:82        |                       |                       |                       |
| B*07:02:01G+B*51:37     | B*07:09+B*51:90        |                       |                       |                       |
| B*07:02:01G+B*51:39     | B*07:110+B*51:01:03    |                       |                       |                       |
| B*07:02:01G+B*51:55     | B*07:66+B*51:29        |                       |                       |                       |
| B*07:02:01G+B*51:56:02  | B*07:12+B*51:64        |                       |                       |                       |
| B*07:02:01G+B*51:61:02  | B*07:02:13+B*51:61:01  | B*07:55+B*51:29       |                       |                       |
| B*07:02:01G+B*51:63     | B*07:05:01G+B*51:37    | B*07:09+B*51:01:01G   |                       |                       |
| B*07:02:01G+B*51:68     | B*07:29+B*51:57        |                       |                       |                       |
| B*07:02:01G+B*51:76     | B*07:93+B*51:01:01G    |                       |                       |                       |
| B*07:02:01G+B*51:78:01  | B*07:149+B*78:02:02    |                       |                       |                       |
| B*07:02:01G+B*51:78:02  | B*07:149+B*78:02:01    |                       |                       |                       |
| B*07:02:01G+B*51:97     | B*07:09+B*51:08        |                       |                       |                       |
| B*07:02:01G+B*51:101    | B*07:45+B*51:21        |                       |                       |                       |
| B*07:02:01G+B*51:109    | B*07:87+B*51:01:01G    |                       |                       |                       |
| B*07:02:01G+B*51:114    | B*07:157+B*51:01:01G   |                       |                       |                       |
| B*07:02:01G+B*51:115    | B*07:51+B*51:01:01G    |                       |                       |                       |
| B*07:02:01G+B*52:01:01G | B*07:02:08+B*52:01:03  | B*07:02:11+B*52:01:05 | B*07:02:13+B*52:01:07 | B*07:05:01G+B*52:12   |
|                         | B*07:24+B*52:08        | B*07:26+B*52:24       | B*07:36+B*78:05       | B*07:54+B*51:07:02    |
|                         | B*07:56:02+B*52:27     | B*07:81+B*78:06       |                       |                       |
|                         | B*07:54+B*51:07:01     | B*07:57+B*52:09       |                       |                       |
| B*07:02:01G+B*52:01:02  | B*07:02:32+B*52:01:01G |                       |                       |                       |
| B*07:02:01G+B*52:01:10  | B*07:02:18+B*52:01:01G |                       |                       |                       |
| B*07:02:01G+B*52:01:11  | B*07:54+B*51:01:33     |                       |                       |                       |
| B*07:02:01G+B*52:06:01  | B*07:02:08+B*52:06:01  | B*07:54+B*51:01:01G   | B*07:123+B*51:90      |                       |
| B*07:02:01G+B*52:06:02  | B*07:02:13+B*52:10:02  | B*07:48+B*52:24       |                       |                       |
| B*07:02:01G+B*52:10:01  | B*07:20+B*52:08        | B*07:140+B*52:12      | B*07:153+B*52:01:01G  |                       |
| B*07:02:01G+B*52:15     | B*07:25+B*52:24        |                       |                       |                       |
| B*07:02:01G+B*52:19     | B*07:149+B*78:05       |                       |                       |                       |
| B*07:02:01G+B*52:20     | B*07:28+B*52:12        |                       |                       |                       |
| B*07:02:01G+B*52:26     | B*07:134+B*52:16       |                       |                       |                       |
| B*07:02:01G+B*52:27     | B*07:02:13+B*53:01:03  | B*07:18:01+B*53:14    | B*07:26+B*53:24       | B*07:36+B*35:01:01G   |
| B*07:02:01G+B*53:01:01  | B*07:38+B*35:76        | B*07:57+B*53:05       | B*07:81+B*35:27       | B*07:86+B*53:21       |
|                         | B*07:91+B*53:23        |                       |                       |                       |
| B*07:02:01G+B*53:01:02  | B*07:36+B*35:01:16     |                       |                       |                       |
| B*07:02:01G+B*53:01:07  | B*07:02:18+B*53:01:01  |                       |                       |                       |
| B*07:02:01G+B*53:02     | B*07:36+B*35:24:01     |                       |                       |                       |
| B*07:02:01G+B*53:04     | B*07:36+B*35:03:01G    | B*07:81+B*35:56       |                       |                       |
| B*07:02:01G+B*53:05     | B*07:26+B*53:16        | B*07:81+B*35:01:01G   |                       |                       |
| B*07:02:01G+B*53:08:01  | B*07:02:13+B*53:08:02  | B*07:36+B*35:11:01    |                       |                       |
| B*07:02:01G+B*53:08:02  | B*07:36+B*35:11:02     |                       |                       |                       |
| B*07:02:01G+B*53:09     | B*07:149+B*35:20:01    |                       |                       |                       |
| B*07:02:01G+B*53:11     | B*07:149+B*35:08:01    |                       |                       |                       |
| B*07:02:01G+B*53:13     | B*07:26+B*53:11        | B*07:57+B*53:12       | B*07:149+B*35:01:01G  |                       |
| B*07:02:01G+B*53:14     | B*07:36+B*35:05:01     |                       |                       |                       |
| B*07:02:01G+B*53:16     | B*07:81+B*35:08:01     |                       |                       |                       |
| B*07:02:01G+B*53:17:02  | B*07:36+B*35:28        |                       |                       |                       |
| B*07:02:01G+B*53:19     | B*07:36+B*35:02:01     |                       |                       |                       |
| B*07:02:01G+B*53:21     | B*07:36+B*35:197       |                       |                       |                       |
| B*07:02:01G+B*53:23     | B*07:36+B*35:29:01     |                       |                       |                       |
| B*07:02:01G+B*53:24     | B*07:36+B*35:08:01     | B*07:57+B*53:16       |                       |                       |
| B*07:02:01G+B*53:26     | B*07:36+B*35:108:01    |                       |                       |                       |
| B*07:02:01G+B*54:01:01G | B*07:05:01G+B*54:16    | B*07:26+B*54:10       | B*07:31+B*54:26       | B*07:48+B*54:20       |
|                         | B*07:56:02+B*54:21     |                       |                       |                       |
| B*07:02:01G+B*54:03     | B*07:24+B*54:26        |                       |                       |                       |
| B*07:02:01G+B*54:08N    | B*07:135N+B*54:01:01G  |                       |                       |                       |
| B*07:02:01G+B*54:12     | B*07:36+B*54:01:01G    |                       |                       |                       |
| B*07:02:01G+B*54:24     | B*07:83+B*54:01:01G    |                       |                       |                       |
| B*07:02:01G+B*55:01:01G | B*07:26+B*55:52        | B*07:31+B*55:24       | B*07:43+B*55:09       |                       |
| B*07:02:01G+B*55:01:04  | B*07:02:11+B*55:01:01G |                       |                       |                       |
| B*07:02:01G+B*55:02:01G | B*07:05:01G+B*55:46    | B*07:26+B*55:37       | B*07:31+B*55:22       | B*07:48+B*55:52       |
|                         | B*07:72+B*55:10        |                       |                       |                       |
| B*07:02:01G+B*55:02:02  | B*07:02:05+B*55:02:01G |                       |                       |                       |
| B*07:02:01G+B*55:03     | B*07:92+B*55:01:01G    |                       |                       |                       |
| B*07:02:01G+B*55:12     | B*07:57+B*55:02:01G    |                       |                       |                       |
| B*07:02:01G+B*55:16     | B*07:143+B*55:02:01G   |                       |                       |                       |
| B*07:02:01G+B*55:19     | B*07:145+B*55:02:01G   |                       |                       |                       |
| B*07:02:01G+B*55:21     | B*07:55+B*55:52        |                       |                       |                       |
| B*07:02:01G+B*55:22     | B*07:48+B*55:09        |                       |                       |                       |
| B*07:02:01G+B*55:24     | B*07:26+B*55:09        |                       |                       |                       |
| B*07:02:01G+B*55:31     | B*07:91+B*55:01:01G    |                       |                       |                       |
| B*07:02:01G+B*55:32     | B*07:05:01G+B*55:23    |                       |                       |                       |
| B*07:02:01G+B*55:34     | B*07:54+B*55:47        |                       |                       |                       |
| B*07:02:01G+B*55:40     | B*07:54+B*55:01:01G    |                       |                       |                       |
| B*07:02:01G+B*55:41     | B*07:96:01+B*55:02:01G |                       |                       |                       |
| B*07:02:01G+B*55:45     | B*07:117+B*55:01:01G   |                       |                       |                       |
| B*07:02:01G+B*55:49     | B*07:92+B*55:04        |                       |                       |                       |
| B*07:02:01G+B*55:52     | B*07:31+B*55:09        |                       |                       |                       |
| B*07:02:01G+B*55:56     | B*07:04+B*55:52        |                       |                       |                       |
| B*07:02:01G+B*56:01:01G | B*07:02:13+B*56:01:03  | B*07:24+B*55:22       | B*07:56:02+B*56:16    | B*07:68:02+B*56:20:02 |
|                         | B*07:68:03+B*56:20:01  |                       |                       |                       |
| B*07:02:01G+B*56:01:03  | B*07:68:01+B*56:20:02  |                       |                       |                       |
| B*07:02:01G+B*56:07     | B*07:149+B*56:01:01G   |                       |                       |                       |
| B*07:02:01G+B*56:21     | B*07:36+B*56:05:02     |                       |                       |                       |
| B*07:02:01G+B*56:23     | B*07:37+B*55:02:01G    |                       |                       |                       |
| B*07:02:01G+B*56:25     | B*07:24+B*55:24        | B*07:131+B*55:09      |                       |                       |

|                         |                        |                        |                 |                    |
|-------------------------|------------------------|------------------------|-----------------|--------------------|
| B*07:02:01G+B*56:30     | B*07:124+B*56:01:01G   |                        |                 |                    |
| B*07:02:01G+B*56:33     | B*07:85+B*56:01:01G    |                        |                 |                    |
| B*07:02:01G+B*57:01:01G | B*07:02:14+B*57:01:07  | B*07:24+B*57:25        | B*07:26+B*57:19 | B*07:56:02+B*57:58 |
|                         | B*07:68:03+B*57:31     | B*07:86+B*57:10        |                 |                    |
| B*07:02:01G+B*57:01:09  | B*07:02:03+B*57:01:01G | B*07:56:01+B*57:58     |                 |                    |
| B*07:02:01G+B*57:02:01  | B*07:36+B*57:12        |                        |                 |                    |
| B*07:02:01G+B*57:03:01  | B*07:26+B*57:02:01     |                        |                 |                    |
| B*07:02:01G+B*57:07     | B*07:153+B*57:03:01    |                        |                 |                    |
| B*07:02:01G+B*57:24     | B*07:04+B*57:19        |                        |                 |                    |
| B*07:02:01G+B*57:26     | B*07:31+B*57:25        |                        |                 |                    |
| B*07:02:01G+B*57:36     | B*07:132+B*57:01:01G   |                        |                 |                    |
| B*07:02:01G+B*57:39     | B*07:143+B*57:03:01    |                        |                 |                    |
| B*07:02:01G+B*57:41     | B*07:96:01+B*57:01:01G |                        |                 |                    |
| B*07:02:01G+B*57:49     | B*07:29+B*57:10        |                        |                 |                    |
| B*07:02:01G+B*58:01:01G | B*07:02:13+B*58:01:05  | B*07:18:01+B*58:18     | B*07:24+B*58:37 | B*07:26+B*58:22    |
|                         | B*07:56:02+B*58:12     |                        |                 |                    |
| B*07:02:01G+B*58:01:02  | B*07:02:12+B*58:01:01G |                        |                 |                    |
| B*07:02:01G+B*58:01:08  | B*07:02:19+B*58:01:01G |                        |                 |                    |
| B*07:02:01G+B*58:07     | B*07:153+B*58:02       |                        |                 |                    |
| B*07:02:01G+B*58:16     | B*07:07+B*58:18        |                        |                 |                    |
| B*07:02:01G+B*58:35     | B*07:31+B*58:37        |                        |                 |                    |
| B*07:02:01G+B*59:01:01G | B*07:38+B*55:02:01G    |                        |                 |                    |
| B*07:02:01G+B*59:03     | B*07:38+B*55:13        |                        |                 |                    |
| B*07:02:01G+B*59:04     | B*07:38+B*56:01:01G    |                        |                 |                    |
| B*07:02:01G+B*67:01:01  | B*07:02:32+B*67:01:02  | B*07:68:01+B*67:03     |                 |                    |
| B*07:02:01G+B*78:01:01  | B*07:08+B*56:06        |                        |                 |                    |
| B*07:02:01G+B*78:02:02  | B*07:91+B*78:01:01     |                        |                 |                    |
| B*07:02:01G+B*78:03     | B*07:85+B*56:06        |                        |                 |                    |
| B*07:02:01G+B*78:06     | B*07:57+B*78:05        |                        |                 |                    |
| B*07:02:01G+B*81:05     | B*07:83+B*81:01:01G    |                        |                 |                    |
| B*07:02:02+B*35:01:06   | B*07:02:16+B*35:01:31  |                        |                 |                    |
| B*07:02:02+B*35:01:10   | B*07:02:11+B*35:01:31  |                        |                 |                    |
| B*07:02:02+B*35:01:11   | B*07:02:24+B*35:01:31  |                        |                 |                    |
| B*07:02:02+B*35:01:24   | B*07:63+B*35:01:31     |                        |                 |                    |
| B*07:02:02+B*35:10      | B*07:54+B*35:01:31     |                        |                 |                    |
| B*07:02:02+B*35:27      | B*07:57+B*35:01:31     |                        |                 |                    |
| B*07:02:02+B*35:71      | B*07:153+B*35:01:31    |                        |                 |                    |
| B*07:02:02+B*35:92      | B*07:160+B*35:01:31    |                        |                 |                    |
| B*07:02:02+B*35:101:02  | B*07:93+B*35:01:31     |                        |                 |                    |
| B*07:02:02+B*35:137:01G | B*07:73+B*35:01:31     |                        |                 |                    |
| B*07:02:02+B*35:146     | B*07:154+B*35:01:31    |                        |                 |                    |
| B*07:02:02+B*35:178     | B*07:102+B*35:01:31    |                        |                 |                    |
| B*07:02:02+B*35:196     | B*07:142+B*35:01:31    |                        |                 |                    |
| B*07:02:02+B*53:01:01   | B*07:36+B*35:01:31     |                        |                 |                    |
| B*07:02:02+B*53:05      | B*07:81+B*35:01:31     |                        |                 |                    |
| B*07:02:02+B*53:13      | B*07:149+B*35:01:31    |                        |                 |                    |
| B*07:02:03+B*07:05:03   | B*07:02:11+B*07:05:04  |                        |                 |                    |
| B*07:02:03+B*07:05:05   | B*07:02:16+B*07:05:04  |                        |                 |                    |
| B*07:02:03+B*07:32      | B*07:05:04+B*07:08     |                        |                 |                    |
| B*07:02:03+B*07:34      | B*07:05:04+B*07:43     |                        |                 |                    |
| B*07:02:03+B*07:53      | B*07:05:04+B*07:33     |                        |                 |                    |
| B*07:02:03+B*07:69      | B*07:05:04+B*07:85     |                        |                 |                    |
| B*07:02:03+B*07:72      | B*07:56:01+B*07:86     |                        |                 |                    |
| B*07:02:03+B*07:80      | B*07:05:04+B*07:26     |                        |                 |                    |
| B*07:02:03+B*07:123     | B*07:05:04+B*07:54     |                        |                 |                    |
| B*07:02:03+B*07:137     | B*07:05:04+B*07:18:01  |                        |                 |                    |
| B*07:02:03+B*07:138     | B*07:05:04+B*07:158    |                        |                 |                    |
| B*07:02:03+B*07:140     | B*07:05:04+B*07:153    |                        |                 |                    |
| B*07:02:03+B*08:01:01G  | B*07:05:04+B*08:07     |                        |                 |                    |
| B*07:02:03+B*08:26      | B*07:56:01+B*08:50     |                        |                 |                    |
| B*07:02:03+B*08:35      | B*07:05:04+B*08:37     |                        |                 |                    |
| B*07:02:03+B*08:56      | B*07:56:01+B*08:01:11  | B*07:56:02+B*08:01:01G |                 |                    |
| B*07:02:03+B*08:88      | B*07:73+B*08:01:01G    |                        |                 |                    |
| B*07:02:03+B*15:01:01G  | B*07:56:01+B*15:251    |                        |                 |                    |
| B*07:02:03+B*15:08      | B*07:83+B*15:11:04     |                        |                 |                    |
| B*07:02:03+B*15:30      | B*07:05:04+B*15:63     |                        |                 |                    |
| B*07:02:03+B*15:152     | B*07:54+B*15:11:04     |                        |                 |                    |
| B*07:02:03+B*15:229     | B*07:05:04+B*15:133    |                        |                 |                    |
| B*07:02:03+B*35:01:01G  | B*07:56:01+B*35:124    |                        |                 |                    |
| B*07:02:03+B*35:04:01   | B*07:05:04+B*35:34     |                        |                 |                    |
| B*07:02:03+B*35:06      | B*07:05:04+B*35:03:01G |                        |                 |                    |
| B*07:02:03+B*35:08:01   | B*07:56:01+B*35:142    |                        |                 |                    |
| B*07:02:03+B*35:12:01   | B*07:05:04+B*35:39     |                        |                 |                    |
| B*07:02:03+B*35:17      | B*07:56:01+B*35:125    |                        |                 |                    |
| B*07:02:03+B*35:22      | B*07:05:04+B*35:199    |                        |                 |                    |
| B*07:02:03+B*35:49      | B*07:56:02+B*35:25     |                        |                 |                    |
| B*07:02:03+B*35:76      | B*07:134+B*56:09       |                        |                 |                    |
| B*07:02:03+B*35:124     | B*07:134+B*35:25       |                        |                 |                    |
| B*07:02:03+B*35:198     | B*07:08+B*56:11        |                        |                 |                    |
| B*07:02:03+B*38:02:01G  | B*07:05:04+B*38:29     |                        |                 |                    |
| B*07:02:03+B*38:28      | B*07:56:01+B*38:01:01  |                        |                 |                    |
| B*07:02:03+B*39:01:01G  | B*07:05:04+B*39:15     |                        |                 |                    |
| B*07:02:03+B*39:05:01   | B*07:05:04+B*39:55     |                        |                 |                    |
| B*07:02:03+B*39:13:01   | B*07:05:04+B*39:49     |                        |                 |                    |
| B*07:02:03+B*39:14      | B*07:05:04+B*39:29     |                        |                 |                    |
| B*07:02:03+B*40:01:01G  | B*07:05:04+B*40:33     |                        |                 |                    |
| B*07:02:03+B*40:02:01G  | B*07:05:04+B*40:18     |                        |                 |                    |
| B*07:02:03+B*40:06:01G  | B*07:05:04+B*40:44     |                        |                 |                    |
| B*07:02:03+B*40:16      | B*07:05:04+B*40:32     |                        |                 |                    |
| B*07:02:03+B*40:38      | B*07:05:04+B*40:52     |                        |                 |                    |
| B*07:02:03+B*40:80      | B*07:05:04+B*40:31     |                        |                 |                    |
| B*07:02:03+B*40:89      | B*07:05:04+B*40:09     |                        |                 |                    |
| B*07:02:03+B*40:105     | B*07:05:04+B*40:03     |                        |                 |                    |
| B*07:02:03+B*40:172     | B*07:05:04+B*40:42     |                        |                 |                    |
| B*07:02:03+B*40:184     | B*40:98+B*67:01:02     |                        |                 |                    |
| B*07:02:03+B*41:01      | B*07:05:04+B*41:21     |                        |                 |                    |
| B*07:02:03+B*42:01:01   | B*07:05:04+B*42:16     |                        |                 |                    |
| B*07:02:03+B*44:14      | B*07:05:04+B*44:51     |                        |                 |                    |
| B*07:02:03+B*44:77      | B*07:05:04+B*44:107    |                        |                 |                    |
| B*07:02:03+B*51:01:01G  | B*07:05:04+B*51:90     |                        |                 |                    |
| B*07:02:03+B*51:06:01   | B*07:05:04+B*51:135    |                        |                 |                    |
| B*07:02:03+B*51:13:01   | B*07:05:04+B*51:92     |                        |                 |                    |
| B*07:02:03+B*51:15      | B*07:134+B*59:04       |                        |                 |                    |
| B*07:02:03+B*51:63      | B*07:05:04+B*51:37     |                        |                 |                    |
| B*07:02:03+B*52:01:01G  | B*07:05:04+B*52:12     | B*07:56:01+B*52:27     |                 |                    |

|                         |                        |                    |
|-------------------------|------------------------|--------------------|
| B*07:02:03+B*54:01:01G  | B*07:05:04+B*54:16     | B*07:56:01+B*54:21 |
| B*07:02:03+B*54:01:02   | B*07:110+B*55:07       |                    |
| B*07:02:03+B*55:02:01G  | B*07:05:04+B*55:46     |                    |
| B*07:02:03+B*55:32      | B*07:05:04+B*55:23     |                    |
| B*07:02:03+B*56:01:01G  | B*07:56:01+B*56:16     |                    |
| B*07:02:03+B*56:06      | B*07:134+B*56:05:01    |                    |
| B*07:02:03+B*57:36      | B*07:132+B*57:01:09    |                    |
| B*07:02:03+B*57:41      | B*07:96:01+B*57:01:09  |                    |
| B*07:02:03+B*58:01:01G  | B*07:56:01+B*58:12     |                    |
| B*07:02:05+B*55:12      | B*07:57+B*55:02:02     |                    |
| B*07:02:05+B*55:16      | B*07:143+B*55:02:02    |                    |
| B*07:02:05+B*55:19      | B*07:145+B*55:02:02    |                    |
| B*07:02:05+B*55:41      | B*07:96:01+B*55:02:02  |                    |
| B*07:02:05+B*56:23      | B*07:37+B*55:02:02     |                    |
| B*07:02:05+B*59:01:01G  | B*07:38+B*55:02:02     |                    |
| B*07:02:07+B*15:01:02   | B*07:02:11+B*15:01:03  |                    |
| B*07:02:07+B*15:01:08   | B*07:02:20+B*15:01:03  |                    |
| B*07:02:07+B*15:01:24   | B*07:02:16+B*15:01:03  |                    |
| B*07:02:07+B*15:12:01G  | B*07:64+B*15:01:03     |                    |
| B*07:02:07+B*15:14      | B*07:153+B*15:01:03    |                    |
| B*07:02:07+B*15:24      | B*07:36+B*15:01:03     |                    |
| B*07:02:07+B*15:60      | B*07:117+B*15:01:03    |                    |
| B*07:02:07+B*15:87      | B*07:81+B*15:01:03     |                    |
| B*07:02:07+B*15:122     | B*07:127+B*15:01:03    |                    |
| B*07:02:07+B*15:128     | B*07:96:01+B*15:01:03  |                    |
| B*07:02:07+B*15:135     | B*07:57+B*15:01:03     |                    |
| B*07:02:07+B*15:159     | B*07:23+B*15:01:03     |                    |
| B*07:02:07+B*15:225     | B*07:143+B*15:01:03    |                    |
| B*07:02:07+B*15:249     | B*07:45+B*15:01:03     |                    |
| B*07:02:07+B*27:05:06   | B*07:02:21+B*27:05:15  |                    |
| B*07:02:07+B*27:05:19   | B*07:02:30+B*27:05:15  |                    |
| B*07:02:07+B*27:38      | B*07:24+B*27:05:15     |                    |
| B*07:02:07+B*27:55      | B*07:87+B*27:05:15     |                    |
| B*07:02:07+B*27:71      | B*07:31+B*27:05:15     |                    |
| B*07:02:08+B*08:38      | B*07:54+B*08:01:08     |                    |
| B*07:02:08+B*14:02:01   | B*07:02:32+B*14:02:06  |                    |
| B*07:02:10+B*44:33      | B*07:150+B*44:02:06    |                    |
| B*07:02:10+B*44:55      | B*07:143+B*44:02:06    |                    |
| B*07:02:10+B*44:59      | B*07:136+B*44:02:06    |                    |
| B*07:02:10+B*44:68      | B*07:113+B*44:02:06    |                    |
| B*07:02:10+B*44:89      | B*07:45+B*44:02:06     |                    |
| B*07:02:11+B*07:05:05   | B*07:02:16+B*07:05:03  |                    |
| B*07:02:11+B*07:32      | B*07:05:03+B*07:08     |                    |
| B*07:02:11+B*07:34      | B*07:05:03+B*07:43     |                    |
| B*07:02:11+B*07:53      | B*07:05:03+B*07:33     |                    |
| B*07:02:11+B*07:69      | B*07:05:03+B*07:85     |                    |
| B*07:02:11+B*07:80      | B*07:05:03+B*07:26     |                    |
| B*07:02:11+B*07:123     | B*07:05:03+B*07:54     |                    |
| B*07:02:11+B*07:137     | B*07:05:03+B*07:18:01  |                    |
| B*07:02:11+B*07:138     | B*07:05:03+B*07:158    |                    |
| B*07:02:11+B*07:140     | B*07:05:03+B*07:153    |                    |
| B*07:02:11+B*08:01:01G  | B*07:05:03+B*08:07     |                    |
| B*07:02:11+B*08:35      | B*07:05:03+B*08:37     |                    |
| B*07:02:11+B*15:01:08   | B*07:02:20+B*15:01:02  |                    |
| B*07:02:11+B*15:01:24   | B*07:02:16+B*15:01:02  |                    |
| B*07:02:11+B*15:12:01G  | B*07:64+B*15:01:02     |                    |
| B*07:02:11+B*15:14      | B*07:153+B*15:01:02    |                    |
| B*07:02:11+B*15:24      | B*07:36+B*15:01:02     |                    |
| B*07:02:11+B*15:30      | B*07:05:03+B*15:63     |                    |
| B*07:02:11+B*15:60      | B*07:117+B*15:01:02    |                    |
| B*07:02:11+B*15:87      | B*07:81+B*15:01:02     |                    |
| B*07:02:11+B*15:122     | B*07:127+B*15:01:02    |                    |
| B*07:02:11+B*15:128     | B*07:96:01+B*15:01:02  |                    |
| B*07:02:11+B*15:135     | B*07:57+B*15:01:02     |                    |
| B*07:02:11+B*15:159     | B*07:23+B*15:01:02     |                    |
| B*07:02:11+B*15:225     | B*07:143+B*15:01:02    |                    |
| B*07:02:11+B*15:229     | B*07:05:03+B*15:133    |                    |
| B*07:02:11+B*15:249     | B*07:45+B*15:01:02     |                    |
| B*07:02:11+B*27:15      | B*07:31+B*27:04:03     |                    |
| B*07:02:11+B*27:63      | B*07:24+B*27:04:03     |                    |
| B*07:02:11+B*35:01:06   | B*07:02:16+B*35:01:10  |                    |
| B*07:02:11+B*35:01:11   | B*07:02:24+B*35:01:10  |                    |
| B*07:02:11+B*35:01:24   | B*07:63+B*35:01:10     |                    |
| B*07:02:11+B*35:02:01   | B*07:154+B*35:04:02    |                    |
| B*07:02:11+B*35:06      | B*07:05:03+B*35:03:01G |                    |
| B*07:02:11+B*35:10      | B*07:54+B*35:01:10     |                    |
| B*07:02:11+B*35:12:01   | B*07:05:03+B*35:39     |                    |
| B*07:02:11+B*35:22      | B*07:05:03+B*35:199    |                    |
| B*07:02:11+B*35:27      | B*07:57+B*35:01:10     |                    |
| B*07:02:11+B*35:71      | B*07:153+B*35:01:10    |                    |
| B*07:02:11+B*35:92      | B*07:160+B*35:01:10    |                    |
| B*07:02:11+B*35:101:02  | B*07:93+B*35:01:10     |                    |
| B*07:02:11+B*35:137:01G | B*07:73+B*35:01:10     |                    |
| B*07:02:11+B*35:146     | B*07:154+B*35:01:10    |                    |
| B*07:02:11+B*35:178     | B*07:102+B*35:01:10    |                    |
| B*07:02:11+B*35:196     | B*07:142+B*35:01:10    |                    |
| B*07:02:11+B*38:02:01G  | B*07:05:03+B*38:29     |                    |
| B*07:02:11+B*39:01:01G  | B*07:05:03+B*39:15     |                    |
| B*07:02:11+B*39:05:01   | B*07:05:03+B*39:55     |                    |
| B*07:02:11+B*39:13:01   | B*07:05:03+B*39:49     |                    |
| B*07:02:11+B*39:14      | B*07:05:03+B*39:29     |                    |
| B*07:02:11+B*40:01:10   | B*07:02:21+B*40:01:06  |                    |
| B*07:02:11+B*40:01:14   | B*07:02:14+B*40:01:06  |                    |
| B*07:02:11+B*40:01:20   | B*07:106+B*40:01:06    |                    |
| B*07:02:11+B*40:01:24   | B*07:02:33+B*40:01:06  |                    |
| B*07:02:11+B*40:02:01G  | B*07:05:03+B*40:18     |                    |
| B*07:02:11+B*40:06:01G  | B*07:05:03+B*40:44     |                    |
| B*07:02:11+B*40:16      | B*07:05:03+B*40:32     |                    |
| B*07:02:11+B*40:38      | B*07:05:03+B*40:52     | B*07:09+B*40:01:06 |
| B*07:02:11+B*40:47      | B*07:149+B*40:01:06    |                    |
| B*07:02:11+B*40:63      | B*07:24+B*40:01:06     |                    |
| B*07:02:11+B*40:65      | B*07:87+B*40:01:06     |                    |
| B*07:02:11+B*40:73      | B*07:92+B*40:01:06     |                    |
| B*07:02:11+B*40:79      | B*07:23+B*40:01:06     |                    |
| B*07:02:11+B*40:80      | B*07:05:03+B*40:31     |                    |

|                        |                        |                       |
|------------------------|------------------------|-----------------------|
| B*07:02:11+B*40:87:01  | B*07:68:01+B*40:01:06  |                       |
| B*07:02:11+B*40:87:02  | B*07:68:03+B*40:01:06  |                       |
| B*07:02:11+B*40:89     | B*07:05:03+B*40:09     |                       |
| B*07:02:11+B*40:92     | B*07:60+B*40:01:06     |                       |
| B*07:02:11+B*40:105    | B*07:05:03+B*40:03     |                       |
| B*07:02:11+B*40:108    | B*07:159+B*40:01:06    |                       |
| B*07:02:11+B*40:117    | B*07:36+B*40:01:06     |                       |
| B*07:02:11+B*40:132    | B*07:153+B*40:01:06    |                       |
| B*07:02:11+B*40:172    | B*07:05:03+B*40:42     | B*07:96:01+B*40:01:06 |
| B*07:02:11+B*40:192    | B*07:113+B*40:01:06    |                       |
| B*07:02:11+B*40:193    | B*07:148+B*40:01:06    |                       |
| B*07:02:11+B*40:199    | B*07:31+B*40:01:06     |                       |
| B*07:02:11+B*41:01     | B*07:05:03+B*41:21     |                       |
| B*07:02:11+B*42:01:01  | B*07:05:03+B*42:16     |                       |
| B*07:02:11+B*44:14     | B*07:05:03+B*44:51     | B*07:118+B*44:62      |
| B*07:02:11+B*44:77     | B*07:05:03+B*44:107    |                       |
| B*07:02:11+B*51:01:01G | B*07:05:03+B*51:90     |                       |
| B*07:02:11+B*51:06:01  | B*07:05:03+B*51:135    |                       |
| B*07:02:11+B*51:24:01  | B*07:02:14+B*51:24:04  |                       |
| B*07:02:11+B*51:45     | B*07:09+B*51:135       |                       |
| B*07:02:11+B*51:63     | B*07:05:03+B*51:37     |                       |
| B*07:02:11+B*52:01:01G | B*07:05:03+B*52:12     |                       |
| B*07:02:11+B*53:01:01  | B*07:36+B*35:01:10     |                       |
| B*07:02:11+B*53:05     | B*07:81+B*35:01:10     |                       |
| B*07:02:11+B*53:13     | B*07:149+B*35:01:10    |                       |
| B*07:02:11+B*54:01:01G | B*07:05:03+B*54:16     |                       |
| B*07:02:11+B*55:02:01G | B*07:05:03+B*55:46     |                       |
| B*07:02:11+B*55:03     | B*07:92+B*55:01:04     |                       |
| B*07:02:11+B*55:31     | B*07:91+B*55:01:04     |                       |
| B*07:02:11+B*55:32     | B*07:05:03+B*55:23     |                       |
| B*07:02:11+B*55:40     | B*07:54+B*55:01:04     |                       |
| B*07:02:11+B*55:45     | B*07:117+B*55:01:04    |                       |
| B*07:02:12+B*38:11     | B*07:110+B*38:01:06    |                       |
| B*07:02:12+B*38:27     | B*07:93+B*38:01:06     |                       |
| B*07:02:12+B*38:28     | B*07:56:02+B*38:01:06  |                       |
| B*07:02:12+B*38:33     | B*07:86+B*38:01:06     |                       |
| B*07:02:12+B*58:01:08  | B*07:02:19+B*58:01:02  |                       |
| B*07:02:13+B*08:71     | B*07:68:02+B*08:01:13  |                       |
| B*07:02:13+B*15:01:01G | B*07:68:02+B*15:78:02  |                       |
| B*07:02:13+B*15:03:01G | B*07:02:14+B*15:03:02  |                       |
| B*07:02:13+B*15:30     | B*07:68:02+B*15:150    |                       |
| B*07:02:13+B*15:35     | B*07:68:02+B*15:141    |                       |
| B*07:02:13+B*15:136    | B*07:45+B*15:05:02     |                       |
| B*07:02:13+B*35:04:01  | B*07:68:02+B*35:09:03  |                       |
| B*07:02:13+B*35:43:01G | B*07:68:02+B*35:118    |                       |
| B*07:02:13+B*39:18     | B*07:45+B*39:36        |                       |
| B*07:02:13+B*40:87:01  | B*07:68:02+B*40:01:01G |                       |
| B*07:02:13+B*46:01:04  | B*07:02:30+B*46:01:03  |                       |
| B*07:02:13+B*46:14     | B*07:143+B*46:01:03    |                       |
| B*07:02:13+B*46:16     | B*07:83+B*46:01:03     |                       |
| B*07:02:13+B*46:17     | B*07:153+B*46:01:03    |                       |
| B*07:02:13+B*46:19     | B*07:45+B*46:13:01     |                       |
| B*07:02:13+B*46:20     | B*07:145+B*46:01:03    |                       |
| B*07:02:13+B*51:01:01G | B*07:68:02+B*51:24:04  |                       |
| B*07:02:13+B*67:01:01  | B*07:68:02+B*67:03     |                       |
| B*07:02:14+B*08:71     | B*07:68:01+B*08:01:01G |                       |
| B*07:02:14+B*15:01:01G | B*07:68:01+B*15:78:01  |                       |
| B*07:02:14+B*15:01:17  | B*07:68:01+B*15:78:03  |                       |
| B*07:02:14+B*15:18:01G | B*07:68:01+B*15:72     |                       |
| B*07:02:14+B*18:01:01G | B*07:68:01+B*18:40     |                       |
| B*07:02:14+B*18:26     | B*07:68:01+B*18:61     |                       |
| B*07:02:14+B*35:04:01  | B*07:68:01+B*35:09:01  |                       |
| B*07:02:14+B*35:08:01  | B*07:68:01+B*35:174    |                       |
| B*07:02:14+B*39:01:01G | B*07:68:01+B*39:68     |                       |
| B*07:02:14+B*40:01:10  | B*07:02:21+B*40:01:14  |                       |
| B*07:02:14+B*40:01:20  | B*07:106+B*40:01:14    |                       |
| B*07:02:14+B*40:01:24  | B*07:02:33+B*40:01:14  |                       |
| B*07:02:14+B*40:35     | B*07:68:01+B*40:02:01G |                       |
| B*07:02:14+B*40:38     | B*07:09+B*40:01:14     |                       |
| B*07:02:14+B*40:47     | B*07:149+B*40:01:14    |                       |
| B*07:02:14+B*40:63     | B*07:24+B*40:01:14     |                       |
| B*07:02:14+B*40:65     | B*07:87+B*40:01:14     |                       |
| B*07:02:14+B*40:72:02  | B*07:151+B*40:14:02    |                       |
| B*07:02:14+B*40:73     | B*07:92+B*40:01:14     |                       |
| B*07:02:14+B*40:79     | B*07:23+B*40:01:14     |                       |
| B*07:02:14+B*40:87:01  | B*07:68:01+B*40:01:14  |                       |
| B*07:02:14+B*40:92     | B*07:60+B*40:01:14     |                       |
| B*07:02:14+B*40:108    | B*07:159+B*40:01:14    |                       |
| B*07:02:14+B*40:117    | B*07:36+B*40:01:14     |                       |
| B*07:02:14+B*40:121    | B*07:68:01+B*40:14:01  | B*07:68:02+B*40:14:02 |
| B*07:02:14+B*40:132    | B*07:153+B*40:01:14    |                       |
| B*07:02:14+B*40:172    | B*07:96:01+B*40:01:14  |                       |
| B*07:02:14+B*40:192    | B*07:113+B*40:01:14    |                       |
| B*07:02:14+B*40:193    | B*07:148+B*40:01:14    |                       |
| B*07:02:14+B*40:199    | B*07:31+B*40:01:14     |                       |
| B*07:02:14+B*42:10     | B*07:68:01+B*42:01:01  |                       |
| B*07:02:14+B*42:17     | B*07:68:01+B*42:02     |                       |
| B*07:02:14+B*44:02:01G | B*07:68:01+B*44:53     |                       |
| B*07:02:14+B*51:01:04  | B*07:68:01+B*51:24:01  |                       |
| B*07:02:14+B*51:01:25  | B*07:68:01+B*51:24:03  |                       |
| B*07:02:14+B*56:01:01G | B*07:68:01+B*56:20:01  |                       |
| B*07:02:14+B*57:01:01G | B*07:68:01+B*57:31     |                       |
| B*07:02:16+B*07:32     | B*07:05:05+B*07:08     |                       |
| B*07:02:16+B*07:34     | B*07:05:05+B*07:43     |                       |
| B*07:02:16+B*07:53     | B*07:05:05+B*07:33     |                       |
| B*07:02:16+B*07:69     | B*07:05:05+B*07:85     |                       |
| B*07:02:16+B*07:80     | B*07:05:05+B*07:26     |                       |
| B*07:02:16+B*07:123    | B*07:05:05+B*07:54     |                       |
| B*07:02:16+B*07:137    | B*07:05:05+B*07:18:01  |                       |
| B*07:02:16+B*07:138    | B*07:05:05+B*07:158    |                       |
| B*07:02:16+B*07:140    | B*07:05:05+B*07:153    |                       |
| B*07:02:16+B*08:01:01G | B*07:05:05+B*08:07     |                       |
| B*07:02:16+B*08:35     | B*07:05:05+B*08:37     |                       |
| B*07:02:16+B*15:01:08  | B*07:02:20+B*15:01:24  |                       |
| B*07:02:16+B*15:12:01G | B*07:64+B*15:01:24     |                       |



|                         |                        |
|-------------------------|------------------------|
| B*07:02:16+B*15:14      | B*07:153+B*15:01:24    |
| B*07:02:16+B*15:24      | B*07:36+B*15:01:24     |
| B*07:02:16+B*15:30      | B*07:05:05+B*15:63     |
| B*07:02:16+B*15:60      | B*07:117+B*15:01:24    |
| B*07:02:16+B*15:87      | B*07:81+B*15:01:24     |
| B*07:02:16+B*15:122     | B*07:127+B*15:01:24    |
| B*07:02:16+B*15:128     | B*07:96:01+B*15:01:24  |
| B*07:02:16+B*15:135     | B*07:57+B*15:01:24     |
| B*07:02:16+B*15:159     | B*07:23+B*15:01:24     |
| B*07:02:16+B*15:225     | B*07:143+B*15:01:24    |
| B*07:02:16+B*15:229     | B*07:05:05+B*15:133    |
| B*07:02:16+B*15:249     | B*07:45+B*15:01:24     |
| B*07:02:16+B*35:01:11   | B*07:02:24+B*35:01:06  |
| B*07:02:16+B*35:01:24   | B*07:63+B*35:01:06     |
| B*07:02:16+B*35:04:01   | B*07:05:05+B*35:34     |
| B*07:02:16+B*35:06      | B*07:05:05+B*35:03:01G |
| B*07:02:16+B*35:10      | B*07:54+B*35:01:06     |
| B*07:02:16+B*35:12:01   | B*07:05:05+B*35:39     |
| B*07:02:16+B*35:22      | B*07:05:05+B*35:199    |
| B*07:02:16+B*35:27      | B*07:57+B*35:01:06     |
| B*07:02:16+B*35:71      | B*07:153+B*35:01:06    |
| B*07:02:16+B*35:92      | B*07:160+B*35:01:06    |
| B*07:02:16+B*35:101:02  | B*07:93+B*35:01:06     |
| B*07:02:16+B*35:137:01G | B*07:73+B*35:01:06     |
| B*07:02:16+B*35:146     | B*07:154+B*35:01:06    |
| B*07:02:16+B*35:178     | B*07:102+B*35:01:06    |
| B*07:02:16+B*35:196     | B*07:142+B*35:01:06    |
| B*07:02:16+B*38:02:01G  | B*07:05:05+B*38:29     |
| B*07:02:16+B*39:01:01G  | B*07:05:05+B*39:15     |
| B*07:02:16+B*39:05:01   | B*07:05:05+B*39:55     |
| B*07:02:16+B*39:13:01   | B*07:05:05+B*39:49     |
| B*07:02:16+B*39:14      | B*07:05:05+B*39:29     |
| B*07:02:16+B*40:01:01G  | B*07:05:05+B*40:33     |
| B*07:02:16+B*40:02:01G  | B*07:05:05+B*40:18     |
| B*07:02:16+B*40:06:01G  | B*07:05:05+B*40:44     |
| B*07:02:16+B*40:16      | B*07:05:05+B*40:32     |
| B*07:02:16+B*40:38      | B*07:05:05+B*40:52     |
| B*07:02:16+B*40:80      | B*07:05:05+B*40:31     |
| B*07:02:16+B*40:89      | B*07:05:05+B*40:09     |
| B*07:02:16+B*40:105     | B*07:05:05+B*40:03     |
| B*07:02:16+B*40:172     | B*07:05:05+B*40:42     |
| B*07:02:16+B*41:01      | B*07:05:05+B*41:21     |
| B*07:02:16+B*42:01:01   | B*07:05:05+B*42:16     |
| B*07:02:16+B*44:14      | B*07:05:05+B*44:51     |
| B*07:02:16+B*44:77      | B*07:05:05+B*44:107    |
| B*07:02:16+B*51:01:01G  | B*07:05:05+B*51:90     |
| B*07:02:16+B*51:06:01   | B*07:05:05+B*51:135    |
| B*07:02:16+B*51:13:01   | B*07:05:05+B*51:92     |
| B*07:02:16+B*51:63      | B*07:05:05+B*51:37     |
| B*07:02:16+B*52:01:01G  | B*07:05:05+B*52:12     |
| B*07:02:16+B*53:01:01   | B*07:36+B*35:01:06     |
| B*07:02:16+B*53:05      | B*07:81+B*35:01:06     |
| B*07:02:16+B*53:13      | B*07:149+B*35:01:06    |
| B*07:02:16+B*54:01:01G  | B*07:05:05+B*54:16     |
| B*07:02:16+B*55:02:01G  | B*07:05:05+B*55:46     |
| B*07:02:16+B*55:32      | B*07:05:05+B*55:23     |
| B*07:02:17+B*08:02      | B*07:149+B*08:01:17    |
| B*07:02:17+B*08:12:01   | B*07:07+B*08:01:17     |
| B*07:02:17+B*08:15      | B*07:92+B*08:01:17     |
| B*07:02:17+B*08:18      | B*07:102+B*08:01:17    |
| B*07:02:17+B*08:23      | B*07:91+B*08:01:17     |
| B*07:02:17+B*08:32      | B*07:134+B*08:01:17    |
| B*07:02:17+B*08:35      | B*07:09+B*08:01:17     |
| B*07:02:17+B*08:39      | B*07:93+B*08:01:17     |
| B*07:02:17+B*08:43      | B*07:124+B*08:01:17    |
| B*07:02:17+B*08:47      | B*07:57+B*08:01:17     |
| B*07:02:17+B*08:52      | B*07:81+B*08:01:17     |
| B*07:02:17+B*08:58      | B*07:158+B*08:01:17    |
| B*07:02:17+B*08:64      | B*07:113+B*08:01:17    |
| B*07:02:17+B*08:71      | B*07:68:03+B*08:01:17  |
| B*07:02:17+B*08:74      | B*07:96:01+B*08:01:17  |
| B*07:02:17+B*08:77      | B*07:74+B*08:01:17     |
| B*07:02:17+B*08:78      | B*07:36+B*08:01:17     |
| B*07:02:18+B*18:05      | B*07:136+B*18:01:14    |
| B*07:02:18+B*18:06      | B*07:92+B*18:01:14     |
| B*07:02:18+B*18:09      | B*07:149+B*18:01:14    |
| B*07:02:18+B*18:12      | B*07:54+B*18:01:14     |
| B*07:02:18+B*18:20      | B*07:96:01+B*18:01:14  |
| B*07:02:18+B*18:49      | B*07:57+B*18:01:14     |
| B*07:02:18+B*18:67      | B*07:81+B*18:01:14     |
| B*07:02:18+B*18:68      | B*07:86+B*18:01:14     |
| B*07:02:18+B*18:70      | B*07:71+B*18:01:14     |
| B*07:02:18+B*18:71      | B*07:127+B*18:01:14    |
| B*07:02:18+B*52:01:10   | B*07:02:32+B*52:01:11  |
| B*07:02:18+B*52:15      | B*07:153+B*52:01:11    |
| B*07:02:19+B*37:18      | B*07:62+B*37:01:04     |
| B*07:02:19+B*51:01:24   | B*07:02:21+B*51:01:18  |
| B*07:02:19+B*51:01:28   | B*07:02:22+B*51:01:18  |
| B*07:02:19+B*51:63      | B*07:09+B*51:01:18     |
| B*07:02:19+B*51:76      | B*07:93+B*51:01:18     |
| B*07:02:19+B*51:109     | B*07:87+B*51:01:18     |
| B*07:02:19+B*51:114     | B*07:157+B*51:01:18    |
| B*07:02:19+B*51:115     | B*07:51+B*51:01:18     |
| B*07:02:19+B*52:06:02   | B*07:54+B*51:01:18     |
| B*07:02:20+B*15:12:01G  | B*07:64+B*15:01:08     |
| B*07:02:20+B*15:14      | B*07:153+B*15:01:08    |
| B*07:02:20+B*15:24      | B*07:36+B*15:01:08     |
| B*07:02:20+B*15:60      | B*07:117+B*15:01:08    |
| B*07:02:20+B*15:87      | B*07:81+B*15:01:08     |
| B*07:02:20+B*15:122     | B*07:127+B*15:01:08    |
| B*07:02:20+B*15:128     | B*07:96:01+B*15:01:08  |
| B*07:02:20+B*15:135     | B*07:57+B*15:01:08     |
| B*07:02:20+B*15:159     | B*07:23+B*15:01:08     |
| B*07:02:20+B*15:225     | B*07:143+B*15:01:08    |
| B*07:02:20+B*15:249     | B*07:45+B*15:01:08     |

|                         |                        |                    |                    |
|-------------------------|------------------------|--------------------|--------------------|
| B*07:02:20+B*35:06      | B*07:05:01G+B*35:03:09 |                    |                    |
| B*07:02:20+B*35:13      | B*07:54+B*35:03:09     |                    |                    |
| B*07:02:20+B*35:56      | B*07:57+B*35:03:09     |                    |                    |
| B*07:02:20+B*35:74      | B*07:92+B*35:03:09     |                    |                    |
| B*07:02:20+B*35:195     | B*07:93+B*35:03:09     |                    |                    |
| B*07:02:20+B*53:04      | B*07:36+B*35:03:09     |                    |                    |
| B*07:02:21+B*13:53      | B*07:31+B*13:02:03     |                    |                    |
| B*07:02:21+B*13:55      | B*07:143+B*13:02:03    |                    |                    |
| B*07:02:21+B*27:05:19   | B*07:02:30+B*27:05:06  |                    |                    |
| B*07:02:21+B*27:38      | B*07:24+B*27:05:06     |                    |                    |
| B*07:02:21+B*27:55      | B*07:87+B*27:05:06     |                    |                    |
| B*07:02:21+B*27:71      | B*07:31+B*27:05:06     |                    |                    |
| B*07:02:21+B*40:01:20   | B*07:106+B*40:01:10    |                    |                    |
| B*07:02:21+B*40:01:24   | B*07:02:33+B*40:01:10  |                    |                    |
| B*07:02:21+B*40:11:01   | B*07:07+B*40:02:11     |                    |                    |
| B*07:02:21+B*40:19      | B*07:36+B*40:02:11     |                    |                    |
| B*07:02:21+B*40:35      | B*07:68:03+B*40:02:11  |                    |                    |
| B*07:02:21+B*40:37      | B*07:57+B*40:02:11     |                    |                    |
| B*07:02:21+B*40:38      | B*07:09+B*40:01:10     |                    |                    |
| B*07:02:21+B*40:39      | B*07:31+B*40:02:11     |                    |                    |
| B*07:02:21+B*40:47      | B*07:149+B*40:01:10    |                    |                    |
| B*07:02:21+B*40:57      | B*07:71+B*40:02:11     |                    |                    |
| B*07:02:21+B*40:63      | B*07:24+B*40:01:10     |                    |                    |
| B*07:02:21+B*40:64      | B*07:18:01+B*40:02:11  |                    |                    |
| B*07:02:21+B*40:65      | B*07:87+B*40:01:10     |                    |                    |
| B*07:02:21+B*40:70      | B*07:84+B*40:02:11     |                    |                    |
| B*07:02:21+B*40:73      | B*07:92+B*40:01:10     |                    |                    |
| B*07:02:21+B*40:79      | B*07:23+B*40:01:10     |                    |                    |
| B*07:02:21+B*40:87:01   | B*07:68:01+B*40:01:10  |                    |                    |
| B*07:02:21+B*40:87:02   | B*07:68:03+B*40:01:10  |                    |                    |
| B*07:02:21+B*40:89      | B*07:96:01+B*40:02:11  |                    |                    |
| B*07:02:21+B*40:92      | B*07:60+B*40:01:10     |                    |                    |
| B*07:02:21+B*40:105     | B*07:09+B*40:02:11     |                    |                    |
| B*07:02:21+B*40:108     | B*07:159+B*40:01:10    |                    |                    |
| B*07:02:21+B*40:115     | B*07:94+B*40:02:11     |                    |                    |
| B*07:02:21+B*40:117     | B*07:36+B*40:01:10     |                    |                    |
| B*07:02:21+B*40:132     | B*07:153+B*40:01:10    |                    |                    |
| B*07:02:21+B*40:157     | B*07:149+B*40:02:11    |                    |                    |
| B*07:02:21+B*40:172     | B*07:96:01+B*40:01:10  |                    |                    |
| B*07:02:21+B*40:192     | B*07:113+B*40:01:10    |                    |                    |
| B*07:02:21+B*40:193     | B*07:148+B*40:01:10    |                    |                    |
| B*07:02:21+B*40:199     | B*07:31+B*40:01:10     |                    |                    |
| B*07:02:21+B*44:29      | B*07:45+B*44:03:08     |                    |                    |
| B*07:02:21+B*44:69      | B*07:94+B*44:03:08     |                    |                    |
| B*07:02:21+B*51:01:28   | B*07:02:22+B*51:01:24  |                    |                    |
| B*07:02:21+B*51:63      | B*07:09+B*51:01:24     |                    |                    |
| B*07:02:21+B*51:76      | B*07:93+B*51:01:24     |                    |                    |
| B*07:02:21+B*51:109     | B*07:87+B*51:01:24     |                    |                    |
| B*07:02:21+B*51:114     | B*07:157+B*51:01:24    |                    |                    |
| B*07:02:21+B*51:115     | B*07:51+B*51:01:24     |                    |                    |
| B*07:02:21+B*52:06:02   | B*07:54+B*51:01:24     |                    |                    |
| B*07:02:22+B*51:63      | B*07:09+B*51:01:28     |                    |                    |
| B*07:02:22+B*51:76      | B*07:93+B*51:01:28     |                    |                    |
| B*07:02:22+B*51:109     | B*07:87+B*51:01:28     |                    |                    |
| B*07:02:22+B*51:114     | B*07:157+B*51:01:28    |                    |                    |
| B*07:02:22+B*51:115     | B*07:51+B*51:01:28     |                    |                    |
| B*07:02:22+B*52:06:02   | B*07:54+B*51:01:28     |                    |                    |
| B*07:02:24+B*35:01:24   | B*07:63+B*35:01:11     |                    |                    |
| B*07:02:24+B*35:10      | B*07:54+B*35:01:11     |                    |                    |
| B*07:02:24+B*35:27      | B*07:57+B*35:01:11     |                    |                    |
| B*07:02:24+B*35:71      | B*07:153+B*35:01:11    |                    |                    |
| B*07:02:24+B*35:92      | B*07:160+B*35:01:11    |                    |                    |
| B*07:02:24+B*35:101:02  | B*07:93+B*35:01:11     |                    |                    |
| B*07:02:24+B*35:137:01G | B*07:73+B*35:01:11     |                    |                    |
| B*07:02:24+B*35:146     | B*07:154+B*35:01:11    |                    |                    |
| B*07:02:24+B*35:178     | B*07:102+B*35:01:11    |                    |                    |
| B*07:02:24+B*35:196     | B*07:142+B*35:01:11    |                    |                    |
| B*07:02:24+B*53:01:01   | B*07:36+B*35:01:11     |                    |                    |
| B*07:02:24+B*53:05      | B*07:81+B*35:01:11     |                    |                    |
| B*07:02:24+B*53:13      | B*07:149+B*35:01:11    |                    |                    |
| B*07:02:29+B*07:14      | B*07:18:02+B*07:96:02  |                    |                    |
| B*07:02:29+B*07:17      | B*07:09+B*07:96:02     |                    |                    |
| B*07:02:29+B*07:28      | B*07:96:02+B*07:118    |                    |                    |
| B*07:02:29+B*08:28      | B*07:96:02+B*08:37     |                    |                    |
| B*07:02:29+B*08:74      | B*07:96:02+B*08:01:01G |                    |                    |
| B*07:02:29+B*15:02:01G  | B*07:96:02+B*15:223    |                    |                    |
| B*07:02:29+B*15:06      | B*07:96:02+B*15:195    |                    |                    |
| B*07:02:29+B*15:128     | B*07:96:02+B*15:01:01G |                    |                    |
| B*07:02:29+B*15:156     | B*07:96:02+B*15:03:01G |                    |                    |
| B*07:02:29+B*18:20      | B*07:96:02+B*18:01:01G |                    |                    |
| B*07:02:29+B*40:09      | B*07:96:02+B*40:18     |                    |                    |
| B*07:02:29+B*40:42      | B*07:96:02+B*40:33     |                    |                    |
| B*07:02:29+B*40:89      | B*07:96:02+B*40:02:01G |                    |                    |
| B*07:02:29+B*40:172     | B*07:96:02+B*40:01:01G |                    |                    |
| B*07:02:29+B*44:02:01G  | B*07:96:02+B*44:51     |                    |                    |
| B*07:02:29+B*44:03:01G  | B*07:96:02+B*44:45     |                    |                    |
| B*07:02:29+B*44:05:01   | B*07:96:02+B*44:123    |                    |                    |
| B*07:02:29+B*44:54      | B*07:96:02+B*44:135    |                    |                    |
| B*07:02:29+B*44:144     | B*07:96:02+B*44:43:01  |                    |                    |
| B*07:02:29+B*55:41      | B*07:96:02+B*55:02:01G |                    |                    |
| B*07:02:29+B*57:41      | B*07:96:02+B*57:01:01G |                    |                    |
| B*07:02:30+B*27:38      | B*07:24+B*27:05:19     |                    |                    |
| B*07:02:30+B*27:55      | B*07:87+B*27:05:19     |                    |                    |
| B*07:02:30+B*27:71      | B*07:31+B*27:05:19     |                    |                    |
| B*07:02:30+B*46:14      | B*07:143+B*46:01:04    |                    |                    |
| B*07:02:30+B*46:16      | B*07:83+B*46:01:04     |                    |                    |
| B*07:02:30+B*46:17      | B*07:153+B*46:01:04    |                    |                    |
| B*07:02:30+B*46:20      | B*07:145+B*46:01:04    |                    |                    |
| B*07:02:32+B*38:04      | B*07:54+B*38:02:01G    | B*07:123+B*38:29   |                    |
| B*07:02:32+B*39:10:01   | B*07:03+B*67:01:01     |                    |                    |
| B*07:02:32+B*39:13:01   | B*07:26+B*39:08        | B*07:91+B*39:02:01 | B*48:08+B*67:01:01 |
| B*07:02:32+B*39:19:01   | B*07:134+B*39:01:01G   |                    |                    |
| B*07:02:32+B*52:15      | B*07:153+B*52:01:10    |                    |                    |
| B*07:02:33+B*18:10      | B*07:33+B*18:35        |                    |                    |
| B*07:02:33+B*18:58      | B*07:60+B*18:35        |                    |                    |

|                       |                       |                     |                  |
|-----------------------|-----------------------|---------------------|------------------|
| B*07:02:33+B*40:01:20 | B*07:106+B*40:01:24   |                     |                  |
| B*07:02:33+B*40:38    | B*07:09+B*40:01:24    |                     |                  |
| B*07:02:33+B*40:47    | B*07:149+B*40:01:24   |                     |                  |
| B*07:02:33+B*40:63    | B*07:24+B*40:01:24    |                     |                  |
| B*07:02:33+B*40:65    | B*07:87+B*40:01:24    |                     |                  |
| B*07:02:33+B*40:73    | B*07:92+B*40:01:24    |                     |                  |
| B*07:02:33+B*40:79    | B*07:23+B*40:01:24    |                     |                  |
| B*07:02:33+B*40:87:01 | B*07:68:01+B*40:01:24 |                     |                  |
| B*07:02:33+B*40:87:02 | B*07:68:03+B*40:01:24 |                     |                  |
| B*07:02:33+B*40:92    | B*07:60+B*40:01:24    |                     |                  |
| B*07:02:33+B*40:108   | B*07:159+B*40:01:24   |                     |                  |
| B*07:02:33+B*40:117   | B*07:36+B*40:01:24    |                     |                  |
| B*07:02:33+B*40:130   | B*07:33+B*40:01:01G   | B*07:53+B*40:33     |                  |
| B*07:02:33+B*40:132   | B*07:153+B*40:01:24   |                     |                  |
| B*07:02:33+B*40:172   | B*07:96:01+B*40:01:24 |                     |                  |
| B*07:02:33+B*40:192   | B*07:113+B*40:01:24   |                     |                  |
| B*07:02:33+B*40:193   | B*07:148+B*40:01:24   |                     |                  |
| B*07:02:33+B*40:199   | B*07:31+B*40:01:24    |                     |                  |
| B*07:02:33+B*41:06    | B*07:139+B*41:01      |                     |                  |
| B*07:02:33+B*41:15    | B*07:139+B*41:02:01   |                     |                  |
| B*07:02:33+B*42:08    | B*07:33+B*42:05:02    |                     |                  |
| B*07:02:33+B*42:14    | B*07:139+B*42:01:01   |                     |                  |
| B*07:03+B*07:75       | B*07:16+B*07:57       |                     |                  |
| B*07:03+B*08:03       | B*07:16+B*08:78       |                     |                  |
| B*07:03+B*08:23       | B*07:16+B*08:01:01G   |                     |                  |
| B*07:03+B*14:14       | B*07:16+B*14:01:01    |                     |                  |
| B*07:03+B*14:18       | B*07:16+B*14:02:01    |                     |                  |
| B*07:03+B*15:01:01G   | B*07:16+B*15:70       |                     |                  |
| B*07:03+B*15:03:01G   | B*07:16+B*15:61       |                     |                  |
| B*07:03+B*15:08       | B*07:08+B*15:11:01G   |                     |                  |
| B*07:03+B*15:56       | B*07:08+B*15:152      | B*07:16+B*15:236    |                  |
| B*07:03+B*15:66       | B*07:85+B*15:152      |                     |                  |
| B*07:03+B*18:01:01G   | B*07:16+B*18:03       |                     |                  |
| B*07:03+B*27:44       | B*07:16+B*27:08       |                     |                  |
| B*07:03+B*35:01:01G   | B*07:16+B*35:29:01    |                     |                  |
| B*07:03+B*35:01:15    | B*07:16+B*35:29:02    |                     |                  |
| B*07:03+B*35:03:01G   | B*07:16+B*35:136      |                     |                  |
| B*07:03+B*35:10       | B*07:16+B*35:69       |                     |                  |
| B*07:03+B*35:78       | B*07:37+B*35:29:01    |                     |                  |
| B*07:03+B*38:01:01    | B*07:16+B*38:14       |                     |                  |
| B*07:03+B*39:01:09    | B*07:85+B*39:10:01    |                     |                  |
| B*07:03+B*39:05:01    | B*07:16+B*39:01:01G   |                     |                  |
| B*07:03+B*39:13:01    | B*07:16+B*39:02:02    | B*39:10:01+B*48:08  |                  |
| B*07:03+B*39:37       | B*07:16+B*39:03       |                     |                  |
| B*07:03+B*39:55       | B*07:16+B*39:15       |                     |                  |
| B*07:03+B*40:01:01G   | B*07:16+B*40:43       |                     |                  |
| B*07:03+B*40:02:01G   | B*07:16+B*40:50       |                     |                  |
| B*07:03+B*40:07       | B*07:08+B*40:61       |                     |                  |
| B*07:03+B*41:02:01    | B*40:32+B*42:07       |                     |                  |
| B*07:03+B*42:02       | B*07:143+B*42:07      |                     |                  |
| B*07:03+B*42:10       | B*07:68:03+B*42:07    |                     |                  |
| B*07:03+B*42:11       | B*42:07+B*48:08       |                     |                  |
| B*07:03+B*42:13       | B*07:18:01+B*42:07    |                     |                  |
| B*07:03+B*42:15       | B*07:57+B*42:07       |                     |                  |
| B*07:03+B*46:16       | B*07:08+B*46:01:01G   |                     |                  |
| B*07:03+B*51:08       | B*07:16+B*51:20       |                     |                  |
| B*07:03+B*53:01:01    | B*07:16+B*53:23       |                     |                  |
| B*07:03+B*54:24       | B*07:08+B*54:01:01G   | B*07:32+B*54:16     |                  |
| B*07:03+B*55:31       | B*07:16+B*55:01:01G   |                     |                  |
| B*07:03+B*56:01:01G   | B*07:125+B*56:17      |                     |                  |
| B*07:03+B*78:02:02    | B*07:16+B*78:01:01    |                     |                  |
| B*07:03+B*81:05       | B*07:08+B*81:01:01G   |                     |                  |
| B*07:04+B*07:48       | B*07:25+B*07:26       |                     |                  |
| B*07:04+B*08:01:01G   | B*07:25+B*08:53       |                     |                  |
| B*07:04+B*08:13       | B*07:26+B*08:01:01G   | B*07:48+B*08:53     | B*07:80+B*08:07  |
| B*07:04+B*08:25       | B*07:26+B*08:21       |                     |                  |
| B*07:04+B*08:70       | B*07:55+B*08:01:01G   |                     |                  |
| B*07:04+B*13:01:01G   | B*07:25+B*13:20       |                     |                  |
| B*07:04+B*13:02:01G   | B*07:25+B*13:16       |                     |                  |
| B*07:04+B*13:03       | B*07:25+B*13:48       |                     |                  |
| B*07:04+B*13:41       | B*07:25+B*13:31       |                     |                  |
| B*07:04+B*15:05:01    | B*07:25+B*15:39:01    |                     |                  |
| B*07:04+B*15:05:02    | B*07:25+B*15:39:02    | B*07:26+B*15:179    |                  |
| B*07:04+B*15:50       | B*07:55+B*15:199      |                     |                  |
| B*07:04+B*15:52       | B*07:25+B*15:238      |                     |                  |
| B*07:04+B*15:91       | B*07:25+B*15:131      |                     |                  |
| B*07:04+B*15:123:01G  | B*07:25+B*15:03:01G   |                     |                  |
| B*07:04+B*15:222      | B*07:25+B*15:16:01    |                     |                  |
| B*07:04+B*15:237      | B*07:25+B*15:65       |                     |                  |
| B*07:04+B*18:01:01G   | B*07:25+B*18:15       |                     |                  |
| B*07:04+B*18:13       | B*07:25+B*18:30       |                     |                  |
| B*07:04+B*27:05:02G   | B*07:25+B*27:10       |                     |                  |
| B*07:04+B*27:08       | B*07:25+B*27:40       |                     |                  |
| B*07:04+B*27:61       | B*07:25+B*27:04:01G   |                     |                  |
| B*07:04+B*35:01:01G   | B*07:25+B*35:11:01    | B*07:26+B*35:115    |                  |
| B*07:04+B*35:03:01G   | B*07:25+B*35:167      | B*07:26+B*35:38     |                  |
| B*07:04+B*35:05:01    | B*07:25+B*35:58       |                     |                  |
| B*07:04+B*35:06       | B*07:80+B*35:38       |                     |                  |
| B*07:04+B*35:24:01    | B*07:25+B*35:21       |                     |                  |
| B*07:04+B*35:45       | B*07:153+B*35:115     |                     |                  |
| B*07:04+B*35:62       | B*07:25+B*35:14:01    | B*07:55+B*35:115    |                  |
| B*07:04+B*35:80       | B*07:54+B*35:115      |                     |                  |
| B*07:04+B*35:163      | B*07:55+B*35:38       |                     |                  |
| B*07:04+B*35:190      | B*07:25+B*35:188      |                     |                  |
| B*07:04+B*37:01:01G   | B*07:25+B*37:13       |                     |                  |
| B*07:04+B*38:01:01    | B*07:25+B*38:32       |                     |                  |
| B*07:04+B*38:36       | B*07:25+B*38:10       |                     |                  |
| B*07:04+B*39:01:01G   | B*07:25+B*39:35       |                     |                  |
| B*07:04+B*40:01:01G   | B*07:25+B*40:183      |                     |                  |
| B*07:04+B*40:06:01G   | B*07:25+B*40:148      |                     |                  |
| B*07:04+B*40:14:01    | B*07:26+B*40:136      |                     |                  |
| B*07:04+B*40:72:01    | B*07:147+B*40:136     |                     |                  |
| B*07:04+B*40:128      | B*07:25+B*40:198      |                     |                  |
| B*07:04+B*44:03:01G   | B*07:25+B*44:79       | B*07:26+B*44:02:01G | B*07:131+B*44:21 |
| B*07:04+B*44:03:02    | B*07:26+B*44:02:07    |                     |                  |

|                         |                        |                     |                    |
|-------------------------|------------------------|---------------------|--------------------|
| B*07:04+B*44:03:05      | B*07:26+B*44:02:24     |                     |                    |
| B*07:04+B*44:04         | B*07:31+B*44:21        | B*07:153+B*44:132   |                    |
| B*07:04+B*44:13         | B*07:26+B*44:67        |                     |                    |
| B*07:04+B*44:29         | B*07:26+B*44:89        |                     |                    |
| B*07:04+B*44:37:01      | B*07:26+B*44:91        | B*07:131+B*44:16    |                    |
| B*07:04+B*44:40         | B*07:26+B*44:44        |                     |                    |
| B*07:04+B*44:43:01      | B*07:26+B*44:17        |                     |                    |
| B*07:04+B*44:45         | B*07:26+B*44:51        |                     |                    |
| B*07:04+B*44:46         | B*07:26+B*44:09        |                     |                    |
| B*07:04+B*44:47         | B*07:26+B*44:20        |                     |                    |
| B*07:04+B*44:50         | B*07:26+B*44:95        |                     |                    |
| B*07:04+B*44:54         | B*07:26+B*44:106       |                     |                    |
| B*07:04+B*44:57         | B*07:26+B*44:08        |                     |                    |
| B*07:04+B*44:64:02      | B*07:26+B*44:16        |                     |                    |
| B*07:04+B*44:65         | B*07:26+B*44:41:01     |                     |                    |
| B*07:04+B*44:77         | B*07:80+B*44:123       |                     |                    |
| B*07:04+B*44:105        | B*07:26+B*44:22        |                     |                    |
| B*07:04+B*44:107        | B*07:26+B*44:123       |                     |                    |
| B*07:04+B*46:09         | B*07:25+B*46:01:01G    |                     |                    |
| B*07:04+B*46:13:03      | B*07:25+B*46:08        |                     |                    |
| B*07:04+B*48:01:01G     | B*07:25+B*48:15        |                     |                    |
| B*07:04+B*48:02:01      | B*07:25+B*48:25        |                     |                    |
| B*07:04+B*49:11         | B*07:25+B*49:01:01     |                     |                    |
| B*07:04+B*51:09:01      | B*07:25+B*51:01:01G    | B*07:26+B*51:08     |                    |
| B*07:04+B*51:09:02      | B*07:25+B*51:01:02     |                     |                    |
| B*07:04+B*51:31         | B*07:25+B*51:16        |                     |                    |
| B*07:04+B*51:40         | B*07:25+B*51:02:05     |                     |                    |
| B*07:04+B*51:42         | B*07:26+B*44:06        |                     |                    |
| B*07:04+B*51:108        | B*07:25+B*51:23        |                     |                    |
| B*07:04+B*52:10:01      | B*07:25+B*52:01:01G    | B*07:26+B*52:19     |                    |
| B*07:04+B*52:10:02      | B*07:25+B*52:01:07     |                     |                    |
| B*07:04+B*53:01:01      | B*07:25+B*53:08:01     |                     |                    |
| B*07:04+B*53:01:03      | B*07:25+B*53:08:02     |                     |                    |
| B*07:04+B*53:11         | B*07:149+B*35:115      |                     |                    |
| B*07:04+B*53:16         | B*07:81+B*35:115       |                     |                    |
| B*07:04+B*53:24         | B*07:36+B*35:115       |                     |                    |
| B*07:04+B*54:10         | B*07:25+B*54:20        |                     |                    |
| B*07:04+B*55:01:01G     | B*07:26+B*55:56        |                     |                    |
| B*07:04+B*55:02:01G     | B*07:25+B*55:01:01G    | B*07:48+B*55:56     |                    |
| B*07:04+B*55:21         | B*07:55+B*55:56        |                     |                    |
| B*07:04+B*55:22         | B*07:25+B*55:24        |                     |                    |
| B*07:04+B*55:37         | B*07:25+B*55:52        |                     |                    |
| B*07:04+B*56:01:01G     | B*07:25+B*56:25        | B*07:26+B*56:13     |                    |
| B*07:04+B*56:18         | B*07:25+B*56:32        |                     |                    |
| B*07:04+B*57:01:01G     | B*07:25+B*57:22        | B*07:26+B*57:24     |                    |
| B*07:04+B*57:03:01      | B*07:25+B*57:57        | B*07:48+B*57:09     |                    |
| B*07:04+B*57:57         | B*07:26+B*57:09        |                     |                    |
| B*07:04+B*58:01:01G     | B*07:25+B*58:19        |                     |                    |
| B*07:04+B*58:02         | B*07:25+B*58:06        |                     |                    |
| B*07:05:01G+B*07:20     | B*07:24+B*07:140       |                     |                    |
| B*07:05:01G+B*07:56:01  | B*07:05:04+B*07:56:02  |                     |                    |
| B*07:05:01G+B*07:60     | B*07:24+B*07:53        |                     |                    |
| B*07:05:01G+B*07:131    | B*07:24+B*07:80        |                     |                    |
| B*07:05:01G+B*07:147    | B*07:80+B*07:151       |                     |                    |
| B*07:05:01G+B*08:01:01G | B*07:05:04+B*08:01:11  | B*08:79+B*42:01:01  |                    |
| B*07:05:01G+B*08:09     | B*08:79+B*42:04        |                     |                    |
| B*07:05:01G+B*08:13     | B*07:34+B*08:40        |                     |                    |
| B*07:05:01G+B*08:28     | B*07:09+B*08:74        | B*07:17+B*08:01:01G | B*07:96:01+B*08:35 |
| B*07:05:01G+B*08:47     | B*08:79+B*42:15        |                     |                    |
| B*07:05:01G+B*08:58     | B*07:138+B*08:01:01G   |                     |                    |
| B*07:05:01G+B*08:69     | B*08:79+B*42:06        |                     |                    |
| B*07:05:01G+B*08:71     | B*08:79+B*42:10        |                     |                    |
| B*07:05:01G+B*08:87     | B*07:28+B*08:01:01G    | B*07:118+B*08:74    |                    |
| B*07:05:01G+B*08:89     | B*07:07+B*08:35        | B*07:09+B*08:12:01  |                    |
| B*07:05:01G+B*13:01:01G | B*07:123+B*13:36       |                     |                    |
| B*07:05:01G+B*13:02:01G | B*07:80+B*13:18        |                     |                    |
| B*07:05:01G+B*13:51     | B*07:115+B*13:13       |                     |                    |
| B*07:05:01G+B*13:53     | B*07:34+B*13:18        |                     |                    |
| B*07:05:01G+B*14:02:01  | B*07:80+B*14:03        |                     |                    |
| B*07:05:01G+B*14:02:03  | B*07:69+B*14:21        |                     |                    |
| B*07:05:01G+B*14:05     | B*07:115+B*14:13       |                     |                    |
| B*07:05:01G+B*15:01:01G | B*07:09+B*15:30        | B*07:123+B*15:15    |                    |
| B*07:05:01G+B*15:01:02  | B*07:05:03+B*15:01:01G |                     |                    |
| B*07:05:01G+B*15:01:24  | B*07:05:05+B*15:01:01G |                     |                    |
| B*07:05:01G+B*15:03:01G | B*07:05:04+B*15:03:03  | B*07:123+B*15:64    |                    |
| B*07:05:01G+B*15:05:01  | B*07:80+B*15:237       |                     |                    |
| B*07:05:01G+B*15:10:01  | B*07:05:04+B*15:10:02  | B*07:80+B*15:99     |                    |
| B*07:05:01G+B*15:11:04  | B*07:05:04+B*15:11:01G |                     |                    |
| B*07:05:01G+B*15:14     | B*07:140+B*15:01:01G   |                     |                    |
| B*07:05:01G+B*15:17:01G | B*07:53+B*15:230       |                     |                    |
| B*07:05:01G+B*15:18:01G | B*07:80+B*15:221       |                     |                    |
| B*07:05:01G+B*15:25:01G | B*07:123+B*15:02:01G   |                     |                    |
| B*07:05:01G+B*15:25:02  | B*07:123+B*15:02:05    |                     |                    |
| B*07:05:01G+B*15:36     | B*07:123+B*15:89       |                     |                    |
| B*07:05:01G+B*15:39:01  | B*07:80+B*15:65        |                     |                    |
| B*07:05:01G+B*15:40     | B*07:53+B*15:138       |                     |                    |
| B*07:05:01G+B*15:56     | B*07:123+B*15:08       |                     |                    |
| B*07:05:01G+B*15:78:02  | B*07:09+B*15:150       |                     |                    |
| B*07:05:01G+B*15:91     | B*07:140+B*15:123:01G  |                     |                    |
| B*07:05:01G+B*15:101    | B*07:123+B*15:76       |                     |                    |
| B*07:05:01G+B*15:117    | B*07:53+B*15:241       |                     |                    |
| B*07:05:01G+B*15:128    | B*07:17+B*15:30        |                     |                    |
| B*07:05:01G+B*15:131    | B*07:140+B*15:03:01G   |                     |                    |
| B*07:05:01G+B*15:135    | B*07:11+B*15:30        |                     |                    |
| B*07:05:01G+B*15:152    | B*07:123+B*15:11:01G   |                     |                    |
| B*07:05:01G+B*15:161    | B*07:140+B*15:18:01G   |                     |                    |
| B*07:05:01G+B*15:233    | B*07:28+B*15:30        |                     |                    |
| B*07:05:01G+B*15:236    | B*07:32+B*15:101       |                     |                    |
| B*07:05:01G+B*15:243    | B*07:123+B*15:09       |                     |                    |
| B*07:05:01G+B*18:01:01G | B*07:09+B*18:26        | B*07:80+B*18:13     |                    |
| B*07:05:01G+B*18:12     | B*07:123+B*18:01:01G   |                     |                    |
| B*07:05:01G+B*18:15     | B*07:80+B*18:30        |                     |                    |
| B*07:05:01G+B*18:20     | B*07:17+B*18:26        |                     |                    |
| B*07:05:01G+B*18:40     | B*07:09+B*18:61        |                     |                    |
| B*07:05:01G+B*18:49     | B*07:11+B*18:26        |                     |                    |

|                         |                        |                      |                     |                  |
|-------------------------|------------------------|----------------------|---------------------|------------------|
| B*07:05:01G+B*27:04:03  | B*07:05:03+B*27:04:01G |                      |                     |                  |
| B*07:05:01G+B*27:05:02G | B*07:80+B*27:45        |                      |                     |                  |
| B*07:05:01G+B*27:05:12  | B*07:05:06+B*27:05:02G |                      |                     |                  |
| B*07:05:01G+B*27:35     | B*07:115+B*27:27       |                      |                     |                  |
| B*07:05:01G+B*27:41     | B*07:09+B*27:27        |                      |                     |                  |
| B*07:05:01G+B*27:50     | B*07:140+B*27:05:03    |                      |                     |                  |
| B*07:05:01G+B*27:57     | B*07:97+B*27:02:01     |                      |                     |                  |
| B*07:05:01G+B*27:71     | B*07:34+B*27:45        |                      |                     |                  |
| B*07:05:01G+B*35:01:01G | B*07:09+B*35:04:01     | B*07:80+B*35:08:01   | B*07:137+B*35:05:01 | B*07:162+B*35:22 |
| B*07:05:01G+B*35:01:04  | B*07:80+B*35:08:03     |                      |                     |                  |
| B*07:05:01G+B*35:01:06  | B*07:05:05+B*35:01:01G |                      |                     |                  |
| B*07:05:01G+B*35:01:10  | B*07:05:03+B*35:01:01G | B*07:09+B*35:04:02   |                     |                  |
| B*07:05:01G+B*35:01:17  | B*07:09+B*35:04:03     |                      |                     |                  |
| B*07:05:01G+B*35:02:01  | B*07:80+B*35:172       |                      |                     |                  |
| B*07:05:01G+B*35:04:02  | B*07:05:03+B*35:04:01  |                      |                     |                  |
| B*07:05:01G+B*35:09:02  | B*07:80+B*35:18        |                      |                     |                  |
| B*07:05:01G+B*35:10     | B*07:80+B*35:80        | B*07:123+B*35:01:01G |                     |                  |
| B*07:05:01G+B*35:11:01  | B*07:137+B*35:58       |                      |                     |                  |
| B*07:05:01G+B*35:12:02  | B*07:137+B*35:22       |                      |                     |                  |
| B*07:05:01G+B*35:13     | B*07:54+B*35:06        | B*07:123+B*35:03:01G |                     |                  |
| B*07:05:01G+B*35:16     | B*07:123+B*35:17       |                      |                     |                  |
| B*07:05:01G+B*35:20:01  | B*07:137+B*35:72       |                      |                     |                  |
| B*07:05:01G+B*35:27     | B*07:11+B*35:04:01     |                      |                     |                  |
| B*07:05:01G+B*35:28     | B*07:123+B*35:20:01    |                      |                     |                  |
| B*07:05:01G+B*35:29:01  | B*07:32+B*35:76        |                      |                     |                  |
| B*07:05:01G+B*35:43:01G | B*07:09+B*35:44        |                      |                     |                  |
| B*07:05:01G+B*35:45     | B*07:140+B*35:08:01    |                      |                     |                  |
| B*07:05:01G+B*35:51     | B*07:09+B*35:22        |                      |                     |                  |
| B*07:05:01G+B*35:56     | B*07:57+B*35:06        |                      |                     |                  |
| B*07:05:01G+B*35:64     | B*07:09+B*35:09:02     | B*07:137+B*35:114    |                     |                  |
| B*07:05:01G+B*35:69     | B*07:123+B*35:29:01    |                      |                     |                  |
| B*07:05:01G+B*35:71     | B*07:80+B*35:45        | B*07:140+B*35:01:01G |                     |                  |
| B*07:05:01G+B*35:74     | B*07:92+B*35:06        |                      |                     |                  |
| B*07:05:01G+B*35:80     | B*07:123+B*35:08:01    |                      |                     |                  |
| B*07:05:01G+B*35:124    | B*07:80+B*35:142       |                      |                     |                  |
| B*07:05:01G+B*35:146    | B*07:09+B*35:02:01     |                      |                     |                  |
| B*07:05:01G+B*35:159    | B*07:80+B*35:105       |                      |                     |                  |
| B*07:05:01G+B*35:169    | B*07:140+B*35:38       |                      |                     |                  |
| B*07:05:01G+B*35:195    | B*07:93+B*35:06        |                      |                     |                  |
| B*07:05:01G+B*37:27     | B*07:97+B*37:01:01G    |                      |                     |                  |
| B*07:05:01G+B*38:04     | B*07:123+B*38:02:03    |                      |                     |                  |
| B*07:05:01G+B*38:14     | B*07:69+B*38:26        |                      |                     |                  |
| B*07:05:01G+B*39:01:01G | B*07:05:04+B*39:01:14  | B*07:69+B*67:01:01   |                     |                  |
| B*07:05:01G+B*39:01:09  | B*07:69+B*67:01:02     |                      |                     |                  |
| B*07:05:01G+B*39:02:01  | B*07:123+B*39:39:01    |                      |                     |                  |
| B*07:05:01G+B*39:05:01  | B*07:80+B*39:11        |                      |                     |                  |
| B*07:05:01G+B*39:13:01  | B*07:05:04+B*39:13:02  |                      |                     |                  |
| B*07:05:01G+B*39:22     | B*07:123+B*39:01:01G   |                      |                     |                  |
| B*07:05:01G+B*39:23     | B*07:90+B*39:02:02     |                      |                     |                  |
| B*07:05:01G+B*39:44     | B*07:90+B*39:01:01G    |                      |                     |                  |
| B*07:05:01G+B*39:58     | B*07:32+B*67:01:01     |                      |                     |                  |
| B*07:05:01G+B*40:01:01G | B*07:80+B*40:128       | B*07:123+B*40:25     |                     |                  |
| B*07:05:01G+B*40:01:06  | B*07:05:03+B*40:01:01G |                      |                     |                  |
| B*07:05:01G+B*40:02:01G | B*07:05:04+B*40:02:04  |                      |                     |                  |
| B*07:05:01G+B*40:07     | B*07:123+B*40:106      |                      |                     |                  |
| B*07:05:01G+B*40:10:01  | B*07:05:04+B*40:10:02  |                      |                     |                  |
| B*07:05:01G+B*40:20     | B*07:07+B*40:105       | B*07:09+B*40:11:01   |                     |                  |
| B*07:05:01G+B*40:59     | B*07:162+B*40:80       |                      |                     |                  |
| B*07:05:01G+B*40:64     | B*07:137+B*40:02:01G   |                      |                     |                  |
| B*07:05:01G+B*40:80     | B*40:16+B*81:01:01G    |                      |                     |                  |
| B*07:05:01G+B*40:92     | B*07:53+B*40:63        |                      |                     |                  |
| B*07:05:01G+B*40:120    | B*07:12+B*40:02:01G    | B*07:137+B*40:24     |                     |                  |
| B*07:05:01G+B*40:132    | B*07:140+B*40:01:01G   |                      |                     |                  |
| B*07:05:01G+B*40:148    | B*07:80+B*40:161       |                      |                     |                  |
| B*07:05:01G+B*40:159    | B*07:09+B*40:06:01G    |                      |                     |                  |
| B*07:05:01G+B*40:178    | B*07:53+B*40:132       |                      |                     |                  |
| B*07:05:01G+B*40:183    | B*07:80+B*40:198       |                      |                     |                  |
| B*07:05:01G+B*40:199    | B*07:34+B*40:128       |                      |                     |                  |
| B*07:05:01G+B*41:02:01  | B*40:16+B*42:01:01     |                      |                     |                  |
| B*07:05:01G+B*41:15     | B*40:16+B*42:14        |                      |                     |                  |
| B*07:05:01G+B*41:18     | B*40:32+B*42:06        |                      |                     |                  |
| B*07:05:01G+B*42:08     | B*07:53+B*42:05:01     |                      |                     |                  |
| B*07:05:01G+B*42:09     | B*07:09+B*42:02        |                      |                     |                  |
| B*07:05:01G+B*42:13     | B*07:137+B*42:01:01    |                      |                     |                  |
| B*07:05:01G+B*44:02:01G | B*07:96:01+B*44:14     | B*07:123+B*44:12     | B*07:140+B*44:91    |                  |
| B*07:05:01G+B*44:02:07  | B*07:137+B*44:106      |                      |                     |                  |
| B*07:05:01G+B*44:03:01G | B*07:28+B*44:77        | B*07:80+B*44:28:02   | B*07:140+B*44:37:01 |                  |
| B*07:05:01G+B*44:03:02  | B*07:80+B*44:28:01     | B*07:137+B*44:54     | B*07:140+B*44:37:02 |                  |
| B*07:05:01G+B*44:05:01  | B*07:140+B*44:42       |                      |                     |                  |
| B*07:05:01G+B*44:21     | B*07:140+B*44:16       |                      |                     |                  |
| B*07:05:01G+B*44:43:01  | B*07:09+B*44:77        |                      |                     |                  |
| B*07:05:01G+B*44:45     | B*07:118+B*44:77       |                      |                     |                  |
| B*07:05:01G+B*44:79     | B*07:80+B*44:76        |                      |                     |                  |
| B*07:05:01G+B*44:117    | B*07:115+B*44:123      |                      |                     |                  |
| B*07:05:01G+B*44:124    | B*07:140+B*44:64:01    |                      |                     |                  |
| B*07:05:01G+B*44:144    | B*07:17+B*44:77        |                      |                     |                  |
| B*07:05:01G+B*45:01:01G | B*07:140+B*45:04       |                      |                     |                  |
| B*07:05:01G+B*46:17     | B*07:140+B*46:01:01G   |                      |                     |                  |
| B*07:05:01G+B*48:04     | B*07:53+B*48:01:01G    |                      |                     |                  |
| B*07:05:01G+B*48:08     | B*07:50+B*07:123       |                      |                     |                  |
| B*07:05:01G+B*48:13     | B*07:53+B*48:10        |                      |                     |                  |
| B*07:05:01G+B*48:23     | B*07:09+B*48:03:01     |                      |                     |                  |
| B*07:05:01G+B*49:20     | B*07:140+B*49:01:01    |                      |                     |                  |
| B*07:05:01G+B*50:01:01  | B*07:123+B*50:15       |                      |                     |                  |
| B*07:05:01G+B*50:02     | B*07:140+B*50:01:01    |                      |                     |                  |
| B*07:05:01G+B*51:01:01G | B*07:05:03+B*51:01:04  | B*07:80+B*51:29      |                     |                  |
| B*07:05:01G+B*51:02:01  | B*07:05:03+B*51:02:04  |                      |                     |                  |
| B*07:05:01G+B*51:04     | B*07:137+B*51:64       |                      |                     |                  |
| B*07:05:01G+B*51:13:02  | B*07:05:03+B*51:13:01  |                      |                     |                  |
| B*07:05:01G+B*51:16     | B*07:80+B*51:82        |                      |                     |                  |
| B*07:05:01G+B*51:21     | B*07:34+B*51:82        |                      |                     |                  |
| B*07:05:01G+B*51:23     | B*07:140+B*51:02:01    |                      |                     |                  |
| B*07:05:01G+B*51:24:03  | B*07:05:03+B*51:24:02  |                      |                     |                  |
| B*07:05:01G+B*52:01:01G | B*07:05:03+B*52:01:05  | B*07:80+B*52:24      | B*07:123+B*51:07:02 |                  |
| B*07:05:01G+B*52:01:02  | B*07:123+B*51:07:01    |                      |                     |                  |

|                         |                        |                       |                       |
|-------------------------|------------------------|-----------------------|-----------------------|
| B*07:05:01G+B*52:06:01  | B*07:123+B*51:01:33    |                       |                       |
| B*07:05:01G+B*52:06:02  | B*07:123+B*51:01:01G   |                       |                       |
| B*07:05:01G+B*52:15     | B*07:140+B*52:01:01G   |                       |                       |
| B*07:05:01G+B*52:26     | B*07:28+B*52:01:01G    |                       |                       |
| B*07:05:01G+B*53:01:01  | B*07:80+B*53:24        | B*07:137+B*53:14      |                       |
| B*07:05:01G+B*53:04     | B*07:36+B*35:06        |                       |                       |
| B*07:05:01G+B*53:05     | B*07:80+B*53:16        |                       |                       |
| B*07:05:01G+B*53:13     | B*07:80+B*53:11        |                       |                       |
| B*07:05:01G+B*54:01:01G | B*07:80+B*54:10        |                       |                       |
| B*07:05:01G+B*54:14     | B*07:09+B*54:04        |                       |                       |
| B*07:05:01G+B*55:01:01G | B*07:34+B*55:09        | B*07:80+B*55:52       |                       |
| B*07:05:01G+B*55:01:04  | B*07:05:03+B*55:01:01G |                       |                       |
| B*07:05:01G+B*55:02:01G | B*07:80+B*55:37        |                       |                       |
| B*07:05:01G+B*55:24     | B*07:80+B*55:09        |                       |                       |
| B*07:05:01G+B*55:34     | B*07:123+B*55:47       |                       |                       |
| B*07:05:01G+B*55:40     | B*07:123+B*55:01:01G   |                       |                       |
| B*07:05:01G+B*56:33     | B*07:69+B*56:01:01G    |                       |                       |
| B*07:05:01G+B*57:01:01G | B*07:09+B*57:03:01     | B*07:80+B*57:19       |                       |
| B*07:05:01G+B*57:01:09  | B*07:05:04+B*57:01:01G |                       |                       |
| B*07:05:01G+B*57:03:01  | B*07:80+B*57:02:01     |                       |                       |
| B*07:05:01G+B*57:04     | B*07:28+B*57:02:01     |                       |                       |
| B*07:05:01G+B*57:07     | B*07:140+B*57:03:01    |                       |                       |
| B*07:05:01G+B*57:19     | B*07:09+B*57:02:01     |                       |                       |
| B*07:05:01G+B*57:22     | B*07:09+B*57:57        |                       |                       |
| B*07:05:01G+B*57:41     | B*07:17+B*57:03:01     |                       |                       |
| B*07:05:01G+B*58:01:01G | B*07:80+B*58:22        | B*07:137+B*58:18      |                       |
| B*07:05:01G+B*58:07     | B*07:140+B*58:02       |                       |                       |
| B*07:05:01G+B*78:01:01  | B*07:32+B*56:06        |                       |                       |
| B*07:05:01G+B*78:03     | B*07:69+B*56:06        |                       |                       |
| B*07:05:03+B*15:01:24   | B*07:05:05+B*15:01:02  |                       |                       |
| B*07:05:03+B*15:14      | B*07:140+B*15:01:02    |                       |                       |
| B*07:05:03+B*15:18:01G  | B*07:09+B*15:09        |                       |                       |
| B*07:05:03+B*15:90      | B*07:52+B*15:09        |                       |                       |
| B*07:05:03+B*15:93      | B*07:09+B*15:252       |                       |                       |
| B*07:05:03+B*35:01:06   | B*07:05:05+B*35:01:10  |                       |                       |
| B*07:05:03+B*35:10      | B*07:123+B*35:01:10    |                       |                       |
| B*07:05:03+B*35:27      | B*07:11+B*35:04:02     |                       |                       |
| B*07:05:03+B*35:71      | B*07:140+B*35:01:10    |                       |                       |
| B*07:05:03+B*40:132     | B*07:140+B*40:01:06    |                       |                       |
| B*07:05:03+B*44:02:01G  | B*07:28+B*44:62        |                       |                       |
| B*07:05:03+B*44:05:01   | B*07:96:01+B*44:62     |                       |                       |
| B*07:05:03+B*44:17      | B*07:09+B*44:62        |                       |                       |
| B*07:05:03+B*51:45      | B*07:09+B*51:06:01     |                       |                       |
| B*07:05:03+B*53:06      | B*07:09+B*51:56:02     | B*07:162+B*51:64      |                       |
| B*07:05:03+B*55:40      | B*07:123+B*55:01:04    |                       |                       |
| B*07:05:04+B*15:152     | B*07:123+B*15:11:04    |                       |                       |
| B*07:05:04+B*35:198     | B*07:32+B*56:11        |                       |                       |
| B*07:05:05+B*15:14      | B*07:140+B*15:01:24    |                       |                       |
| B*07:05:05+B*35:10      | B*07:123+B*35:01:06    |                       |                       |
| B*07:05:05+B*35:71      | B*07:140+B*35:01:06    |                       |                       |
| B*07:07+B*08:02         | B*07:149+B*08:12:01    |                       |                       |
| B*07:07+B*08:15         | B*07:92+B*08:12:01     |                       |                       |
| B*07:07+B*08:18         | B*07:102+B*08:12:01    |                       |                       |
| B*07:07+B*08:23         | B*07:91+B*08:12:01     |                       |                       |
| B*07:07+B*08:28         | B*07:96:01+B*08:89     |                       |                       |
| B*07:07+B*08:32         | B*07:134+B*08:12:01    |                       |                       |
| B*07:07+B*08:39         | B*07:93+B*08:12:01     |                       |                       |
| B*07:07+B*08:43         | B*07:124+B*08:12:01    |                       |                       |
| B*07:07+B*08:47         | B*07:57+B*08:12:01     |                       |                       |
| B*07:07+B*08:52         | B*07:81+B*08:12:01     |                       |                       |
| B*07:07+B*08:58         | B*07:158+B*08:12:01    |                       |                       |
| B*07:07+B*08:60         | B*07:18:02+B*08:01:01G |                       |                       |
| B*07:07+B*08:64         | B*07:113+B*08:12:01    |                       |                       |
| B*07:07+B*08:71         | B*07:68:03+B*08:12:01  |                       |                       |
| B*07:07+B*08:74         | B*07:96:01+B*08:12:01  |                       |                       |
| B*07:07+B*08:77         | B*07:74+B*08:12:01     |                       |                       |
| B*07:07+B*08:78         | B*07:36+B*08:12:01     |                       |                       |
| B*07:07+B*13:01:01G     | B*07:18:01+B*13:11     |                       |                       |
| B*07:07+B*15:20         | B*07:12+B*15:05:02     |                       |                       |
| B*07:07+B*15:25:02      | B*07:14+B*15:39:01     |                       |                       |
| B*07:07+B*15:32         | B*07:77+B*15:01:01G    |                       |                       |
| B*07:07+B*15:62         | B*07:12+B*15:03:01G    |                       |                       |
| B*07:07+B*15:77         | B*07:18:02+B*15:233    |                       |                       |
| B*07:07+B*15:80         | B*07:18:02+B*15:18:01G |                       |                       |
| B*07:07+B*15:85         | B*07:12+B*15:01:01G    | B*07:162+B*15:63      |                       |
| B*07:07+B*15:154        | B*07:18:02+B*15:01:01G |                       |                       |
| B*07:07+B*18:18         | B*07:77+B*18:01:01G    |                       |                       |
| B*07:07+B*27:14         | B*07:84+B*27:70        |                       |                       |
| B*07:07+B*27:19         | B*07:18:02+B*27:70     |                       |                       |
| B*07:07+B*35:01:01G     | B*07:12+B*35:32:02     | B*07:18:01+B*35:68:02 | B*07:18:02+B*35:68:01 |
| B*07:07+B*35:01:04      | B*07:18:02+B*35:68:02  |                       |                       |
| B*07:07+B*35:03:01G     | B*07:18:01+B*35:151    |                       |                       |
| B*07:07+B*35:06         | B*07:137+B*35:151      |                       |                       |
| B*07:07+B*35:14:02      | B*07:12+B*35:43:01G    |                       |                       |
| B*07:07+B*35:37         | B*07:84+B*35:32:01     |                       |                       |
| B*07:07+B*35:48         | B*07:77+B*35:01:04     |                       |                       |
| B*07:07+B*38:20         | B*07:18:02+B*38:01:01  |                       |                       |
| B*07:07+B*39:09         | B*07:77+B*39:01:01G    |                       |                       |
| B*07:07+B*39:42         | B*07:18:02+B*39:01:01G |                       |                       |
| B*07:07+B*40:19         | B*07:36+B*40:11:01     |                       |                       |
| B*07:07+B*40:35         | B*07:68:03+B*40:11:01  |                       |                       |
| B*07:07+B*40:37         | B*07:57+B*40:11:01     |                       |                       |
| B*07:07+B*40:39         | B*07:31+B*40:11:01     |                       |                       |
| B*07:07+B*40:57         | B*07:71+B*40:11:01     |                       |                       |
| B*07:07+B*40:59         | B*07:12+B*40:52        | B*07:162+B*40:33      |                       |
| B*07:07+B*40:64         | B*07:18:01+B*40:11:01  | B*07:18:02+B*40:11:02 |                       |
| B*07:07+B*40:70         | B*07:84+B*40:11:01     |                       |                       |
| B*07:07+B*40:89         | B*07:96:01+B*40:11:01  |                       |                       |
| B*07:07+B*40:115        | B*07:94+B*40:11:01     |                       |                       |
| B*07:07+B*40:137        | B*07:18:01+B*40:21     |                       |                       |
| B*07:07+B*40:157        | B*07:149+B*40:11:01    |                       |                       |
| B*07:07+B*40:160        | B*07:18:02+B*40:01:01G |                       |                       |
| B*07:07+B*44:02:01G     | B*07:18:02+B*44:41:01  |                       |                       |
| B*07:07+B*44:02:07      | B*07:18:01+B*44:41:01  | B*07:18:02+B*44:41:02 |                       |
| B*07:07+B*44:03:01G     | B*07:18:02+B*44:65     |                       |                       |

|                     |                       |                       |                     |
|---------------------|-----------------------|-----------------------|---------------------|
| B*07:07+B*44:03:02  | B*07:18:01+B*44:65    |                       |                     |
| B*07:07+B*46:33     | B*07:12+B*46:13:01    |                       |                     |
| B*07:07+B*48:04     | B*07:33+B*48:03:01    |                       |                     |
| B*07:07+B*48:18     | B*07:81+B*48:03:01    |                       |                     |
| B*07:07+B*48:27     | B*07:74+B*48:03:01    |                       |                     |
| B*07:07+B*48:28     | B*07:109+B*48:03:01   |                       |                     |
| B*07:07+B*51:04     | B*07:18:01+B*51:06:01 | B*07:18:02+B*51:06:02 | B*07:137+B*51:135   |
| B*07:07+B*51:56:02  | B*07:12+B*51:06:01    |                       |                     |
| B*07:07+B*53:06     | B*07:12+B*51:45       |                       |                     |
| B*07:07+B*53:14     | B*07:36+B*35:68:02    |                       |                     |
| B*07:07+B*54:14     | B*07:84+B*54:09       |                       |                     |
| B*07:07+B*55:23     | B*07:84+B*56:18       |                       |                     |
| B*07:07+B*56:01:01G | B*07:84+B*56:04       |                       |                     |
| B*07:07+B*58:01:01G | B*07:18:01+B*58:16    |                       |                     |
| B*07:08+B*07:10     | B*07:83+B*07:85       |                       |                     |
| B*07:08+B*07:34     | B*07:32+B*07:43       |                       |                     |
| B*07:08+B*07:53     | B*07:32+B*07:33       |                       |                     |
| B*07:08+B*07:69     | B*07:32+B*07:85       |                       |                     |
| B*07:08+B*07:80     | B*07:26+B*07:32       |                       |                     |
| B*07:08+B*07:91     | B*07:16+B*07:83       |                       |                     |
| B*07:08+B*07:123    | B*07:32+B*07:54       |                       |                     |
| B*07:08+B*07:137    | B*07:18:01+B*07:32    |                       |                     |
| B*07:08+B*07:138    | B*07:32+B*07:158      |                       |                     |
| B*07:08+B*07:140    | B*07:32+B*07:153      |                       |                     |
| B*07:08+B*08:01:01G | B*07:32+B*08:07       |                       |                     |
| B*07:08+B*08:03     | B*07:38+B*08:01:01G   |                       |                     |
| B*07:08+B*08:35     | B*07:32+B*08:37       |                       |                     |
| B*07:08+B*08:54     | B*08:01:01G+B*48:08   |                       |                     |
| B*07:08+B*08:65     | B*07:69+B*08:07       | B*07:85+B*08:01:01G   |                     |
| B*07:08+B*15:01:01G | B*07:50+B*15:236      |                       |                     |
| B*07:08+B*15:18:01G | B*07:85+B*15:29       |                       |                     |
| B*07:08+B*15:24     | B*07:38+B*15:70       |                       |                     |
| B*07:08+B*15:30     | B*07:32+B*15:63       |                       |                     |
| B*07:08+B*15:43     | B*07:27+B*15:236      |                       |                     |
| B*07:08+B*15:66     | B*07:85+B*15:56       |                       |                     |
| B*07:08+B*15:229    | B*07:32+B*15:133      |                       |                     |
| B*07:08+B*18:33     | B*07:85+B*18:07:01    |                       |                     |
| B*07:08+B*27:26     | B*07:83+B*27:12       |                       |                     |
| B*07:08+B*35:04:01  | B*07:32+B*35:34       |                       |                     |
| B*07:08+B*35:06     | B*07:32+B*35:03:01G   |                       |                     |
| B*07:08+B*35:12:01  | B*07:32+B*35:39       |                       |                     |
| B*07:08+B*35:20:01  | B*07:50+B*35:29:01    |                       |                     |
| B*07:08+B*35:22     | B*07:32+B*35:199      |                       |                     |
| B*07:08+B*35:28     | B*07:50+B*35:69       | B*35:29:01+B*48:08    |                     |
| B*07:08+B*35:82     | B*07:85+B*35:01:01G   |                       |                     |
| B*07:08+B*35:85     | B*07:85+B*35:03:01G   |                       |                     |
| B*07:08+B*35:135    | B*07:85+B*35:43:01G   |                       |                     |
| B*07:08+B*38:01:01  | B*07:38+B*39:01:01G   |                       |                     |
| B*07:08+B*38:01:03  | B*07:38+B*39:01:05    |                       |                     |
| B*07:08+B*38:02:01G | B*07:32+B*38:29       |                       |                     |
| B*07:08+B*38:19     | B*07:38+B*39:03       |                       |                     |
| B*07:08+B*38:20     | B*07:38+B*39:42       |                       |                     |
| B*07:08+B*38:26     | B*07:36+B*39:58       |                       |                     |
| B*07:08+B*38:32     | B*07:38+B*39:35       |                       |                     |
| B*07:08+B*38:33     | B*07:38+B*39:04       |                       |                     |
| B*07:08+B*38:36     | B*07:38+B*39:30       |                       |                     |
| B*07:08+B*39:01:01G | B*07:32+B*39:15       | B*07:85+B*39:58       |                     |
| B*07:08+B*39:05:01  | B*07:32+B*39:55       |                       |                     |
| B*07:08+B*39:13:01  | B*07:32+B*39:49       |                       |                     |
| B*07:08+B*39:14     | B*07:32+B*39:29       |                       |                     |
| B*07:08+B*40:01:01G | B*07:32+B*40:33       |                       |                     |
| B*07:08+B*40:02:01G | B*07:32+B*40:18       |                       |                     |
| B*07:08+B*40:06:01G | B*07:32+B*40:44       |                       |                     |
| B*07:08+B*40:16     | B*07:32+B*40:32       |                       |                     |
| B*07:08+B*40:19     | B*07:38+B*40:50       |                       |                     |
| B*07:08+B*40:38     | B*07:32+B*40:52       |                       |                     |
| B*07:08+B*40:75     | B*07:85+B*40:162      |                       |                     |
| B*07:08+B*40:80     | B*07:32+B*40:31       |                       |                     |
| B*07:08+B*40:89     | B*07:32+B*40:09       |                       |                     |
| B*07:08+B*40:105    | B*07:32+B*40:03       |                       |                     |
| B*07:08+B*40:117    | B*07:38+B*40:43       |                       |                     |
| B*07:08+B*40:172    | B*07:32+B*40:42       |                       |                     |
| B*07:08+B*41:01     | B*07:32+B*41:21       |                       |                     |
| B*07:08+B*42:01:01  | B*07:32+B*42:16       | B*07:83+B*42:07       |                     |
| B*07:08+B*44:14     | B*07:32+B*44:51       |                       |                     |
| B*07:08+B*44:77     | B*07:32+B*44:107      |                       |                     |
| B*07:08+B*51:01:01G | B*07:32+B*51:90       | B*07:38+B*78:01:01    |                     |
| B*07:08+B*51:01:34  | B*07:38+B*78:01:02    |                       |                     |
| B*07:08+B*51:06:01  | B*07:32+B*51:135      |                       |                     |
| B*07:08+B*51:13:01  | B*07:32+B*51:92       |                       |                     |
| B*07:08+B*51:21     | B*07:38+B*78:07       |                       |                     |
| B*07:08+B*51:22     | B*07:38+B*78:03       | B*07:69+B*51:90       | B*07:85+B*51:01:01G |
| B*07:08+B*51:63     | B*07:32+B*51:37       |                       |                     |
| B*07:08+B*52:01:01G | B*07:32+B*52:12       |                       |                     |
| B*07:08+B*53:01:01  | B*07:38+B*35:29:01    |                       |                     |
| B*07:08+B*53:04     | B*07:38+B*35:136      |                       |                     |
| B*07:08+B*53:17:02  | B*48:08+B*53:23       |                       |                     |
| B*07:08+B*55:02:01G | B*07:32+B*55:46       |                       |                     |
| B*07:08+B*55:20     | B*07:84+B*08:26       |                       |                     |
| B*07:08+B*55:32     | B*07:32+B*55:23       |                       |                     |
| B*07:08+B*67:01:02  | B*07:83+B*39:10:01    |                       |                     |
| B*07:08+B*78:03     | B*07:85+B*78:01:01    |                       |                     |
| B*07:09+B*07:14     | B*07:17+B*07:18:02    |                       |                     |
| B*07:09+B*07:28     | B*07:17+B*07:118      |                       |                     |
| B*07:09+B*07:36     | B*07:11+B*07:81       |                       |                     |
| B*07:09+B*07:75     | B*07:11+B*07:91       |                       |                     |
| B*07:09+B*08:02     | B*07:149+B*08:35      |                       |                     |
| B*07:09+B*08:15     | B*07:92+B*08:35       |                       |                     |
| B*07:09+B*08:18     | B*07:102+B*08:35      |                       |                     |
| B*07:09+B*08:23     | B*07:91+B*08:35       |                       |                     |
| B*07:09+B*08:28     | B*07:17+B*08:37       |                       |                     |
| B*07:09+B*08:32     | B*07:134+B*08:35      |                       |                     |
| B*07:09+B*08:39     | B*07:93+B*08:35       |                       |                     |
| B*07:09+B*08:43     | B*07:124+B*08:35      |                       |                     |
| B*07:09+B*08:47     | B*07:11+B*08:01:01G   | B*07:57+B*08:35       |                     |

|                     |                      |                     |                    |                   |
|---------------------|----------------------|---------------------|--------------------|-------------------|
| B*07:09+B*08:52     | B*07:81+B*08:35      |                     |                    |                   |
| B*07:09+B*08:58     | B*07:138+B*08:37     | B*07:158+B*08:35    |                    |                   |
| B*07:09+B*08:64     | B*07:113+B*08:35     |                     |                    |                   |
| B*07:09+B*08:71     | B*07:68:03+B*08:35   |                     |                    |                   |
| B*07:09+B*08:77     | B*07:74+B*08:35      |                     |                    |                   |
| B*07:09+B*08:78     | B*07:11+B*08:52      | B*07:36+B*08:35     |                    |                   |
| B*07:09+B*08:87     | B*07:28+B*08:37      | B*07:118+B*08:28    |                    |                   |
| B*07:09+B*13:01:01G | B*07:11+B*13:25      |                     |                    |                   |
| B*07:09+B*15:02:01G | B*07:17+B*15:223     |                     |                    |                   |
| B*07:09+B*15:06     | B*07:17+B*15:195     |                     |                    |                   |
| B*07:09+B*15:24     | B*07:11+B*15:87      |                     |                    |                   |
| B*07:09+B*15:77     | B*07:28+B*15:154     |                     |                    |                   |
| B*07:09+B*15:85     | B*07:162+B*15:07:01G |                     |                    |                   |
| B*07:09+B*15:90     | B*07:52+B*15:18:01G  |                     |                    |                   |
| B*07:09+B*15:128    | B*07:17+B*15:01:01G  |                     |                    |                   |
| B*07:09+B*15:135    | B*07:11+B*15:01:01G  |                     |                    |                   |
| B*07:09+B*15:156    | B*07:17+B*15:03:01G  |                     |                    |                   |
| B*07:09+B*15:233    | B*07:28+B*15:01:01G  | B*07:118+B*15:128   |                    |                   |
| B*07:09+B*18:20     | B*07:17+B*18:01:01G  |                     |                    |                   |
| B*07:09+B*18:49     | B*07:11+B*18:01:01G  |                     |                    |                   |
| B*07:09+B*27:05:02G | B*07:118+B*27:78     |                     |                    |                   |
| B*07:09+B*27:35     | B*07:115+B*27:41     |                     |                    |                   |
| B*07:09+B*27:89     | B*07:11+B*27:08      |                     |                    |                   |
| B*07:09+B*35:01:01G | B*07:162+B*35:51     |                     |                    |                   |
| B*07:09+B*35:09:01  | B*07:80+B*35:174     |                     |                    |                   |
| B*07:09+B*35:12:01  | B*07:80+B*35:61      |                     |                    |                   |
| B*07:09+B*35:12:02  | B*07:137+B*35:51     |                     |                    |                   |
| B*07:09+B*35:27     | B*07:11+B*35:01:01G  |                     |                    |                   |
| B*07:09+B*35:39     | B*07:18:02+B*35:51   | B*07:26+B*35:61     |                    |                   |
| B*07:09+B*35:56     | B*07:11+B*35:03:01G  |                     |                    |                   |
| B*07:09+B*40:01:20  | B*07:106+B*40:38     |                     |                    |                   |
| B*07:09+B*40:09     | B*07:17+B*40:18      | B*07:96:01+B*40:03  |                    |                   |
| B*07:09+B*40:19     | B*07:36+B*40:105     |                     |                    |                   |
| B*07:09+B*40:35     | B*07:68:03+B*40:105  |                     |                    |                   |
| B*07:09+B*40:37     | B*07:11+B*40:02:01G  | B*07:57+B*40:105    |                    |                   |
| B*07:09+B*40:39     | B*07:31+B*40:105     |                     |                    |                   |
| B*07:09+B*40:42     | B*07:17+B*40:33      | B*07:96:01+B*40:52  |                    |                   |
| B*07:09+B*40:47     | B*07:149+B*40:38     |                     |                    |                   |
| B*07:09+B*40:57     | B*07:71+B*40:105     |                     |                    |                   |
| B*07:09+B*40:63     | B*07:24+B*40:38      |                     |                    |                   |
| B*07:09+B*40:64     | B*07:18:01+B*40:105  | B*07:137+B*40:03    |                    |                   |
| B*07:09+B*40:65     | B*07:87+B*40:38      |                     |                    |                   |
| B*07:09+B*40:70     | B*07:84+B*40:105     |                     |                    |                   |
| B*07:09+B*40:73     | B*07:92+B*40:38      |                     |                    |                   |
| B*07:09+B*40:79     | B*07:23+B*40:38      |                     |                    |                   |
| B*07:09+B*40:87:01  | B*07:68:01+B*40:38   |                     |                    |                   |
| B*07:09+B*40:87:02  | B*07:68:03+B*40:38   |                     |                    |                   |
| B*07:09+B*40:89     | B*07:17+B*40:02:01G  | B*07:96:01+B*40:105 |                    |                   |
| B*07:09+B*40:92     | B*07:60+B*40:38      |                     |                    |                   |
| B*07:09+B*40:108    | B*07:159+B*40:38     |                     |                    |                   |
| B*07:09+B*40:115    | B*07:94+B*40:105     |                     |                    |                   |
| B*07:09+B*40:117    | B*07:36+B*40:38      |                     |                    |                   |
| B*07:09+B*40:120    | B*07:12+B*40:03      | B*07:162+B*40:18    |                    |                   |
| B*07:09+B*40:132    | B*07:140+B*40:52     | B*07:153+B*40:38    |                    |                   |
| B*07:09+B*40:157    | B*07:11+B*40:201     | B*07:149+B*40:105   |                    |                   |
| B*07:09+B*40:172    | B*07:17+B*40:01:01G  | B*07:96:01+B*40:38  |                    |                   |
| B*07:09+B*40:192    | B*07:113+B*40:38     |                     |                    |                   |
| B*07:09+B*40:193    | B*07:148+B*40:38     |                     |                    |                   |
| B*07:09+B*40:199    | B*07:31+B*40:38      |                     |                    |                   |
| B*07:09+B*42:15     | B*07:11+B*42:01:01   |                     |                    |                   |
| B*07:09+B*44:02:01G | B*07:17+B*44:51      | B*07:28+B*44:17     |                    |                   |
| B*07:09+B*44:03:01G | B*07:11+B*44:109     | B*07:17+B*44:45     | B*07:28+B*44:43:01 | B*07:118+B*44:144 |
| B*07:09+B*44:05:01  | B*07:17+B*44:123     | B*07:96:01+B*44:17  |                    |                   |
| B*07:09+B*44:45     | B*07:118+B*44:43:01  |                     |                    |                   |
| B*07:09+B*44:51     | B*07:118+B*44:17     |                     |                    |                   |
| B*07:09+B*44:54     | B*07:17+B*44:135     |                     |                    |                   |
| B*07:09+B*44:144    | B*07:17+B*44:43:01   |                     |                    |                   |
| B*07:09+B*45:02     | B*07:115+B*45:09     |                     |                    |                   |
| B*07:09+B*51:76     | B*07:93+B*51:63      |                     |                    |                   |
| B*07:09+B*51:109    | B*07:87+B*51:63      |                     |                    |                   |
| B*07:09+B*51:114    | B*07:157+B*51:63     |                     |                    |                   |
| B*07:09+B*51:115    | B*07:51+B*51:63      |                     |                    |                   |
| B*07:09+B*52:01:02  | B*07:11+B*52:09      |                     |                    |                   |
| B*07:09+B*52:06:02  | B*07:54+B*51:63      | B*07:123+B*51:37    |                    |                   |
| B*07:09+B*53:01:01  | B*07:11+B*53:05      |                     |                    |                   |
| B*07:09+B*53:13     | B*07:11+B*53:12      |                     |                    |                   |
| B*07:09+B*53:24     | B*07:11+B*53:16      |                     |                    |                   |
| B*07:09+B*55:12     | B*07:11+B*55:02:01G  |                     |                    |                   |
| B*07:09+B*55:41     | B*07:17+B*55:02:01G  |                     |                    |                   |
| B*07:09+B*57:04     | B*07:28+B*57:19      |                     |                    |                   |
| B*07:09+B*57:07     | B*07:140+B*57:01:01G |                     |                    |                   |
| B*07:09+B*57:41     | B*07:17+B*57:01:01G  |                     |                    |                   |
| B*07:09+B*78:06     | B*07:11+B*78:05      |                     |                    |                   |
| B*07:10+B*07:16     | B*07:85+B*07:91      |                     |                    |                   |
| B*07:10+B*07:32     | B*07:69+B*07:83      |                     |                    |                   |
| B*07:10+B*08:01:01G | B*07:83+B*08:65      |                     |                    |                   |
| B*07:10+B*15:29     | B*07:83+B*15:18:01G  |                     |                    |                   |
| B*07:10+B*15:56     | B*07:83+B*15:66      |                     |                    |                   |
| B*07:10+B*18:07:01  | B*07:83+B*18:33      |                     |                    |                   |
| B*07:10+B*27:12     | B*07:85+B*27:26      |                     |                    |                   |
| B*07:10+B*27:29     | B*07:27+B*27:26      |                     |                    |                   |
| B*07:10+B*35:01:01G | B*07:83+B*35:82      |                     |                    |                   |
| B*07:10+B*35:03:01G | B*07:83+B*35:85      |                     |                    |                   |
| B*07:10+B*35:43:01G | B*07:83+B*35:135     |                     |                    |                   |
| B*07:10+B*39:20     | B*07:75+B*39:01:09   |                     |                    |                   |
| B*07:10+B*39:58     | B*07:83+B*39:01:01G  |                     |                    |                   |
| B*07:10+B*40:162    | B*07:83+B*40:75      |                     |                    |                   |
| B*07:10+B*42:07     | B*07:69+B*42:16      | B*07:85+B*42:01:01  |                    |                   |
| B*07:10+B*51:01:01G | B*07:83+B*51:22      |                     |                    |                   |
| B*07:10+B*78:01:01  | B*07:83+B*78:03      |                     |                    |                   |
| B*07:11+B*07:12     | B*07:57+B*07:162     |                     |                    |                   |
| B*07:11+B*07:96:01  | B*07:17+B*07:57      |                     |                    |                   |
| B*07:11+B*08:07     | B*07:57+B*08:37      |                     |                    |                   |
| B*07:11+B*08:23     | B*07:75+B*08:35      |                     |                    |                   |
| B*07:11+B*08:74     | B*07:17+B*08:47      |                     |                    |                   |



|                     |                        |                        |                  |
|---------------------|------------------------|------------------------|------------------|
| B*07:11+B*15:10:01  | B*07:57+B*15:18:01G    |                        |                  |
| B*07:11+B*15:45     | B*07:57+B*15:07:01G    |                        |                  |
| B*07:11+B*15:99     | B*07:57+B*15:221       |                        |                  |
| B*07:11+B*15:128    | B*07:17+B*15:135       |                        |                  |
| B*07:11+B*15:233    | B*07:28+B*15:135       |                        |                  |
| B*07:11+B*15:248    | B*07:57+B*15:33        |                        |                  |
| B*07:11+B*18:20     | B*07:17+B*18:49        |                        |                  |
| B*07:11+B*27:46     | B*07:57+B*27:78        |                        |                  |
| B*07:11+B*35:199    | B*07:57+B*35:51        |                        |                  |
| B*07:11+B*40:01:01G | B*07:57+B*40:38        |                        |                  |
| B*07:11+B*40:18     | B*07:57+B*40:03        |                        |                  |
| B*07:11+B*40:33     | B*07:57+B*40:52        |                        |                  |
| B*07:11+B*40:44     | B*07:57+B*40:159       |                        |                  |
| B*07:11+B*40:89     | B*07:17+B*40:37        |                        |                  |
| B*07:11+B*44:107    | B*07:57+B*44:43:01     |                        |                  |
| B*07:11+B*44:123    | B*07:57+B*44:17        |                        |                  |
| B*07:11+B*51:01:01G | B*07:57+B*51:63        |                        |                  |
| B*07:11+B*51:08     | B*07:57+B*51:97        |                        |                  |
| B*07:11+B*51:90     | B*07:57+B*51:37        |                        |                  |
| B*07:11+B*55:41     | B*07:17+B*55:12        |                        |                  |
| B*07:12+B*07:17     | B*07:96:01+B*07:162    |                        |                  |
| B*07:12+B*08:35     | B*07:162+B*08:01:01G   |                        |                  |
| B*07:12+B*08:37     | B*07:162+B*08:07       |                        |                  |
| B*07:12+B*15:02:05  | B*07:14+B*15:194       |                        |                  |
| B*07:12+B*15:18:01G | B*07:162+B*15:10:01    |                        |                  |
| B*07:12+B*15:32     | B*07:77+B*15:85        |                        |                  |
| B*07:12+B*15:33     | B*07:162+B*15:248      |                        |                  |
| B*07:12+B*15:154    | B*07:18:02+B*15:85     |                        |                  |
| B*07:12+B*15:221    | B*07:162+B*15:99       |                        |                  |
| B*07:12+B*15:223    | B*07:18:01+B*15:194    |                        |                  |
| B*07:12+B*18:01:01G | B*07:18:02+B*18:52     |                        |                  |
| B*07:12+B*18:01:06  | B*07:18:01+B*18:52     |                        |                  |
| B*07:12+B*18:20     | B*07:14+B*18:52        |                        |                  |
| B*07:12+B*27:78     | B*07:162+B*27:46       |                        |                  |
| B*07:12+B*35:01:01G | B*07:162+B*35:34       |                        |                  |
| B*07:12+B*35:12:01  | B*07:18:02+B*35:04:01  |                        |                  |
| B*07:12+B*35:12:02  | B*07:18:01+B*35:04:01  | B*07:137+B*35:34       |                  |
| B*07:12+B*35:39     | B*07:18:02+B*35:34     |                        |                  |
| B*07:12+B*35:59     | B*07:18:02+B*35:06     |                        |                  |
| B*07:12+B*35:61     | B*07:18:01+B*35:08:03  | B*07:18:02+B*35:08:01  |                  |
| B*07:12+B*40:09     | B*07:96:01+B*40:120    |                        |                  |
| B*07:12+B*40:38     | B*07:162+B*40:01:01G   |                        |                  |
| B*07:12+B*40:64     | B*07:137+B*40:120      |                        |                  |
| B*07:12+B*40:105    | B*07:162+B*40:02:01G   |                        |                  |
| B*07:12+B*40:159    | B*07:162+B*40:44       |                        |                  |
| B*07:12+B*41:02:01  | B*07:137+B*41:04       |                        |                  |
| B*07:12+B*44:17     | B*07:162+B*44:123      |                        |                  |
| B*07:12+B*44:43:01  | B*07:162+B*44:107      |                        |                  |
| B*07:12+B*51:04     | B*07:18:01+B*51:56:02  |                        |                  |
| B*07:12+B*51:37     | B*07:162+B*51:90       |                        |                  |
| B*07:12+B*51:63     | B*07:162+B*51:01:01G   |                        |                  |
| B*07:12+B*51:97     | B*07:162+B*51:08       |                        |                  |
| B*07:14+B*07:118    | B*07:18:02+B*07:28     |                        |                  |
| B*07:14+B*08:01:01G | B*07:18:02+B*08:74     |                        |                  |
| B*07:14+B*08:37     | B*07:18:02+B*08:28     |                        |                  |
| B*07:14+B*15:01:01G | B*07:18:02+B*15:128    |                        |                  |
| B*07:14+B*15:01:14  | B*07:18:01+B*15:128    |                        |                  |
| B*07:14+B*15:03:01G | B*07:18:02+B*15:156    |                        |                  |
| B*07:14+B*15:07:01G | B*07:96:01+B*15:154    |                        |                  |
| B*07:14+B*15:195    | B*07:18:02+B*15:06     |                        |                  |
| B*07:14+B*15:223    | B*07:18:01+B*15:02:05  | B*07:18:02+B*15:02:01G |                  |
| B*07:14+B*18:01:01G | B*07:18:02+B*18:20     |                        |                  |
| B*07:14+B*18:01:06  | B*07:18:01+B*18:20     |                        |                  |
| B*07:14+B*27:32     | B*07:96:01+B*27:19     |                        |                  |
| B*07:14+B*35:05:01  | B*07:96:01+B*35:01:04  |                        |                  |
| B*07:14+B*35:22     | B*07:96:01+B*35:12:01  |                        |                  |
| B*07:14+B*35:51     | B*07:17+B*35:39        |                        |                  |
| B*07:14+B*35:199    | B*07:96:01+B*35:39     |                        |                  |
| B*07:14+B*38:19     | B*07:96:01+B*38:20     |                        |                  |
| B*07:14+B*39:03     | B*07:96:01+B*39:42     |                        |                  |
| B*07:14+B*40:01:01G | B*07:18:02+B*40:172    |                        |                  |
| B*07:14+B*40:01:04  | B*07:18:01+B*40:172    | B*07:137+B*40:42       |                  |
| B*07:14+B*40:02:01G | B*07:18:02+B*40:89     |                        |                  |
| B*07:14+B*40:02:09  | B*07:18:01+B*40:89     | B*07:96:01+B*40:64     | B*07:137+B*40:09 |
| B*07:14+B*40:18     | B*07:18:02+B*40:09     |                        |                  |
| B*07:14+B*40:33     | B*07:18:02+B*40:42     |                        |                  |
| B*07:14+B*40:80     | B*07:96:01+B*40:160    |                        |                  |
| B*07:14+B*44:43:01  | B*07:18:02+B*44:144    |                        |                  |
| B*07:14+B*44:45     | B*07:18:02+B*44:03:01G |                        |                  |
| B*07:14+B*44:51     | B*07:18:02+B*44:02:01G |                        |                  |
| B*07:14+B*44:54     | B*07:96:01+B*44:03:01G |                        |                  |
| B*07:14+B*44:106    | B*07:28+B*44:05:01     | B*07:96:01+B*44:02:01G |                  |
| B*07:14+B*44:123    | B*07:18:02+B*44:05:01  |                        |                  |
| B*07:14+B*55:02:01G | B*07:18:02+B*55:41     |                        |                  |
| B*07:14+B*57:01:01G | B*07:18:02+B*57:41     |                        |                  |
| B*07:15+B*08:01:01G | B*07:160+B*08:15       |                        |                  |
| B*07:15+B*08:12:01  | B*07:92+B*08:16        |                        |                  |
| B*07:15+B*15:135    | B*07:160+B*15:57       |                        |                  |
| B*07:15+B*18:01:01G | B*07:160+B*18:06       |                        |                  |
| B*07:15+B*35:01:01G | B*07:92+B*35:92        |                        |                  |
| B*07:15+B*35:03:01G | B*07:160+B*35:74       |                        |                  |
| B*07:15+B*39:01:01G | B*07:160+B*39:27       |                        |                  |
| B*07:15+B*40:01:01G | B*07:160+B*40:73       |                        |                  |
| B*07:15+B*55:01:01G | B*07:160+B*55:03       |                        |                  |
| B*07:15+B*55:04     | B*07:160+B*55:49       |                        |                  |
| B*07:16+B*13:54     | B*07:37+B*13:02:01G    |                        |                  |
| B*07:16+B*15:01:01G | B*07:50+B*15:152       | B*15:11:01G+B*48:08    |                  |
| B*07:16+B*15:01:14  | B*15:11:03+B*48:08     |                        |                  |
| B*07:16+B*15:15     | B*07:50+B*15:11:01G    |                        |                  |
| B*07:16+B*15:43     | B*07:27+B*15:152       |                        |                  |
| B*07:16+B*15:139    | B*07:37+B*15:02:01G    |                        |                  |
| B*07:16+B*27:26     | B*07:91+B*27:12        |                        |                  |
| B*07:16+B*35:78     | B*07:37+B*35:01:01G    |                        |                  |
| B*07:16+B*40:01:01G | B*07:50+B*40:61        |                        |                  |
| B*07:16+B*40:188    | B*07:27+B*40:61        |                        |                  |

|                        |                        |                  |
|------------------------|------------------------|------------------|
| B*07:16+B*42:01:01     | B*07:91+B*42:07        |                  |
| B*07:16+B*42:15        | B*07:75+B*42:07        |                  |
| B*07:16+B*55:02:01G    | B*07:125+B*56:23       |                  |
| B*07:16+B*55:34        | B*48:08+B*55:02:01G    |                  |
| B*07:16+B*55:47        | B*07:50+B*55:02:01G    |                  |
| B*07:16+B*67:01:02     | B*07:91+B*39:10:01     |                  |
| B*07:17+B*08:58        | B*07:138+B*08:28       |                  |
| B*07:17+B*08:69        | B*07:115+B*08:37       |                  |
| B*07:17+B*08:87        | B*07:28+B*08:28        |                  |
| B*07:17+B*15:10:01     | B*07:96:01+B*15:18:01G |                  |
| B*07:17+B*15:45        | B*07:96:01+B*15:07:01G |                  |
| B*07:17+B*15:58        | B*07:115+B*15:01:01G   |                  |
| B*07:17+B*15:99        | B*07:96:01+B*15:221    |                  |
| B*07:17+B*15:229       | B*07:115+B*15:18:01G   |                  |
| B*07:17+B*15:233       | B*07:28+B*15:128       |                  |
| B*07:17+B*15:248       | B*07:96:01+B*15:33     |                  |
| B*07:17+B*27:05:02G    | B*07:28+B*27:78        |                  |
| B*07:17+B*27:46        | B*07:96:01+B*27:78     |                  |
| B*07:17+B*35:06        | B*07:115+B*35:01:01G   |                  |
| B*07:17+B*35:34        | B*07:96:01+B*35:01:01G |                  |
| B*07:17+B*35:199       | B*07:96:01+B*35:51     |                  |
| B*07:17+B*39:05:01     | B*07:115+B*39:07       |                  |
| B*07:17+B*40:36        | B*07:115+B*40:52       |                  |
| B*07:17+B*40:44        | B*07:96:01+B*40:159    |                  |
| B*07:17+B*40:86        | B*07:115+B*40:159      |                  |
| B*07:17+B*40:120       | B*07:162+B*40:09       |                  |
| B*07:17+B*44:03:01G    | B*07:28+B*44:144       |                  |
| B*07:17+B*51:01:01G    | B*07:96:01+B*51:63     |                  |
| B*07:17+B*51:08        | B*07:96:01+B*51:97     |                  |
| B*07:17+B*51:13:02     | B*07:115+B*51:37       |                  |
| B*07:17+B*51:90        | B*07:96:01+B*51:37     |                  |
| B*07:17+B*55:13        | B*07:115+B*55:23       |                  |
| B*07:17+B*57:07        | B*07:140+B*57:41       |                  |
| B*07:18:01+B*07:34     | B*07:43+B*07:137       |                  |
| B*07:18:01+B*07:53     | B*07:33+B*07:137       |                  |
| B*07:18:01+B*07:69     | B*07:85+B*07:137       |                  |
| B*07:18:01+B*07:80     | B*07:26+B*07:137       |                  |
| B*07:18:01+B*07:123    | B*07:54+B*07:137       |                  |
| B*07:18:01+B*07:138    | B*07:137+B*07:158      |                  |
| B*07:18:01+B*07:140    | B*07:137+B*07:153      |                  |
| B*07:18:01+B*08:01:01G | B*07:137+B*08:07       |                  |
| B*07:18:01+B*08:12:01  | B*07:18:02+B*08:12:03  |                  |
| B*07:18:01+B*08:35     | B*07:137+B*08:37       |                  |
| B*07:18:01+B*14:06:01  | B*07:18:02+B*14:06:02  |                  |
| B*07:18:01+B*15:01:01G | B*07:18:02+B*15:01:14  |                  |
| B*07:18:01+B*15:11:01G | B*07:18:02+B*15:11:03  |                  |
| B*07:18:01+B*15:18:01G | B*07:18:02+B*15:18:02  |                  |
| B*07:18:01+B*15:25:02  | B*07:18:02+B*15:25:01G |                  |
| B*07:18:01+B*15:27:02  | B*07:18:02+B*15:27:01  |                  |
| B*07:18:01+B*15:30     | B*07:137+B*15:63       |                  |
| B*07:18:01+B*15:229    | B*07:137+B*15:133      |                  |
| B*07:18:01+B*18:01:01G | B*07:18:02+B*18:01:06  |                  |
| B*07:18:01+B*18:44:01  | B*07:18:02+B*18:44:02  |                  |
| B*07:18:01+B*35:01:04  | B*07:18:02+B*35:01:01G | B*07:162+B*35:39 |
| B*07:18:01+B*35:06     | B*07:137+B*35:03:01G   |                  |
| B*07:18:01+B*35:12:01  | B*07:18:02+B*35:12:02  | B*07:137+B*35:39 |
| B*07:18:01+B*38:02:01G | B*07:137+B*38:29       |                  |
| B*07:18:01+B*39:01:01G | B*07:137+B*39:15       |                  |
| B*07:18:01+B*39:05:01  | B*07:137+B*39:55       |                  |
| B*07:18:01+B*39:06:01  | B*07:18:02+B*39:06:02  |                  |
| B*07:18:01+B*39:13:01  | B*07:137+B*39:49       |                  |
| B*07:18:01+B*39:14     | B*07:137+B*39:29       |                  |
| B*07:18:01+B*40:01:01G | B*07:18:02+B*40:01:04  | B*07:137+B*40:33 |
| B*07:18:01+B*40:06:01G | B*07:137+B*40:44       |                  |
| B*07:18:01+B*40:16     | B*07:137+B*40:32       |                  |
| B*07:18:01+B*40:19     | B*07:36+B*40:64        |                  |
| B*07:18:01+B*40:35     | B*07:68:03+B*40:64     |                  |
| B*07:18:01+B*40:37     | B*07:57+B*40:64        |                  |
| B*07:18:01+B*40:38     | B*07:137+B*40:52       |                  |
| B*07:18:01+B*40:39     | B*07:31+B*40:64        |                  |
| B*07:18:01+B*40:57     | B*07:71+B*40:64        |                  |
| B*07:18:01+B*40:70     | B*07:84+B*40:64        |                  |
| B*07:18:01+B*40:80     | B*07:137+B*40:31       |                  |
| B*07:18:01+B*40:115    | B*07:94+B*40:64        |                  |
| B*07:18:01+B*40:124:02 | B*07:18:02+B*40:124:01 |                  |
| B*07:18:01+B*40:157    | B*07:149+B*40:64       |                  |
| B*07:18:01+B*41:01     | B*07:137+B*41:21       |                  |
| B*07:18:01+B*41:02:01  | B*40:32+B*42:13        |                  |
| B*07:18:01+B*42:02     | B*07:143+B*42:13       |                  |
| B*07:18:01+B*42:10     | B*07:68:03+B*42:13     |                  |
| B*07:18:01+B*42:11     | B*42:13+B*48:08        |                  |
| B*07:18:01+B*42:15     | B*07:57+B*42:13        |                  |
| B*07:18:01+B*44:02:01G | B*07:18:02+B*44:02:07  |                  |
| B*07:18:01+B*44:03:01G | B*07:18:02+B*44:03:02  |                  |
| B*07:18:01+B*44:14     | B*07:137+B*44:51       |                  |
| B*07:18:01+B*44:28:02  | B*07:18:02+B*44:28:01  |                  |
| B*07:18:01+B*44:37:01  | B*07:18:02+B*44:37:02  |                  |
| B*07:18:01+B*44:64:02  | B*07:18:02+B*44:64:01  |                  |
| B*07:18:01+B*44:77     | B*07:137+B*44:107      |                  |
| B*07:18:01+B*48:03:01  | B*07:18:02+B*48:03:02  |                  |
| B*07:18:01+B*51:01:01G | B*07:137+B*51:90       |                  |
| B*07:18:01+B*51:01:16  | B*07:18:02+B*51:01:01G |                  |
| B*07:18:01+B*51:13:01  | B*07:137+B*51:92       |                  |
| B*07:18:01+B*51:63     | B*07:137+B*51:37       |                  |
| B*07:18:01+B*52:01:01G | B*07:137+B*52:12       |                  |
| B*07:18:01+B*54:01:01G | B*07:137+B*54:16       |                  |
| B*07:18:01+B*55:02:01G | B*07:137+B*55:46       |                  |
| B*07:18:01+B*55:02:04  | B*07:18:02+B*55:02:01G |                  |
| B*07:18:01+B*55:32     | B*07:137+B*55:23       |                  |
| B*07:18:02+B*15:32     | B*07:77+B*15:154       |                  |
| B*07:18:02+B*27:14     | B*07:84+B*27:19        |                  |
| B*07:18:02+B*39:09     | B*07:77+B*39:42        |                  |
| B*07:18:02+B*39:37     | B*07:91+B*39:42        |                  |
| B*07:18:02+B*53:14     | B*07:36+B*35:01:04     |                  |
| B*07:20+B*07:26        | B*07:131+B*07:153      |                  |

|                        |                        |                      |
|------------------------|------------------------|----------------------|
| B*07:20+B*07:33        | B*07:60+B*07:153       |                      |
| B*07:20+B*07:53        | B*07:60+B*07:140       |                      |
| B*07:20+B*07:80        | B*07:131+B*07:140      |                      |
| B*07:20+B*13:45        | B*07:153+B*13:03       |                      |
| B*07:20+B*15:01:01G    | B*07:24+B*15:14        |                      |
| B*07:20+B*15:03:01G    | B*07:24+B*15:131       |                      |
| B*07:20+B*15:18:01G    | B*07:24+B*15:161       |                      |
| B*07:20+B*15:40        | B*07:153+B*15:39:01    |                      |
| B*07:20+B*15:50        | B*07:31+B*15:14        |                      |
| B*07:20+B*15:93        | B*07:31+B*15:161       |                      |
| B*07:20+B*15:123:01G   | B*07:24+B*15:91        |                      |
| B*07:20+B*18:10        | B*07:153+B*18:58       |                      |
| B*07:20+B*18:50        | B*07:153+B*18:36       |                      |
| B*07:20+B*27:04:01G    | B*07:153+B*27:63       |                      |
| B*07:20+B*27:05:02G    | B*07:153+B*27:38       |                      |
| B*07:20+B*27:05:03     | B*07:24+B*27:50        |                      |
| B*07:20+B*35:01:01G    | B*07:24+B*35:71        | B*07:131+B*35:45     |
| B*07:20+B*35:08:01     | B*07:24+B*35:45        |                      |
| B*07:20+B*35:33        | B*07:153+B*35:03:01G   |                      |
| B*07:20+B*35:38        | B*07:24+B*35:169       |                      |
| B*07:20+B*35:86        | B*07:153+B*35:43:01G   |                      |
| B*07:20+B*35:93        | B*07:31+B*35:71        | B*07:43+B*35:45      |
| B*07:20+B*39:47        | B*07:153+B*39:74       |                      |
| B*07:20+B*40:01:01G    | B*07:24+B*40:132       | B*07:153+B*40:63     |
| B*07:20+B*44:21        | B*07:153+B*44:02:01G   |                      |
| B*07:20+B*44:37:01     | B*07:24+B*44:03:01G    | B*07:131+B*44:28:02  |
| B*07:20+B*44:37:02     | B*07:24+B*44:03:02     | B*07:131+B*44:28:01  |
| B*07:20+B*44:42        | B*07:24+B*44:05:01     |                      |
| B*07:20+B*44:91        | B*07:24+B*44:02:01G    |                      |
| B*07:20+B*44:124       | B*07:153+B*44:03:02    |                      |
| B*07:20+B*44:132       | B*07:31+B*44:02:01G    |                      |
| B*07:20+B*45:04        | B*07:24+B*45:01:01G    |                      |
| B*07:20+B*45:08        | B*07:31+B*45:01:01G    |                      |
| B*07:20+B*46:01:01G    | B*07:24+B*46:17        |                      |
| B*07:20+B*46:29        | B*07:31+B*46:17        |                      |
| B*07:20+B*49:01:01     | B*07:24+B*49:20        |                      |
| B*07:20+B*50:01:01     | B*07:24+B*50:02        |                      |
| B*07:20+B*51:02:01     | B*07:24+B*51:23        |                      |
| B*07:20+B*51:16        | B*07:140+B*51:90       | B*07:153+B*51:01:01G |
| B*07:20+B*51:31        | B*07:153+B*51:09:01    |                      |
| B*07:20+B*51:82        | B*07:153+B*51:29       |                      |
| B*07:20+B*52:01:01G    | B*07:24+B*52:15        |                      |
| B*07:20+B*54:26        | B*07:153+B*54:03       |                      |
| B*07:20+B*55:22        | B*07:153+B*56:01:01G   |                      |
| B*07:20+B*55:24        | B*07:153+B*56:25       |                      |
| B*07:20+B*57:03:01     | B*07:24+B*57:07        |                      |
| B*07:20+B*57:25        | B*07:153+B*57:01:01G   |                      |
| B*07:20+B*58:02        | B*07:24+B*58:07        |                      |
| B*07:20+B*58:37        | B*07:153+B*58:01:01G   |                      |
| B*07:22:01+B*07:68:02  | B*07:22:02+B*07:68:01  |                      |
| B*07:22:01+B*08:01:13  | B*07:22:02+B*08:01:02  |                      |
| B*07:22:01+B*13:22:02  | B*07:22:02+B*13:22:01  |                      |
| B*07:22:01+B*15:05:02  | B*07:22:02+B*15:05:01  |                      |
| B*07:22:01+B*15:13:02  | B*07:22:02+B*15:13:01  |                      |
| B*07:22:01+B*15:27:03  | B*07:22:02+B*15:27:01  |                      |
| B*07:22:01+B*15:38:02  | B*07:22:02+B*15:38:01  |                      |
| B*07:22:01+B*15:39:02  | B*07:22:02+B*15:39:01  |                      |
| B*07:22:01+B*18:01:01G | B*07:22:02+B*18:01:10  |                      |
| B*07:22:01+B*35:03:01G | B*07:22:02+B*35:03:02  |                      |
| B*07:22:01+B*35:09:03  | B*07:22:02+B*35:09:02  |                      |
| B*07:22:01+B*35:11:01  | B*07:22:02+B*35:11:02  |                      |
| B*07:22:01+B*35:14:01  | B*07:22:02+B*35:14:02  |                      |
| B*07:22:01+B*38:01:01  | B*07:22:02+B*38:01:03  |                      |
| B*07:22:01+B*39:01:01G | B*07:22:02+B*39:01:05  |                      |
| B*07:22:01+B*40:14:01  | B*07:22:02+B*40:14:02  |                      |
| B*07:22:01+B*44:02:01G | B*07:22:02+B*44:02:09  |                      |
| B*07:22:01+B*46:01:03  | B*07:22:02+B*46:01:01G |                      |
| B*07:22:01+B*46:13:01  | B*07:22:02+B*46:13:03  |                      |
| B*07:22:01+B*46:21:02  | B*07:22:02+B*46:21:01  |                      |
| B*07:22:01+B*51:01:21  | B*07:22:02+B*51:01:25  |                      |
| B*07:22:01+B*51:02:01  | B*07:22:02+B*51:02:05  |                      |
| B*07:22:01+B*51:24:04  | B*07:22:02+B*51:24:03  |                      |
| B*07:22:01+B*51:61:02  | B*07:22:02+B*51:61:01  |                      |
| B*07:22:01+B*52:01:01G | B*07:22:02+B*52:01:07  |                      |
| B*07:22:01+B*52:10:01  | B*07:22:02+B*52:10:02  |                      |
| B*07:22:01+B*53:01:01  | B*07:22:02+B*53:01:03  |                      |
| B*07:22:01+B*53:08:01  | B*07:22:02+B*53:08:02  |                      |
| B*07:22:01+B*56:01:01G | B*07:22:02+B*56:01:03  |                      |
| B*07:22:01+B*58:01:01G | B*07:22:02+B*58:01:05  |                      |
| B*07:23+B*15:12:01G    | B*07:64+B*15:159       |                      |
| B*07:23+B*15:14        | B*07:153+B*15:159      |                      |
| B*07:23+B*15:24        | B*07:36+B*15:159       |                      |
| B*07:23+B*15:60        | B*07:117+B*15:159      |                      |
| B*07:23+B*15:87        | B*07:81+B*15:159       |                      |
| B*07:23+B*15:122       | B*07:127+B*15:159      |                      |
| B*07:23+B*15:128       | B*07:96:01+B*15:159    |                      |
| B*07:23+B*15:135       | B*07:57+B*15:159       |                      |
| B*07:23+B*15:225       | B*07:143+B*15:159      |                      |
| B*07:23+B*15:249       | B*07:45+B*15:159       |                      |
| B*07:23+B*40:01:20     | B*07:106+B*40:79       |                      |
| B*07:23+B*40:47        | B*07:149+B*40:79       |                      |
| B*07:23+B*40:53        | B*07:86+B*40:190       |                      |
| B*07:23+B*40:63        | B*07:24+B*40:79        |                      |
| B*07:23+B*40:65        | B*07:87+B*40:79        |                      |
| B*07:23+B*40:73        | B*07:92+B*40:79        |                      |
| B*07:23+B*40:87:01     | B*07:68:01+B*40:79     |                      |
| B*07:23+B*40:87:02     | B*07:68:03+B*40:79     |                      |
| B*07:23+B*40:92        | B*07:60+B*40:79        |                      |
| B*07:23+B*40:96        | B*07:149+B*40:190      |                      |
| B*07:23+B*40:108       | B*07:159+B*40:79       |                      |
| B*07:23+B*40:109       | B*07:81+B*40:190       |                      |
| B*07:23+B*40:117       | B*07:36+B*40:79        |                      |
| B*07:23+B*40:132       | B*07:153+B*40:79       |                      |
| B*07:23+B*40:172       | B*07:96:01+B*40:79     |                      |
| B*07:23+B*40:192       | B*07:113+B*40:79       |                      |

|                     |                     |                    |
|---------------------|---------------------|--------------------|
| B*07:23+B*40:193    | B*07:148+B*40:79    |                    |
| B*07:23+B*40:199    | B*07:31+B*40:79     |                    |
| B*07:24+B*07:43     | B*07:31+B*07:131    |                    |
| B*07:24+B*07:147    | B*07:131+B*07:151   |                    |
| B*07:24+B*08:01:01G | B*07:31+B*08:21     |                    |
| B*07:24+B*08:13     | B*07:31+B*08:25     |                    |
| B*07:24+B*13:02:01G | B*07:131+B*13:18    |                    |
| B*07:24+B*14:01:01  | B*07:31+B*14:19     |                    |
| B*07:24+B*14:02:01  | B*07:31+B*14:27     | B*07:131+B*14:03   |
| B*07:24+B*15:05:01  | B*07:131+B*15:237   |                    |
| B*07:24+B*15:10:01  | B*07:131+B*15:99    |                    |
| B*07:24+B*15:17:01G | B*07:60+B*15:230    |                    |
| B*07:24+B*15:18:01G | B*07:131+B*15:221   |                    |
| B*07:24+B*15:39:01  | B*07:131+B*15:65    |                    |
| B*07:24+B*15:44     | B*07:31+B*15:21     |                    |
| B*07:24+B*15:50     | B*07:31+B*15:01:01G |                    |
| B*07:24+B*15:52     | B*07:48+B*15:221    |                    |
| B*07:24+B*15:93     | B*07:31+B*15:18:01G | B*07:43+B*15:221   |
| B*07:24+B*15:121    | B*07:31+B*15:02:01G |                    |
| B*07:24+B*15:252    | B*07:31+B*15:09     |                    |
| B*07:24+B*18:01:01G | B*07:31+B*18:36     | B*07:131+B*18:13   |
| B*07:24+B*18:11     | B*07:31+B*18:58     |                    |
| B*07:24+B*18:15     | B*07:131+B*18:30    |                    |
| B*07:24+B*27:15     | B*07:31+B*27:63     |                    |
| B*07:24+B*27:55     | B*07:87+B*27:38     |                    |
| B*07:24+B*27:71     | B*07:31+B*27:38     |                    |
| B*07:24+B*35:01:01G | B*07:131+B*35:08:01 |                    |
| B*07:24+B*35:01:04  | B*07:131+B*35:08:03 |                    |
| B*07:24+B*35:02:01  | B*07:131+B*35:172   |                    |
| B*07:24+B*35:03:01G | B*07:131+B*35:166   |                    |
| B*07:24+B*35:09:02  | B*07:131+B*35:18    |                    |
| B*07:24+B*35:10     | B*07:131+B*35:80    |                    |
| B*07:24+B*35:93     | B*07:31+B*35:01:01G | B*07:43+B*35:08:01 |
| B*07:24+B*35:124    | B*07:131+B*35:142   |                    |
| B*07:24+B*35:157    | B*07:31+B*35:81     |                    |
| B*07:24+B*35:159    | B*07:131+B*35:105   |                    |
| B*07:24+B*35:188    | B*07:31+B*35:21     |                    |
| B*07:24+B*35:190    | B*07:31+B*35:24:01  |                    |
| B*07:24+B*39:01:01G | B*07:31+B*39:74     |                    |
| B*07:24+B*39:05:01  | B*07:131+B*39:11    |                    |
| B*07:24+B*39:34     | B*07:43+B*39:33     |                    |
| B*07:24+B*39:48     | B*07:31+B*39:32     |                    |
| B*07:24+B*40:01:20  | B*07:106+B*40:63    |                    |
| B*07:24+B*40:47     | B*07:149+B*40:63    |                    |
| B*07:24+B*40:65     | B*07:87+B*40:63     |                    |
| B*07:24+B*40:73     | B*07:92+B*40:63     |                    |
| B*07:24+B*40:87:01  | B*07:68:01+B*40:63  |                    |
| B*07:24+B*40:87:02  | B*07:68:03+B*40:63  |                    |
| B*07:24+B*40:92     | B*07:60+B*40:63     |                    |
| B*07:24+B*40:108    | B*07:159+B*40:63    |                    |
| B*07:24+B*40:117    | B*07:36+B*40:63     |                    |
| B*07:24+B*40:148    | B*07:131+B*40:161   |                    |
| B*07:24+B*40:172    | B*07:96:01+B*40:63  |                    |
| B*07:24+B*40:178    | B*07:60+B*40:132    | B*07:153+B*40:92   |
| B*07:24+B*40:183    | B*07:131+B*40:198   |                    |
| B*07:24+B*40:192    | B*07:113+B*40:63    |                    |
| B*07:24+B*40:193    | B*07:148+B*40:63    |                    |
| B*07:24+B*40:199    | B*07:31+B*40:63     |                    |
| B*07:24+B*42:08     | B*07:60+B*42:05:01  |                    |
| B*07:24+B*44:04     | B*07:31+B*44:28:02  |                    |
| B*07:24+B*44:79     | B*07:131+B*44:76    |                    |
| B*07:24+B*44:132    | B*07:31+B*44:91     |                    |
| B*07:24+B*45:08     | B*07:31+B*45:04     |                    |
| B*07:24+B*46:18     | B*07:31+B*46:11     |                    |
| B*07:24+B*46:21:01  | B*07:31+B*46:13:03  |                    |
| B*07:24+B*46:21:02  | B*07:31+B*46:13:01  |                    |
| B*07:24+B*46:29     | B*07:31+B*46:01:01G |                    |
| B*07:24+B*48:04     | B*07:60+B*48:01:01G |                    |
| B*07:24+B*48:13     | B*07:60+B*48:10     |                    |
| B*07:24+B*51:01:01G | B*07:131+B*51:29    |                    |
| B*07:24+B*51:21     | B*07:31+B*51:01:01G | B*07:43+B*51:29    |
| B*07:24+B*52:01:01G | B*07:131+B*52:24    |                    |
| B*07:24+B*53:01:01  | B*07:131+B*53:24    |                    |
| B*07:24+B*53:05     | B*07:131+B*53:16    |                    |
| B*07:24+B*53:13     | B*07:131+B*53:11    |                    |
| B*07:24+B*54:01:01G | B*07:31+B*54:03     | B*07:131+B*54:10   |
| B*07:24+B*55:01:01G | B*07:31+B*56:25     | B*07:131+B*55:52   |
| B*07:24+B*55:02:01G | B*07:31+B*56:01:01G | B*07:131+B*55:37   |
| B*07:24+B*55:13     | B*07:31+B*56:22     |                    |
| B*07:24+B*56:10     | B*07:31+B*56:02     |                    |
| B*07:24+B*57:01:01G | B*07:131+B*57:19    |                    |
| B*07:24+B*57:03:01  | B*07:131+B*57:02:01 |                    |
| B*07:24+B*57:26     | B*07:31+B*57:01:01G | B*07:43+B*57:19    |
| B*07:24+B*58:01:01G | B*07:131+B*58:22    |                    |
| B*07:24+B*58:35     | B*07:31+B*58:01:01G | B*07:43+B*58:22    |
| B*07:24+B*59:01:01G | B*07:31+B*59:04     |                    |
| B*07:24+B*78:07     | B*07:31+B*78:01:01  |                    |
| B*07:25+B*08:13     | B*07:48+B*08:01:01G |                    |
| B*07:25+B*08:25     | B*07:48+B*08:21     |                    |
| B*07:25+B*15:05:02  | B*07:48+B*15:179    |                    |
| B*07:25+B*15:18:01G | B*07:26+B*15:51     |                    |
| B*07:25+B*35:01:01G | B*07:48+B*35:115    |                    |
| B*07:25+B*35:03:01G | B*07:48+B*35:38     |                    |
| B*07:25+B*40:14:01  | B*07:48+B*40:136    |                    |
| B*07:25+B*44:03:01G | B*07:48+B*44:02:01G |                    |
| B*07:25+B*44:03:02  | B*07:48+B*44:02:07  |                    |
| B*07:25+B*44:03:05  | B*07:48+B*44:02:24  |                    |
| B*07:25+B*44:13     | B*07:48+B*44:67     |                    |
| B*07:25+B*44:29     | B*07:48+B*44:89     |                    |
| B*07:25+B*44:37:01  | B*07:48+B*44:91     |                    |
| B*07:25+B*44:40     | B*07:48+B*44:44     |                    |
| B*07:25+B*44:43:01  | B*07:48+B*44:17     |                    |
| B*07:25+B*44:45     | B*07:48+B*44:51     |                    |
| B*07:25+B*44:46     | B*07:48+B*44:09     |                    |
| B*07:25+B*44:47     | B*07:48+B*44:20     |                    |

|                      |                      |                     |                   |
|----------------------|----------------------|---------------------|-------------------|
| B*07:25+B*44:50      | B*07:48+B*44:95      |                     |                   |
| B*07:25+B*44:54      | B*07:48+B*44:106     |                     |                   |
| B*07:25+B*44:57      | B*07:48+B*44:08      |                     |                   |
| B*07:25+B*44:64:02   | B*07:48+B*44:16      |                     |                   |
| B*07:25+B*44:65      | B*07:48+B*44:41:01   |                     |                   |
| B*07:25+B*44:105     | B*07:48+B*44:22      |                     |                   |
| B*07:25+B*44:107     | B*07:48+B*44:123     |                     |                   |
| B*07:25+B*44:146     | B*07:55+B*44:02:01G  |                     |                   |
| B*07:25+B*49:20      | B*07:26+B*44:18      |                     |                   |
| B*07:25+B*50:01:01   | B*07:26+B*45:04      | B*07:131+B*45:10    |                   |
| B*07:25+B*50:02      | B*07:26+B*45:01:01G  |                     |                   |
| B*07:25+B*51:09:01   | B*07:48+B*51:08      |                     |                   |
| B*07:25+B*51:42      | B*07:48+B*44:06      |                     |                   |
| B*07:25+B*51:55      | B*07:66+B*51:08      |                     |                   |
| B*07:25+B*51:61:02   | B*07:55+B*51:08      |                     |                   |
| B*07:25+B*51:63      | B*07:26+B*51:97      |                     |                   |
| B*07:25+B*52:10:01   | B*07:48+B*52:19      |                     |                   |
| B*07:25+B*56:01:01G  | B*07:48+B*56:13      |                     |                   |
| B*07:25+B*57:01:01G  | B*07:48+B*57:24      |                     |                   |
| B*07:25+B*57:30      | B*07:51+B*57:24      |                     |                   |
| B*07:26+B*07:34      | B*07:43+B*07:80      |                     |                   |
| B*07:26+B*07:53      | B*07:33+B*07:80      |                     |                   |
| B*07:26+B*07:60      | B*07:33+B*07:131     |                     |                   |
| B*07:26+B*07:69      | B*07:80+B*07:85      |                     |                   |
| B*07:26+B*07:123     | B*07:54+B*07:80      |                     |                   |
| B*07:26+B*07:138     | B*07:80+B*07:158     |                     |                   |
| B*07:26+B*07:140     | B*07:80+B*07:153     |                     |                   |
| B*07:26+B*08:35      | B*07:80+B*08:37      |                     |                   |
| B*07:26+B*08:70      | B*07:55+B*08:13      |                     |                   |
| B*07:26+B*13:01:01G  | B*07:48+B*13:20      |                     |                   |
| B*07:26+B*13:02:01G  | B*07:48+B*13:16      |                     |                   |
| B*07:26+B*13:03      | B*07:48+B*13:48      | B*07:131+B*13:45    |                   |
| B*07:26+B*13:06      | B*07:43+B*13:01:01G  |                     |                   |
| B*07:26+B*13:31      | B*07:55+B*13:16      |                     |                   |
| B*07:26+B*13:41      | B*07:48+B*13:31      | B*07:55+B*13:02:01G |                   |
| B*07:26+B*13:53      | B*07:43+B*13:02:01G  |                     |                   |
| B*07:26+B*15:01:01G  | B*07:55+B*15:39:01   | B*07:131+B*15:117   |                   |
| B*07:26+B*15:05:01   | B*07:48+B*15:39:01   |                     |                   |
| B*07:26+B*15:05:02   | B*07:48+B*15:39:02   |                     |                   |
| B*07:26+B*15:18:01G  | B*07:131+B*15:238    |                     |                   |
| B*07:26+B*15:27:01   | B*07:55+B*15:195     |                     |                   |
| B*07:26+B*15:30      | B*07:80+B*15:63      |                     |                   |
| B*07:26+B*15:39:01   | B*07:131+B*15:40     |                     |                   |
| B*07:26+B*15:50      | B*07:43+B*15:117     |                     |                   |
| B*07:26+B*15:52      | B*07:48+B*15:238     |                     |                   |
| B*07:26+B*15:54      | B*07:55+B*15:03:01G  |                     |                   |
| B*07:26+B*15:91      | B*07:48+B*15:131     |                     |                   |
| B*07:26+B*15:93      | B*07:43+B*15:238     |                     |                   |
| B*07:26+B*15:117     | B*07:55+B*15:40      |                     |                   |
| B*07:26+B*15:123:01G | B*07:48+B*15:03:01G  |                     |                   |
| B*07:26+B*15:144     | B*07:55+B*15:02:01G  |                     |                   |
| B*07:26+B*15:222     | B*07:48+B*15:16:01   |                     |                   |
| B*07:26+B*15:229     | B*07:80+B*15:133     |                     |                   |
| B*07:26+B*15:241     | B*07:55+B*15:138     |                     |                   |
| B*07:26+B*18:01:01G  | B*07:43+B*18:50      | B*07:48+B*18:15     |                   |
| B*07:26+B*18:11      | B*07:43+B*18:10      |                     |                   |
| B*07:26+B*18:19      | B*07:55+B*18:15      |                     |                   |
| B*07:26+B*18:36      | B*07:131+B*18:50     |                     |                   |
| B*07:26+B*18:58      | B*07:131+B*18:10     |                     |                   |
| B*07:26+B*27:05:02G  | B*07:48+B*27:10      |                     |                   |
| B*07:26+B*27:08      | B*07:48+B*27:40      |                     |                   |
| B*07:26+B*27:15      | B*07:43+B*27:04:01G  |                     |                   |
| B*07:26+B*27:25      | B*07:55+B*27:63      |                     |                   |
| B*07:26+B*27:38      | B*07:131+B*27:05:02G |                     |                   |
| B*07:26+B*27:61      | B*07:48+B*27:04:01G  |                     |                   |
| B*07:26+B*27:63      | B*07:131+B*27:04:01G |                     |                   |
| B*07:26+B*27:71      | B*07:43+B*27:05:02G  |                     |                   |
| B*07:26+B*35:01:01G  | B*07:48+B*35:11:01   | B*07:131+B*35:15    |                   |
| B*07:26+B*35:03:01G  | B*07:48+B*35:167     | B*07:131+B*35:33    |                   |
| B*07:26+B*35:04:01   | B*07:80+B*35:34      |                     |                   |
| B*07:26+B*35:05:01   | B*07:48+B*35:58      |                     |                   |
| B*07:26+B*35:06      | B*07:80+B*35:03:01G  |                     |                   |
| B*07:26+B*35:12:01   | B*07:80+B*35:39      |                     |                   |
| B*07:26+B*35:14:01   | B*07:55+B*35:11:01   |                     |                   |
| B*07:26+B*35:14:02   | B*07:55+B*35:11:02   |                     |                   |
| B*07:26+B*35:22      | B*07:80+B*35:199     |                     |                   |
| B*07:26+B*35:24:01   | B*07:48+B*35:21      |                     |                   |
| B*07:26+B*35:43:01G  | B*07:131+B*35:86     |                     |                   |
| B*07:26+B*35:62      | B*07:48+B*35:14:01   | B*07:55+B*35:01:01G |                   |
| B*07:26+B*35:93      | B*07:43+B*35:15      |                     |                   |
| B*07:26+B*35:163     | B*07:55+B*35:03:01G  |                     |                   |
| B*07:26+B*35:190     | B*07:48+B*35:188     |                     |                   |
| B*07:26+B*37:01:01G  | B*07:48+B*37:13      |                     |                   |
| B*07:26+B*38:01:01   | B*07:48+B*38:32      |                     |                   |
| B*07:26+B*38:02:01G  | B*07:80+B*38:29      |                     |                   |
| B*07:26+B*38:36      | B*07:48+B*38:10      |                     |                   |
| B*07:26+B*39:01:01G  | B*07:43+B*39:47      | B*07:48+B*39:35     | B*07:80+B*39:15   |
| B*07:26+B*39:05:01   | B*07:80+B*39:55      |                     |                   |
| B*07:26+B*39:06:02   | B*07:43+B*39:50      |                     |                   |
| B*07:26+B*39:13:01   | B*07:80+B*39:49      |                     |                   |
| B*07:26+B*39:14      | B*07:80+B*39:29      |                     |                   |
| B*07:26+B*39:74      | B*07:131+B*39:47     |                     |                   |
| B*07:26+B*40:01:01G  | B*07:48+B*40:183     | B*07:80+B*40:33     | B*07:147+B*40:114 |
| B*07:26+B*40:02:01G  | B*07:80+B*40:18      |                     |                   |
| B*07:26+B*40:06:01G  | B*07:48+B*40:148     | B*07:80+B*40:44     |                   |
| B*07:26+B*40:16      | B*07:80+B*40:32      |                     |                   |
| B*07:26+B*40:38      | B*07:80+B*40:52      |                     |                   |
| B*07:26+B*40:39      | B*07:34+B*40:18      | B*07:43+B*40:02:01G |                   |
| B*07:26+B*40:63      | B*07:131+B*40:01:01G |                     |                   |
| B*07:26+B*40:72:01   | B*07:147+B*40:14:01  |                     |                   |
| B*07:26+B*40:72:02   | B*07:147+B*40:14:03  |                     |                   |
| B*07:26+B*40:80      | B*07:80+B*40:31      | B*07:147+B*40:45    |                   |
| B*07:26+B*40:89      | B*07:80+B*40:09      |                     |                   |
| B*07:26+B*40:105     | B*07:80+B*40:03      |                     |                   |
| B*07:26+B*40:172     | B*07:80+B*40:42      |                     |                   |

|                     |                        |                     |                 |
|---------------------|------------------------|---------------------|-----------------|
| B*07:26+B*40:199    | B*07:34+B*40:33        | B*07:43+B*40:01:01G |                 |
| B*07:26+B*41:01     | B*07:80+B*41:21        |                     |                 |
| B*07:26+B*41:02:01  | B*07:43+B*41:19        |                     |                 |
| B*07:26+B*42:01:01  | B*07:80+B*42:16        |                     |                 |
| B*07:26+B*44:03:01G | B*07:48+B*44:79        |                     |                 |
| B*07:26+B*44:03:02  | B*07:131+B*44:124      |                     |                 |
| B*07:26+B*44:14     | B*07:80+B*44:51        |                     |                 |
| B*07:26+B*44:37:01  | B*07:131+B*44:64:02    |                     |                 |
| B*07:26+B*44:37:02  | B*07:131+B*44:64:01    |                     |                 |
| B*07:26+B*44:77     | B*07:80+B*44:107       |                     |                 |
| B*07:26+B*44:132    | B*07:43+B*44:16        |                     |                 |
| B*07:26+B*44:146    | B*07:55+B*44:79        |                     |                 |
| B*07:26+B*45:08     | B*07:43+B*45:10        |                     |                 |
| B*07:26+B*46:01:01G | B*07:55+B*46:08        | B*07:131+B*46:30    |                 |
| B*07:26+B*46:09     | B*07:48+B*46:01:01G    | B*07:55+B*46:13:03  |                 |
| B*07:26+B*46:13:03  | B*07:48+B*46:08        |                     |                 |
| B*07:26+B*46:29     | B*07:43+B*46:30        |                     |                 |
| B*07:26+B*47:08     | B*07:43+B*47:01:01G    |                     |                 |
| B*07:26+B*48:01:01G | B*07:48+B*48:15        |                     |                 |
| B*07:26+B*48:02:01  | B*07:48+B*48:25        |                     |                 |
| B*07:26+B*48:19     | B*07:55+B*48:01:01G    |                     |                 |
| B*07:26+B*49:01:01  | B*07:131+B*49:07       |                     |                 |
| B*07:26+B*49:11     | B*07:48+B*49:01:01     |                     |                 |
| B*07:26+B*51:01:01G | B*07:80+B*51:90        | B*07:131+B*51:16    |                 |
| B*07:26+B*51:02:01  | B*07:131+B*51:34       |                     |                 |
| B*07:26+B*51:05     | B*07:36+B*78:04        |                     |                 |
| B*07:26+B*51:06:01  | B*07:80+B*51:135       |                     |                 |
| B*07:26+B*51:09:01  | B*07:48+B*51:01:01G    | B*07:131+B*51:31    |                 |
| B*07:26+B*51:09:02  | B*07:48+B*51:01:02     |                     |                 |
| B*07:26+B*51:13:01  | B*07:80+B*51:92        |                     |                 |
| B*07:26+B*51:21     | B*07:43+B*51:16        |                     |                 |
| B*07:26+B*51:31     | B*07:48+B*51:16        |                     |                 |
| B*07:26+B*51:40     | B*07:48+B*51:02:05     |                     |                 |
| B*07:26+B*51:54     | B*07:149+B*78:04       |                     |                 |
| B*07:26+B*51:55     | B*07:66+B*51:01:01G    |                     |                 |
| B*07:26+B*51:61:02  | B*07:55+B*51:01:01G    |                     |                 |
| B*07:26+B*51:63     | B*07:80+B*51:37        |                     |                 |
| B*07:26+B*51:108    | B*07:48+B*51:23        |                     |                 |
| B*07:26+B*52:01:01G | B*07:80+B*52:12        | B*07:131+B*52:08    |                 |
| B*07:26+B*52:10:01  | B*07:48+B*52:01:01G    |                     |                 |
| B*07:26+B*52:10:02  | B*07:48+B*52:01:07     |                     |                 |
| B*07:26+B*52:21     | B*07:55+B*52:01:02     |                     |                 |
| B*07:26+B*53:01:01  | B*07:48+B*53:08:01     |                     |                 |
| B*07:26+B*53:01:03  | B*07:48+B*53:08:02     |                     |                 |
| B*07:26+B*54:01:01G | B*07:43+B*54:26        | B*07:80+B*54:16     |                 |
| B*07:26+B*54:03     | B*07:131+B*54:26       |                     |                 |
| B*07:26+B*55:01:01G | B*07:43+B*55:24        |                     |                 |
| B*07:26+B*55:02:01G | B*07:43+B*55:22        | B*07:48+B*55:01:01G | B*07:80+B*55:46 |
| B*07:26+B*55:21     | B*07:55+B*55:01:01G    |                     |                 |
| B*07:26+B*55:22     | B*07:48+B*55:24        |                     |                 |
| B*07:26+B*55:32     | B*07:80+B*55:23        |                     |                 |
| B*07:26+B*56:01:01G | B*07:48+B*56:25        | B*07:131+B*55:22    |                 |
| B*07:26+B*56:18     | B*07:48+B*56:32        |                     |                 |
| B*07:26+B*56:25     | B*07:131+B*55:24       |                     |                 |
| B*07:26+B*57:01:01G | B*07:48+B*57:22        | B*07:131+B*57:25    |                 |
| B*07:26+B*57:03:01  | B*07:48+B*57:57        |                     |                 |
| B*07:26+B*57:26     | B*07:43+B*57:25        |                     |                 |
| B*07:26+B*57:30     | B*07:51+B*57:22        |                     |                 |
| B*07:26+B*58:01:01G | B*07:48+B*58:19        | B*07:131+B*58:37    |                 |
| B*07:26+B*58:02     | B*07:48+B*58:06        |                     |                 |
| B*07:26+B*58:35     | B*07:43+B*58:37        |                     |                 |
| B*07:27+B*15:01:01G | B*07:50+B*15:43        |                     |                 |
| B*07:27+B*18:01:01G | B*07:50+B*18:54        |                     |                 |
| B*07:27+B*18:12     | B*18:54+B*48:08        |                     |                 |
| B*07:27+B*27:08     | B*07:50+B*27:05:02G    |                     |                 |
| B*07:27+B*27:12     | B*07:50+B*27:16        | B*07:85+B*27:29     |                 |
| B*07:27+B*27:33     | B*07:50+B*27:07:01G    |                     |                 |
| B*07:27+B*27:40     | B*07:50+B*27:10        |                     |                 |
| B*07:27+B*35:01:01G | B*07:50+B*53:03        |                     |                 |
| B*07:27+B*35:10     | B*48:08+B*53:03        |                     |                 |
| B*07:27+B*37:11     | B*07:50+B*37:01:01G    |                     |                 |
| B*07:27+B*39:05:01  | B*07:50+B*38:17        |                     |                 |
| B*07:27+B*40:01:01G | B*07:50+B*40:188       |                     |                 |
| B*07:27+B*47:02     | B*07:50+B*47:01:01G    |                     |                 |
| B*07:28+B*08:58     | B*07:138+B*08:87       |                     |                 |
| B*07:28+B*15:03:01G | B*07:118+B*15:156      |                     |                 |
| B*07:28+B*15:195    | B*07:118+B*15:06       |                     |                 |
| B*07:28+B*15:223    | B*07:118+B*15:02:01G   |                     |                 |
| B*07:28+B*18:01:01G | B*07:118+B*18:20       |                     |                 |
| B*07:28+B*27:46     | B*07:96:01+B*27:05:02G |                     |                 |
| B*07:28+B*40:01:01G | B*07:118+B*40:172      |                     |                 |
| B*07:28+B*40:02:01G | B*07:118+B*40:89       |                     |                 |
| B*07:28+B*40:18     | B*07:118+B*40:09       |                     |                 |
| B*07:28+B*40:33     | B*07:118+B*40:42       |                     |                 |
| B*07:28+B*44:25     | B*07:96:01+B*44:95     |                     |                 |
| B*07:28+B*44:42     | B*07:96:01+B*44:91     |                     |                 |
| B*07:28+B*44:45     | B*07:118+B*44:03:01G   |                     |                 |
| B*07:28+B*44:51     | B*07:118+B*44:02:01G   |                     |                 |
| B*07:28+B*44:135    | B*07:118+B*44:54       |                     |                 |
| B*07:28+B*44:139    | B*07:96:01+B*44:93     |                     |                 |
| B*07:28+B*52:15     | B*07:140+B*52:26       |                     |                 |
| B*07:28+B*55:02:01G | B*07:118+B*55:41       |                     |                 |
| B*07:28+B*57:01:01G | B*07:118+B*57:41       |                     |                 |
| B*07:28+B*57:03:01  | B*07:80+B*57:04        |                     |                 |
| B*07:29+B*08:26     | B*07:72+B*08:01:01G    |                     |                 |
| B*07:29+B*08:50     | B*07:86+B*08:01:01G    |                     |                 |
| B*07:29+B*14:11     | B*07:86+B*14:28        |                     |                 |
| B*07:29+B*14:14     | B*07:91+B*14:28        |                     |                 |
| B*07:29+B*15:01:01G | B*07:86+B*15:142       |                     |                 |
| B*07:29+B*15:71     | B*07:143+B*15:142      |                     |                 |
| B*07:29+B*44:02:01G | B*07:86+B*44:49        |                     |                 |
| B*07:29+B*51:01:01G | B*07:86+B*51:68        |                     |                 |
| B*07:29+B*57:01:01G | B*07:86+B*57:49        |                     |                 |
| B*07:31+B*07:147    | B*07:43+B*07:151       |                     |                 |
| B*07:31+B*13:23     | B*07:143+B*13:06       |                     |                 |

|                     |                     |                  |
|---------------------|---------------------|------------------|
| B*07:31+B*13:55     | B*07:143+B*13:53    |                  |
| B*07:31+B*14:02:01  | B*07:43+B*14:03     |                  |
| B*07:31+B*15:05:01  | B*07:43+B*15:237    |                  |
| B*07:31+B*15:10:01  | B*07:43+B*15:99     |                  |
| B*07:31+B*15:39:01  | B*07:43+B*15:65     |                  |
| B*07:31+B*18:01:01G | B*07:43+B*18:13     |                  |
| B*07:31+B*18:15     | B*07:43+B*18:30     |                  |
| B*07:31+B*27:55     | B*07:87+B*27:71     |                  |
| B*07:31+B*35:01:04  | B*07:43+B*35:08:03  |                  |
| B*07:31+B*35:02:01  | B*07:43+B*35:172    |                  |
| B*07:31+B*35:03:01G | B*07:43+B*35:156    |                  |
| B*07:31+B*35:06     | B*07:34+B*35:156    |                  |
| B*07:31+B*35:09:02  | B*07:43+B*35:18     |                  |
| B*07:31+B*35:10     | B*07:43+B*35:80     |                  |
| B*07:31+B*35:124    | B*07:43+B*35:142    |                  |
| B*07:31+B*35:159    | B*07:43+B*35:105    |                  |
| B*07:31+B*39:05:01  | B*07:43+B*39:11     |                  |
| B*07:31+B*40:01:20  | B*07:106+B*40:199   |                  |
| B*07:31+B*40:19     | B*07:36+B*40:39     |                  |
| B*07:31+B*40:35     | B*07:68:03+B*40:39  |                  |
| B*07:31+B*40:37     | B*07:57+B*40:39     |                  |
| B*07:31+B*40:47     | B*07:149+B*40:199   |                  |
| B*07:31+B*40:57     | B*07:71+B*40:39     |                  |
| B*07:31+B*40:65     | B*07:87+B*40:199    |                  |
| B*07:31+B*40:70     | B*07:84+B*40:39     |                  |
| B*07:31+B*40:73     | B*07:92+B*40:199    |                  |
| B*07:31+B*40:87:01  | B*07:68:01+B*40:199 |                  |
| B*07:31+B*40:87:02  | B*07:68:03+B*40:199 |                  |
| B*07:31+B*40:89     | B*07:96:01+B*40:39  |                  |
| B*07:31+B*40:92     | B*07:60+B*40:199    |                  |
| B*07:31+B*40:108    | B*07:159+B*40:199   |                  |
| B*07:31+B*40:115    | B*07:94+B*40:39     |                  |
| B*07:31+B*40:117    | B*07:36+B*40:199    |                  |
| B*07:31+B*40:132    | B*07:153+B*40:199   |                  |
| B*07:31+B*40:148    | B*07:43+B*40:161    |                  |
| B*07:31+B*40:157    | B*07:149+B*40:39    |                  |
| B*07:31+B*40:172    | B*07:96:01+B*40:199 |                  |
| B*07:31+B*40:183    | B*07:43+B*40:198    |                  |
| B*07:31+B*40:192    | B*07:113+B*40:199   |                  |
| B*07:31+B*40:193    | B*07:148+B*40:199   |                  |
| B*07:31+B*44:03:01G | B*07:43+B*44:28:02  | B*07:131+B*44:04 |
| B*07:31+B*44:03:02  | B*07:43+B*44:28:01  |                  |
| B*07:31+B*44:79     | B*07:43+B*44:76     |                  |
| B*07:31+B*46:08     | B*07:131+B*46:03    |                  |
| B*07:31+B*52:01:01G | B*07:43+B*52:24     |                  |
| B*07:31+B*53:01:01  | B*07:43+B*53:24     |                  |
| B*07:31+B*53:05     | B*07:43+B*53:16     |                  |
| B*07:31+B*53:13     | B*07:43+B*53:11     |                  |
| B*07:31+B*54:01:01G | B*07:43+B*54:10     |                  |
| B*07:31+B*55:01:01G | B*07:43+B*55:52     |                  |
| B*07:31+B*55:02:01G | B*07:43+B*55:37     |                  |
| B*07:31+B*57:03:01  | B*07:43+B*57:02:01  |                  |
| B*07:32+B*08:54     | B*08:79+B*42:11     |                  |
| B*07:32+B*08:65     | B*07:69+B*08:01:01G |                  |
| B*07:32+B*15:18:01G | B*07:69+B*15:29     |                  |
| B*07:32+B*15:66     | B*07:69+B*15:56     |                  |
| B*07:32+B*18:33     | B*07:69+B*18:07:01  |                  |
| B*07:32+B*35:82     | B*07:69+B*35:01:01G |                  |
| B*07:32+B*35:85     | B*07:69+B*35:03:01G | B*07:85+B*35:06  |
| B*07:32+B*35:135    | B*07:69+B*35:43:01G |                  |
| B*07:32+B*39:01:01G | B*07:69+B*39:58     |                  |
| B*07:32+B*40:75     | B*07:69+B*40:162    |                  |
| B*07:32+B*51:22     | B*07:69+B*51:01:01G |                  |
| B*07:32+B*78:03     | B*07:69+B*78:01:01  |                  |
| B*07:33+B*07:34     | B*07:43+B*07:53     |                  |
| B*07:33+B*07:69     | B*07:53+B*07:85     |                  |
| B*07:33+B*07:123    | B*07:53+B*07:54     |                  |
| B*07:33+B*07:138    | B*07:53+B*07:158    |                  |
| B*07:33+B*07:140    | B*07:53+B*07:153    |                  |
| B*07:33+B*08:01:01G | B*07:53+B*08:07     |                  |
| B*07:33+B*08:35     | B*07:53+B*08:37     |                  |
| B*07:33+B*13:03     | B*07:60+B*13:45     |                  |
| B*07:33+B*15:01:01G | B*07:60+B*15:117    |                  |
| B*07:33+B*15:18:01G | B*07:60+B*15:238    |                  |
| B*07:33+B*15:30     | B*07:53+B*15:63     |                  |
| B*07:33+B*15:39:01  | B*07:60+B*15:40     |                  |
| B*07:33+B*15:229    | B*07:53+B*15:133    |                  |
| B*07:33+B*18:36     | B*07:60+B*18:50     |                  |
| B*07:33+B*18:58     | B*07:60+B*18:10     |                  |
| B*07:33+B*27:38     | B*07:60+B*27:05:02G |                  |
| B*07:33+B*27:63     | B*07:60+B*27:04:01G |                  |
| B*07:33+B*35:01:01G | B*07:60+B*35:15     |                  |
| B*07:33+B*35:03:01G | B*07:60+B*35:33     |                  |
| B*07:33+B*35:04:01  | B*07:53+B*35:34     |                  |
| B*07:33+B*35:06     | B*07:53+B*35:03:01G |                  |
| B*07:33+B*35:12:01  | B*07:53+B*35:39     |                  |
| B*07:33+B*35:22     | B*07:53+B*35:199    |                  |
| B*07:33+B*35:43:01G | B*07:60+B*35:86     |                  |
| B*07:33+B*38:02:01G | B*07:53+B*38:29     |                  |
| B*07:33+B*39:01:01G | B*07:53+B*39:15     |                  |
| B*07:33+B*39:05:01  | B*07:53+B*39:55     |                  |
| B*07:33+B*39:13:01  | B*07:53+B*39:49     |                  |
| B*07:33+B*39:14     | B*07:53+B*39:29     |                  |
| B*07:33+B*39:74     | B*07:60+B*39:47     |                  |
| B*07:33+B*40:02:01G | B*07:53+B*40:18     |                  |
| B*07:33+B*40:06:01G | B*07:53+B*40:44     |                  |
| B*07:33+B*40:14:03  | B*07:86+B*40:11:01  |                  |
| B*07:33+B*40:16     | B*07:53+B*40:32     |                  |
| B*07:33+B*40:38     | B*07:53+B*40:52     |                  |
| B*07:33+B*40:80     | B*07:53+B*40:31     |                  |
| B*07:33+B*40:89     | B*07:53+B*40:09     |                  |
| B*07:33+B*40:105    | B*07:53+B*40:03     |                  |
| B*07:33+B*40:172    | B*07:53+B*40:42     |                  |
| B*07:33+B*41:01     | B*07:53+B*41:21     |                  |
| B*07:33+B*42:01:01  | B*07:53+B*42:16     |                  |

|                     |                       |                  |
|---------------------|-----------------------|------------------|
| B*07:33+B*44:02:01G | B*07:60+B*44:21       |                  |
| B*07:33+B*44:03:02  | B*07:60+B*44:124      |                  |
| B*07:33+B*44:14     | B*07:53+B*44:51       |                  |
| B*07:33+B*44:37:01  | B*07:60+B*44:64:02    |                  |
| B*07:33+B*44:37:02  | B*07:60+B*44:64:01    |                  |
| B*07:33+B*44:77     | B*07:53+B*44:107      |                  |
| B*07:33+B*44:91     | B*07:60+B*44:16       |                  |
| B*07:33+B*45:04     | B*07:60+B*45:10       |                  |
| B*07:33+B*46:01:01G | B*07:60+B*46:30       |                  |
| B*07:33+B*48:12     | B*07:68:02+B*48:13    |                  |
| B*07:33+B*48:18     | B*07:81+B*48:04       |                  |
| B*07:33+B*48:27     | B*07:74+B*48:04       |                  |
| B*07:33+B*48:28     | B*07:109+B*48:04      |                  |
| B*07:33+B*49:01:01  | B*07:60+B*49:07       |                  |
| B*07:33+B*51:01:01G | B*07:53+B*51:90       | B*07:60+B*51:16  |
| B*07:33+B*51:02:01  | B*07:60+B*51:34       |                  |
| B*07:33+B*51:06:01  | B*07:53+B*51:135      |                  |
| B*07:33+B*51:09:01  | B*07:60+B*51:31       |                  |
| B*07:33+B*51:13:01  | B*07:53+B*51:92       |                  |
| B*07:33+B*51:29     | B*07:60+B*51:82       |                  |
| B*07:33+B*51:63     | B*07:53+B*51:37       |                  |
| B*07:33+B*52:01:01G | B*07:53+B*52:12       | B*07:60+B*52:08  |
| B*07:33+B*54:01:01G | B*07:53+B*54:16       |                  |
| B*07:33+B*54:03     | B*07:60+B*54:26       |                  |
| B*07:33+B*55:02:01G | B*07:53+B*55:46       |                  |
| B*07:33+B*55:32     | B*07:53+B*55:23       |                  |
| B*07:33+B*56:01:01G | B*07:60+B*55:22       |                  |
| B*07:33+B*56:25     | B*07:60+B*55:24       |                  |
| B*07:33+B*57:01:01G | B*07:60+B*57:25       |                  |
| B*07:33+B*58:01:01G | B*07:60+B*58:37       |                  |
| B*07:34+B*07:54     | B*07:43+B*07:123      |                  |
| B*07:34+B*07:85     | B*07:43+B*07:69       |                  |
| B*07:34+B*07:153    | B*07:43+B*07:140      |                  |
| B*07:34+B*07:158    | B*07:43+B*07:138      |                  |
| B*07:34+B*08:07     | B*07:43+B*08:01:01G   |                  |
| B*07:34+B*08:37     | B*07:43+B*08:35       |                  |
| B*07:34+B*13:01:01G | B*07:80+B*13:06       |                  |
| B*07:34+B*13:02:01G | B*07:80+B*13:53       |                  |
| B*07:34+B*15:63     | B*07:43+B*15:30       |                  |
| B*07:34+B*15:117    | B*07:80+B*15:50       |                  |
| B*07:34+B*15:124    | B*15:93+B*81:01:01G   |                  |
| B*07:34+B*15:133    | B*07:43+B*15:229      |                  |
| B*07:34+B*15:238    | B*07:80+B*15:93       |                  |
| B*07:34+B*18:10     | B*07:80+B*18:11       |                  |
| B*07:34+B*18:50     | B*07:80+B*18:01:01G   |                  |
| B*07:34+B*27:04:01G | B*07:80+B*27:15       |                  |
| B*07:34+B*27:05:02G | B*07:80+B*27:71       |                  |
| B*07:34+B*35:03:01G | B*07:43+B*35:06       |                  |
| B*07:34+B*35:15     | B*07:80+B*35:93       |                  |
| B*07:34+B*35:34     | B*07:43+B*35:04:01    |                  |
| B*07:34+B*35:39     | B*07:43+B*35:12:01    |                  |
| B*07:34+B*35:199    | B*07:43+B*35:22       |                  |
| B*07:34+B*38:29     | B*07:43+B*38:02:01G   |                  |
| B*07:34+B*39:15     | B*07:43+B*39:01:01G   |                  |
| B*07:34+B*39:29     | B*07:43+B*39:14       |                  |
| B*07:34+B*39:47     | B*07:80+B*39:01:01G   |                  |
| B*07:34+B*39:49     | B*07:43+B*39:13:01    |                  |
| B*07:34+B*39:50     | B*07:80+B*39:06:02    |                  |
| B*07:34+B*39:55     | B*07:43+B*39:05:01    |                  |
| B*07:34+B*40:01:01G | B*07:80+B*40:199      |                  |
| B*07:34+B*40:02:01G | B*07:80+B*40:39       |                  |
| B*07:34+B*40:03     | B*07:43+B*40:105      |                  |
| B*07:34+B*40:09     | B*07:43+B*40:89       |                  |
| B*07:34+B*40:31     | B*07:43+B*40:80       |                  |
| B*07:34+B*40:32     | B*07:43+B*40:16       |                  |
| B*07:34+B*40:42     | B*07:43+B*40:172      |                  |
| B*07:34+B*40:44     | B*07:43+B*40:06:01G   |                  |
| B*07:34+B*40:52     | B*07:43+B*40:38       |                  |
| B*07:34+B*41:19     | B*07:80+B*41:02:01    |                  |
| B*07:34+B*41:21     | B*07:43+B*41:01       |                  |
| B*07:34+B*42:16     | B*07:43+B*42:01:01    |                  |
| B*07:34+B*44:16     | B*07:80+B*44:132      |                  |
| B*07:34+B*44:51     | B*07:43+B*44:14       |                  |
| B*07:34+B*44:107    | B*07:43+B*44:77       |                  |
| B*07:34+B*45:10     | B*07:80+B*45:08       |                  |
| B*07:34+B*46:30     | B*07:80+B*46:29       |                  |
| B*07:34+B*47:01:01G | B*07:80+B*47:08       |                  |
| B*07:34+B*51:08     | B*42:05:01+B*51:01:25 |                  |
| B*07:34+B*51:16     | B*07:80+B*51:21       |                  |
| B*07:34+B*51:37     | B*07:43+B*51:63       |                  |
| B*07:34+B*51:90     | B*07:43+B*51:01:01G   | B*07:131+B*51:21 |
| B*07:34+B*51:92     | B*07:43+B*51:13:01    |                  |
| B*07:34+B*51:135    | B*07:43+B*51:06:01    |                  |
| B*07:34+B*52:12     | B*07:43+B*52:01:01G   |                  |
| B*07:34+B*54:16     | B*07:43+B*54:01:01G   |                  |
| B*07:34+B*54:26     | B*07:80+B*54:01:01G   |                  |
| B*07:34+B*55:22     | B*07:80+B*55:02:01G   |                  |
| B*07:34+B*55:23     | B*07:43+B*55:32       |                  |
| B*07:34+B*55:24     | B*07:80+B*55:01:01G   |                  |
| B*07:34+B*55:46     | B*07:43+B*55:02:01G   |                  |
| B*07:34+B*57:25     | B*07:80+B*57:26       |                  |
| B*07:34+B*58:37     | B*07:80+B*58:35       |                  |
| B*07:36+B*07:91     | B*07:75+B*07:81       |                  |
| B*07:36+B*08:02     | B*07:149+B*08:78      |                  |
| B*07:36+B*08:15     | B*07:92+B*08:78       |                  |
| B*07:36+B*08:18     | B*07:102+B*08:78      |                  |
| B*07:36+B*08:32     | B*07:134+B*08:78      |                  |
| B*07:36+B*08:39     | B*07:93+B*08:78       |                  |
| B*07:36+B*08:43     | B*07:124+B*08:78      |                  |
| B*07:36+B*08:47     | B*07:57+B*08:78       |                  |
| B*07:36+B*08:52     | B*07:81+B*08:78       |                  |
| B*07:36+B*08:58     | B*07:158+B*08:78      |                  |
| B*07:36+B*08:64     | B*07:113+B*08:78      |                  |
| B*07:36+B*08:71     | B*07:68:03+B*08:78    |                  |
| B*07:36+B*08:74     | B*07:96:01+B*08:78    |                  |



|                      |                      |                  |
|----------------------|----------------------|------------------|
| B*07:36+B*08:77      | B*07:74+B*08:78      |                  |
| B*07:36+B*13:25      | B*07:81+B*13:01:01G  |                  |
| B*07:36+B*15:08      | B*07:38+B*15:76      |                  |
| B*07:36+B*15:12:01G  | B*07:64+B*15:24      |                  |
| B*07:36+B*15:14      | B*07:153+B*15:24     |                  |
| B*07:36+B*15:25:01G  | B*07:54+B*15:13:01   |                  |
| B*07:36+B*15:56      | B*07:38+B*15:101     |                  |
| B*07:36+B*15:60      | B*07:117+B*15:24     |                  |
| B*07:36+B*15:87      | B*07:81+B*15:24      |                  |
| B*07:36+B*15:89      | B*07:149+B*15:13:01  |                  |
| B*07:36+B*15:108     | B*07:45+B*15:23      |                  |
| B*07:36+B*15:122     | B*07:127+B*15:24     |                  |
| B*07:36+B*15:128     | B*07:96:01+B*15:24   |                  |
| B*07:36+B*15:135     | B*07:57+B*15:24      |                  |
| B*07:36+B*15:161     | B*07:153+B*15:23     |                  |
| B*07:36+B*15:225     | B*07:143+B*15:24     |                  |
| B*07:36+B*15:249     | B*07:45+B*15:24      |                  |
| B*07:36+B*18:01:01G  | B*07:57+B*18:67      | B*07:81+B*18:49  |
| B*07:36+B*27:12      | B*07:125+B*27:77     |                  |
| B*07:36+B*27:42      | B*07:57+B*27:53      |                  |
| B*07:36+B*27:44      | B*07:91+B*27:02:01   |                  |
| B*07:36+B*27:89      | B*07:57+B*27:02:01   |                  |
| B*07:36+B*35:01:24   | B*07:63+B*53:01:01   |                  |
| B*07:36+B*35:10      | B*07:54+B*53:01:01   |                  |
| B*07:36+B*35:13      | B*07:54+B*53:04      |                  |
| B*07:36+B*35:27      | B*07:57+B*53:01:01   | B*07:75+B*53:23  |
| B*07:36+B*35:45      | B*07:153+B*53:24     |                  |
| B*07:36+B*35:50      | B*07:143+B*53:21     |                  |
| B*07:36+B*35:56      | B*07:57+B*53:04      |                  |
| B*07:36+B*35:62      | B*07:55+B*53:24      |                  |
| B*07:36+B*35:69      | B*07:54+B*53:23      |                  |
| B*07:36+B*35:71      | B*07:153+B*53:01:01  |                  |
| B*07:36+B*35:74      | B*07:92+B*53:04      |                  |
| B*07:36+B*35:80      | B*07:54+B*53:24      |                  |
| B*07:36+B*35:92      | B*07:160+B*53:01:01  |                  |
| B*07:36+B*35:101:02  | B*07:93+B*53:01:01   |                  |
| B*07:36+B*35:137:01G | B*07:73+B*53:01:01   |                  |
| B*07:36+B*35:146     | B*07:154+B*53:01:01  |                  |
| B*07:36+B*35:178     | B*07:102+B*53:01:01  |                  |
| B*07:36+B*35:182     | B*07:73+B*53:19      |                  |
| B*07:36+B*35:195     | B*07:93+B*53:04      |                  |
| B*07:36+B*35:196     | B*07:142+B*53:01:01  |                  |
| B*07:36+B*37:10      | B*07:149+B*37:34     |                  |
| B*07:36+B*38:02:01G  | B*07:149+B*38:01:01  |                  |
| B*07:36+B*39:04      | B*07:86+B*38:14      |                  |
| B*07:36+B*39:22      | B*07:54+B*38:14      |                  |
| B*07:36+B*39:27      | B*07:92+B*38:14      |                  |
| B*07:36+B*39:31      | B*07:143+B*38:14     |                  |
| B*07:36+B*39:69      | B*07:133+B*38:14     |                  |
| B*07:36+B*39:72      | B*07:70+B*38:14      |                  |
| B*07:36+B*39:73      | B*07:95+B*38:14      |                  |
| B*07:36+B*40:01:20   | B*07:106+B*40:117    |                  |
| B*07:36+B*40:06:01G  | B*07:57+B*40:109     |                  |
| B*07:36+B*40:35      | B*07:68:03+B*40:19   |                  |
| B*07:36+B*40:37      | B*07:57+B*40:19      |                  |
| B*07:36+B*40:47      | B*07:149+B*40:117    |                  |
| B*07:36+B*40:57      | B*07:71+B*40:19      |                  |
| B*07:36+B*40:65      | B*07:87+B*40:117     |                  |
| B*07:36+B*40:70      | B*07:84+B*40:19      |                  |
| B*07:36+B*40:73      | B*07:92+B*40:117     |                  |
| B*07:36+B*40:87:01   | B*07:68:01+B*40:117  |                  |
| B*07:36+B*40:87:02   | B*07:68:03+B*40:117  |                  |
| B*07:36+B*40:89      | B*07:96:01+B*40:19   |                  |
| B*07:36+B*40:92      | B*07:60+B*40:117     |                  |
| B*07:36+B*40:106     | B*07:38+B*40:166     |                  |
| B*07:36+B*40:108     | B*07:159+B*40:117    |                  |
| B*07:36+B*40:115     | B*07:94+B*40:19      |                  |
| B*07:36+B*40:132     | B*07:153+B*40:117    |                  |
| B*07:36+B*40:157     | B*07:149+B*40:19     |                  |
| B*07:36+B*40:172     | B*07:96:01+B*40:117  |                  |
| B*07:36+B*40:192     | B*07:113+B*40:117    |                  |
| B*07:36+B*40:193     | B*07:148+B*40:117    |                  |
| B*07:36+B*40:201     | B*07:81+B*40:157     |                  |
| B*07:36+B*42:01:01   | B*07:81+B*42:15      |                  |
| B*07:36+B*44:02:01G  | B*07:149+B*44:95     |                  |
| B*07:36+B*44:03:01G  | B*07:149+B*44:50     |                  |
| B*07:36+B*44:05:01   | B*07:149+B*44:25     |                  |
| B*07:36+B*44:75      | B*07:57+B*44:25      |                  |
| B*07:36+B*44:109     | B*07:81+B*44:03:01G  |                  |
| B*07:36+B*44:129     | B*07:82+B*44:50      |                  |
| B*07:36+B*45:05      | B*07:52+B*44:18      |                  |
| B*07:36+B*45:12      | B*07:154+B*44:18     |                  |
| B*07:36+B*48:01:01G  | B*07:57+B*48:18      |                  |
| B*07:36+B*48:06      | B*07:38+B*81:01:01G  |                  |
| B*07:36+B*49:02      | B*07:149+B*49:01:01  |                  |
| B*07:36+B*50:05      | B*07:39+B*49:01:01   |                  |
| B*07:36+B*51:54      | B*07:149+B*51:05     |                  |
| B*07:36+B*51:78:01   | B*07:149+B*51:01:01G |                  |
| B*07:36+B*51:78:02   | B*07:149+B*51:01:02  |                  |
| B*07:36+B*52:09      | B*07:81+B*52:01:02   |                  |
| B*07:36+B*52:20      | B*07:149+B*52:01:01G |                  |
| B*07:36+B*53:05      | B*07:81+B*53:01:01   |                  |
| B*07:36+B*53:11      | B*07:149+B*53:24     |                  |
| B*07:36+B*53:12      | B*07:81+B*53:13      | B*07:149+B*53:05 |
| B*07:36+B*53:13      | B*07:149+B*53:01:01  |                  |
| B*07:36+B*53:16      | B*07:81+B*53:24      |                  |
| B*07:36+B*54:08N     | B*07:135N+B*54:12    |                  |
| B*07:36+B*54:24      | B*07:83+B*54:12      |                  |
| B*07:36+B*55:02:01G  | B*07:81+B*55:12      |                  |
| B*07:36+B*78:06      | B*07:57+B*52:01:01G  |                  |
| B*07:37+B*55:12      | B*07:57+B*56:23      |                  |
| B*07:37+B*55:16      | B*07:143+B*56:23     |                  |
| B*07:37+B*55:19      | B*07:145+B*56:23     |                  |
| B*07:37+B*55:41      | B*07:96:01+B*56:23   |                  |
| B*07:37+B*56:01:01G  | B*07:91+B*56:17      |                  |

|                     |                        |
|---------------------|------------------------|
| B*07:37+B*59:01:01G | B*07:38+B*56:23        |
| B*07:38+B*08:04     | B*07:50+B*08:78        |
| B*07:38+B*08:54     | B*08:03+B*48:08        |
| B*07:38+B*08:65     | B*07:85+B*08:03        |
| B*07:38+B*35:20:01  | B*07:50+B*53:01:01     |
| B*07:38+B*35:28     | B*48:08+B*53:01:01     |
| B*07:38+B*35:72     | B*07:50+B*53:14        |
| B*07:38+B*35:95     | B*07:50+B*53:19        |
| B*07:38+B*39:19:01  | B*07:85+B*38:06        |
| B*07:38+B*40:02:01G | B*07:50+B*40:13        |
| B*07:38+B*55:12     | B*07:57+B*59:01:01G    |
| B*07:38+B*55:16     | B*07:143+B*59:01:01G   |
| B*07:38+B*55:19     | B*07:145+B*59:01:01G   |
| B*07:38+B*55:41     | B*07:96:01+B*59:01:01G |
| B*07:38+B*56:07     | B*07:149+B*59:04       |
| B*07:38+B*56:30     | B*07:124+B*59:04       |
| B*07:38+B*56:33     | B*07:85+B*59:04        |
| B*07:38+B*78:05     | B*48:08+B*51:01:02     |
| B*07:39+B*49:02     | B*07:149+B*50:05       |
| B*07:39+B*50:02     | B*07:153+B*50:05       |
| B*07:43+B*08:21     | B*07:131+B*08:01:01G   |
| B*07:43+B*08:25     | B*07:131+B*08:13       |
| B*07:43+B*13:41     | B*07:55+B*13:53        |
| B*07:43+B*14:19     | B*07:131+B*14:01:01    |
| B*07:43+B*14:27     | B*07:131+B*14:02:01    |
| B*07:43+B*15:01:01G | B*07:131+B*15:50       |
| B*07:43+B*15:02:01G | B*07:131+B*15:121      |
| B*07:43+B*15:09     | B*07:131+B*15:252      |
| B*07:43+B*15:18:01G | B*07:131+B*15:93       |
| B*07:43+B*15:21     | B*07:131+B*15:44       |
| B*07:43+B*15:52     | B*07:48+B*15:93        |
| B*07:43+B*18:36     | B*07:131+B*18:01:01G   |
| B*07:43+B*18:58     | B*07:131+B*18:11       |
| B*07:43+B*27:38     | B*07:131+B*27:71       |
| B*07:43+B*27:61     | B*07:48+B*27:15        |
| B*07:43+B*27:63     | B*07:131+B*27:15       |
| B*07:43+B*35:01:01G | B*07:131+B*35:93       |
| B*07:43+B*35:21     | B*07:131+B*35:188      |
| B*07:43+B*35:24:01  | B*07:131+B*35:190      |
| B*07:43+B*35:81     | B*07:131+B*35:157      |
| B*07:43+B*39:32     | B*07:131+B*39:48       |
| B*07:43+B*39:74     | B*07:131+B*39:01:01G   |
| B*07:43+B*40:63     | B*07:131+B*40:199      |
| B*07:43+B*44:91     | B*07:131+B*44:132      |
| B*07:43+B*45:04     | B*07:131+B*45:08       |
| B*07:43+B*46:01:01G | B*07:131+B*46:29       |
| B*07:43+B*46:11     | B*07:131+B*46:18       |
| B*07:43+B*46:13:01  | B*07:131+B*46:21:02    |
| B*07:43+B*46:13:03  | B*07:131+B*46:21:01    |
| B*07:43+B*51:31     | B*07:48+B*51:21        |
| B*07:43+B*54:03     | B*07:131+B*54:01:01G   |
| B*07:43+B*56:01:01G | B*07:131+B*55:02:01G   |
| B*07:43+B*56:02     | B*07:131+B*56:10       |
| B*07:43+B*56:22     | B*07:131+B*55:13       |
| B*07:43+B*56:25     | B*07:131+B*55:01:01G   |
| B*07:43+B*57:01:01G | B*07:131+B*57:26       |
| B*07:43+B*58:01:01G | B*07:131+B*58:35       |
| B*07:43+B*59:04     | B*07:131+B*59:01:01G   |
| B*07:43+B*78:01:01  | B*07:131+B*78:07       |
| B*07:45+B*15:12:01G | B*07:64+B*15:249       |
| B*07:45+B*15:14     | B*07:153+B*15:249      |
| B*07:45+B*15:60     | B*07:117+B*15:249      |
| B*07:45+B*15:87     | B*07:81+B*15:249       |
| B*07:45+B*15:91     | B*07:153+B*15:235      |
| B*07:45+B*15:122    | B*07:127+B*15:249      |
| B*07:45+B*15:128    | B*07:96:01+B*15:249    |
| B*07:45+B*15:135    | B*07:57+B*15:249       |
| B*07:45+B*15:161    | B*07:153+B*15:108      |
| B*07:45+B*15:225    | B*07:143+B*15:249      |
| B*07:45+B*44:33     | B*07:150+B*44:89       |
| B*07:45+B*44:55     | B*07:143+B*44:89       |
| B*07:45+B*44:59     | B*07:136+B*44:89       |
| B*07:45+B*44:68     | B*07:113+B*44:89       |
| B*07:45+B*44:69     | B*07:94+B*44:29        |
| B*07:47+B*15:03:01G | B*07:131+B*15:49       |
| B*07:48+B*15:01:01G | B*07:55+B*15:05:01     |
| B*07:48+B*15:04     | B*07:55+B*15:155       |
| B*07:48+B*15:18:01G | B*07:131+B*15:52       |
| B*07:48+B*15:38:01  | B*07:55+B*15:185       |
| B*07:48+B*15:54     | B*07:55+B*15:123:01G   |
| B*07:48+B*15:78:02  | B*07:55+B*15:107       |
| B*07:48+B*15:153    | B*07:131+B*15:114      |
| B*07:48+B*15:249    | B*07:55+B*15:136       |
| B*07:48+B*18:19     | B*07:55+B*18:01:01G    |
| B*07:48+B*27:63     | B*07:131+B*27:61       |
| B*07:48+B*39:18     | B*07:55+B*39:01:05     |
| B*07:48+B*39:36     | B*07:55+B*39:30        |
| B*07:48+B*40:05     | B*07:131+B*40:02:01G   |
| B*07:48+B*41:03:02  | B*40:14:03+B*42:16     |
| B*07:48+B*42:11     | B*42:16+B*48:10        |
| B*07:48+B*44:146    | B*07:55+B*44:03:01G    |
| B*07:48+B*46:01:03  | B*07:55+B*46:13:01     |
| B*07:48+B*46:29     | B*07:55+B*46:21:01     |
| B*07:48+B*51:55     | B*07:66+B*51:09:01     |
| B*07:48+B*51:61:02  | B*07:55+B*51:09:01     |
| B*07:48+B*55:21     | B*07:55+B*55:02:01G    |
| B*07:48+B*57:30     | B*07:51+B*57:01:01G    |
| B*07:50+B*13:01:01G | B*13:36+B*48:08        |
| B*07:50+B*15:01:01G | B*15:15+B*48:08        |
| B*07:50+B*15:03:01G | B*15:64+B*48:08        |
| B*07:50+B*15:25:01G | B*15:02:01G+B*48:08    |
| B*07:50+B*15:25:02  | B*15:02:05+B*48:08     |
| B*07:50+B*15:36     | B*15:89+B*48:08        |
| B*07:50+B*15:56     | B*15:08+B*48:08        |
| B*07:50+B*15:243    | B*15:09+B*48:08        |

|                      |                       |                  |
|----------------------|-----------------------|------------------|
| B*07:50+B*18:12      | B*18:01:01G+B*48:08   |                  |
| B*07:50+B*35:10      | B*35:01:01G+B*48:08   |                  |
| B*07:50+B*35:13      | B*35:03:01G+B*48:08   |                  |
| B*07:50+B*35:16      | B*35:17+B*48:08       |                  |
| B*07:50+B*35:28      | B*35:20:01+B*48:08    |                  |
| B*07:50+B*35:80      | B*35:08:01+B*48:08    |                  |
| B*07:50+B*38:04      | B*38:02:03+B*48:08    |                  |
| B*07:50+B*39:02:01   | B*39:39:01+B*48:08    |                  |
| B*07:50+B*39:22      | B*39:01:01G+B*48:08   |                  |
| B*07:50+B*40:01:01G  | B*40:25+B*48:08       |                  |
| B*07:50+B*40:07      | B*40:106+B*48:08      |                  |
| B*07:50+B*44:02:01G  | B*44:12+B*48:08       |                  |
| B*07:50+B*50:01:01   | B*48:08+B*50:15       |                  |
| B*07:50+B*52:01:01G  | B*48:08+B*51:07:02    |                  |
| B*07:50+B*52:01:02   | B*48:08+B*51:07:01    |                  |
| B*07:50+B*52:06:01   | B*48:08+B*51:01:33    |                  |
| B*07:50+B*52:06:02   | B*48:08+B*51:01:01G   |                  |
| B*07:50+B*55:34      | B*48:08+B*55:47       |                  |
| B*07:50+B*55:40      | B*48:08+B*55:01:01G   |                  |
| B*07:50+B*67:01:01   | B*07:91+B*39:39:01    |                  |
| B*07:51+B*51:76      | B*07:93+B*51:115      |                  |
| B*07:51+B*51:109     | B*07:87+B*51:115      |                  |
| B*07:51+B*51:114     | B*07:157+B*51:115     |                  |
| B*07:51+B*52:06:02   | B*07:54+B*51:115      |                  |
| B*07:52+B*45:12      | B*07:154+B*45:05      |                  |
| B*07:53+B*07:131     | B*07:60+B*07:80       |                  |
| B*07:54+B*07:69      | B*07:85+B*07:123      |                  |
| B*07:54+B*07:138     | B*07:123+B*07:158     |                  |
| B*07:54+B*07:140     | B*07:123+B*07:153     |                  |
| B*07:54+B*08:01:01G  | B*07:123+B*08:07      |                  |
| B*07:54+B*08:35      | B*07:123+B*08:37      |                  |
| B*07:54+B*15:01:01G  | B*15:101+B*48:08      |                  |
| B*07:54+B*15:30      | B*07:123+B*15:63      |                  |
| B*07:54+B*15:31      | B*07:96:01+B*15:05:01 |                  |
| B*07:54+B*15:229     | B*07:123+B*15:133     |                  |
| B*07:54+B*18:05      | B*07:136+B*18:12      |                  |
| B*07:54+B*18:06      | B*07:92+B*18:12       |                  |
| B*07:54+B*18:09      | B*07:149+B*18:12      |                  |
| B*07:54+B*18:20      | B*07:96:01+B*18:12    |                  |
| B*07:54+B*18:49      | B*07:57+B*18:12       |                  |
| B*07:54+B*18:67      | B*07:81+B*18:12       |                  |
| B*07:54+B*18:68      | B*07:86+B*18:12       |                  |
| B*07:54+B*18:70      | B*07:71+B*18:12       |                  |
| B*07:54+B*18:71      | B*07:127+B*18:12      |                  |
| B*07:54+B*35:01:24   | B*07:63+B*35:10       |                  |
| B*07:54+B*35:04:01   | B*07:123+B*35:34      |                  |
| B*07:54+B*35:12:01   | B*07:123+B*35:39      |                  |
| B*07:54+B*35:22      | B*07:123+B*35:199     |                  |
| B*07:54+B*35:27      | B*07:57+B*35:10       | B*07:75+B*35:69  |
| B*07:54+B*35:45      | B*07:153+B*35:80      |                  |
| B*07:54+B*35:56      | B*07:57+B*35:13       |                  |
| B*07:54+B*35:62      | B*07:55+B*35:80       |                  |
| B*07:54+B*35:71      | B*07:153+B*35:10      |                  |
| B*07:54+B*35:74      | B*07:92+B*35:13       |                  |
| B*07:54+B*35:92      | B*07:160+B*35:10      |                  |
| B*07:54+B*35:101:02  | B*07:93+B*35:10       |                  |
| B*07:54+B*35:137:01G | B*07:73+B*35:10       |                  |
| B*07:54+B*35:146     | B*07:154+B*35:10      |                  |
| B*07:54+B*35:178     | B*07:102+B*35:10      |                  |
| B*07:54+B*35:195     | B*07:93+B*35:13       |                  |
| B*07:54+B*35:196     | B*07:142+B*35:10      |                  |
| B*07:54+B*37:08      | B*07:134+B*37:28      |                  |
| B*07:54+B*39:04      | B*07:86+B*39:22       |                  |
| B*07:54+B*39:05:01   | B*07:91+B*39:22       | B*07:123+B*39:55 |
| B*07:54+B*39:13:01   | B*07:123+B*39:49      |                  |
| B*07:54+B*39:14      | B*07:123+B*39:29      |                  |
| B*07:54+B*39:27      | B*07:92+B*39:22       |                  |
| B*07:54+B*39:31      | B*07:143+B*39:22      |                  |
| B*07:54+B*39:69      | B*07:133+B*39:22      |                  |
| B*07:54+B*39:72      | B*07:70+B*39:22       |                  |
| B*07:54+B*39:73      | B*07:95+B*39:22       |                  |
| B*07:54+B*40:01:01G  | B*07:123+B*40:33      |                  |
| B*07:54+B*40:02:01G  | B*07:123+B*40:18      |                  |
| B*07:54+B*40:06:01G  | B*07:123+B*40:44      |                  |
| B*07:54+B*40:16      | B*07:123+B*40:32      |                  |
| B*07:54+B*40:38      | B*07:123+B*40:52      |                  |
| B*07:54+B*40:80      | B*07:123+B*40:31      |                  |
| B*07:54+B*40:89      | B*07:123+B*40:09      |                  |
| B*07:54+B*40:105     | B*07:123+B*40:03      |                  |
| B*07:54+B*40:172     | B*07:123+B*40:42      |                  |
| B*07:54+B*41:01      | B*07:123+B*41:21      |                  |
| B*07:54+B*42:01:01   | B*07:123+B*42:16      |                  |
| B*07:54+B*44:09      | B*44:90+B*48:08       |                  |
| B*07:54+B*44:14      | B*07:123+B*44:51      |                  |
| B*07:54+B*44:77      | B*07:123+B*44:107     |                  |
| B*07:54+B*45:01:01G  | B*45:06+B*48:08       |                  |
| B*07:54+B*51:06:01   | B*07:123+B*51:135     |                  |
| B*07:54+B*51:13:01   | B*07:123+B*51:92      |                  |
| B*07:54+B*51:76      | B*07:93+B*52:06:02    |                  |
| B*07:54+B*51:109     | B*07:87+B*52:06:02    |                  |
| B*07:54+B*51:114     | B*07:157+B*52:06:02   |                  |
| B*07:54+B*52:01:01G  | B*07:123+B*52:12      |                  |
| B*07:54+B*53:05      | B*07:81+B*35:10       |                  |
| B*07:54+B*53:09      | B*07:149+B*35:28      |                  |
| B*07:54+B*53:11      | B*07:149+B*35:80      |                  |
| B*07:54+B*53:13      | B*07:149+B*35:10      |                  |
| B*07:54+B*53:16      | B*07:81+B*35:80       |                  |
| B*07:54+B*54:01:01G  | B*07:123+B*54:16      |                  |
| B*07:54+B*55:02:01G  | B*07:123+B*55:46      |                  |
| B*07:54+B*55:03      | B*07:92+B*55:40       |                  |
| B*07:54+B*55:31      | B*07:91+B*55:40       |                  |
| B*07:54+B*55:32      | B*07:123+B*55:23      |                  |
| B*07:54+B*55:45      | B*07:117+B*55:40      |                  |
| B*07:55+B*35:06      | B*07:80+B*35:163      |                  |
| B*07:55+B*35:45      | B*07:153+B*35:62      |                  |

|                        |                        |                 |
|------------------------|------------------------|-----------------|
| B*07:55+B*51:55        | B*07:66+B*51:61:02     |                 |
| B*07:55+B*53:11        | B*07:149+B*35:62       |                 |
| B*07:55+B*53:16        | B*07:81+B*35:62        |                 |
| B*07:56:01+B*15:03:03  | B*07:56:02+B*15:03:01G |                 |
| B*07:56:01+B*15:10:02  | B*07:56:02+B*15:10:01  |                 |
| B*07:56:01+B*15:11:01G | B*07:56:02+B*15:11:04  |                 |
| B*07:56:01+B*35:63     | B*40:98+B*56:09        |                 |
| B*07:56:01+B*39:01:14  | B*07:56:02+B*39:01:01G |                 |
| B*07:56:01+B*39:13:02  | B*07:56:02+B*39:13:01  |                 |
| B*07:56:01+B*40:02:04  | B*07:56:02+B*40:02:01G |                 |
| B*07:56:01+B*40:10:02  | B*07:56:02+B*40:10:01  |                 |
| B*07:56:01+B*52:16     | B*48:08+B*56:21        |                 |
| B*07:56:01+B*57:01:01G | B*07:56:02+B*57:01:09  |                 |
| B*07:56:02+B*08:62     | B*07:143+B*08:26       |                 |
| B*07:56:02+B*08:88     | B*07:73+B*08:56        |                 |
| B*07:56:02+B*13:02:01G | B*07:72+B*13:14        |                 |
| B*07:56:02+B*14:11     | B*07:72+B*14:01:01     |                 |
| B*07:56:02+B*15:212    | B*40:98+B*56:03        |                 |
| B*07:56:02+B*15:225    | B*07:72+B*15:71        |                 |
| B*07:56:02+B*18:07:02  | B*07:109+B*18:29       |                 |
| B*07:56:02+B*18:25     | B*07:72+B*18:43        |                 |
| B*07:56:02+B*18:68     | B*07:72+B*18:01:01G    |                 |
| B*07:56:02+B*35:01:01G | B*07:72+B*35:197       |                 |
| B*07:56:02+B*38:11     | B*07:110+B*38:28       |                 |
| B*07:56:02+B*38:27     | B*07:93+B*38:28        |                 |
| B*07:56:02+B*38:33     | B*07:72+B*38:01:01     | B*07:86+B*38:28 |
| B*07:56:02+B*39:04     | B*07:72+B*39:01:01G    |                 |
| B*07:56:02+B*40:01:01G | B*07:72+B*40:74        |                 |
| B*07:56:02+B*40:32     | B*07:72+B*40:98        |                 |
| B*07:56:02+B*40:49     | B*07:72+B*40:210       |                 |
| B*07:56:02+B*40:53     | B*07:72+B*40:06:01G    |                 |
| B*07:56:02+B*51:01:01G | B*07:72+B*51:57        |                 |
| B*07:56:02+B*53:01:01  | B*07:72+B*53:21        |                 |
| B*07:56:02+B*57:01:01G | B*07:72+B*57:10        |                 |
| B*07:57+B*08:02        | B*07:149+B*08:47       |                 |
| B*07:57+B*08:03        | B*07:75+B*08:78        |                 |
| B*07:57+B*08:15        | B*07:92+B*08:47        |                 |
| B*07:57+B*08:18        | B*07:102+B*08:47       |                 |
| B*07:57+B*08:23        | B*07:75+B*08:01:01G    | B*07:91+B*08:47 |
| B*07:57+B*08:32        | B*07:134+B*08:47       |                 |
| B*07:57+B*08:39        | B*07:93+B*08:47        |                 |
| B*07:57+B*08:43        | B*07:124+B*08:47       |                 |
| B*07:57+B*08:54        | B*07:91+B*08:17        |                 |
| B*07:57+B*08:58        | B*07:158+B*08:47       |                 |
| B*07:57+B*08:64        | B*07:113+B*08:47       |                 |
| B*07:57+B*08:71        | B*07:68:03+B*08:47     |                 |
| B*07:57+B*08:74        | B*07:96:01+B*08:47     |                 |
| B*07:57+B*08:77        | B*07:74+B*08:47        |                 |
| B*07:57+B*13:01:01G    | B*07:149+B*13:39       |                 |
| B*07:57+B*14:14        | B*07:75+B*14:01:01     |                 |
| B*07:57+B*14:18        | B*07:75+B*14:02:01     |                 |
| B*07:57+B*15:03:01G    | B*07:75+B*15:61        |                 |
| B*07:57+B*15:12:01G    | B*07:64+B*15:135       |                 |
| B*07:57+B*15:14        | B*07:153+B*15:135      |                 |
| B*07:57+B*15:56        | B*07:75+B*15:236       |                 |
| B*07:57+B*15:60        | B*07:117+B*15:135      |                 |
| B*07:57+B*15:115       | B*07:149+B*15:18:01G   |                 |
| B*07:57+B*15:122       | B*07:127+B*15:135      |                 |
| B*07:57+B*15:128       | B*07:96:01+B*15:135    |                 |
| B*07:57+B*15:225       | B*07:143+B*15:135      |                 |
| B*07:57+B*18:05        | B*07:136+B*18:49       |                 |
| B*07:57+B*18:06        | B*07:92+B*18:49        |                 |
| B*07:57+B*18:09        | B*07:149+B*18:49       |                 |
| B*07:57+B*18:20        | B*07:96:01+B*18:49     |                 |
| B*07:57+B*18:68        | B*07:86+B*18:49        |                 |
| B*07:57+B*18:70        | B*07:71+B*18:49        |                 |
| B*07:57+B*18:71        | B*07:127+B*18:49       |                 |
| B*07:57+B*27:44        | B*07:75+B*27:08        | B*07:91+B*27:89 |
| B*07:57+B*35:01:15     | B*07:75+B*35:29:02     |                 |
| B*07:57+B*35:01:24     | B*07:63+B*35:27        |                 |
| B*07:57+B*35:71        | B*07:153+B*35:27       |                 |
| B*07:57+B*35:74        | B*07:92+B*35:56        |                 |
| B*07:57+B*35:92        | B*07:160+B*35:27       |                 |
| B*07:57+B*35:101:02    | B*07:93+B*35:27        |                 |
| B*07:57+B*35:137:01G   | B*07:73+B*35:27        |                 |
| B*07:57+B*35:146       | B*07:154+B*35:27       |                 |
| B*07:57+B*35:178       | B*07:102+B*35:27       |                 |
| B*07:57+B*35:195       | B*07:93+B*35:56        |                 |
| B*07:57+B*35:196       | B*07:142+B*35:27       |                 |
| B*07:57+B*38:01:01     | B*07:75+B*38:14        |                 |
| B*07:57+B*38:03        | B*07:149+B*39:02:01    |                 |
| B*07:57+B*39:05:01     | B*07:75+B*39:01:01G    |                 |
| B*07:57+B*39:13:01     | B*07:75+B*39:02:02     |                 |
| B*07:57+B*39:37        | B*07:75+B*39:03        |                 |
| B*07:57+B*39:55        | B*07:75+B*39:15        |                 |
| B*07:57+B*40:01:01G    | B*07:75+B*40:43        |                 |
| B*07:57+B*40:35        | B*07:68:03+B*40:37     |                 |
| B*07:57+B*40:57        | B*07:71+B*40:37        |                 |
| B*07:57+B*40:70        | B*07:84+B*40:37        |                 |
| B*07:57+B*40:89        | B*07:96:01+B*40:37     |                 |
| B*07:57+B*40:115       | B*07:94+B*40:37        |                 |
| B*07:57+B*40:157       | B*07:149+B*40:37       |                 |
| B*07:57+B*41:02:01     | B*40:32+B*42:15        |                 |
| B*07:57+B*42:02        | B*07:143+B*42:15       |                 |
| B*07:57+B*42:10        | B*07:68:03+B*42:15     |                 |
| B*07:57+B*42:11        | B*42:15+B*48:08        |                 |
| B*07:57+B*44:05:01     | B*07:149+B*44:75       |                 |
| B*07:57+B*44:09        | B*07:118+B*44:75       |                 |
| B*07:57+B*44:15        | B*07:149+B*45:01:01G   |                 |
| B*07:57+B*51:08        | B*07:75+B*51:20        |                 |
| B*07:57+B*52:20        | B*07:149+B*78:06       |                 |
| B*07:57+B*53:13        | B*07:149+B*35:27       |                 |
| B*07:57+B*55:16        | B*07:143+B*55:12       |                 |
| B*07:57+B*55:19        | B*07:145+B*55:12       |                 |
| B*07:57+B*55:31        | B*07:75+B*55:01:01G    |                 |

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| B*07:57+B*55:41        | B*07:96:01+B*55:12     |                        |
| B*07:57+B*78:02:02     | B*07:75+B*78:01:01     |                        |
| B*07:60+B*40:01:20     | B*07:106+B*40:92       |                        |
| B*07:60+B*40:47        | B*07:149+B*40:92       |                        |
| B*07:60+B*40:65        | B*07:87+B*40:92        |                        |
| B*07:60+B*40:73        | B*07:92+B*40:92        |                        |
| B*07:60+B*40:87:01     | B*07:68:01+B*40:92     |                        |
| B*07:60+B*40:87:02     | B*07:68:03+B*40:92     |                        |
| B*07:60+B*40:108       | B*07:159+B*40:92       |                        |
| B*07:60+B*40:172       | B*07:96:01+B*40:92     |                        |
| B*07:60+B*40:192       | B*07:113+B*40:92       |                        |
| B*07:60+B*40:193       | B*07:148+B*40:92       |                        |
| B*07:63+B*35:71        | B*07:153+B*35:01:24    |                        |
| B*07:63+B*35:92        | B*07:160+B*35:01:24    |                        |
| B*07:63+B*35:101:02    | B*07:93+B*35:01:24     |                        |
| B*07:63+B*35:137:01G   | B*07:73+B*35:01:24     |                        |
| B*07:63+B*35:146       | B*07:154+B*35:01:24    |                        |
| B*07:63+B*35:178       | B*07:102+B*35:01:24    |                        |
| B*07:63+B*35:196       | B*07:142+B*35:01:24    |                        |
| B*07:63+B*53:05        | B*07:81+B*35:01:24     |                        |
| B*07:63+B*53:13        | B*07:149+B*35:01:24    |                        |
| B*07:64+B*15:14        | B*07:153+B*15:12:01G   |                        |
| B*07:64+B*15:60        | B*07:117+B*15:12:01G   |                        |
| B*07:64+B*15:87        | B*07:81+B*15:12:01G    |                        |
| B*07:64+B*15:122       | B*07:127+B*15:12:01G   |                        |
| B*07:64+B*15:128       | B*07:96:01+B*15:12:01G |                        |
| B*07:64+B*15:225       | B*07:143+B*15:12:01G   |                        |
| B*07:65+B*18:43        | B*07:134+B*18:04       |                        |
| B*07:65+B*35:49        | B*07:72+B*35:42:02     |                        |
| B*07:65+B*39:10:01     | B*07:134+B*39:63       |                        |
| B*07:65+B*52:16        | B*07:86+B*52:01:02     |                        |
| B*07:68:01+B*13:22:02  | B*07:68:02+B*13:22:01  |                        |
| B*07:68:01+B*15:02:03  | B*07:68:03+B*15:02:01G |                        |
| B*07:68:01+B*15:05:02  | B*07:68:02+B*15:05:01  |                        |
| B*07:68:01+B*15:13:02  | B*07:68:02+B*15:13:01  |                        |
| B*07:68:01+B*15:27:03  | B*07:68:02+B*15:27:01  |                        |
| B*07:68:01+B*15:38:02  | B*07:68:02+B*15:38:01  |                        |
| B*07:68:01+B*15:39:02  | B*07:68:02+B*15:39:01  |                        |
| B*07:68:01+B*15:47:02  | B*07:68:03+B*15:47:01  |                        |
| B*07:68:01+B*18:01:01G | B*07:68:02+B*18:01:10  |                        |
| B*07:68:01+B*35:03:01G | B*07:68:02+B*35:03:02  |                        |
| B*07:68:01+B*35:03:11  | B*07:68:03+B*35:03:01G |                        |
| B*07:68:01+B*35:11:01  | B*07:68:02+B*35:11:02  |                        |
| B*07:68:01+B*35:14:01  | B*07:68:02+B*35:14:02  |                        |
| B*07:68:01+B*38:01:01  | B*07:68:02+B*38:01:03  |                        |
| B*07:68:01+B*39:01:01G | B*07:68:02+B*39:01:05  |                        |
| B*07:68:01+B*40:01:20  | B*07:106+B*40:87:01    |                        |
| B*07:68:01+B*40:14:03  | B*07:68:03+B*40:14:02  |                        |
| B*07:68:01+B*40:47     | B*07:149+B*40:87:01    |                        |
| B*07:68:01+B*40:65     | B*07:87+B*40:87:01     |                        |
| B*07:68:01+B*40:73     | B*07:92+B*40:87:01     |                        |
| B*07:68:01+B*40:87:02  | B*07:68:03+B*40:87:01  |                        |
| B*07:68:01+B*40:108    | B*07:159+B*40:87:01    |                        |
| B*07:68:01+B*40:132    | B*07:153+B*40:87:01    |                        |
| B*07:68:01+B*40:172    | B*07:96:01+B*40:87:01  |                        |
| B*07:68:01+B*40:192    | B*07:113+B*40:87:01    |                        |
| B*07:68:01+B*40:193    | B*07:148+B*40:87:01    |                        |
| B*07:68:01+B*44:02:01G | B*07:68:02+B*44:02:09  |                        |
| B*07:68:01+B*46:01:03  | B*07:68:02+B*46:01:01G |                        |
| B*07:68:01+B*46:13:01  | B*07:68:02+B*46:13:03  |                        |
| B*07:68:01+B*46:21:02  | B*07:68:02+B*46:21:01  |                        |
| B*07:68:01+B*51:01:09  | B*07:68:03+B*51:01:02  |                        |
| B*07:68:01+B*51:01:21  | B*07:68:02+B*51:01:25  | B*07:68:03+B*51:01:01G |
| B*07:68:01+B*51:02:01  | B*07:68:02+B*51:02:05  |                        |
| B*07:68:01+B*51:61:02  | B*07:68:02+B*51:61:01  |                        |
| B*07:68:01+B*52:01:01G | B*07:68:02+B*52:01:07  |                        |
| B*07:68:01+B*52:10:01  | B*07:68:02+B*52:10:02  |                        |
| B*07:68:01+B*53:01:01  | B*07:68:02+B*53:01:03  |                        |
| B*07:68:01+B*53:08:01  | B*07:68:02+B*53:08:02  |                        |
| B*07:68:01+B*56:01:01G | B*07:68:02+B*56:01:03  |                        |
| B*07:68:01+B*57:01:07  | B*07:68:03+B*57:01:01G |                        |
| B*07:68:01+B*58:01:01G | B*07:68:02+B*58:01:05  |                        |
| B*07:68:02+B*40:06:01G | B*07:68:03+B*40:06:05  |                        |
| B*07:68:02+B*40:72:02  | B*07:68:03+B*40:72:01  | B*07:151+B*40:121      |
| B*07:68:02+B*44:03:14  | B*07:68:03+B*44:03:01G |                        |
| B*07:68:03+B*08:02     | B*07:149+B*08:71       |                        |
| B*07:68:03+B*08:15     | B*07:92+B*08:71        |                        |
| B*07:68:03+B*08:18     | B*07:102+B*08:71       |                        |
| B*07:68:03+B*08:23     | B*07:91+B*08:71        |                        |
| B*07:68:03+B*08:32     | B*07:134+B*08:71       |                        |
| B*07:68:03+B*08:39     | B*07:93+B*08:71        |                        |
| B*07:68:03+B*08:43     | B*07:124+B*08:71       |                        |
| B*07:68:03+B*08:52     | B*07:81+B*08:71        |                        |
| B*07:68:03+B*08:58     | B*07:158+B*08:71       |                        |
| B*07:68:03+B*08:64     | B*07:113+B*08:71       |                        |
| B*07:68:03+B*08:74     | B*07:96:01+B*08:71     |                        |
| B*07:68:03+B*08:77     | B*07:74+B*08:71        |                        |
| B*07:68:03+B*40:01:20  | B*07:106+B*40:87:02    |                        |
| B*07:68:03+B*40:47     | B*07:149+B*40:87:02    |                        |
| B*07:68:03+B*40:57     | B*07:71+B*40:35        |                        |
| B*07:68:03+B*40:65     | B*07:87+B*40:87:02     |                        |
| B*07:68:03+B*40:70     | B*07:84+B*40:35        |                        |
| B*07:68:03+B*40:73     | B*07:92+B*40:87:02     |                        |
| B*07:68:03+B*40:89     | B*07:96:01+B*40:35     |                        |
| B*07:68:03+B*40:108    | B*07:159+B*40:87:02    |                        |
| B*07:68:03+B*40:115    | B*07:94+B*40:35        |                        |
| B*07:68:03+B*40:132    | B*07:153+B*40:87:02    |                        |
| B*07:68:03+B*40:157    | B*07:149+B*40:35       |                        |
| B*07:68:03+B*40:172    | B*07:96:01+B*40:87:02  |                        |
| B*07:68:03+B*40:192    | B*07:113+B*40:87:02    |                        |
| B*07:68:03+B*40:193    | B*07:148+B*40:87:02    |                        |
| B*07:68:03+B*41:02:01  | B*40:32+B*42:10        |                        |
| B*07:68:03+B*42:11     | B*42:10+B*48:08        |                        |
| B*07:69+B*07:153       | B*07:85+B*07:140       |                        |
| B*07:69+B*07:158       | B*07:85+B*07:138       |                        |

|                     |                       |                    |
|---------------------|-----------------------|--------------------|
| B*07:69+B*08:37     | B*07:85+B*08:35       |                    |
| B*07:69+B*15:63     | B*07:85+B*15:30       |                    |
| B*07:69+B*15:133    | B*07:85+B*15:229      |                    |
| B*07:69+B*35:34     | B*07:85+B*35:04:01    |                    |
| B*07:69+B*35:39     | B*07:85+B*35:12:01    |                    |
| B*07:69+B*35:199    | B*07:85+B*35:22       |                    |
| B*07:69+B*38:29     | B*07:85+B*38:02:01G   |                    |
| B*07:69+B*39:15     | B*07:85+B*39:01:01G   |                    |
| B*07:69+B*39:29     | B*07:85+B*39:14       |                    |
| B*07:69+B*39:49     | B*07:85+B*39:13:01    | B*39:01:09+B*48:08 |
| B*07:69+B*39:55     | B*07:85+B*39:05:01    |                    |
| B*07:69+B*40:03     | B*07:85+B*40:105      |                    |
| B*07:69+B*40:09     | B*07:85+B*40:89       |                    |
| B*07:69+B*40:18     | B*07:85+B*40:02:01G   |                    |
| B*07:69+B*40:31     | B*07:85+B*40:80       |                    |
| B*07:69+B*40:32     | B*07:85+B*40:16       |                    |
| B*07:69+B*40:33     | B*07:85+B*40:01:01G   |                    |
| B*07:69+B*40:42     | B*07:85+B*40:172      |                    |
| B*07:69+B*40:44     | B*07:85+B*40:06:01G   |                    |
| B*07:69+B*40:52     | B*07:85+B*40:38       |                    |
| B*07:69+B*41:21     | B*07:85+B*41:01       |                    |
| B*07:69+B*44:51     | B*07:85+B*44:14       |                    |
| B*07:69+B*44:107    | B*07:85+B*44:77       |                    |
| B*07:69+B*51:37     | B*07:85+B*51:63       |                    |
| B*07:69+B*51:92     | B*07:85+B*51:13:01    |                    |
| B*07:69+B*51:135    | B*07:85+B*51:06:01    |                    |
| B*07:69+B*52:12     | B*07:85+B*52:01:01G   |                    |
| B*07:69+B*54:16     | B*07:85+B*54:01:01G   |                    |
| B*07:69+B*55:23     | B*07:85+B*55:32       |                    |
| B*07:69+B*55:46     | B*07:85+B*55:02:01G   |                    |
| B*07:70+B*39:04     | B*07:86+B*39:72       |                    |
| B*07:70+B*39:05:01  | B*07:91+B*39:72       |                    |
| B*07:70+B*39:27     | B*07:92+B*39:72       |                    |
| B*07:70+B*39:31     | B*07:143+B*39:72      |                    |
| B*07:70+B*39:69     | B*07:133+B*39:72      |                    |
| B*07:70+B*39:73     | B*07:95+B*39:72       |                    |
| B*07:71+B*18:05     | B*07:136+B*18:70      |                    |
| B*07:71+B*18:06     | B*07:92+B*18:70       |                    |
| B*07:71+B*18:09     | B*07:149+B*18:70      |                    |
| B*07:71+B*18:20     | B*07:96:01+B*18:70    |                    |
| B*07:71+B*18:67     | B*07:81+B*18:70       |                    |
| B*07:71+B*18:68     | B*07:86+B*18:70       |                    |
| B*07:71+B*18:71     | B*07:127+B*18:70      |                    |
| B*07:71+B*40:70     | B*07:84+B*40:57       |                    |
| B*07:71+B*40:89     | B*07:96:01+B*40:57    |                    |
| B*07:71+B*40:115    | B*07:94+B*40:57       |                    |
| B*07:71+B*40:157    | B*07:149+B*40:57      |                    |
| B*07:72+B*08:01:11  | B*07:86+B*08:56       |                    |
| B*07:72+B*08:50     | B*07:86+B*08:26       |                    |
| B*07:72+B*15:212    | B*40:32+B*56:03       |                    |
| B*07:72+B*15:251    | B*07:86+B*15:01:01G   |                    |
| B*07:72+B*35:124    | B*07:86+B*35:01:01G   |                    |
| B*07:72+B*35:125    | B*07:86+B*35:17       |                    |
| B*07:72+B*35:142    | B*07:86+B*35:08:01    |                    |
| B*07:72+B*35:162    | B*07:143+B*35:02:01   |                    |
| B*07:72+B*51:116    | B*07:143+B*51:01:02   |                    |
| B*07:72+B*52:27     | B*07:86+B*52:01:01G   |                    |
| B*07:72+B*54:21     | B*07:86+B*54:01:01G   |                    |
| B*07:72+B*56:16     | B*07:86+B*56:01:01G   |                    |
| B*07:72+B*57:58     | B*07:86+B*57:01:01G   |                    |
| B*07:72+B*58:12     | B*07:86+B*58:01:01G   |                    |
| B*07:73+B*35:71     | B*07:153+B*35:137:01G |                    |
| B*07:73+B*35:92     | B*07:160+B*35:137:01G |                    |
| B*07:73+B*35:101:02 | B*07:93+B*35:137:01G  |                    |
| B*07:73+B*35:146    | B*07:154+B*35:137:01G |                    |
| B*07:73+B*35:178    | B*07:102+B*35:137:01G |                    |
| B*07:73+B*35:196    | B*07:142+B*35:137:01G |                    |
| B*07:73+B*53:05     | B*07:81+B*35:137:01G  |                    |
| B*07:73+B*53:13     | B*07:149+B*35:137:01G |                    |
| B*07:74+B*08:02     | B*07:149+B*08:77      |                    |
| B*07:74+B*08:15     | B*07:92+B*08:77       |                    |
| B*07:74+B*08:18     | B*07:102+B*08:77      |                    |
| B*07:74+B*08:23     | B*07:91+B*08:77       |                    |
| B*07:74+B*08:32     | B*07:134+B*08:77      |                    |
| B*07:74+B*08:39     | B*07:93+B*08:77       |                    |
| B*07:74+B*08:43     | B*07:124+B*08:77      |                    |
| B*07:74+B*08:52     | B*07:81+B*08:77       |                    |
| B*07:74+B*08:58     | B*07:158+B*08:77      |                    |
| B*07:74+B*08:64     | B*07:113+B*08:77      |                    |
| B*07:74+B*08:74     | B*07:96:01+B*08:77    |                    |
| B*07:74+B*48:18     | B*07:81+B*48:27       |                    |
| B*07:74+B*48:28     | B*07:109+B*48:27      |                    |
| B*07:75+B*13:25     | B*07:91+B*13:01:01G   |                    |
| B*07:75+B*15:01:01G | B*07:91+B*15:135      |                    |
| B*07:75+B*15:87     | B*07:91+B*15:24       |                    |
| B*07:75+B*18:01:01G | B*07:91+B*18:49       |                    |
| B*07:75+B*35:01:01G | B*07:91+B*35:27       |                    |
| B*07:75+B*35:03:01G | B*07:91+B*35:56       |                    |
| B*07:75+B*40:02:01G | B*07:91+B*40:37       |                    |
| B*07:75+B*40:201    | B*07:91+B*40:157      |                    |
| B*07:75+B*42:01:01  | B*07:91+B*42:15       |                    |
| B*07:75+B*44:109    | B*07:91+B*44:03:01G   |                    |
| B*07:75+B*52:09     | B*07:91+B*52:01:02    |                    |
| B*07:75+B*53:05     | B*07:91+B*53:01:01    |                    |
| B*07:75+B*53:12     | B*07:91+B*53:13       |                    |
| B*07:75+B*53:16     | B*07:91+B*53:24       |                    |
| B*07:75+B*55:02:01G | B*07:91+B*55:12       |                    |
| B*07:75+B*78:05     | B*07:91+B*78:06       |                    |
| B*07:76+B*14:11     | B*07:114+B*14:17      |                    |
| B*07:76+B*14:18     | B*07:91+B*14:17       |                    |
| B*07:76+B*14:25     | B*07:136+B*14:17      |                    |
| B*07:77+B*39:37     | B*07:91+B*39:09       |                    |
| B*07:78+B*13:26     | B*07:162+B*13:02:01G  |                    |
| B*07:78+B*15:63     | B*07:84+B*15:73       |                    |
| B*07:78+B*35:93     | B*07:162+B*35:60      |                    |

|                     |                      |                  |
|---------------------|----------------------|------------------|
| B*07:78+B*40:33     | B*07:84+B*40:48      |                  |
| B*07:78+B*46:33     | B*07:162+B*46:11     |                  |
| B*07:78+B*51:90     | B*07:84+B*51:106     |                  |
| B*07:78+B*53:01:01  | B*07:162+B*51:15     |                  |
| B*07:78+B*56:09     | B*07:162+B*56:01:01G |                  |
| B*07:78+B*56:12     | B*07:137+B*55:02:04  |                  |
| B*07:80+B*15:124    | B*15:238+B*81:01:01G |                  |
| B*07:81+B*08:02     | B*07:149+B*08:52     |                  |
| B*07:81+B*08:15     | B*07:92+B*08:52      |                  |
| B*07:81+B*08:18     | B*07:102+B*08:52     |                  |
| B*07:81+B*08:23     | B*07:91+B*08:52      |                  |
| B*07:81+B*08:32     | B*07:134+B*08:52     |                  |
| B*07:81+B*08:39     | B*07:93+B*08:52      |                  |
| B*07:81+B*08:43     | B*07:124+B*08:52     |                  |
| B*07:81+B*08:58     | B*07:158+B*08:52     |                  |
| B*07:81+B*08:64     | B*07:113+B*08:52     |                  |
| B*07:81+B*08:74     | B*07:96:01+B*08:52   |                  |
| B*07:81+B*15:14     | B*07:153+B*15:87     |                  |
| B*07:81+B*15:57     | B*07:92+B*15:24      |                  |
| B*07:81+B*15:60     | B*07:117+B*15:87     |                  |
| B*07:81+B*15:122    | B*07:127+B*15:87     |                  |
| B*07:81+B*15:128    | B*07:96:01+B*15:87   |                  |
| B*07:81+B*15:225    | B*07:143+B*15:87     |                  |
| B*07:81+B*18:05     | B*07:136+B*18:67     |                  |
| B*07:81+B*18:06     | B*07:92+B*18:67      |                  |
| B*07:81+B*18:09     | B*07:149+B*18:67     |                  |
| B*07:81+B*18:20     | B*07:96:01+B*18:67   |                  |
| B*07:81+B*18:68     | B*07:86+B*18:67      |                  |
| B*07:81+B*18:71     | B*07:127+B*18:67     |                  |
| B*07:81+B*35:45     | B*07:153+B*53:16     |                  |
| B*07:81+B*35:71     | B*07:153+B*53:05     |                  |
| B*07:81+B*35:92     | B*07:160+B*53:05     |                  |
| B*07:81+B*35:101:02 | B*07:93+B*53:05      |                  |
| B*07:81+B*35:146    | B*07:154+B*53:05     |                  |
| B*07:81+B*35:178    | B*07:102+B*53:05     |                  |
| B*07:81+B*35:196    | B*07:142+B*53:05     |                  |
| B*07:81+B*40:53     | B*07:86+B*40:109     |                  |
| B*07:81+B*40:96     | B*07:149+B*40:109    |                  |
| B*07:81+B*48:28     | B*07:109+B*48:18     |                  |
| B*07:81+B*53:11     | B*07:149+B*53:16     |                  |
| B*07:82+B*44:03:01G | B*07:149+B*44:129    |                  |
| B*07:83+B*40:80     | B*40:32+B*81:05      |                  |
| B*07:83+B*46:14     | B*07:143+B*46:16     |                  |
| B*07:83+B*46:17     | B*07:153+B*46:16     |                  |
| B*07:83+B*46:20     | B*07:145+B*46:16     |                  |
| B*07:83+B*48:01:01G | B*48:08+B*81:05      |                  |
| B*07:83+B*54:08N    | B*07:135N+B*54:24    |                  |
| B*07:84+B*40:89     | B*07:96:01+B*40:70   |                  |
| B*07:84+B*40:115    | B*07:94+B*40:70      |                  |
| B*07:84+B*40:157    | B*07:149+B*40:70     |                  |
| B*07:85+B*08:54     | B*08:65+B*48:08      |                  |
| B*07:85+B*56:07     | B*07:149+B*56:33     |                  |
| B*07:85+B*56:30     | B*07:124+B*56:33     |                  |
| B*07:86+B*14:08     | B*07:114+B*14:06:02  |                  |
| B*07:86+B*14:14     | B*07:91+B*14:11      | B*07:114+B*14:18 |
| B*07:86+B*14:19     | B*07:114+B*14:27     |                  |
| B*07:86+B*18:05     | B*07:136+B*18:68     |                  |
| B*07:86+B*18:06     | B*07:92+B*18:68      |                  |
| B*07:86+B*18:09     | B*07:149+B*18:68     |                  |
| B*07:86+B*18:20     | B*07:96:01+B*18:68   |                  |
| B*07:86+B*18:71     | B*07:127+B*18:68     |                  |
| B*07:86+B*35:50     | B*07:143+B*35:01:01G |                  |
| B*07:86+B*35:84     | B*07:143+B*35:150    |                  |
| B*07:86+B*38:11     | B*07:110+B*38:33     |                  |
| B*07:86+B*38:27     | B*07:93+B*38:33      |                  |
| B*07:86+B*39:05:01  | B*07:91+B*39:04      |                  |
| B*07:86+B*39:27     | B*07:92+B*39:04      |                  |
| B*07:86+B*39:31     | B*07:143+B*39:04     |                  |
| B*07:86+B*39:69     | B*07:133+B*39:04     |                  |
| B*07:86+B*39:73     | B*07:95+B*39:04      |                  |
| B*07:86+B*40:04     | B*07:143+B*40:129    |                  |
| B*07:86+B*40:96     | B*07:143+B*40:110    | B*07:149+B*40:53 |
| B*07:86+B*44:103    | B*07:143+B*44:03:01G |                  |
| B*07:86+B*44:131    | B*07:143+B*44:09     | B*40:98+B*83:01  |
| B*07:86+B*54:02     | B*07:143+B*54:01:01G |                  |
| B*07:86+B*56:35     | B*07:143+B*56:01:01G |                  |
| B*07:87+B*40:01:20  | B*07:106+B*40:65     |                  |
| B*07:87+B*40:47     | B*07:149+B*40:65     |                  |
| B*07:87+B*40:73     | B*07:92+B*40:65      |                  |
| B*07:87+B*40:108    | B*07:159+B*40:65     |                  |
| B*07:87+B*40:132    | B*07:153+B*40:65     |                  |
| B*07:87+B*40:172    | B*07:96:01+B*40:65   |                  |
| B*07:87+B*40:192    | B*07:113+B*40:65     |                  |
| B*07:87+B*40:193    | B*07:148+B*40:65     |                  |
| B*07:87+B*51:76     | B*07:93+B*51:109     |                  |
| B*07:87+B*51:114    | B*07:157+B*51:109    |                  |
| B*07:90+B*39:22     | B*07:123+B*39:44     |                  |
| B*07:90+B*39:49     | B*07:91+B*39:23      |                  |
| B*07:90+B*39:55     | B*07:91+B*39:44      |                  |
| B*07:91+B*08:02     | B*07:149+B*08:23     |                  |
| B*07:91+B*08:15     | B*07:92+B*08:23      |                  |
| B*07:91+B*08:18     | B*07:102+B*08:23     |                  |
| B*07:91+B*08:32     | B*07:134+B*08:23     |                  |
| B*07:91+B*08:39     | B*07:93+B*08:23      |                  |
| B*07:91+B*08:43     | B*07:124+B*08:23     |                  |
| B*07:91+B*08:58     | B*07:158+B*08:23     |                  |
| B*07:91+B*08:64     | B*07:113+B*08:23     |                  |
| B*07:91+B*08:74     | B*07:96:01+B*08:23   |                  |
| B*07:91+B*14:25     | B*07:136+B*14:18     |                  |
| B*07:91+B*39:27     | B*07:92+B*39:05:01   |                  |
| B*07:91+B*39:31     | B*07:143+B*39:05:01  |                  |
| B*07:91+B*39:69     | B*07:133+B*39:05:01  |                  |
| B*07:91+B*39:73     | B*07:95+B*39:05:01   |                  |
| B*07:91+B*55:03     | B*07:92+B*55:31      |                  |
| B*07:91+B*55:45     | B*07:117+B*55:31     |                  |

|                       |                      |                      |
|-----------------------|----------------------|----------------------|
| B*07:92+B*08:02       | B*07:149+B*08:15     |                      |
| B*07:92+B*08:18       | B*07:102+B*08:15     |                      |
| B*07:92+B*08:32       | B*07:134+B*08:15     |                      |
| B*07:92+B*08:39       | B*07:93+B*08:15      |                      |
| B*07:92+B*08:43       | B*07:124+B*08:15     |                      |
| B*07:92+B*08:58       | B*07:158+B*08:15     |                      |
| B*07:92+B*08:64       | B*07:113+B*08:15     |                      |
| B*07:92+B*08:74       | B*07:96:01+B*08:15   |                      |
| B*07:92+B*18:05       | B*07:136+B*18:06     |                      |
| B*07:92+B*18:09       | B*07:149+B*18:06     |                      |
| B*07:92+B*18:20       | B*07:96:01+B*18:06   |                      |
| B*07:92+B*18:71       | B*07:127+B*18:06     |                      |
| B*07:92+B*35:195      | B*07:93+B*35:74      |                      |
| B*07:92+B*39:31       | B*07:143+B*39:27     |                      |
| B*07:92+B*39:69       | B*07:133+B*39:27     |                      |
| B*07:92+B*39:73       | B*07:95+B*39:27      |                      |
| B*07:92+B*40:01:20    | B*07:106+B*40:73     |                      |
| B*07:92+B*40:47       | B*07:149+B*40:73     |                      |
| B*07:92+B*40:108      | B*07:159+B*40:73     |                      |
| B*07:92+B*40:132      | B*07:153+B*40:73     |                      |
| B*07:92+B*40:172      | B*07:96:01+B*40:73   |                      |
| B*07:92+B*40:192      | B*07:113+B*40:73     |                      |
| B*07:92+B*40:193      | B*07:148+B*40:73     |                      |
| B*07:92+B*55:45       | B*07:117+B*55:03     |                      |
| B*07:93+B*08:02       | B*07:149+B*08:39     |                      |
| B*07:93+B*08:18       | B*07:102+B*08:39     |                      |
| B*07:93+B*08:32       | B*07:134+B*08:39     |                      |
| B*07:93+B*08:43       | B*07:124+B*08:39     |                      |
| B*07:93+B*08:58       | B*07:158+B*08:39     |                      |
| B*07:93+B*08:64       | B*07:113+B*08:39     |                      |
| B*07:93+B*08:74       | B*07:96:01+B*08:39   |                      |
| B*07:93+B*35:71       | B*07:153+B*35:101:02 |                      |
| B*07:93+B*35:92       | B*07:160+B*35:101:02 |                      |
| B*07:93+B*35:146      | B*07:154+B*35:101:02 |                      |
| B*07:93+B*35:178      | B*07:102+B*35:101:02 |                      |
| B*07:93+B*35:196      | B*07:142+B*35:101:02 |                      |
| B*07:93+B*38:11       | B*07:110+B*38:27     |                      |
| B*07:93+B*51:114      | B*07:157+B*51:76     |                      |
| B*07:93+B*53:13       | B*07:149+B*35:101:02 |                      |
| B*07:94+B*40:89       | B*07:96:01+B*40:115  |                      |
| B*07:94+B*40:157      | B*07:149+B*40:115    |                      |
| B*07:95+B*39:31       | B*07:143+B*39:73     |                      |
| B*07:95+B*39:69       | B*07:133+B*39:73     |                      |
| B*07:96:01+B*08:02    | B*07:149+B*08:74     |                      |
| B*07:96:01+B*08:18    | B*07:102+B*08:74     |                      |
| B*07:96:01+B*08:32    | B*07:134+B*08:74     |                      |
| B*07:96:01+B*08:43    | B*07:124+B*08:74     |                      |
| B*07:96:01+B*08:58    | B*07:158+B*08:74     |                      |
| B*07:96:01+B*08:64    | B*07:113+B*08:74     |                      |
| B*07:96:01+B*08:69    | B*07:115+B*08:07     |                      |
| B*07:96:01+B*15:14    | B*07:153+B*15:128    |                      |
| B*07:96:01+B*15:58    | B*07:115+B*15:63     |                      |
| B*07:96:01+B*15:60    | B*07:117+B*15:128    |                      |
| B*07:96:01+B*15:74    | B*07:116+B*15:156    |                      |
| B*07:96:01+B*15:122   | B*07:127+B*15:128    |                      |
| B*07:96:01+B*15:131   | B*07:153+B*15:156    |                      |
| B*07:96:01+B*15:210   | B*07:143+B*15:156    |                      |
| B*07:96:01+B*15:225   | B*07:143+B*15:128    |                      |
| B*07:96:01+B*15:229   | B*07:115+B*15:10:01  |                      |
| B*07:96:01+B*18:05    | B*07:136+B*18:20     |                      |
| B*07:96:01+B*18:09    | B*07:149+B*18:20     |                      |
| B*07:96:01+B*18:71    | B*07:127+B*18:20     |                      |
| B*07:96:01+B*35:06    | B*07:115+B*35:34     |                      |
| B*07:96:01+B*35:59    | B*07:115+B*35:39     |                      |
| B*07:96:01+B*39:03    | B*07:115+B*39:29     |                      |
| B*07:96:01+B*40:01:20 | B*07:106+B*40:172    |                      |
| B*07:96:01+B*40:36    | B*07:115+B*40:33     |                      |
| B*07:96:01+B*40:47    | B*07:149+B*40:172    |                      |
| B*07:96:01+B*40:86    | B*07:115+B*40:44     |                      |
| B*07:96:01+B*40:108   | B*07:159+B*40:172    |                      |
| B*07:96:01+B*40:132   | B*07:140+B*40:42     | B*07:153+B*40:172    |
| B*07:96:01+B*40:157   | B*07:149+B*40:89     |                      |
| B*07:96:01+B*40:192   | B*07:113+B*40:172    |                      |
| B*07:96:01+B*40:193   | B*07:148+B*40:172    |                      |
| B*07:96:01+B*42:06    | B*07:115+B*42:16     |                      |
| B*07:96:01+B*51:13:02 | B*07:115+B*51:90     |                      |
| B*07:96:01+B*55:16    | B*07:143+B*55:41     |                      |
| B*07:96:01+B*55:19    | B*07:145+B*55:41     |                      |
| B*07:96:01+B*57:36    | B*07:132+B*57:41     |                      |
| B*07:100+B*08:89      | B*15:180+B*42:16     |                      |
| B*07:100+B*40:21      | B*15:63+B*81:01:01G  |                      |
| B*07:100+B*40:38      | B*15:68+B*40:166     | B*15:212+B*81:01:01G |
| B*07:102+B*08:02      | B*07:149+B*08:18     |                      |
| B*07:102+B*08:32      | B*07:134+B*08:18     |                      |
| B*07:102+B*08:43      | B*07:124+B*08:18     |                      |
| B*07:102+B*08:58      | B*07:158+B*08:18     |                      |
| B*07:102+B*08:64      | B*07:113+B*08:18     |                      |
| B*07:102+B*35:71      | B*07:153+B*35:178    |                      |
| B*07:102+B*35:92      | B*07:160+B*35:178    |                      |
| B*07:102+B*35:146     | B*07:154+B*35:178    |                      |
| B*07:102+B*35:196     | B*07:142+B*35:178    |                      |
| B*07:102+B*53:13      | B*07:149+B*35:178    |                      |
| B*07:106+B*40:47      | B*07:149+B*40:01:20  |                      |
| B*07:106+B*40:108     | B*07:159+B*40:01:20  |                      |
| B*07:106+B*40:132     | B*07:153+B*40:01:20  |                      |
| B*07:106+B*40:192     | B*07:113+B*40:01:20  |                      |
| B*07:106+B*40:193     | B*07:148+B*40:01:20  |                      |
| B*07:107+B*41:15      | B*40:32+B*42:08      |                      |
| B*07:113+B*08:02      | B*07:149+B*08:64     |                      |
| B*07:113+B*08:32      | B*07:134+B*08:64     |                      |
| B*07:113+B*08:43      | B*07:124+B*08:64     |                      |
| B*07:113+B*08:58      | B*07:158+B*08:64     |                      |
| B*07:113+B*40:47      | B*07:149+B*40:192    |                      |
| B*07:113+B*40:108     | B*07:159+B*40:192    |                      |
| B*07:113+B*40:132     | B*07:153+B*40:192    |                      |



|                      |                      |
|----------------------|----------------------|
| B*07:113+B*40:193    | B*07:148+B*40:192    |
| B*07:113+B*44:33     | B*07:150+B*44:68     |
| B*07:113+B*44:55     | B*07:143+B*44:68     |
| B*07:113+B*44:59     | B*07:136+B*44:68     |
| B*07:113+B*49:20     | B*07:153+B*49:17     |
| B*07:114+B*14:25     | B*07:136+B*14:11     |
| B*07:116+B*15:131    | B*07:153+B*15:74     |
| B*07:116+B*15:210    | B*07:143+B*15:74     |
| B*07:117+B*15:14     | B*07:153+B*15:60     |
| B*07:117+B*15:122    | B*07:127+B*15:60     |
| B*07:117+B*15:225    | B*07:143+B*15:60     |
| B*07:118+B*44:134    | B*07:134+B*44:44     |
| B*07:123+B*35:45     | B*07:140+B*35:80     |
| B*07:123+B*35:71     | B*07:140+B*35:10     |
| B*07:124+B*08:02     | B*07:149+B*08:43     |
| B*07:124+B*08:32     | B*07:134+B*08:43     |
| B*07:124+B*08:58     | B*07:158+B*08:43     |
| B*07:124+B*56:07     | B*07:149+B*56:30     |
| B*07:127+B*15:14     | B*07:153+B*15:122    |
| B*07:127+B*15:225    | B*07:143+B*15:122    |
| B*07:127+B*18:05     | B*07:136+B*18:71     |
| B*07:127+B*18:09     | B*07:149+B*18:71     |
| B*07:133+B*39:31     | B*07:143+B*39:69     |
| B*07:134+B*08:02     | B*07:149+B*08:32     |
| B*07:134+B*08:58     | B*07:158+B*08:32     |
| B*07:136+B*18:09     | B*07:149+B*18:05     |
| B*07:136+B*44:33     | B*07:150+B*44:59     |
| B*07:136+B*44:55     | B*07:143+B*44:59     |
| B*07:137+B*08:01:01G | B*08:79+B*42:13      |
| B*07:137+B*35:01:01G | B*07:162+B*35:12:02  |
| B*07:137+B*35:01:04  | B*07:162+B*35:12:01  |
| B*07:137+B*41:02:01  | B*40:16+B*42:13      |
| B*07:138+B*07:153    | B*07:140+B*07:158    |
| B*07:138+B*15:63     | B*07:158+B*15:30     |
| B*07:138+B*15:133    | B*07:158+B*15:229    |
| B*07:138+B*35:03:01G | B*07:158+B*35:06     |
| B*07:138+B*35:34     | B*07:158+B*35:04:01  |
| B*07:138+B*35:39     | B*07:158+B*35:12:01  |
| B*07:138+B*35:199    | B*07:158+B*35:22     |
| B*07:138+B*38:29     | B*07:158+B*38:02:01G |
| B*07:138+B*39:15     | B*07:158+B*39:01:01G |
| B*07:138+B*39:29     | B*07:158+B*39:14     |
| B*07:138+B*39:49     | B*07:158+B*39:13:01  |
| B*07:138+B*39:55     | B*07:158+B*39:05:01  |
| B*07:138+B*40:03     | B*07:158+B*40:105    |
| B*07:138+B*40:09     | B*07:158+B*40:89     |
| B*07:138+B*40:18     | B*07:158+B*40:02:01G |
| B*07:138+B*40:31     | B*07:158+B*40:80     |
| B*07:138+B*40:32     | B*07:158+B*40:16     |
| B*07:138+B*40:33     | B*07:158+B*40:01:01G |
| B*07:138+B*40:42     | B*07:158+B*40:172    |
| B*07:138+B*40:44     | B*07:158+B*40:06:01G |
| B*07:138+B*40:52     | B*07:158+B*40:38     |
| B*07:138+B*41:21     | B*07:158+B*41:01     |
| B*07:138+B*42:16     | B*07:158+B*42:01:01  |
| B*07:138+B*44:51     | B*07:158+B*44:14     |
| B*07:138+B*44:107    | B*07:158+B*44:77     |
| B*07:138+B*51:37     | B*07:158+B*51:63     |
| B*07:138+B*51:90     | B*07:158+B*51:01:01G |
| B*07:138+B*51:92     | B*07:158+B*51:13:01  |
| B*07:138+B*51:135    | B*07:158+B*51:06:01  |
| B*07:138+B*52:12     | B*07:158+B*52:01:01G |
| B*07:138+B*54:16     | B*07:158+B*54:01:01G |
| B*07:138+B*55:23     | B*07:158+B*55:32     |
| B*07:138+B*55:46     | B*07:158+B*55:02:01G |
| B*07:140+B*08:07     | B*07:153+B*08:01:01G |
| B*07:140+B*08:37     | B*07:153+B*08:35     |
| B*07:140+B*15:63     | B*07:153+B*15:30     |
| B*07:140+B*15:133    | B*07:153+B*15:229    |
| B*07:140+B*35:03:01G | B*07:153+B*35:06     |
| B*07:140+B*35:34     | B*07:153+B*35:04:01  |
| B*07:140+B*35:39     | B*07:153+B*35:12:01  |
| B*07:140+B*35:199    | B*07:153+B*35:22     |
| B*07:140+B*38:29     | B*07:153+B*38:02:01G |
| B*07:140+B*39:15     | B*07:153+B*39:01:01G |
| B*07:140+B*39:29     | B*07:153+B*39:14     |
| B*07:140+B*39:49     | B*07:153+B*39:13:01  |
| B*07:140+B*39:55     | B*07:153+B*39:05:01  |
| B*07:140+B*40:03     | B*07:153+B*40:105    |
| B*07:140+B*40:09     | B*07:153+B*40:89     |
| B*07:140+B*40:18     | B*07:153+B*40:02:01G |
| B*07:140+B*40:31     | B*07:153+B*40:80     |
| B*07:140+B*40:32     | B*07:153+B*40:16     |
| B*07:140+B*40:44     | B*07:153+B*40:06:01G |
| B*07:140+B*41:21     | B*07:153+B*41:01     |
| B*07:140+B*42:16     | B*07:153+B*42:01:01  |
| B*07:140+B*44:51     | B*07:153+B*44:14     |
| B*07:140+B*44:107    | B*07:153+B*44:77     |
| B*07:140+B*51:37     | B*07:153+B*51:63     |
| B*07:140+B*51:92     | B*07:153+B*51:13:01  |
| B*07:140+B*51:135    | B*07:153+B*51:06:01  |
| B*07:140+B*54:16     | B*07:153+B*54:01:01G |
| B*07:140+B*55:23     | B*07:153+B*55:32     |
| B*07:140+B*55:46     | B*07:153+B*55:02:01G |
| B*07:142+B*35:71     | B*07:153+B*35:196    |
| B*07:142+B*35:92     | B*07:160+B*35:196    |
| B*07:142+B*35:146    | B*07:154+B*35:196    |
| B*07:142+B*53:13     | B*07:149+B*35:196    |
| B*07:143+B*08:35     | B*08:79+B*42:09      |
| B*07:143+B*15:14     | B*07:153+B*15:225    |
| B*07:143+B*15:36     | B*07:149+B*15:204    |
| B*07:143+B*15:131    | B*07:153+B*15:210    |
| B*07:143+B*41:02:01  | B*40:32+B*42:02      |
| B*07:143+B*42:11     | B*42:02+B*48:08      |
| B*07:143+B*44:31     | B*07:149+B*40:132    |
|                      | B*07:153+B*40:47     |

|                         |                        |                        |                  |                    |
|-------------------------|------------------------|------------------------|------------------|--------------------|
| B*07:143+B*44:33        | B*07:150+B*44:55       |                        |                  |                    |
| B*07:143+B*46:17        | B*07:153+B*46:14       |                        |                  |                    |
| B*07:143+B*46:20        | B*07:145+B*46:14       |                        |                  |                    |
| B*07:143+B*55:19        | B*07:145+B*55:16       |                        |                  |                    |
| B*07:143+B*57:07        | B*07:153+B*57:39       |                        |                  |                    |
| B*07:145+B*46:17        | B*07:153+B*46:20       |                        |                  |                    |
| B*07:147+B*13:18        | B*07:151+B*13:02:01G   |                        |                  |                    |
| B*07:147+B*14:03        | B*07:151+B*14:02:01    |                        |                  |                    |
| B*07:147+B*15:65        | B*07:151+B*15:39:01    |                        |                  |                    |
| B*07:147+B*15:99        | B*07:151+B*15:10:01    |                        |                  |                    |
| B*07:147+B*15:221       | B*07:151+B*15:18:01G   |                        |                  |                    |
| B*07:147+B*15:237       | B*07:151+B*15:05:01    |                        |                  |                    |
| B*07:147+B*18:13        | B*07:151+B*18:01:01G   |                        |                  |                    |
| B*07:147+B*18:30        | B*07:151+B*18:15       |                        |                  |                    |
| B*07:147+B*27:45        | B*07:151+B*27:05:02G   |                        |                  |                    |
| B*07:147+B*35:08:01     | B*07:151+B*35:01:01G   |                        |                  |                    |
| B*07:147+B*35:08:03     | B*07:151+B*35:01:04    |                        |                  |                    |
| B*07:147+B*35:18        | B*07:151+B*35:09:02    |                        |                  |                    |
| B*07:147+B*35:45        | B*07:151+B*35:71       |                        |                  |                    |
| B*07:147+B*35:80        | B*07:151+B*35:10       |                        |                  |                    |
| B*07:147+B*35:105       | B*07:151+B*35:159      |                        |                  |                    |
| B*07:147+B*35:142       | B*07:151+B*35:124      |                        |                  |                    |
| B*07:147+B*35:156       | B*07:151+B*35:03:01G   |                        |                  |                    |
| B*07:147+B*35:172       | B*07:151+B*35:02:01    |                        |                  |                    |
| B*07:147+B*39:11        | B*07:151+B*39:05:01    |                        |                  |                    |
| B*07:147+B*40:128       | B*07:151+B*40:01:01G   |                        |                  |                    |
| B*07:147+B*40:161       | B*07:151+B*40:148      |                        |                  |                    |
| B*07:147+B*40:198       | B*07:151+B*40:183      |                        |                  |                    |
| B*07:147+B*44:28:01     | B*07:151+B*44:03:02    |                        |                  |                    |
| B*07:147+B*44:28:02     | B*07:151+B*44:03:01G   |                        |                  |                    |
| B*07:147+B*44:76        | B*07:151+B*44:79       |                        |                  |                    |
| B*07:147+B*51:29        | B*07:151+B*51:01:01G   |                        |                  |                    |
| B*07:147+B*51:82        | B*07:151+B*51:16       |                        |                  |                    |
| B*07:147+B*52:24        | B*07:151+B*52:01:01G   |                        |                  |                    |
| B*07:147+B*53:11        | B*07:151+B*53:13       |                        |                  |                    |
| B*07:147+B*53:16        | B*07:151+B*53:05       |                        |                  |                    |
| B*07:147+B*53:24        | B*07:151+B*53:01:01    |                        |                  |                    |
| B*07:147+B*54:10        | B*07:151+B*54:01:01G   |                        |                  |                    |
| B*07:147+B*55:09        | B*07:151+B*55:24       |                        |                  |                    |
| B*07:147+B*55:37        | B*07:151+B*55:02:01G   |                        |                  |                    |
| B*07:147+B*55:52        | B*07:151+B*55:01:01G   |                        |                  |                    |
| B*07:147+B*57:02:01     | B*07:151+B*57:03:01    |                        |                  |                    |
| B*07:147+B*57:19        | B*07:151+B*57:01:01G   |                        |                  |                    |
| B*07:147+B*58:22        | B*07:151+B*58:01:01G   |                        |                  |                    |
| B*07:148+B*40:47        | B*07:149+B*40:193      |                        |                  |                    |
| B*07:148+B*40:108       | B*07:159+B*40:193      |                        |                  |                    |
| B*07:148+B*40:132       | B*07:153+B*40:193      |                        |                  |                    |
| B*07:149+B*08:58        | B*07:158+B*08:02       |                        |                  |                    |
| B*07:149+B*35:45        | B*07:153+B*53:11       |                        |                  |                    |
| B*07:149+B*35:71        | B*07:153+B*53:13       |                        |                  |                    |
| B*07:149+B*35:92        | B*07:160+B*53:13       |                        |                  |                    |
| B*07:149+B*35:146       | B*07:154+B*53:13       |                        |                  |                    |
| B*07:149+B*40:108       | B*07:159+B*40:47       |                        |                  |                    |
| B*07:149+B*50:02        | B*07:153+B*49:02       |                        |                  |                    |
| B*07:153+B*35:92        | B*07:160+B*35:71       |                        |                  |                    |
| B*07:153+B*35:146       | B*07:154+B*35:71       |                        |                  |                    |
| B*07:153+B*40:108       | B*07:159+B*40:132      |                        |                  |                    |
| B*07:154+B*35:92        | B*07:160+B*35:146      |                        |                  |                    |
| B*08:01:01G+B*08:03     | B*08:23+B*08:78        |                        |                  |                    |
| B*08:01:01G+B*08:12:02  | B*08:01:12+B*08:12:01  |                        |                  |                    |
| B*08:01:01G+B*08:25     | B*08:13+B*08:21        |                        |                  |                    |
| B*08:01:01G+B*08:28     | B*08:37+B*08:74        |                        |                  |                    |
| B*08:01:01G+B*08:37     | B*08:07+B*08:35        |                        |                  |                    |
| B*08:01:01G+B*08:60     | B*08:27+B*08:76        |                        |                  |                    |
| B*08:01:01G+B*08:78     | B*08:47+B*08:52        |                        |                  |                    |
| B*08:01:01G+B*08:89     | B*08:12:01+B*08:37     |                        |                  |                    |
| B*08:01:01G+B*13:01:01G | B*08:47+B*13:25        | B*08:83+B*13:22:02     |                  |                    |
| B*08:01:01G+B*13:02:01G | B*08:02+B*13:09        | B*08:83+B*13:45        |                  |                    |
| B*08:01:01G+B*13:16     | B*08:53+B*13:02:01G    |                        |                  |                    |
| B*08:01:01G+B*13:20     | B*08:53+B*13:01:01G    |                        |                  |                    |
| B*08:01:01G+B*13:28     | B*08:92+B*13:01:01G    |                        |                  |                    |
| B*08:01:01G+B*13:30     | B*08:41+B*13:02:01G    |                        |                  |                    |
| B*08:01:01G+B*13:31     | B*08:53+B*13:41        |                        |                  |                    |
| B*08:01:01G+B*13:48     | B*08:53+B*13:03        |                        |                  |                    |
| B*08:01:01G+B*13:56N    | B*08:30N+B*13:02:01G   |                        |                  |                    |
| B*08:01:01G+B*14:01:01  | B*08:94+B*14:28        |                        |                  |                    |
| B*08:01:01G+B*14:06:01  | B*08:12:01+B*14:05     |                        |                  |                    |
| B*08:01:01G+B*14:06:02  | B*08:12:03+B*14:05     |                        |                  |                    |
| B*08:01:01G+B*14:11     | B*08:50+B*14:28        |                        |                  |                    |
| B*08:01:01G+B*14:14     | B*08:23+B*14:01:01     |                        |                  |                    |
| B*08:01:01G+B*14:18     | B*08:23+B*14:02:01     |                        |                  |                    |
| B*08:01:01G+B*14:19     | B*08:21+B*14:01:01     |                        |                  |                    |
| B*08:01:01G+B*14:27     | B*08:21+B*14:02:01     |                        |                  |                    |
| B*08:01:01G+B*15:01:01G | B*08:04+B*15:56        | B*08:12:01+B*15:07:01G | B*08:21+B*15:50  | B*08:23+B*15:70    |
|                         | B*08:35+B*15:63        | B*08:37+B*15:30        | B*08:50+B*15:142 | B*08:71+B*15:78:01 |
| B*08:01:01G+B*15:01:14  | B*08:12:03+B*15:07:01G |                        |                  |                    |
| B*08:01:01G+B*15:01:17  | B*08:71+B*15:78:03     |                        |                  |                    |
| B*08:01:01G+B*15:02:01G | B*08:21+B*15:121       | B*08:74+B*15:223       |                  |                    |
| B*08:01:01G+B*15:02:03  | B*08:01:13+B*15:02:01G |                        |                  |                    |
| B*08:01:01G+B*15:03:01G | B*08:23+B*15:61        | B*08:53+B*15:123:01G   |                  |                    |
| B*08:01:01G+B*15:03:03  | B*08:01:11+B*15:03:01G |                        |                  |                    |
| B*08:01:01G+B*15:04     | B*08:09+B*15:07:01G    |                        |                  |                    |
| B*08:01:01G+B*15:05:02  | B*08:13+B*15:179       |                        |                  |                    |
| B*08:01:01G+B*15:06     | B*08:74+B*15:195       |                        |                  |                    |
| B*08:01:01G+B*15:07:01G | B*08:35+B*15:45        |                        |                  |                    |
| B*08:01:01G+B*15:09     | B*08:21+B*15:252       |                        |                  |                    |
| B*08:01:01G+B*15:10:02  | B*08:01:11+B*15:10:01  |                        |                  |                    |
| B*08:01:01G+B*15:11:01G | B*08:01:11+B*15:11:04  |                        |                  |                    |
| B*08:01:01G+B*15:13:01  | B*08:78+B*15:02:01G    |                        |                  |                    |
| B*08:01:01G+B*15:15     | B*08:04+B*15:08        |                        |                  |                    |
| B*08:01:01G+B*15:16:01  | B*08:53+B*15:222       |                        |                  |                    |
| B*08:01:01G+B*15:17:02  | B*08:01:12+B*15:17:01G |                        |                  |                    |
| B*08:01:01G+B*15:18:01G | B*08:21+B*15:93        | B*08:35+B*15:10:01     | B*08:65+B*15:29  | B*08:71+B*15:72    |
| B*08:01:01G+B*15:21     | B*08:21+B*15:44        |                        |                  |                    |
| B*08:01:01G+B*15:23     | B*08:78+B*15:18:01G    |                        |                  |                    |

|                         |                        |                     |                  |                     |
|-------------------------|------------------------|---------------------|------------------|---------------------|
| B*08:01:01G+B*15:24     | B*08:03+B*15:70        | B*08:47+B*15:87     | B*08:52+B*15:135 | B*08:78+B*15:01:01G |
| B*08:01:01G+B*15:31     | B*08:12:01+B*15:55     |                     |                  |                     |
| B*08:01:01G+B*15:33     | B*08:35+B*15:248       |                     |                  |                     |
| B*08:01:01G+B*15:36     | B*08:02+B*15:25:01G    |                     |                  |                     |
| B*08:01:01G+B*15:39:01  | B*08:25+B*15:199       | B*08:53+B*15:05:01  |                  |                     |
| B*08:01:01G+B*15:39:02  | B*08:53+B*15:05:02     |                     |                  |                     |
| B*08:01:01G+B*15:47:02  | B*08:01:13+B*15:47:01  |                     |                  |                     |
| B*08:01:01G+B*15:50     | B*08:70+B*15:199       |                     |                  |                     |
| B*08:01:01G+B*15:56     | B*08:23+B*15:236       |                     |                  |                     |
| B*08:01:01G+B*15:57     | B*08:15+B*15:135       |                     |                  |                     |
| B*08:01:01G+B*15:58     | B*08:69+B*15:30        |                     |                  |                     |
| B*08:01:01G+B*15:63     | B*08:07+B*15:30        | B*08:12:01+B*15:45  |                  |                     |
| B*08:01:01G+B*15:64     | B*08:04+B*15:29        |                     |                  |                     |
| B*08:01:01G+B*15:65     | B*08:53+B*15:237       |                     |                  |                     |
| B*08:01:01G+B*15:66     | B*08:65+B*15:56        |                     |                  |                     |
| B*08:01:01G+B*15:70     | B*08:04+B*15:236       |                     |                  |                     |
| B*08:01:01G+B*15:77     | B*08:60+B*15:233       |                     |                  |                     |
| B*08:01:01G+B*15:78:02  | B*08:01:13+B*15:78:01  | B*08:37+B*15:150    |                  |                     |
| B*08:01:01G+B*15:80     | B*08:60+B*15:18:01G    |                     |                  |                     |
| B*08:01:01G+B*15:87     | B*08:52+B*15:01:01G    |                     |                  |                     |
| B*08:01:01G+B*15:89     | B*08:02+B*15:02:01G    |                     |                  |                     |
| B*08:01:01G+B*15:94N    | B*08:72N+B*15:01:01G   |                     |                  |                     |
| B*08:01:01G+B*15:105    | B*08:68+B*15:01:01G    |                     |                  |                     |
| B*08:01:01G+B*15:128    | B*08:28+B*15:30        | B*08:74+B*15:01:01G |                  |                     |
| B*08:01:01G+B*15:131    | B*08:53+B*15:91        |                     |                  |                     |
| B*08:01:01G+B*15:133    | B*08:07+B*15:229       | B*08:69+B*15:10:01  |                  |                     |
| B*08:01:01G+B*15:135    | B*08:17+B*15:08        | B*08:47+B*15:01:01G |                  |                     |
| B*08:01:01G+B*15:154    | B*08:27+B*15:165       | B*08:60+B*15:01:01G |                  |                     |
| B*08:01:01G+B*15:156    | B*08:74+B*15:03:01G    |                     |                  |                     |
| B*08:01:01G+B*15:165    | B*08:76+B*15:01:01G    |                     |                  |                     |
| B*08:01:01G+B*15:175    | B*08:90+B*15:71        |                     |                  |                     |
| B*08:01:01G+B*15:203    | B*08:48+B*15:01:01G    |                     |                  |                     |
| B*08:01:01G+B*15:212    | B*15:180+B*41:02:01    |                     |                  |                     |
| B*08:01:01G+B*15:221    | B*08:35+B*15:99        |                     |                  |                     |
| B*08:01:01G+B*15:225    | B*08:62+B*15:142       |                     |                  |                     |
| B*08:01:01G+B*15:233    | B*08:87+B*15:30        |                     |                  |                     |
| B*08:01:01G+B*15:238    | B*08:53+B*15:52        |                     |                  |                     |
| B*08:01:01G+B*18:01:01G | B*08:04+B*18:07:01     | B*08:12:01+B*18:14  | B*08:23+B*18:03  | B*08:37+B*18:26     |
|                         | B*08:71+B*18:40        |                     |                  |                     |
| B*08:01:01G+B*18:01:06  | B*08:12:03+B*18:14     |                     |                  |                     |
| B*08:01:01G+B*18:01:12  | B*08:04+B*18:07:02     | B*08:32+B*18:37     |                  |                     |
| B*08:01:01G+B*18:06     | B*08:15+B*18:01:01G    |                     |                  |                     |
| B*08:01:01G+B*18:09     | B*08:02+B*18:01:01G    |                     |                  |                     |
| B*08:01:01G+B*18:15     | B*08:53+B*18:01:01G    |                     |                  |                     |
| B*08:01:01G+B*18:20     | B*08:28+B*18:26        | B*08:74+B*18:01:01G |                  |                     |
| B*08:01:01G+B*18:26     | B*08:71+B*18:61        |                     |                  |                     |
| B*08:01:01G+B*18:30     | B*08:53+B*18:13        |                     |                  |                     |
| B*08:01:01G+B*18:33     | B*08:65+B*18:07:01     |                     |                  |                     |
| B*08:01:01G+B*18:36     | B*08:21+B*18:01:01G    |                     |                  |                     |
| B*08:01:01G+B*18:40     | B*08:37+B*18:61        |                     |                  |                     |
| B*08:01:01G+B*18:49     | B*08:47+B*18:01:01G    |                     |                  |                     |
| B*08:01:01G+B*18:58     | B*08:21+B*18:11        |                     |                  |                     |
| B*08:01:01G+B*18:67     | B*08:52+B*18:01:01G    |                     |                  |                     |
| B*08:01:01G+B*18:69     | B*08:76+B*18:01:01G    |                     |                  |                     |
| B*08:01:01G+B*27:01     | B*08:02+B*27:44        |                     |                  |                     |
| B*08:01:01G+B*27:02:01  | B*08:52+B*27:89        | B*08:78+B*27:08     |                  |                     |
| B*08:01:01G+B*27:04:01G | B*08:53+B*27:61        |                     |                  |                     |
| B*08:01:01G+B*27:05:02G | B*08:14+B*27:27        |                     |                  |                     |
| B*08:01:01G+B*27:10     | B*08:53+B*27:05:02G    |                     |                  |                     |
| B*08:01:01G+B*27:19     | B*08:60+B*27:70        |                     |                  |                     |
| B*08:01:01G+B*27:38     | B*08:21+B*27:71        |                     |                  |                     |
| B*08:01:01G+B*27:40     | B*08:53+B*27:08        |                     |                  |                     |
| B*08:01:01G+B*27:41     | B*08:37+B*27:27        |                     |                  |                     |
| B*08:01:01G+B*27:44     | B*08:23+B*27:08        |                     |                  |                     |
| B*08:01:01G+B*27:53     | B*08:52+B*27:42        |                     |                  |                     |
| B*08:01:01G+B*27:63     | B*08:21+B*27:15        |                     |                  |                     |
| B*08:01:01G+B*27:70     | B*08:12:01+B*27:32     |                     |                  |                     |
| B*08:01:01G+B*27:78     | B*08:35+B*27:46        |                     |                  |                     |
| B*08:01:01G+B*27:81     | B*08:09+B*27:32        |                     |                  |                     |
| B*08:01:01G+B*27:89     | B*08:47+B*27:08        |                     |                  |                     |
| B*08:01:01G+B*27:91     | B*08:41+B*27:06        |                     |                  |                     |
| B*08:01:01G+B*35:01:01G | B*08:01:08+B*35:01:15  | B*08:12:03+B*35:30  | B*08:13+B*35:115 | B*08:21+B*35:93     |
|                         | B*08:23+B*35:29:01     | B*08:32+B*35:49     | B*08:35+B*35:34  | B*08:37+B*35:04:01  |
|                         | B*08:60+B*35:68:01     |                     |                  |                     |
| B*08:01:01G+B*35:01:04  | B*08:12:01+B*35:30     | B*08:60+B*35:68:02  |                  |                     |
| B*08:01:01G+B*35:01:10  | B*08:37+B*35:04:02     |                     |                  |                     |
| B*08:01:01G+B*35:01:15  | B*08:23+B*35:29:02     |                     |                  |                     |
| B*08:01:01G+B*35:01:17  | B*08:37+B*35:04:03     |                     |                  |                     |
| B*08:01:01G+B*35:01:18  | B*08:01:09+B*35:01:01G |                     |                  |                     |
| B*08:01:01G+B*35:03:01G | B*08:07+B*35:06        | B*08:13+B*35:38     | B*08:23+B*35:136 | B*08:69+B*35:34     |
|                         | B*08:76+B*35:75        |                     |                  |                     |
| B*08:01:01G+B*35:03:03  | B*08:01:04+B*35:03:01G |                     |                  |                     |
| B*08:01:01G+B*35:03:11  | B*08:01:13+B*35:03:01G |                     |                  |                     |
| B*08:01:01G+B*35:04:01  | B*08:71+B*35:09:01     |                     |                  |                     |
| B*08:01:01G+B*35:06     | B*08:69+B*35:04:01     |                     |                  |                     |
| B*08:01:01G+B*35:07     | B*08:75+B*35:01:01G    |                     |                  |                     |
| B*08:01:01G+B*35:08:01  | B*08:71+B*35:174       |                     |                  |                     |
| B*08:01:01G+B*35:09:02  | B*08:01:02+B*35:09:01  |                     |                  |                     |
| B*08:01:01G+B*35:09:03  | B*08:01:13+B*35:09:01  |                     |                  |                     |
| B*08:01:01G+B*35:10     | B*08:23+B*35:69        | B*08:38+B*35:01:19  |                  |                     |
| B*08:01:01G+B*35:11:01  | B*08:53+B*35:01:01G    |                     |                  |                     |
| B*08:01:01G+B*35:14:01  | B*08:53+B*35:62        |                     |                  |                     |
| B*08:01:01G+B*35:20:01  | B*08:04+B*35:01:01G    |                     |                  |                     |
| B*08:01:01G+B*35:21     | B*08:21+B*35:188       | B*08:53+B*35:24:01  |                  |                     |
| B*08:01:01G+B*35:24:01  | B*08:21+B*35:190       |                     |                  |                     |
| B*08:01:01G+B*35:27     | B*08:47+B*35:01:01G    |                     |                  |                     |
| B*08:01:01G+B*35:28     | B*08:04+B*35:10        | B*08:54+B*35:29:01  |                  |                     |
| B*08:01:01G+B*35:29:01  | B*08:01:08+B*35:29:02  |                     |                  |                     |
| B*08:01:01G+B*35:30     | B*08:60+B*35:05:01     |                     |                  |                     |
| B*08:01:01G+B*35:32:02  | B*08:12:01+B*35:51     | B*08:89+B*35:22     |                  |                     |
| B*08:01:01G+B*35:34     | B*08:07+B*35:04:01     |                     |                  |                     |
| B*08:01:01G+B*35:37     | B*08:09+B*35:05:01     |                     |                  |                     |
| B*08:01:01G+B*35:39     | B*08:07+B*35:12:01     |                     |                  |                     |
| B*08:01:01G+B*35:43:01G | B*08:37+B*35:44        | B*15:180+B*35:87    |                  |                     |
| B*08:01:01G+B*35:49     | B*08:56+B*35:25        |                     |                  |                     |

|                         |                        |                        |                     |                     |  |
|-------------------------|------------------------|------------------------|---------------------|---------------------|--|
| B*08:01:01G+B*35:51     | B*08:35+B*35:199       | B*08:37+B*35:22        |                     |                     |  |
| B*08:01:01G+B*35:56     | B*08:47+B*35:03:01G    |                        |                     |                     |  |
| B*08:01:01G+B*35:58     | B*08:53+B*35:05:01     |                        |                     |                     |  |
| B*08:01:01G+B*35:59     | B*08:69+B*35:12:01     |                        |                     |                     |  |
| B*08:01:01G+B*35:62     | B*08:70+B*35:115       |                        |                     |                     |  |
| B*08:01:01G+B*35:64     | B*08:37+B*35:09:02     |                        |                     |                     |  |
| B*08:01:01G+B*35:68:01  | B*08:12:03+B*35:05:01  |                        |                     |                     |  |
| B*08:01:01G+B*35:68:02  | B*08:12:01+B*35:05:01  |                        |                     |                     |  |
| B*08:01:01G+B*35:72     | B*08:04+B*35:05:01     |                        |                     |                     |  |
| B*08:01:01G+B*35:74     | B*08:15+B*35:03:01G    |                        |                     |                     |  |
| B*08:01:01G+B*35:81     | B*08:21+B*35:157       |                        |                     |                     |  |
| B*08:01:01G+B*35:82     | B*08:65+B*35:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*35:85     | B*08:65+B*35:03:01G    |                        |                     |                     |  |
| B*08:01:01G+B*35:95     | B*08:04+B*35:02:01     |                        |                     |                     |  |
| B*08:01:01G+B*35:101:02 | B*08:39+B*35:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*35:108:01 | B*08:59+B*35:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*35:135    | B*08:65+B*35:43:01G    |                        |                     |                     |  |
| B*08:01:01G+B*35:136    | B*08:32+B*35:198       |                        |                     |                     |  |
| B*08:01:01G+B*35:146    | B*08:37+B*35:02:01     |                        |                     |                     |  |
| B*08:01:01G+B*35:163    | B*08:70+B*35:38        |                        |                     |                     |  |
| B*08:01:01G+B*35:167    | B*08:53+B*35:03:01G    |                        |                     |                     |  |
| B*08:01:01G+B*35:178    | B*08:18+B*35:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*35:180    | B*08:68+B*35:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*35:188    | B*08:53+B*35:190       |                        |                     |                     |  |
| B*08:01:01G+B*35:192    | B*08:41+B*35:08:01     |                        |                     |                     |  |
| B*08:01:01G+B*35:195    | B*08:39+B*35:03:01G    |                        |                     |                     |  |
| B*08:01:01G+B*35:199    | B*08:07+B*35:22        |                        |                     |                     |  |
| B*08:01:01G+B*37:01:01G | B*08:04+B*37:21        |                        |                     |                     |  |
| B*08:01:01G+B*37:10     | B*08:02+B*37:11        |                        |                     |                     |  |
| B*08:01:01G+B*37:13     | B*08:53+B*37:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*37:34     | B*08:78+B*37:11        |                        |                     |                     |  |
| B*08:01:01G+B*38:01:01  | B*08:03+B*39:01:01G    | B*08:12:01+B*38:19     | B*08:23+B*38:14     | B*08:78+B*39:05:01  |  |
| B*08:01:01G+B*38:01:03  | B*08:03+B*39:01:05     |                        |                     |                     |  |
| B*08:01:01G+B*38:02:01G | B*08:02+B*39:05:01     |                        |                     |                     |  |
| B*08:01:01G+B*38:10     | B*08:53+B*38:36        |                        |                     |                     |  |
| B*08:01:01G+B*38:14     | B*08:78+B*39:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*38:19     | B*08:03+B*39:03        | B*08:78+B*39:37        |                     |                     |  |
| B*08:01:01G+B*38:20     | B*08:03+B*39:42        | B*08:60+B*38:01:01     |                     |                     |  |
| B*08:01:01G+B*38:26     | B*08:78+B*67:01:01     |                        |                     |                     |  |
| B*08:01:01G+B*38:27     | B*08:39+B*38:01:01     |                        |                     |                     |  |
| B*08:01:01G+B*38:29     | B*08:02+B*39:55        | B*08:07+B*38:02:01G    |                     |                     |  |
| B*08:01:01G+B*38:32     | B*08:03+B*39:35        | B*08:53+B*38:01:01     |                     |                     |  |
| B*08:01:01G+B*38:33     | B*08:03+B*39:04        |                        |                     |                     |  |
| B*08:01:01G+B*38:36     | B*08:03+B*39:30        |                        |                     |                     |  |
| B*08:01:01G+B*38:38     | B*08:83+B*38:01:01     |                        |                     |                     |  |
| B*08:01:01G+B*39:01:01G | B*08:12:01+B*39:03     | B*08:65+B*39:58        | B*08:69+B*39:70     | B*08:71+B*39:68     |  |
| B*08:01:01G+B*39:01:11  | B*08:01:15+B*39:01:01G |                        |                     |                     |  |
| B*08:01:01G+B*39:01:14  | B*08:01:11+B*39:01:01G |                        |                     |                     |  |
| B*08:01:01G+B*39:03     | B*08:69+B*39:14        |                        |                     |                     |  |
| B*08:01:01G+B*39:05:01  | B*08:12:01+B*39:37     | B*08:23+B*39:01:01G    |                     |                     |  |
| B*08:01:01G+B*39:06:02  | B*08:09+B*39:03        |                        |                     |                     |  |
| B*08:01:01G+B*39:13:01  | B*08:23+B*39:02:02     |                        |                     |                     |  |
| B*08:01:01G+B*39:13:02  | B*08:01:11+B*39:13:01  |                        |                     |                     |  |
| B*08:01:01G+B*39:15     | B*08:07+B*39:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*39:19:01  | B*08:32+B*39:01:09     |                        |                     |                     |  |
| B*08:01:01G+B*39:27     | B*08:15+B*39:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*39:29     | B*08:07+B*39:14        |                        |                     |                     |  |
| B*08:01:01G+B*39:32     | B*08:21+B*39:48        |                        |                     |                     |  |
| B*08:01:01G+B*39:35     | B*08:53+B*39:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*39:37     | B*08:23+B*39:03        |                        |                     |                     |  |
| B*08:01:01G+B*39:39:01  | B*08:04+B*39:58        |                        |                     |                     |  |
| B*08:01:01G+B*39:42     | B*08:60+B*39:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*39:49     | B*08:07+B*39:13:01     |                        |                     |                     |  |
| B*08:01:01G+B*39:55     | B*08:07+B*39:05:01     | B*08:23+B*39:15        |                     |                     |  |
| B*08:01:01G+B*39:70     | B*08:12:01+B*39:14     |                        |                     |                     |  |
| B*08:01:01G+B*39:74     | B*08:21+B*39:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*40:01:01G | B*08:01:13+B*40:01:14  | B*08:04+B*40:07        | B*08:12:01+B*40:80  | B*08:23+B*40:43     |  |
| B*08:01:01G+B*40:01:04  | B*08:12:03+B*40:80     |                        |                     |                     |  |
| B*08:01:01G+B*40:01:05  | B*08:01:04+B*40:01:01G |                        |                     |                     |  |
| B*08:01:01G+B*40:02:01G | B*08:23+B*40:50        |                        |                     |                     |  |
| B*08:01:01G+B*40:02:04  | B*08:01:11+B*40:02:01G |                        |                     |                     |  |
| B*08:01:01G+B*40:03     | B*08:07+B*40:105       | B*08:35+B*40:18        | B*08:37+B*40:02:01G |                     |  |
| B*08:01:01G+B*40:06:01G | B*08:01:02+B*40:06:05  | B*08:04+B*40:162       | B*08:09+B*40:02:01G |                     |  |
| B*08:01:01G+B*40:06:02  | B*08:09+B*40:02:07     |                        |                     |                     |  |
| B*08:01:01G+B*40:09     | B*08:07+B*40:89        | B*08:74+B*40:18        |                     |                     |  |
| B*08:01:01G+B*40:10:02  | B*08:01:11+B*40:10:01  |                        |                     |                     |  |
| B*08:01:01G+B*40:11:01  | B*08:12:01+B*40:02:01G |                        |                     |                     |  |
| B*08:01:01G+B*40:11:02  | B*08:12:01+B*40:02:09  | B*08:12:03+B*40:02:01G |                     |                     |  |
| B*08:01:01G+B*40:14:01  | B*08:13+B*40:136       |                        |                     |                     |  |
| B*08:01:01G+B*40:14:03  | B*08:01:02+B*40:14:01  | B*08:01:13+B*40:14:02  |                     |                     |  |
| B*08:01:01G+B*40:16     | B*08:79+B*41:02:01     |                        |                     |                     |  |
| B*08:01:01G+B*40:18     | B*08:07+B*40:02:01G    |                        |                     |                     |  |
| B*08:01:01G+B*40:19     | B*08:03+B*40:50        | B*08:04+B*40:13        | B*08:52+B*40:37     | B*08:78+B*40:02:01G |  |
| B*08:01:01G+B*40:20     | B*08:12:01+B*40:03     | B*08:37+B*40:11:01     | B*08:89+B*40:02:01G |                     |  |
| B*08:01:01G+B*40:25     | B*08:04+B*40:106       |                        |                     |                     |  |
| B*08:01:01G+B*40:31     | B*08:07+B*40:80        |                        |                     |                     |  |
| B*08:01:01G+B*40:32     | B*08:07+B*40:16        |                        |                     |                     |  |
| B*08:01:01G+B*40:33     | B*08:07+B*40:01:01G    | B*08:12:01+B*40:31     |                     |                     |  |
| B*08:01:01G+B*40:35     | B*08:71+B*40:02:01G    |                        |                     |                     |  |
| B*08:01:01G+B*40:36     | B*08:69+B*40:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*40:37     | B*08:17+B*40:08        | B*08:47+B*40:02:01G    |                     |                     |  |
| B*08:01:01G+B*40:38     | B*08:35+B*40:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*40:42     | B*08:07+B*40:172       | B*08:74+B*40:33        |                     |                     |  |
| B*08:01:01G+B*40:44     | B*08:07+B*40:06:01G    | B*08:09+B*40:18        |                     |                     |  |
| B*08:01:01G+B*40:47     | B*08:02+B*40:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*40:52     | B*08:07+B*40:38        | B*08:35+B*40:33        | B*08:37+B*40:01:01G | B*08:89+B*40:80     |  |
| B*08:01:01G+B*40:63     | B*08:21+B*40:199       |                        |                     |                     |  |
| B*08:01:01G+B*40:64     | B*08:60+B*40:11:02     |                        |                     |                     |  |
| B*08:01:01G+B*40:72:02  | B*08:01:02+B*40:72:01  |                        |                     |                     |  |
| B*08:01:01G+B*40:73     | B*08:15+B*40:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*40:75     | B*08:65+B*40:162       |                        |                     |                     |  |
| B*08:01:01G+B*40:84     | B*08:24+B*40:01:01G    |                        |                     |                     |  |
| B*08:01:01G+B*40:86     | B*08:69+B*40:06:01G    |                        |                     |                     |  |
| B*08:01:01G+B*40:87:01  | B*08:71+B*40:01:14     |                        |                     |                     |  |
| B*08:01:01G+B*40:87:02  | B*08:01:13+B*40:87:01  | B*08:71+B*40:01:01G    |                     |                     |  |

|                         |                        |                     |                     |                  |
|-------------------------|------------------------|---------------------|---------------------|------------------|
| B*08:01:01G+B*40:89     | B*08:74+B*40:02:01G    |                     |                     |                  |
| B*08:01:01G+B*40:91     | B*08:83+B*40:02:01G    |                     |                     |                  |
| B*08:01:01G+B*40:96     | B*08:02+B*40:06:01G    | B*08:09+B*40:157    |                     |                  |
| B*08:01:01G+B*40:105    | B*08:35+B*40:02:01G    |                     |                     |                  |
| B*08:01:01G+B*40:109    | B*08:52+B*40:06:01G    |                     |                     |                  |
| B*08:01:01G+B*40:114    | B*08:12:01+B*40:45     |                     |                     |                  |
| B*08:01:01G+B*40:117    | B*08:03+B*40:43        | B*08:78+B*40:01:01G |                     |                  |
| B*08:01:01G+B*40:121    | B*08:71+B*40:14:01     |                     |                     |                  |
| B*08:01:01G+B*40:124:01 | B*08:14+B*40:01:04     |                     |                     |                  |
| B*08:01:01G+B*40:124:02 | B*08:14+B*40:01:01G    |                     |                     |                  |
| B*08:01:01G+B*40:135    | B*08:36+B*40:01:01G    |                     |                     |                  |
| B*08:01:01G+B*40:148    | B*08:53+B*40:06:01G    |                     |                     |                  |
| B*08:01:01G+B*40:157    | B*08:02+B*40:02:01G    | B*08:47+B*40:201    |                     |                  |
| B*08:01:01G+B*40:159    | B*08:09+B*40:03        | B*08:35+B*40:44     | B*08:37+B*40:06:01G |                  |
| B*08:01:01G+B*40:160    | B*08:60+B*40:01:01G    |                     |                     |                  |
| B*08:01:01G+B*40:172    | B*08:74+B*40:01:01G    |                     |                     |                  |
| B*08:01:01G+B*40:175    | B*08:92+B*40:01:01G    |                     |                     |                  |
| B*08:01:01G+B*40:177    | B*08:51+B*40:06:01G    |                     |                     |                  |
| B*08:01:01G+B*40:180    | B*08:14+B*40:02:01G    |                     |                     |                  |
| B*08:01:01G+B*40:183    | B*08:53+B*40:01:01G    |                     |                     |                  |
| B*08:01:01G+B*40:192    | B*08:64+B*40:01:01G    |                     |                     |                  |
| B*08:01:01G+B*40:198    | B*08:53+B*40:128       |                     |                     |                  |
| B*08:01:01G+B*41:03:02  | B*08:12:01+B*41:02:01  |                     |                     |                  |
| B*08:01:01G+B*41:11     | B*08:41+B*41:02:01     |                     |                     |                  |
| B*08:01:01G+B*41:21     | B*08:07+B*41:01        |                     |                     |                  |
| B*08:01:01G+B*42:04     | B*08:09+B*42:01:01     |                     |                     |                  |
| B*08:01:01G+B*42:06     | B*08:69+B*42:01:01     |                     |                     |                  |
| B*08:01:01G+B*42:09     | B*08:37+B*42:02        |                     |                     |                  |
| B*08:01:01G+B*42:10     | B*08:71+B*42:01:01     |                     |                     |                  |
| B*08:01:01G+B*42:15     | B*08:47+B*42:01:01     |                     |                     |                  |
| B*08:01:01G+B*42:16     | B*08:07+B*42:01:01     |                     |                     |                  |
| B*08:01:01G+B*42:17     | B*08:71+B*42:02        |                     |                     |                  |
| B*08:01:01G+B*44:02:01G | B*08:02+B*44:09        | B*08:50+B*44:49     | B*08:60+B*44:41:01  | B*08:71+B*44:53  |
|                         | B*08:74+B*44:51        |                     |                     |                  |
| B*08:01:01G+B*44:02:07  | B*08:60+B*44:41:02     |                     |                     |                  |
| B*08:01:01G+B*44:02:08  | B*08:86N+B*44:02:01G   |                     |                     |                  |
| B*08:01:01G+B*44:03:01G | B*08:02+B*44:46        | B*08:12:01+B*44:110 | B*08:13+B*44:02:01G | B*08:47+B*44:109 |
|                         | B*08:60+B*44:65        | B*08:74+B*44:45     | B*08:87+B*44:77     |                  |
|                         | B*08:12:03+B*44:110    | B*08:13+B*44:02:07  |                     |                  |
| B*08:01:01G+B*44:03:02  | B*08:13+B*44:02:24     |                     |                     |                  |
| B*08:01:01G+B*44:03:05  | B*08:01:02+B*44:03:01G |                     |                     |                  |
| B*08:01:01G+B*44:03:14  | B*08:74+B*44:123       |                     |                     |                  |
| B*08:01:01G+B*44:05:01  | B*08:13+B*44:67        |                     |                     |                  |
| B*08:01:01G+B*44:13     | B*08:35+B*44:123       |                     |                     |                  |
| B*08:01:01G+B*44:17     | B*08:78+B*45:01:01G    |                     |                     |                  |
| B*08:01:01G+B*44:18     | B*08:09+B*44:106       |                     |                     |                  |
| B*08:01:01G+B*44:20     | B*08:52+B*44:75        |                     |                     |                  |
| B*08:01:01G+B*44:25     | B*08:21+B*44:04        |                     |                     |                  |
| B*08:01:01G+B*44:28:02  | B*08:13+B*44:89        | B*08:55+B*44:02:01G |                     |                  |
| B*08:01:01G+B*44:29     | B*08:13+B*44:91        | B*08:25+B*44:132    |                     |                  |
| B*08:01:01G+B*44:37:01  | B*08:13+B*44:44        |                     |                     |                  |
| B*08:01:01G+B*44:40     | B*08:12:01+B*44:106    |                     |                     |                  |
| B*08:01:01G+B*44:41:01  | B*08:12:03+B*44:106    |                     |                     |                  |
| B*08:01:01G+B*44:41:02  | B*08:13+B*44:17        | B*08:35+B*44:107    | B*08:37+B*44:77     |                  |
| B*08:01:01G+B*44:43:01  | B*08:13+B*44:51        |                     |                     |                  |
| B*08:01:01G+B*44:45     | B*08:13+B*44:09        |                     |                     |                  |
| B*08:01:01G+B*44:46     | B*08:09+B*44:54        | B*08:13+B*44:20     |                     |                  |
| B*08:01:01G+B*44:47     | B*08:13+B*44:95        | B*08:78+B*44:46     |                     |                  |
| B*08:01:01G+B*44:50     | B*08:07+B*44:14        |                     |                     |                  |
| B*08:01:01G+B*44:51     | B*08:13+B*44:106       | B*08:74+B*44:135    |                     |                  |
| B*08:01:01G+B*44:54     | B*08:62+B*44:49        |                     |                     |                  |
| B*08:01:01G+B*44:55     | B*08:13+B*44:08        |                     |                     |                  |
| B*08:01:01G+B*44:57     | B*08:72N+B*44:05:01    |                     |                     |                  |
| B*08:01:01G+B*44:58N    | B*08:13+B*44:16        |                     |                     |                  |
| B*08:01:01G+B*44:64:02  | B*08:12:01+B*44:54     | B*08:13+B*44:41:01  |                     |                  |
| B*08:01:01G+B*44:65     | B*08:64+B*44:02:01G    |                     |                     |                  |
| B*08:01:01G+B*44:68     | B*08:53+B*44:28:02     |                     |                     |                  |
| B*08:01:01G+B*44:76     | B*08:27+B*44:82        |                     |                     |                  |
| B*08:01:01G+B*44:77     | B*08:53+B*44:03:01G    |                     |                     |                  |
| B*08:01:01G+B*44:79     | B*08:21+B*44:132       |                     |                     |                  |
| B*08:01:01G+B*44:91     | B*08:78+B*44:09        |                     |                     |                  |
| B*08:01:01G+B*44:95     | B*08:68+B*44:02:01G    |                     |                     |                  |
| B*08:01:01G+B*44:102    | B*08:13+B*44:22        |                     |                     |                  |
| B*08:01:01G+B*44:105    | B*08:07+B*44:77        | B*08:13+B*44:123    |                     |                  |
| B*08:01:01G+B*44:107    | B*08:60+B*44:54        |                     |                     |                  |
| B*08:01:01G+B*44:110    | B*08:69+B*44:05:01     |                     |                     |                  |
| B*08:01:01G+B*44:117    | B*08:28+B*44:77        | B*08:74+B*44:43:01  |                     |                  |
| B*08:01:01G+B*44:144    | B*08:21+B*45:08        |                     |                     |                  |
| B*08:01:01G+B*45:04     | B*08:68+B*45:01:01G    |                     |                     |                  |
| B*08:01:01G+B*45:11     | B*08:12:01+B*46:12     | B*08:21+B*46:29     | B*08:53+B*46:09     |                  |
| B*08:01:01G+B*46:01:01G | B*08:53+B*46:13:03     |                     |                     |                  |
| B*08:01:01G+B*46:08     | B*08:21+B*46:18        |                     |                     |                  |
| B*08:01:01G+B*46:11     | B*08:21+B*46:21:02     |                     |                     |                  |
| B*08:01:01G+B*46:13:01  | B*08:21+B*46:21:01     |                     |                     |                  |
| B*08:01:01G+B*46:13:03  | B*08:09+B*46:12        |                     |                     |                  |
| B*08:01:01G+B*46:32     | B*08:12:01+B*48:01:01G |                     |                     |                  |
| B*08:01:01G+B*48:03:01  | B*08:12:03+B*48:01:01G |                     |                     |                  |
| B*08:01:01G+B*48:03:02  | B*08:69+B*48:01:01G    |                     |                     |                  |
| B*08:01:01G+B*48:07     | B*08:53+B*48:01:01G    |                     |                     |                  |
| B*08:01:01G+B*48:15     | B*08:52+B*48:01:01G    |                     |                     |                  |
| B*08:01:01G+B*48:18     | B*08:37+B*48:03:01     | B*08:89+B*48:01:01G |                     |                  |
| B*08:01:01G+B*48:23     | B*08:53+B*48:02:01     |                     |                     |                  |
| B*08:01:01G+B*48:25     | B*08:77+B*48:01:01G    |                     |                     |                  |
| B*08:01:01G+B*48:27     | B*08:53+B*49:11        | B*08:78+B*50:01:01  |                     |                  |
| B*08:01:01G+B*49:01:01  | B*08:02+B*50:01:01     |                     |                     |                  |
| B*08:01:01G+B*49:02     | B*08:78+B*50:13        |                     |                     |                  |
| B*08:01:01G+B*49:10     | B*08:42+B*49:01:01     |                     |                     |                  |
| B*08:01:01G+B*49:14     | B*08:64+B*49:01:01     |                     |                     |                  |
| B*08:01:01G+B*49:17     | B*08:78+B*50:14        |                     |                     |                  |
| B*08:01:01G+B*49:18     | B*08:78+B*50:02        |                     |                     |                  |
| B*08:01:01G+B*49:20     | B*08:03+B*78:01:01     | B*08:09+B*51:64     | B*08:21+B*51:21     | B*08:50+B*51:68  |
| B*08:01:01G+B*51:01:01G | B*08:53+B*51:09:01     | B*08:78+B*78:02:02  |                     |                  |
|                         | B*08:53+B*51:09:02     | B*08:78+B*78:02:01  |                     |                  |
| B*08:01:01G+B*51:01:02  | B*08:71+B*51:24:01     |                     |                     |                  |
| B*08:01:01G+B*51:01:04  | B*08:01:13+B*51:01:02  |                     |                     |                  |
| B*08:01:01G+B*51:01:09  |                        |                     |                     |                  |

|                         |                        |                     |                     |                 |
|-------------------------|------------------------|---------------------|---------------------|-----------------|
| B*08:01:01G+B*51:01:21  | B*08:01:13+B*51:01:01G | B*08:71+B*51:24:04  |                     |                 |
| B*08:01:01G+B*51:01:25  | B*08:01:02+B*51:01:01G | B*08:71+B*51:24:03  |                     |                 |
| B*08:01:01G+B*51:01:34  | B*08:03+B*78:01:02     |                     |                     |                 |
| B*08:01:01G+B*51:02:01  | B*08:25+B*51:36        |                     |                     |                 |
| B*08:01:01G+B*51:02:05  | B*08:53+B*51:40        |                     |                     |                 |
| B*08:01:01G+B*51:04     | B*08:60+B*51:06:02     |                     |                     |                 |
| B*08:01:01G+B*51:06:01  | B*08:12:01+B*51:64     |                     |                     |                 |
| B*08:01:01G+B*51:06:02  | B*08:12:03+B*51:64     |                     |                     |                 |
| B*08:01:01G+B*51:07:01  | B*08:04+B*51:01:01G    |                     |                     |                 |
| B*08:01:01G+B*51:07:02  | B*08:04+B*51:01:02     |                     |                     |                 |
| B*08:01:01G+B*51:08     | B*08:23+B*51:20        |                     |                     |                 |
| B*08:01:01G+B*51:09:01  | B*08:13+B*51:08        |                     |                     |                 |
| B*08:01:01G+B*51:10     | B*08:09+B*51:81        |                     |                     |                 |
| B*08:01:01G+B*51:13:01  | B*08:69+B*51:01:04     |                     |                     |                 |
| B*08:01:01G+B*51:13:02  | B*08:69+B*51:01:01G    |                     |                     |                 |
| B*08:01:01G+B*51:16     | B*08:53+B*51:31        |                     |                     |                 |
| B*08:01:01G+B*51:19     | B*08:55+B*51:08        |                     |                     |                 |
| B*08:01:01G+B*51:21     | B*08:03+B*78:07        |                     |                     |                 |
| B*08:01:01G+B*51:22     | B*08:03+B*78:03        | B*08:65+B*51:01:01G |                     |                 |
| B*08:01:01G+B*51:23     | B*08:53+B*51:108       |                     |                     |                 |
| B*08:01:01G+B*51:24:02  | B*08:01:02+B*51:24:01  |                     |                     |                 |
| B*08:01:01G+B*51:37     | B*08:07+B*51:63        | B*08:35+B*51:90     | B*08:37+B*51:01:01G |                 |
| B*08:01:01G+B*51:41N    | B*08:72N+B*51:01:01G   |                     |                     |                 |
| B*08:01:01G+B*51:42     | B*08:13+B*44:06        |                     |                     |                 |
| B*08:01:01G+B*51:53     | B*08:68+B*51:01:01G    |                     |                     |                 |
| B*08:01:01G+B*51:57     | B*08:94+B*51:68        |                     |                     |                 |
| B*08:01:01G+B*51:63     | B*08:35+B*51:01:01G    |                     |                     |                 |
| B*08:01:01G+B*51:76     | B*08:39+B*51:01:01G    |                     |                     |                 |
| B*08:01:01G+B*51:78:01  | B*08:02+B*78:02:02     |                     |                     |                 |
| B*08:01:01G+B*51:78:02  | B*08:02+B*78:02:01     |                     |                     |                 |
| B*08:01:01G+B*51:85     | B*08:14+B*51:01:01G    |                     |                     |                 |
| B*08:01:01G+B*51:90     | B*08:07+B*51:01:01G    |                     |                     |                 |
| B*08:01:01G+B*51:92     | B*08:07+B*51:13:01     |                     |                     |                 |
| B*08:01:01G+B*51:97     | B*08:35+B*51:08        |                     |                     |                 |
| B*08:01:01G+B*51:122    | B*08:83+B*51:09:01     |                     |                     |                 |
| B*08:01:01G+B*51:128    | B*08:85+B*51:01:01G    |                     |                     |                 |
| B*08:01:01G+B*51:134    | B*08:73+B*51:01:01G    |                     |                     |                 |
| B*08:01:01G+B*51:135    | B*08:07+B*51:06:01     |                     |                     |                 |
| B*08:01:01G+B*52:01:01G | B*08:52+B*78:06        | B*08:53+B*52:10:01  | B*08:78+B*78:05     |                 |
| B*08:01:01G+B*52:01:02  | B*08:04+B*52:06:02     | B*08:47+B*52:09     |                     |                 |
| B*08:01:01G+B*52:01:04  | B*08:01:04+B*52:01:02  |                     |                     |                 |
| B*08:01:01G+B*52:01:07  | B*08:53+B*52:10:02     |                     |                     |                 |
| B*08:01:01G+B*52:06:02  | B*08:38+B*51:01:03     |                     |                     |                 |
| B*08:01:01G+B*52:10:01  | B*08:13+B*52:19        |                     |                     |                 |
| B*08:01:01G+B*52:12     | B*08:07+B*52:01:01G    |                     |                     |                 |
| B*08:01:01G+B*52:14     | B*08:69+B*52:01:05     |                     |                     |                 |
| B*08:01:01G+B*52:20     | B*08:02+B*78:05        |                     |                     |                 |
| B*08:01:01G+B*52:26     | B*08:87+B*52:01:01G    |                     |                     |                 |
| B*08:01:01G+B*52:27     | B*08:32+B*52:16        |                     |                     |                 |
| B*08:01:01G+B*52:29     | B*08:68+B*52:01:01G    |                     |                     |                 |
| B*08:01:01G+B*53:01:01  | B*08:03+B*35:29:01     | B*08:23+B*53:23     | B*08:47+B*53:05     | B*08:52+B*35:27 |
|                         | B*08:78+B*35:01:01G    |                     |                     |                 |
| B*08:01:01G+B*53:01:02  | B*08:78+B*35:01:16     |                     |                     |                 |
| B*08:01:01G+B*53:02     | B*08:78+B*35:24:01     |                     |                     |                 |
| B*08:01:01G+B*53:04     | B*08:03+B*35:136       |                     |                     |                 |
| B*08:01:01G+B*53:05     | B*08:52+B*35:01:01G    | B*08:52+B*35:56     | B*08:78+B*35:03:01G |                 |
| B*08:01:01G+B*53:08:01  | B*08:53+B*53:01:01     |                     |                     |                 |
| B*08:01:01G+B*53:08:02  | B*08:53+B*53:01:03     | B*08:78+B*35:11:01  |                     |                 |
| B*08:01:01G+B*53:09     | B*08:02+B*35:20:01     | B*08:78+B*35:11:02  |                     |                 |
| B*08:01:01G+B*53:11     | B*08:02+B*35:08:01     | B*08:04+B*53:13     |                     |                 |
| B*08:01:01G+B*53:13     | B*08:02+B*35:01:01G    | B*08:47+B*53:12     |                     |                 |
| B*08:01:01G+B*53:14     | B*08:78+B*35:05:01     |                     |                     |                 |
| B*08:01:01G+B*53:16     | B*08:52+B*35:08:01     |                     |                     |                 |
| B*08:01:01G+B*53:17:02  | B*08:17+B*53:05        | B*08:54+B*53:23     | B*08:78+B*35:28     |                 |
| B*08:01:01G+B*53:19     | B*08:78+B*35:02:01     |                     |                     |                 |
| B*08:01:01G+B*53:21     | B*08:78+B*35:197       |                     |                     |                 |
| B*08:01:01G+B*53:23     | B*08:78+B*35:29:01     |                     |                     |                 |
| B*08:01:01G+B*53:24     | B*08:47+B*53:16        | B*08:78+B*35:08:01  |                     |                 |
| B*08:01:01G+B*53:26     | B*08:59+B*53:01:01     | B*08:78+B*35:108:01 |                     |                 |
| B*08:01:01G+B*54:03     | B*08:21+B*54:01:01G    |                     |                     |                 |
| B*08:01:01G+B*54:12     | B*08:78+B*54:01:01G    |                     |                     |                 |
| B*08:01:01G+B*54:14     | B*08:37+B*54:04        |                     |                     |                 |
| B*08:01:01G+B*54:16     | B*08:07+B*54:01:01G    |                     |                     |                 |
| B*08:01:01G+B*54:20     | B*08:53+B*54:10        |                     |                     |                 |
| B*08:01:01G+B*55:01:01G | B*08:13+B*55:56        | B*08:53+B*55:02:01G |                     |                 |
| B*08:01:01G+B*55:03     | B*08:15+B*55:01:01G    |                     |                     |                 |
| B*08:01:01G+B*55:09     | B*08:40+B*55:56        |                     |                     |                 |
| B*08:01:01G+B*55:12     | B*08:47+B*55:02:01G    |                     |                     |                 |
| B*08:01:01G+B*55:21     | B*08:70+B*55:56        |                     |                     |                 |
| B*08:01:01G+B*55:23     | B*08:07+B*55:32        |                     |                     |                 |
| B*08:01:01G+B*55:24     | B*08:53+B*55:22        |                     |                     |                 |
| B*08:01:01G+B*55:31     | B*08:23+B*55:01:01G    |                     |                     |                 |
| B*08:01:01G+B*55:41     | B*08:74+B*55:02:01G    |                     |                     |                 |
| B*08:01:01G+B*55:46     | B*08:07+B*55:02:01G    |                     |                     |                 |
| B*08:01:01G+B*55:49     | B*08:15+B*55:04        |                     |                     |                 |
| B*08:01:01G+B*55:50     | B*08:83+B*55:02:01G    |                     |                     |                 |
| B*08:01:01G+B*55:52     | B*08:53+B*55:37        |                     |                     |                 |
| B*08:01:01G+B*55:53     | B*08:91+B*55:01:01G    |                     |                     |                 |
| B*08:01:01G+B*55:54     | B*08:68+B*55:01:01G    |                     |                     |                 |
| B*08:01:01G+B*56:01:01G | B*08:13+B*56:13        | B*08:21+B*55:02:01G | B*08:71+B*56:20:01  |                 |
| B*08:01:01G+B*56:02     | B*08:21+B*56:10        |                     |                     |                 |
| B*08:01:01G+B*56:07     | B*08:02+B*56:01:01G    |                     |                     |                 |
| B*08:01:01G+B*56:20:02  | B*08:01:02+B*56:20:01  |                     |                     |                 |
| B*08:01:01G+B*56:21     | B*08:78+B*56:05:02     |                     |                     |                 |
| B*08:01:01G+B*56:22     | B*08:21+B*55:13        | B*08:69+B*56:15     |                     |                 |
| B*08:01:01G+B*56:25     | B*08:21+B*55:01:01G    | B*08:25+B*55:56     | B*08:53+B*56:01:01G |                 |
| B*08:01:01G+B*56:30     | B*08:43+B*56:01:01G    |                     |                     |                 |
| B*08:01:01G+B*56:32     | B*08:53+B*56:18        |                     |                     |                 |
| B*08:01:01G+B*57:01:01G | B*08:01:11+B*57:01:09  | B*08:10+B*57:20     | B*08:13+B*57:24     | B*08:21+B*57:26 |
|                         | B*08:37+B*57:03:01     | B*08:50+B*57:49     | B*08:71+B*57:31     |                 |
| B*08:01:01G+B*57:01:07  | B*08:01:13+B*57:01:01G |                     |                     |                 |
| B*08:01:01G+B*57:02:01  | B*08:78+B*57:12        |                     |                     |                 |
| B*08:01:01G+B*57:04     | B*08:87+B*57:02:01     |                     |                     |                 |
| B*08:01:01G+B*57:10     | B*08:94+B*57:49        |                     |                     |                 |
| B*08:01:01G+B*57:19     | B*08:37+B*57:02:01     |                     |                     |                 |

|                         |                        |                     |
|-------------------------|------------------------|---------------------|
| B*08:01:01G+B*57:22     | B*08:37+B*57:57        | B*08:53+B*57:01:01G |
| B*08:01:01G+B*57:32     | B*08:14+B*57:03:01     |                     |
| B*08:01:01G+B*57:41     | B*08:28+B*57:03:01     | B*08:74+B*57:01:01G |
| B*08:01:01G+B*57:46     | B*08:68+B*57:03:01     |                     |
| B*08:01:01G+B*57:57     | B*08:13+B*57:09        | B*08:53+B*57:03:01  |
| B*08:01:01G+B*58:01:01G | B*08:21+B*58:35        | B*08:76+B*58:26     |
| B*08:01:01G+B*58:01:09  | B*08:01:03+B*58:01:01G |                     |
| B*08:01:01G+B*58:06     | B*08:53+B*58:02        |                     |
| B*08:01:01G+B*58:16     | B*08:12:01+B*58:18     |                     |
| B*08:01:01G+B*58:19     | B*08:53+B*58:01:01G    |                     |
| B*08:01:01G+B*58:24     | B*08:91+B*58:01:01G    |                     |
| B*08:01:01G+B*59:04     | B*08:21+B*59:01:01G    |                     |
| B*08:01:01G+B*78:01:01  | B*08:21+B*78:07        |                     |
| B*08:01:01G+B*78:02:02  | B*08:23+B*78:01:01     |                     |
| B*08:01:01G+B*78:03     | B*08:65+B*78:01:01     |                     |
| B*08:01:01G+B*78:06     | B*08:17+B*78:02:01     | B*08:47+B*78:05     |
| B*08:01:02+B*13:22:02   | B*08:01:13+B*13:22:01  |                     |
| B*08:01:02+B*15:05:02   | B*08:01:13+B*15:05:01  | B*08:71+B*15:107    |
| B*08:01:02+B*15:13:02   | B*08:01:13+B*15:13:01  | B*08:78+B*15:02:03  |
| B*08:01:02+B*15:27:03   | B*08:01:13+B*15:27:01  |                     |
| B*08:01:02+B*15:38:02   | B*08:01:13+B*15:38:01  |                     |
| B*08:01:02+B*15:39:02   | B*08:01:13+B*15:39:01  |                     |
| B*08:01:02+B*18:01:01G  | B*08:01:13+B*18:01:10  |                     |
| B*08:01:02+B*35:01:01G  | B*08:71+B*35:64        |                     |
| B*08:01:02+B*35:03:01G  | B*08:01:13+B*35:03:02  | B*08:71+B*35:205    |
| B*08:01:02+B*35:04:01   | B*08:71+B*35:09:02     |                     |
| B*08:01:02+B*35:05:01   | B*08:71+B*35:114       |                     |
| B*08:01:02+B*35:09:03   | B*08:01:13+B*35:09:02  |                     |
| B*08:01:02+B*35:11:01   | B*08:01:13+B*35:11:02  |                     |
| B*08:01:02+B*35:14:01   | B*08:01:13+B*35:14:02  |                     |
| B*08:01:02+B*35:174     | B*08:37+B*35:18        |                     |
| B*08:01:02+B*38:01:01   | B*08:01:13+B*38:01:03  |                     |
| B*08:01:02+B*39:01:01G  | B*08:01:13+B*39:01:05  |                     |
| B*08:01:02+B*40:121     | B*08:71+B*40:14:03     |                     |
| B*08:01:02+B*44:02:01G  | B*08:01:13+B*44:02:09  |                     |
| B*08:01:02+B*44:76      | B*08:20+B*44:02:09     |                     |
| B*08:01:02+B*44:79      | B*08:53+B*44:03:14     |                     |
| B*08:01:02+B*46:01:03   | B*08:01:13+B*46:01:01G |                     |
| B*08:01:02+B*46:13:01   | B*08:01:13+B*46:13:03  |                     |
| B*08:01:02+B*46:21:02   | B*08:01:13+B*46:21:01  |                     |
| B*08:01:02+B*48:12      | B*08:71+B*48:10        |                     |
| B*08:01:02+B*51:01:04   | B*08:71+B*51:24:02     |                     |
| B*08:01:02+B*51:01:21   | B*08:01:13+B*51:01:25  |                     |
| B*08:01:02+B*51:02:01   | B*08:01:13+B*51:02:05  |                     |
| B*08:01:02+B*51:07:01   | B*08:04+B*51:01:25     |                     |
| B*08:01:02+B*51:13:02   | B*08:69+B*51:01:25     |                     |
| B*08:01:02+B*51:22      | B*08:65+B*51:01:25     |                     |
| B*08:01:02+B*51:24:04   | B*08:01:13+B*51:24:03  |                     |
| B*08:01:02+B*51:37      | B*08:37+B*51:01:25     |                     |
| B*08:01:02+B*51:41N     | B*08:72N+B*51:01:25    |                     |
| B*08:01:02+B*51:53      | B*08:68+B*51:01:25     |                     |
| B*08:01:02+B*51:61:02   | B*08:01:13+B*51:61:01  |                     |
| B*08:01:02+B*51:63      | B*08:35+B*51:01:25     |                     |
| B*08:01:02+B*51:76      | B*08:39+B*51:01:25     |                     |
| B*08:01:02+B*51:85      | B*08:14+B*51:01:25     |                     |
| B*08:01:02+B*51:90      | B*08:07+B*51:01:25     |                     |
| B*08:01:02+B*51:128     | B*08:85+B*51:01:25     |                     |
| B*08:01:02+B*51:134     | B*08:73+B*51:01:25     |                     |
| B*08:01:02+B*52:01:01G  | B*08:01:13+B*52:01:07  |                     |
| B*08:01:02+B*52:10:01   | B*08:01:13+B*52:10:02  |                     |
| B*08:01:02+B*53:01:01   | B*08:01:13+B*53:01:03  |                     |
| B*08:01:02+B*53:08:01   | B*08:01:13+B*53:08:02  |                     |
| B*08:01:02+B*56:01:01G  | B*08:01:13+B*56:01:03  | B*08:71+B*56:20:02  |
| B*08:01:02+B*58:01:01G  | B*08:01:13+B*58:01:05  |                     |
| B*08:01:03+B*58:19      | B*08:53+B*58:01:09     |                     |
| B*08:01:03+B*58:24      | B*08:91+B*58:01:09     |                     |
| B*08:01:04+B*35:03:11   | B*08:01:13+B*35:03:03  |                     |
| B*08:01:04+B*35:56      | B*08:47+B*35:03:03     |                     |
| B*08:01:04+B*35:74      | B*08:15+B*35:03:03     |                     |
| B*08:01:04+B*35:85      | B*08:65+B*35:03:03     |                     |
| B*08:01:04+B*35:167     | B*08:53+B*35:03:03     |                     |
| B*08:01:04+B*35:195     | B*08:39+B*35:03:03     |                     |
| B*08:01:04+B*40:33      | B*08:07+B*40:01:05     |                     |
| B*08:01:04+B*40:36      | B*08:69+B*40:01:05     |                     |
| B*08:01:04+B*40:38      | B*08:35+B*40:01:05     |                     |
| B*08:01:04+B*40:47      | B*08:02+B*40:01:05     |                     |
| B*08:01:04+B*40:52      | B*08:37+B*40:01:05     |                     |
| B*08:01:04+B*40:73      | B*08:15+B*40:01:05     |                     |
| B*08:01:04+B*40:84      | B*08:24+B*40:01:05     |                     |
| B*08:01:04+B*40:87:02   | B*08:71+B*40:01:05     |                     |
| B*08:01:04+B*40:117     | B*08:78+B*40:01:05     |                     |
| B*08:01:04+B*40:124:02  | B*08:14+B*40:01:05     |                     |
| B*08:01:04+B*40:135     | B*08:36+B*40:01:05     |                     |
| B*08:01:04+B*40:160     | B*08:60+B*40:01:05     |                     |
| B*08:01:04+B*40:172     | B*08:74+B*40:01:05     |                     |
| B*08:01:04+B*40:175     | B*08:92+B*40:01:05     |                     |
| B*08:01:04+B*40:183     | B*08:53+B*40:01:05     |                     |
| B*08:01:04+B*40:192     | B*08:64+B*40:01:05     |                     |
| B*08:01:04+B*53:04      | B*08:78+B*35:03:03     |                     |
| B*08:01:08+B*39:19:02   | B*08:32+B*39:01:14     |                     |
| B*08:01:08+B*52:01:03   | B*08:38+B*51:07:02     |                     |
| B*08:01:08+B*52:06:01   | B*08:38+B*51:01:01G    |                     |
| B*08:01:09+B*35:07      | B*08:75+B*35:01:18     |                     |
| B*08:01:09+B*35:11:01   | B*08:53+B*35:01:18     |                     |
| B*08:01:09+B*35:20:01   | B*08:04+B*35:01:18     |                     |
| B*08:01:09+B*35:27      | B*08:47+B*35:01:18     |                     |
| B*08:01:09+B*35:82      | B*08:65+B*35:01:18     |                     |
| B*08:01:09+B*35:101:02  | B*08:39+B*35:01:18     |                     |
| B*08:01:09+B*35:108:01  | B*08:59+B*35:01:18     |                     |
| B*08:01:09+B*35:178     | B*08:18+B*35:01:18     |                     |
| B*08:01:09+B*35:180     | B*08:68+B*35:01:18     |                     |
| B*08:01:09+B*53:01:01   | B*08:78+B*35:01:18     |                     |
| B*08:01:09+B*53:05      | B*08:52+B*35:01:18     |                     |
| B*08:01:09+B*53:13      | B*08:02+B*35:01:18     |                     |
| B*08:01:11+B*08:26      | B*08:50+B*08:56        |                     |

|                         |                        |
|-------------------------|------------------------|
| B*08:01:11+B*15:01:01G  | B*08:56+B*15:251       |
| B*08:01:11+B*15:18:01G  | B*08:35+B*15:10:02     |
| B*08:01:11+B*15:133     | B*08:69+B*15:10:02     |
| B*08:01:11+B*15:156     | B*08:74+B*15:03:03     |
| B*08:01:11+B*35:01:01G  | B*08:56+B*35:124       |
| B*08:01:11+B*35:08:01   | B*08:56+B*35:142       |
| B*08:01:11+B*35:17      | B*08:56+B*35:125       |
| B*08:01:11+B*35:137:01G | B*08:88+B*35:01:01G    |
| B*08:01:11+B*35:182     | B*08:88+B*35:02:01     |
| B*08:01:11+B*38:01:01   | B*08:03+B*39:01:14     |
| B*08:01:11+B*38:14      | B*08:78+B*39:01:14     |
| B*08:01:11+B*38:28      | B*08:56+B*38:01:01     |
| B*08:01:11+B*39:01:11   | B*08:01:15+B*39:01:14  |
| B*08:01:11+B*39:05:01   | B*08:23+B*39:01:14     |
| B*08:01:11+B*39:15      | B*08:07+B*39:01:14     |
| B*08:01:11+B*39:27      | B*08:15+B*39:01:14     |
| B*08:01:11+B*39:35      | B*08:53+B*39:01:14     |
| B*08:01:11+B*39:42      | B*08:60+B*39:01:14     |
| B*08:01:11+B*39:49      | B*08:07+B*39:13:02     |
| B*08:01:11+B*39:74      | B*08:21+B*39:01:14     |
| B*08:01:11+B*40:03      | B*08:37+B*40:02:04     |
| B*08:01:11+B*40:06:01G  | B*08:09+B*40:02:04     |
| B*08:01:11+B*40:11:01   | B*08:12:01+B*40:02:04  |
| B*08:01:11+B*40:11:02   | B*08:12:03+B*40:02:04  |
| B*08:01:11+B*40:18      | B*08:07+B*40:02:04     |
| B*08:01:11+B*40:19      | B*08:78+B*40:02:04     |
| B*08:01:11+B*40:20      | B*08:89+B*40:02:04     |
| B*08:01:11+B*40:35      | B*08:71+B*40:02:04     |
| B*08:01:11+B*40:37      | B*08:47+B*40:02:04     |
| B*08:01:11+B*40:89      | B*08:74+B*40:02:04     |
| B*08:01:11+B*40:91      | B*08:83+B*40:02:04     |
| B*08:01:11+B*40:105     | B*08:35+B*40:02:04     |
| B*08:01:11+B*40:157     | B*08:02+B*40:02:04     |
| B*08:01:11+B*40:180     | B*08:14+B*40:02:04     |
| B*08:01:11+B*44:02:01G  | B*08:88+B*44:84        |
| B*08:01:11+B*52:01:01G  | B*08:56+B*52:27        |
| B*08:01:11+B*54:01:01G  | B*08:56+B*54:21        |
| B*08:01:11+B*56:01:01G  | B*08:56+B*56:16        |
| B*08:01:11+B*57:01:01G  | B*08:56+B*57:58        |
| B*08:01:11+B*58:01:01G  | B*08:56+B*58:12        |
| B*08:01:12+B*08:89      | B*08:12:02+B*08:37     |
| B*08:01:12+B*14:06:01   | B*08:12:02+B*14:05     |
| B*08:01:12+B*15:01:01G  | B*08:12:02+B*15:07:01G |
| B*08:01:12+B*15:31      | B*08:12:02+B*15:55     |
| B*08:01:12+B*15:63      | B*08:12:02+B*15:45     |
| B*08:01:12+B*18:01:01G  | B*08:12:02+B*18:14     |
| B*08:01:12+B*27:70      | B*08:12:02+B*27:32     |
| B*08:01:12+B*35:01:04   | B*08:12:02+B*35:30     |
| B*08:01:12+B*35:32:02   | B*08:12:02+B*35:51     |
| B*08:01:12+B*35:68:02   | B*08:12:02+B*35:05:01  |
| B*08:01:12+B*38:01:01   | B*08:12:02+B*38:19     |
| B*08:01:12+B*39:01:01G  | B*08:12:02+B*39:03     |
| B*08:01:12+B*39:05:01   | B*08:12:02+B*39:37     |
| B*08:01:12+B*39:70      | B*08:12:02+B*39:14     |
| B*08:01:12+B*40:01:01G  | B*08:12:02+B*40:80     |
| B*08:01:12+B*40:11:01   | B*08:12:02+B*40:02:01G |
| B*08:01:12+B*40:11:02   | B*08:12:02+B*40:02:09  |
| B*08:01:12+B*40:20      | B*08:12:02+B*40:03     |
| B*08:01:12+B*40:33      | B*08:12:02+B*40:31     |
| B*08:01:12+B*40:114     | B*08:12:02+B*40:45     |
| B*08:01:12+B*41:03:02   | B*08:12:02+B*41:02:01  |
| B*08:01:12+B*44:03:01G  | B*08:12:02+B*44:110    |
| B*08:01:12+B*44:41:01   | B*08:12:02+B*44:106    |
| B*08:01:12+B*44:65      | B*08:12:02+B*44:54     |
| B*08:01:12+B*46:01:01G  | B*08:12:02+B*46:12     |
| B*08:01:12+B*48:03:01   | B*08:12:02+B*48:01:01G |
| B*08:01:12+B*51:06:01   | B*08:12:02+B*51:64     |
| B*08:01:12+B*58:16      | B*08:12:02+B*58:18     |
| B*08:01:13+B*15:01:01G  | B*08:71+B*15:78:02     |
| B*08:01:13+B*15:30      | B*08:71+B*15:150       |
| B*08:01:13+B*15:35      | B*08:71+B*15:141       |
| B*08:01:13+B*15:89      | B*08:02+B*15:02:03     |
| B*08:01:13+B*15:221     | B*08:20+B*15:51        |
| B*08:01:13+B*35:04:01   | B*08:71+B*35:09:03     |
| B*08:01:13+B*35:43:01G  | B*08:71+B*35:118       |
| B*08:01:13+B*35:56      | B*08:47+B*35:03:11     |
| B*08:01:13+B*35:74      | B*08:15+B*35:03:11     |
| B*08:01:13+B*35:85      | B*08:65+B*35:03:11     |
| B*08:01:13+B*35:167     | B*08:53+B*35:03:11     |
| B*08:01:13+B*35:195     | B*08:39+B*35:03:11     |
| B*08:01:13+B*44:76      | B*08:20+B*44:02:01G    |
| B*08:01:13+B*51:07:01   | B*08:04+B*51:01:21     |
| B*08:01:13+B*51:07:02   | B*08:04+B*51:01:09     |
| B*08:01:13+B*51:13:02   | B*08:69+B*51:01:21     |
| B*08:01:13+B*51:22      | B*08:65+B*51:01:21     |
| B*08:01:13+B*51:29      | B*08:20+B*51:08        |
| B*08:01:13+B*51:37      | B*08:37+B*51:01:21     |
| B*08:01:13+B*51:41N     | B*08:72N+B*51:01:21    |
| B*08:01:13+B*51:53      | B*08:68+B*51:01:21     |
| B*08:01:13+B*51:63      | B*08:35+B*51:01:21     |
| B*08:01:13+B*51:76      | B*08:39+B*51:01:21     |
| B*08:01:13+B*51:85      | B*08:14+B*51:01:21     |
| B*08:01:13+B*51:90      | B*08:07+B*51:01:21     |
| B*08:01:13+B*51:128     | B*08:85+B*51:01:21     |
| B*08:01:13+B*51:134     | B*08:73+B*51:01:21     |
| B*08:01:13+B*52:24      | B*08:20+B*52:19        |
| B*08:01:13+B*53:04      | B*08:78+B*35:03:11     |
| B*08:01:13+B*57:22      | B*08:53+B*57:01:07     |
| B*08:01:13+B*57:41      | B*08:74+B*57:01:07     |
| B*08:01:13+B*67:01:01   | B*08:71+B*67:03        |
| B*08:01:15+B*38:01:01   | B*08:03+B*39:01:11     |
| B*08:01:15+B*38:14      | B*08:78+B*39:01:11     |
| B*08:01:15+B*39:05:01   | B*08:23+B*39:01:11     |
| B*08:01:15+B*39:15      | B*08:07+B*39:01:11     |
| B*08:01:15+B*39:27      | B*08:15+B*39:01:11     |



|                     |                     |                    |                     |
|---------------------|---------------------|--------------------|---------------------|
| B*08:01:15+B*39:35  | B*08:53+B*39:01:11  |                    |                     |
| B*08:01:15+B*39:42  | B*08:60+B*39:01:11  |                    |                     |
| B*08:01:15+B*39:74  | B*08:21+B*39:01:11  |                    |                     |
| B*08:02+B*13:39     | B*08:47+B*13:01:01G |                    |                     |
| B*08:02+B*15:13:01  | B*08:78+B*15:89     |                    |                     |
| B*08:02+B*15:18:01G | B*08:47+B*15:115    |                    |                     |
| B*08:02+B*18:06     | B*08:15+B*18:09     |                    |                     |
| B*08:02+B*18:15     | B*08:53+B*18:09     |                    |                     |
| B*08:02+B*18:20     | B*08:74+B*18:09     |                    |                     |
| B*08:02+B*18:36     | B*08:21+B*18:09     |                    |                     |
| B*08:02+B*18:49     | B*08:47+B*18:09     |                    |                     |
| B*08:02+B*18:67     | B*08:52+B*18:09     |                    |                     |
| B*08:02+B*18:69     | B*08:76+B*18:09     |                    |                     |
| B*08:02+B*35:07     | B*08:75+B*53:13     |                    |                     |
| B*08:02+B*35:11:01  | B*08:53+B*53:13     |                    |                     |
| B*08:02+B*35:27     | B*08:47+B*53:13     |                    |                     |
| B*08:02+B*35:28     | B*08:17+B*53:12     |                    |                     |
| B*08:02+B*35:82     | B*08:65+B*53:13     |                    |                     |
| B*08:02+B*35:101:02 | B*08:39+B*53:13     |                    |                     |
| B*08:02+B*35:108:01 | B*08:59+B*53:13     |                    |                     |
| B*08:02+B*35:178    | B*08:18+B*53:13     |                    |                     |
| B*08:02+B*35:180    | B*08:68+B*53:13     |                    |                     |
| B*08:02+B*35:192    | B*08:41+B*53:11     |                    |                     |
| B*08:02+B*37:34     | B*08:78+B*37:10     |                    |                     |
| B*08:02+B*38:01:01  | B*08:78+B*38:02:01G |                    |                     |
| B*08:02+B*39:02:01  | B*08:47+B*38:03     |                    |                     |
| B*08:02+B*40:03     | B*08:37+B*40:157    |                    |                     |
| B*08:02+B*40:11:01  | B*08:12:01+B*40:157 |                    |                     |
| B*08:02+B*40:11:02  | B*08:12:03+B*40:157 |                    |                     |
| B*08:02+B*40:18     | B*08:07+B*40:157    |                    |                     |
| B*08:02+B*40:19     | B*08:78+B*40:157    |                    |                     |
| B*08:02+B*40:20     | B*08:89+B*40:157    |                    |                     |
| B*08:02+B*40:33     | B*08:07+B*40:47     |                    |                     |
| B*08:02+B*40:35     | B*08:71+B*40:157    |                    |                     |
| B*08:02+B*40:36     | B*08:69+B*40:47     |                    |                     |
| B*08:02+B*40:37     | B*08:47+B*40:157    |                    |                     |
| B*08:02+B*40:38     | B*08:35+B*40:47     |                    |                     |
| B*08:02+B*40:44     | B*08:07+B*40:96     |                    |                     |
| B*08:02+B*40:52     | B*08:37+B*40:47     |                    |                     |
| B*08:02+B*40:73     | B*08:15+B*40:47     |                    |                     |
| B*08:02+B*40:84     | B*08:24+B*40:47     |                    |                     |
| B*08:02+B*40:86     | B*08:69+B*40:96     |                    |                     |
| B*08:02+B*40:87:02  | B*08:71+B*40:47     |                    |                     |
| B*08:02+B*40:89     | B*08:74+B*40:157    |                    |                     |
| B*08:02+B*40:91     | B*08:83+B*40:157    |                    |                     |
| B*08:02+B*40:105    | B*08:35+B*40:157    |                    |                     |
| B*08:02+B*40:109    | B*08:52+B*40:96     |                    |                     |
| B*08:02+B*40:117    | B*08:78+B*40:47     |                    |                     |
| B*08:02+B*40:124:02 | B*08:14+B*40:47     |                    |                     |
| B*08:02+B*40:135    | B*08:36+B*40:47     |                    |                     |
| B*08:02+B*40:148    | B*08:53+B*40:96     |                    |                     |
| B*08:02+B*40:159    | B*08:37+B*40:96     |                    |                     |
| B*08:02+B*40:160    | B*08:60+B*40:47     |                    |                     |
| B*08:02+B*40:172    | B*08:74+B*40:47     |                    |                     |
| B*08:02+B*40:175    | B*08:92+B*40:47     |                    |                     |
| B*08:02+B*40:177    | B*08:51+B*40:96     |                    |                     |
| B*08:02+B*40:180    | B*08:14+B*40:157    |                    |                     |
| B*08:02+B*40:183    | B*08:53+B*40:47     |                    |                     |
| B*08:02+B*40:192    | B*08:64+B*40:47     |                    |                     |
| B*08:02+B*44:25     | B*08:78+B*44:05:01  |                    |                     |
| B*08:02+B*44:50     | B*08:78+B*44:03:01G |                    |                     |
| B*08:02+B*44:75     | B*08:47+B*44:05:01  |                    |                     |
| B*08:02+B*44:95     | B*08:78+B*44:02:01G |                    |                     |
| B*08:02+B*45:01:01G | B*08:47+B*44:15     |                    |                     |
| B*08:02+B*49:01:01  | B*08:78+B*49:02     |                    |                     |
| B*08:02+B*51:01:01G | B*08:78+B*51:78:01  |                    |                     |
| B*08:02+B*51:01:02  | B*08:78+B*51:78:02  |                    |                     |
| B*08:02+B*51:05     | B*08:78+B*51:54     |                    |                     |
| B*08:02+B*52:01:01G | B*08:78+B*52:20     |                    |                     |
| B*08:02+B*53:01:01  | B*08:78+B*53:13     |                    |                     |
| B*08:02+B*53:05     | B*08:52+B*53:13     | B*08:78+B*53:12    |                     |
| B*08:02+B*53:16     | B*08:52+B*53:11     |                    |                     |
| B*08:02+B*53:24     | B*08:78+B*53:11     |                    |                     |
| B*08:02+B*56:25     | B*08:53+B*56:07     |                    |                     |
| B*08:02+B*56:30     | B*08:43+B*56:07     |                    |                     |
| B*08:02+B*78:06     | B*08:17+B*51:78:02  | B*08:47+B*52:20    |                     |
| B*08:03+B*14:01:01  | B*08:78+B*14:14     |                    |                     |
| B*08:03+B*14:02:01  | B*08:78+B*14:18     |                    |                     |
| B*08:03+B*15:01:01G | B*08:23+B*15:24     |                    |                     |
| B*08:03+B*15:02:01G | B*08:23+B*15:13:01  |                    |                     |
| B*08:03+B*15:18:01G | B*08:23+B*15:23     |                    |                     |
| B*08:03+B*15:61     | B*08:78+B*15:03:01G |                    |                     |
| B*08:03+B*15:236    | B*08:78+B*15:56     |                    |                     |
| B*08:03+B*18:03     | B*08:47+B*18:67     | B*08:52+B*18:49    | B*08:78+B*18:01:01G |
| B*08:03+B*27:08     | B*08:23+B*27:02:01  | B*08:78+B*27:44    |                     |
| B*08:03+B*35:01:01G | B*08:23+B*53:01:01  |                    |                     |
| B*08:03+B*35:01:16  | B*08:23+B*53:01:02  |                    |                     |
| B*08:03+B*35:02:01  | B*08:23+B*53:19     |                    |                     |
| B*08:03+B*35:03:01G | B*08:23+B*53:04     |                    |                     |
| B*08:03+B*35:05:01  | B*08:23+B*53:14     |                    |                     |
| B*08:03+B*35:08:01  | B*08:23+B*53:24     |                    |                     |
| B*08:03+B*35:11:01  | B*08:23+B*53:08:01  |                    |                     |
| B*08:03+B*35:11:02  | B*08:23+B*53:08:02  |                    |                     |
| B*08:03+B*35:24:01  | B*08:23+B*53:02     |                    |                     |
| B*08:03+B*35:28     | B*08:23+B*53:17:02  | B*08:54+B*53:01:01 |                     |
| B*08:03+B*35:29:02  | B*08:78+B*35:01:15  |                    |                     |
| B*08:03+B*35:69     | B*08:78+B*35:10     |                    |                     |
| B*08:03+B*35:108:01 | B*08:23+B*53:26     |                    |                     |
| B*08:03+B*35:197    | B*08:23+B*53:21     |                    |                     |
| B*08:03+B*37:11     | B*08:23+B*37:34     |                    |                     |
| B*08:03+B*38:14     | B*08:78+B*38:01:01  |                    |                     |
| B*08:03+B*39:02:02  | B*08:78+B*39:13:01  |                    |                     |
| B*08:03+B*39:05:01  | B*08:23+B*38:01:01  |                    |                     |
| B*08:03+B*39:06:02  | B*08:09+B*38:19     |                    |                     |
| B*08:03+B*39:10:01  | B*08:52+B*39:20     |                    |                     |

|                     |                     |                    |
|---------------------|---------------------|--------------------|
| B*08:03+B*39:15     | B*08:07+B*38:01:01  | B*08:78+B*39:55    |
| B*08:03+B*39:19:01  | B*08:65+B*38:06     |                    |
| B*08:03+B*39:27     | B*08:15+B*38:01:01  |                    |
| B*08:03+B*39:37     | B*08:23+B*38:19     |                    |
| B*08:03+B*39:74     | B*08:21+B*38:01:01  | B*08:55+B*38:30    |
| B*08:03+B*40:01:01G | B*08:23+B*40:117    |                    |
| B*08:03+B*40:02:01G | B*08:23+B*40:19     |                    |
| B*08:03+B*44:09     | B*08:23+B*44:95     |                    |
| B*08:03+B*44:46     | B*08:23+B*44:50     |                    |
| B*08:03+B*45:01:01G | B*08:23+B*44:18     |                    |
| B*08:03+B*50:01:01  | B*08:23+B*49:01:01  |                    |
| B*08:03+B*50:02     | B*08:23+B*49:20     |                    |
| B*08:03+B*50:13     | B*08:23+B*49:10     |                    |
| B*08:03+B*50:14     | B*08:23+B*49:18     |                    |
| B*08:03+B*51:20     | B*08:78+B*51:08     |                    |
| B*08:03+B*53:23     | B*08:78+B*53:01:01  |                    |
| B*08:03+B*54:01:01G | B*08:23+B*54:12     |                    |
| B*08:03+B*55:01:01G | B*08:78+B*55:31     |                    |
| B*08:03+B*56:05:02  | B*08:23+B*56:21     |                    |
| B*08:03+B*56:33     | B*08:65+B*59:04     |                    |
| B*08:03+B*57:12     | B*08:23+B*57:02:01  |                    |
| B*08:03+B*67:01:01  | B*08:23+B*38:26     |                    |
| B*08:03+B*78:02:01  | B*08:23+B*51:01:02  |                    |
| B*08:03+B*78:02:02  | B*08:23+B*51:01:01G |                    |
| B*08:03+B*78:05     | B*08:23+B*52:01:01G | B*08:54+B*51:01:02 |
| B*08:04+B*15:18:01G | B*08:65+B*15:64     |                    |
| B*08:04+B*15:21     | B*08:65+B*15:02:01G |                    |
| B*08:04+B*15:44     | B*08:65+B*15:121    |                    |
| B*08:04+B*15:66     | B*08:65+B*15:01:01G |                    |
| B*08:04+B*15:135    | B*08:17+B*15:15     |                    |
| B*08:04+B*18:12     | B*08:54+B*18:03     |                    |
| B*08:04+B*18:33     | B*08:65+B*18:01:01G |                    |
| B*08:04+B*35:07     | B*08:75+B*35:20:01  |                    |
| B*08:04+B*35:11:01  | B*08:53+B*35:20:01  |                    |
| B*08:04+B*35:13     | B*08:54+B*35:136    |                    |
| B*08:04+B*35:27     | B*08:47+B*35:20:01  |                    |
| B*08:04+B*35:30     | B*08:60+B*35:72     |                    |
| B*08:04+B*35:37     | B*08:09+B*35:72     |                    |
| B*08:04+B*35:58     | B*08:53+B*35:72     |                    |
| B*08:04+B*35:68:01  | B*08:12:03+B*35:72  |                    |
| B*08:04+B*35:68:02  | B*08:12:01+B*35:72  |                    |
| B*08:04+B*35:82     | B*08:65+B*35:20:01  |                    |
| B*08:04+B*35:101:02 | B*08:39+B*35:20:01  |                    |
| B*08:04+B*35:108:01 | B*08:59+B*35:20:01  |                    |
| B*08:04+B*35:146    | B*08:37+B*35:95     |                    |
| B*08:04+B*35:178    | B*08:18+B*35:20:01  |                    |
| B*08:04+B*35:180    | B*08:68+B*35:20:01  |                    |
| B*08:04+B*39:01:01G | B*08:65+B*39:39:01  |                    |
| B*08:04+B*39:22     | B*08:65+B*39:02:01  |                    |
| B*08:04+B*40:75     | B*08:65+B*40:06:01G |                    |
| B*08:04+B*51:13:02  | B*08:69+B*51:07:01  |                    |
| B*08:04+B*51:22     | B*08:65+B*51:07:01  |                    |
| B*08:04+B*51:37     | B*08:37+B*51:07:01  |                    |
| B*08:04+B*51:41N    | B*08:72N+B*51:07:01 |                    |
| B*08:04+B*51:53     | B*08:68+B*51:07:01  |                    |
| B*08:04+B*51:63     | B*08:35+B*51:07:01  |                    |
| B*08:04+B*51:76     | B*08:39+B*51:07:01  |                    |
| B*08:04+B*51:85     | B*08:14+B*51:07:01  |                    |
| B*08:04+B*51:90     | B*08:07+B*51:07:01  |                    |
| B*08:04+B*51:128    | B*08:85+B*51:07:01  |                    |
| B*08:04+B*51:134    | B*08:73+B*51:07:01  |                    |
| B*08:04+B*53:01:01  | B*08:78+B*35:20:01  |                    |
| B*08:04+B*53:05     | B*08:52+B*35:20:01  |                    |
| B*08:04+B*53:14     | B*08:78+B*35:72     |                    |
| B*08:04+B*53:19     | B*08:78+B*35:95     |                    |
| B*08:07+B*15:01:01G | B*08:37+B*15:63     | B*08:89+B*15:45    |
| B*08:07+B*15:07:01G | B*08:37+B*15:45     |                    |
| B*08:07+B*15:18:01G | B*08:37+B*15:10:01  |                    |
| B*08:07+B*15:33     | B*08:37+B*15:248    |                    |
| B*08:07+B*15:58     | B*08:69+B*15:63     |                    |
| B*08:07+B*15:128    | B*08:28+B*15:63     |                    |
| B*08:07+B*15:221    | B*08:37+B*15:99     |                    |
| B*08:07+B*15:233    | B*08:87+B*15:63     |                    |
| B*08:07+B*27:78     | B*08:37+B*27:46     |                    |
| B*08:07+B*35:01:01G | B*08:37+B*35:34     |                    |
| B*08:07+B*35:32:02  | B*08:89+B*35:199    |                    |
| B*08:07+B*35:51     | B*08:37+B*35:199    |                    |
| B*08:07+B*35:59     | B*08:69+B*35:39     |                    |
| B*08:07+B*38:14     | B*08:78+B*39:15     |                    |
| B*08:07+B*39:03     | B*08:69+B*39:29     |                    |
| B*08:07+B*39:27     | B*08:15+B*39:15     |                    |
| B*08:07+B*39:35     | B*08:53+B*39:15     |                    |
| B*08:07+B*39:42     | B*08:60+B*39:15     |                    |
| B*08:07+B*39:70     | B*08:12:01+B*39:29  |                    |
| B*08:07+B*39:74     | B*08:21+B*39:15     |                    |
| B*08:07+B*40:01:04  | B*08:12:03+B*40:31  |                    |
| B*08:07+B*40:03     | B*08:37+B*40:18     |                    |
| B*08:07+B*40:11:01  | B*08:12:01+B*40:18  |                    |
| B*08:07+B*40:11:02  | B*08:12:03+B*40:18  |                    |
| B*08:07+B*40:19     | B*08:78+B*40:18     |                    |
| B*08:07+B*40:20     | B*08:89+B*40:18     |                    |
| B*08:07+B*40:35     | B*08:71+B*40:18     |                    |
| B*08:07+B*40:36     | B*08:69+B*40:33     |                    |
| B*08:07+B*40:37     | B*08:47+B*40:18     |                    |
| B*08:07+B*40:52     | B*08:37+B*40:33     | B*08:89+B*40:31    |
| B*08:07+B*40:73     | B*08:15+B*40:33     |                    |
| B*08:07+B*40:84     | B*08:24+B*40:33     |                    |
| B*08:07+B*40:86     | B*08:69+B*40:44     |                    |
| B*08:07+B*40:87:02  | B*08:71+B*40:33     |                    |
| B*08:07+B*40:91     | B*08:83+B*40:18     |                    |
| B*08:07+B*40:109    | B*08:52+B*40:44     |                    |
| B*08:07+B*40:117    | B*08:78+B*40:33     |                    |
| B*08:07+B*40:124:02 | B*08:14+B*40:33     |                    |
| B*08:07+B*40:135    | B*08:36+B*40:33     |                    |
| B*08:07+B*40:148    | B*08:53+B*40:44     |                    |

|                        |                        |                       |
|------------------------|------------------------|-----------------------|
| B*08:07+B*40:159       | B*08:37+B*40:44        |                       |
| B*08:07+B*40:160       | B*08:60+B*40:33        |                       |
| B*08:07+B*40:175       | B*08:92+B*40:33        |                       |
| B*08:07+B*40:177       | B*08:51+B*40:44        |                       |
| B*08:07+B*40:180       | B*08:14+B*40:18        |                       |
| B*08:07+B*40:183       | B*08:53+B*40:33        |                       |
| B*08:07+B*40:192       | B*08:64+B*40:33        |                       |
| B*08:07+B*42:04        | B*08:09+B*42:16        |                       |
| B*08:07+B*42:06        | B*08:69+B*42:16        |                       |
| B*08:07+B*42:10        | B*08:71+B*42:16        |                       |
| B*08:07+B*42:15        | B*08:47+B*42:16        |                       |
| B*08:07+B*44:02:01G    | B*08:87+B*44:123       |                       |
| B*08:07+B*44:03:01G    | B*08:87+B*44:107       |                       |
| B*08:07+B*44:17        | B*08:37+B*44:123       |                       |
| B*08:07+B*44:43:01     | B*08:37+B*44:107       |                       |
| B*08:07+B*44:144       | B*08:28+B*44:107       |                       |
| B*08:07+B*51:13:02     | B*08:69+B*51:90        |                       |
| B*08:07+B*51:22        | B*08:65+B*51:90        |                       |
| B*08:07+B*51:37        | B*08:37+B*51:90        |                       |
| B*08:07+B*51:41N       | B*08:72N+B*51:90       |                       |
| B*08:07+B*51:53        | B*08:68+B*51:90        |                       |
| B*08:07+B*51:76        | B*08:39+B*51:90        |                       |
| B*08:07+B*51:85        | B*08:14+B*51:90        |                       |
| B*08:07+B*51:97        | B*08:37+B*51:08        |                       |
| B*08:07+B*51:128       | B*08:85+B*51:90        |                       |
| B*08:07+B*51:134       | B*08:73+B*51:90        |                       |
| B*08:07+B*52:26        | B*08:87+B*52:12        |                       |
| B*08:07+B*52:29        | B*08:68+B*52:12        |                       |
| B*08:07+B*54:03        | B*08:21+B*54:16        |                       |
| B*08:07+B*54:12        | B*08:78+B*54:16        |                       |
| B*08:07+B*55:01:01G    | B*08:53+B*55:46        |                       |
| B*08:07+B*55:12        | B*08:47+B*55:46        |                       |
| B*08:07+B*55:41        | B*08:74+B*55:46        |                       |
| B*08:07+B*55:50        | B*08:83+B*55:46        |                       |
| B*08:07+B*56:01:01G    | B*08:21+B*55:46        |                       |
| B*08:09+B*13:11        | B*08:12:01+B*13:02:01G |                       |
| B*08:09+B*15:01:01G    | B*08:12:01+B*15:04     |                       |
| B*08:09+B*15:01:14     | B*08:12:03+B*15:04     |                       |
| B*08:09+B*15:05:01     | B*08:12:01+B*15:155    |                       |
| B*08:09+B*27:70        | B*08:12:01+B*27:81     |                       |
| B*08:09+B*35:30        | B*08:60+B*35:37        |                       |
| B*08:09+B*35:58        | B*08:53+B*35:37        |                       |
| B*08:09+B*35:68:01     | B*08:12:03+B*35:37     |                       |
| B*08:09+B*35:68:02     | B*08:12:01+B*35:37     |                       |
| B*08:09+B*39:01:01G    | B*08:12:01+B*39:06:02  | B*08:12:03+B*39:06:01 |
| B*08:09+B*39:30        | B*08:12:01+B*39:34     |                       |
| B*08:09+B*39:37        | B*08:23+B*39:06:02     |                       |
| B*08:09+B*39:47        | B*08:12:01+B*39:50     |                       |
| B*08:09+B*39:53        | B*08:12:01+B*39:57     |                       |
| B*08:09+B*40:01:20     | B*08:84+B*40:01:01G    |                       |
| B*08:09+B*40:09        | B*08:74+B*40:44        |                       |
| B*08:09+B*40:11:01     | B*08:12:01+B*40:06:01G |                       |
| B*08:09+B*40:11:02     | B*08:12:03+B*40:06:01G |                       |
| B*08:09+B*40:13        | B*08:78+B*40:162       |                       |
| B*08:09+B*40:19        | B*08:47+B*40:109       | B*08:78+B*40:06:01G   |
| B*08:09+B*40:20        | B*08:12:01+B*40:159    | B*08:89+B*40:06:01G   |
| B*08:09+B*40:35        | B*08:71+B*40:06:01G    |                       |
| B*08:09+B*40:37        | B*08:47+B*40:06:01G    |                       |
| B*08:09+B*40:89        | B*08:74+B*40:06:01G    |                       |
| B*08:09+B*40:91        | B*08:83+B*40:06:01G    |                       |
| B*08:09+B*40:105       | B*08:35+B*40:06:01G    |                       |
| B*08:09+B*40:180       | B*08:14+B*40:06:01G    |                       |
| B*08:09+B*42:06        | B*08:69+B*42:04        |                       |
| B*08:09+B*42:10        | B*08:71+B*42:04        |                       |
| B*08:09+B*42:15        | B*08:47+B*42:04        |                       |
| B*08:09+B*44:41:01     | B*08:12:01+B*44:20     |                       |
| B*08:09+B*44:41:02     | B*08:12:03+B*44:20     |                       |
| B*08:09+B*44:65        | B*08:12:01+B*44:47     |                       |
| B*08:09+B*44:110       | B*08:60+B*44:47        |                       |
| B*08:09+B*46:01:01G    | B*08:12:01+B*46:32     |                       |
| B*08:09+B*51:06:01     | B*08:12:01+B*51:01:01G | B*08:12:03+B*51:01:16 |
| B*08:09+B*51:06:02     | B*08:12:03+B*51:01:01G |                       |
| B*08:09+B*51:45        | B*08:89+B*51:01:04     |                       |
| B*08:09+B*51:59        | B*08:12:01+B*51:02:01  |                       |
| B*08:09+B*51:135       | B*08:12:01+B*51:90     |                       |
| B*08:09+B*53:14        | B*08:78+B*35:37        |                       |
| B*08:09+B*56:02        | B*08:12:01+B*56:01:01G |                       |
| B*08:09+B*56:04        | B*08:12:01+B*56:27     |                       |
| B*08:09+B*56:10        | B*08:12:01+B*55:02:01G | B*08:12:03+B*55:02:04 |
| B*08:09+B*56:32        | B*08:89+B*55:17        |                       |
| B*08:12:01+B*08:28     | B*08:74+B*08:89        |                       |
| B*08:12:01+B*14:06:02  | B*08:12:03+B*14:06:01  |                       |
| B*08:12:01+B*15:01:01G | B*08:89+B*15:30        |                       |
| B*08:12:01+B*15:01:14  | B*08:12:03+B*15:01:01G |                       |
| B*08:12:01+B*15:02:01G | B*08:12:03+B*15:02:05  |                       |
| B*08:12:01+B*15:11:03  | B*08:12:03+B*15:11:01G |                       |
| B*08:12:01+B*15:17:02  | B*08:12:02+B*15:17:01G |                       |
| B*08:12:01+B*15:18:02  | B*08:12:03+B*15:18:01G |                       |
| B*08:12:01+B*15:25:01G | B*08:12:03+B*15:25:02  |                       |
| B*08:12:01+B*15:27:01  | B*08:12:03+B*15:27:02  |                       |
| B*08:12:01+B*15:68     | B*15:180+B*42:11       |                       |
| B*08:12:01+B*15:78:02  | B*08:89+B*15:150       |                       |
| B*08:12:01+B*15:212    | B*15:180+B*41:03:02    |                       |
| B*08:12:01+B*18:01:01G | B*08:89+B*18:26        |                       |
| B*08:12:01+B*18:01:06  | B*08:12:03+B*18:01:01G |                       |
| B*08:12:01+B*18:40     | B*08:89+B*18:61        |                       |
| B*08:12:01+B*18:44:02  | B*08:12:03+B*18:44:01  |                       |
| B*08:12:01+B*27:41     | B*08:89+B*27:27        |                       |
| B*08:12:01+B*35:01:01G | B*08:12:03+B*35:01:04  | B*08:89+B*35:04:01    |
| B*08:12:01+B*35:01:10  | B*08:89+B*35:04:02     |                       |
| B*08:12:01+B*35:01:17  | B*08:89+B*35:04:03     |                       |
| B*08:12:01+B*35:08:01  | B*08:12:03+B*35:08:03  |                       |
| B*08:12:01+B*35:12:02  | B*08:12:03+B*35:12:01  |                       |
| B*08:12:01+B*35:17     | B*08:60+B*35:32:01     |                       |
| B*08:12:01+B*35:43:01G | B*08:89+B*35:44        |                       |

|                        |                        |                    |
|------------------------|------------------------|--------------------|
| B*08:12:01+B*35:58     | B*08:53+B*35:68:02     |                    |
| B*08:12:01+B*35:64     | B*08:89+B*35:09:02     |                    |
| B*08:12:01+B*35:68:01  | B*08:12:03+B*35:68:02  |                    |
| B*08:12:01+B*35:92     | B*08:16+B*35:01:01G    |                    |
| B*08:12:01+B*35:146    | B*08:89+B*35:02:01     |                    |
| B*08:12:01+B*40:01:04  | B*08:12:03+B*40:01:01G |                    |
| B*08:12:01+B*40:11:02  | B*08:12:03+B*40:11:01  |                    |
| B*08:12:01+B*40:16     | B*08:79+B*41:03:02     |                    |
| B*08:12:01+B*40:19     | B*08:78+B*40:11:01     |                    |
| B*08:12:01+B*40:20     | B*08:89+B*40:11:01     |                    |
| B*08:12:01+B*40:35     | B*08:71+B*40:11:01     |                    |
| B*08:12:01+B*40:37     | B*08:47+B*40:11:01     |                    |
| B*08:12:01+B*40:52     | B*08:89+B*40:01:01G    |                    |
| B*08:12:01+B*40:89     | B*08:74+B*40:11:01     |                    |
| B*08:12:01+B*40:91     | B*08:83+B*40:11:01     |                    |
| B*08:12:01+B*40:105    | B*08:35+B*40:11:01     |                    |
| B*08:12:01+B*40:124:01 | B*08:12:03+B*40:124:02 |                    |
| B*08:12:01+B*40:180    | B*08:14+B*40:11:01     |                    |
| B*08:12:01+B*41:11     | B*08:41+B*41:03:02     |                    |
| B*08:12:01+B*42:09     | B*08:89+B*42:02        |                    |
| B*08:12:01+B*44:02:07  | B*08:12:03+B*44:02:01G |                    |
| B*08:12:01+B*44:03:02  | B*08:12:03+B*44:03:01G |                    |
| B*08:12:01+B*44:28:01  | B*08:12:03+B*44:28:02  |                    |
| B*08:12:01+B*44:37:02  | B*08:12:03+B*44:37:01  |                    |
| B*08:12:01+B*44:41:02  | B*08:12:03+B*44:41:01  |                    |
| B*08:12:01+B*44:43:01  | B*08:89+B*44:77        |                    |
| B*08:12:01+B*44:64:01  | B*08:12:03+B*44:64:02  |                    |
| B*08:12:01+B*48:03:02  | B*08:12:03+B*48:03:01  |                    |
| B*08:12:01+B*48:07     | B*08:69+B*48:03:01     |                    |
| B*08:12:01+B*48:15     | B*08:53+B*48:03:01     |                    |
| B*08:12:01+B*48:18     | B*08:52+B*48:03:01     |                    |
| B*08:12:01+B*48:23     | B*08:89+B*48:03:01     |                    |
| B*08:12:01+B*48:27     | B*08:77+B*48:03:01     |                    |
| B*08:12:01+B*51:06:02  | B*08:12:03+B*51:06:01  |                    |
| B*08:12:01+B*51:37     | B*08:89+B*51:01:01G    |                    |
| B*08:12:01+B*53:14     | B*08:78+B*35:68:02     |                    |
| B*08:12:01+B*54:14     | B*08:89+B*54:04        |                    |
| B*08:12:01+B*57:01:01G | B*08:89+B*57:03:01     |                    |
| B*08:12:01+B*57:19     | B*08:89+B*57:02:01     |                    |
| B*08:12:01+B*57:22     | B*08:89+B*57:57        |                    |
| B*08:12:03+B*18:22     | B*08:60+B*18:52        |                    |
| B*08:12:03+B*35:58     | B*08:53+B*35:68:01     |                    |
| B*08:12:03+B*40:03     | B*08:37+B*40:11:02     | B*08:89+B*40:02:09 |
| B*08:12:03+B*40:19     | B*08:78+B*40:11:02     |                    |
| B*08:12:03+B*40:20     | B*08:89+B*40:11:02     |                    |
| B*08:12:03+B*40:35     | B*08:71+B*40:11:02     |                    |
| B*08:12:03+B*40:37     | B*08:47+B*40:11:02     |                    |
| B*08:12:03+B*40:52     | B*08:89+B*40:01:04     |                    |
| B*08:12:03+B*40:89     | B*08:74+B*40:11:02     |                    |
| B*08:12:03+B*40:91     | B*08:83+B*40:11:02     |                    |
| B*08:12:03+B*40:105    | B*08:35+B*40:11:02     |                    |
| B*08:12:03+B*40:180    | B*08:14+B*40:11:02     |                    |
| B*08:12:03+B*44:54     | B*08:13+B*44:41:02     |                    |
| B*08:12:03+B*48:07     | B*08:69+B*48:03:02     |                    |
| B*08:12:03+B*48:15     | B*08:53+B*48:03:02     |                    |
| B*08:12:03+B*48:18     | B*08:52+B*48:03:02     |                    |
| B*08:12:03+B*48:23     | B*08:89+B*48:03:02     |                    |
| B*08:12:03+B*48:27     | B*08:77+B*48:03:02     |                    |
| B*08:12:03+B*53:14     | B*08:78+B*35:68:01     |                    |
| B*08:13+B*13:18        | B*08:40+B*13:53        |                    |
| B*08:13+B*13:31        | B*08:70+B*13:16        |                    |
| B*08:13+B*13:41        | B*08:70+B*13:02:01G    |                    |
| B*08:13+B*14:19        | B*08:25+B*14:01:01     |                    |
| B*08:13+B*14:27        | B*08:25+B*14:02:01     |                    |
| B*08:13+B*15:01:01G    | B*08:25+B*15:50        | B*08:70+B*15:39:01 |
| B*08:13+B*15:02:01G    | B*08:25+B*15:121       |                    |
| B*08:13+B*15:09        | B*08:25+B*15:252       |                    |
| B*08:13+B*15:18:01G    | B*08:25+B*15:93        |                    |
| B*08:13+B*15:21        | B*08:25+B*15:44        |                    |
| B*08:13+B*15:27:01     | B*08:70+B*15:195       |                    |
| B*08:13+B*15:54        | B*08:70+B*15:03:01G    |                    |
| B*08:13+B*15:108       | B*08:55+B*15:18:01G    |                    |
| B*08:13+B*15:117       | B*08:70+B*15:40        |                    |
| B*08:13+B*15:136       | B*08:55+B*15:05:01     |                    |
| B*08:13+B*15:144       | B*08:70+B*15:02:01G    |                    |
| B*08:13+B*15:235       | B*08:55+B*15:123:01G   |                    |
| B*08:13+B*15:241       | B*08:70+B*15:138       |                    |
| B*08:13+B*15:249       | B*08:55+B*15:01:01G    |                    |
| B*08:13+B*18:19        | B*08:70+B*18:15        |                    |
| B*08:13+B*18:36        | B*08:25+B*18:01:01G    |                    |
| B*08:13+B*18:58        | B*08:25+B*18:11        |                    |
| B*08:13+B*27:25        | B*08:70+B*27:63        |                    |
| B*08:13+B*27:38        | B*08:25+B*27:71        |                    |
| B*08:13+B*27:45        | B*08:40+B*27:71        |                    |
| B*08:13+B*27:63        | B*08:25+B*27:15        |                    |
| B*08:13+B*35:01:01G    | B*08:25+B*35:93        |                    |
| B*08:13+B*35:14:01     | B*08:70+B*35:11:01     |                    |
| B*08:13+B*35:14:02     | B*08:70+B*35:11:02     |                    |
| B*08:13+B*35:21        | B*08:25+B*35:188       |                    |
| B*08:13+B*35:24:01     | B*08:25+B*35:190       |                    |
| B*08:13+B*35:35        | B*08:55+B*35:93        |                    |
| B*08:13+B*35:62        | B*08:70+B*35:01:01G    |                    |
| B*08:13+B*35:81        | B*08:25+B*35:157       |                    |
| B*08:13+B*35:163       | B*08:70+B*35:03:01G    |                    |
| B*08:13+B*38:01:01     | B*08:55+B*38:36        |                    |
| B*08:13+B*38:30        | B*08:21+B*38:36        |                    |
| B*08:13+B*38:32        | B*08:55+B*38:10        |                    |
| B*08:13+B*39:01:01G    | B*08:55+B*39:30        |                    |
| B*08:13+B*39:06:02     | B*08:55+B*39:34        |                    |
| B*08:13+B*39:32        | B*08:25+B*39:48        |                    |
| B*08:13+B*39:74        | B*08:25+B*39:01:01G    |                    |
| B*08:13+B*40:63        | B*08:25+B*40:199       |                    |
| B*08:13+B*40:128       | B*08:40+B*40:199       |                    |
| B*08:13+B*40:198       | B*08:20+B*40:01:14     |                    |
| B*08:13+B*44:02:08     | B*08:86N+B*44:03:01G   |                    |

|                     |                     |                 |
|---------------------|---------------------|-----------------|
| B*08:13+B*44:05:01  | B*08:74+B*44:107    |                 |
| B*08:13+B*44:28:02  | B*08:25+B*44:04     |                 |
| B*08:13+B*44:29     | B*08:55+B*44:03:01G |                 |
| B*08:13+B*44:68     | B*08:64+B*44:03:01G |                 |
| B*08:13+B*44:102    | B*08:68+B*44:03:01G |                 |
| B*08:13+B*44:146    | B*08:70+B*44:79     |                 |
| B*08:13+B*45:04     | B*08:25+B*45:08     |                 |
| B*08:13+B*46:01:01G | B*08:25+B*46:29     | B*08:70+B*46:08 |
| B*08:13+B*46:09     | B*08:70+B*46:13:03  |                 |
| B*08:13+B*46:11     | B*08:25+B*46:18     |                 |
| B*08:13+B*46:13:01  | B*08:25+B*46:21:02  |                 |
| B*08:13+B*46:13:03  | B*08:25+B*46:21:01  |                 |
| B*08:13+B*46:19     | B*08:55+B*46:13:03  |                 |
| B*08:13+B*48:19     | B*08:70+B*48:01:01G |                 |
| B*08:13+B*51:01:01G | B*08:25+B*51:21     |                 |
| B*08:13+B*51:19     | B*08:55+B*51:09:01  |                 |
| B*08:13+B*51:61:02  | B*08:70+B*51:01:01G |                 |
| B*08:13+B*51:82     | B*08:40+B*51:21     |                 |
| B*08:13+B*51:97     | B*08:35+B*51:09:01  |                 |
| B*08:13+B*51:101    | B*08:55+B*51:21     |                 |
| B*08:13+B*52:21     | B*08:70+B*52:01:02  |                 |
| B*08:13+B*53:22     | B*08:78+B*35:71     |                 |
| B*08:13+B*54:03     | B*08:25+B*54:01:01G |                 |
| B*08:13+B*55:09     | B*08:40+B*55:01:01G |                 |
| B*08:13+B*55:21     | B*08:70+B*55:01:01G |                 |
| B*08:13+B*56:01:01G | B*08:25+B*55:02:01G |                 |
| B*08:13+B*56:02     | B*08:25+B*56:10     |                 |
| B*08:13+B*56:22     | B*08:25+B*55:13     |                 |
| B*08:13+B*56:25     | B*08:25+B*55:01:01G |                 |
| B*08:13+B*57:01:01G | B*08:25+B*57:26     |                 |
| B*08:13+B*58:01:01G | B*08:25+B*58:35     |                 |
| B*08:13+B*59:04     | B*08:25+B*59:01:01G |                 |
| B*08:13+B*78:01:01  | B*08:25+B*78:07     |                 |
| B*08:14+B*27:41     | B*08:37+B*27:05:02G |                 |
| B*08:14+B*40:03     | B*08:37+B*40:180    |                 |
| B*08:14+B*40:19     | B*08:78+B*40:180    |                 |
| B*08:14+B*40:20     | B*08:89+B*40:180    |                 |
| B*08:14+B*40:35     | B*08:71+B*40:180    |                 |
| B*08:14+B*40:36     | B*08:69+B*40:124:02 |                 |
| B*08:14+B*40:37     | B*08:47+B*40:180    |                 |
| B*08:14+B*40:38     | B*08:35+B*40:124:02 |                 |
| B*08:14+B*40:52     | B*08:37+B*40:124:02 |                 |
| B*08:14+B*40:73     | B*08:15+B*40:124:02 |                 |
| B*08:14+B*40:84     | B*08:24+B*40:124:02 |                 |
| B*08:14+B*40:87:02  | B*08:71+B*40:124:02 |                 |
| B*08:14+B*40:89     | B*08:74+B*40:180    |                 |
| B*08:14+B*40:91     | B*08:83+B*40:180    |                 |
| B*08:14+B*40:105    | B*08:35+B*40:180    |                 |
| B*08:14+B*40:117    | B*08:78+B*40:124:02 |                 |
| B*08:14+B*40:135    | B*08:36+B*40:124:02 |                 |
| B*08:14+B*40:160    | B*08:60+B*40:124:02 |                 |
| B*08:14+B*40:172    | B*08:74+B*40:124:02 |                 |
| B*08:14+B*40:175    | B*08:92+B*40:124:02 |                 |
| B*08:14+B*40:183    | B*08:53+B*40:124:02 |                 |
| B*08:14+B*40:192    | B*08:64+B*40:124:02 |                 |
| B*08:14+B*51:13:02  | B*08:69+B*51:85     |                 |
| B*08:14+B*51:22     | B*08:65+B*51:85     |                 |
| B*08:14+B*51:37     | B*08:37+B*51:85     |                 |
| B*08:14+B*51:41N    | B*08:72N+B*51:85    |                 |
| B*08:14+B*51:53     | B*08:68+B*51:85     |                 |
| B*08:14+B*51:63     | B*08:35+B*51:85     |                 |
| B*08:14+B*51:76     | B*08:39+B*51:85     |                 |
| B*08:14+B*51:128    | B*08:85+B*51:85     |                 |
| B*08:14+B*51:134    | B*08:73+B*51:85     |                 |
| B*08:14+B*57:01:01G | B*08:37+B*57:32     |                 |
| B*08:14+B*57:41     | B*08:28+B*57:32     |                 |
| B*08:14+B*57:46     | B*08:68+B*57:32     |                 |
| B*08:14+B*57:57     | B*08:53+B*57:32     |                 |
| B*08:15+B*15:24     | B*08:52+B*15:57     |                 |
| B*08:15+B*18:15     | B*08:53+B*18:06     |                 |
| B*08:15+B*18:20     | B*08:74+B*18:06     |                 |
| B*08:15+B*18:36     | B*08:21+B*18:06     |                 |
| B*08:15+B*18:49     | B*08:47+B*18:06     |                 |
| B*08:15+B*18:67     | B*08:52+B*18:06     |                 |
| B*08:15+B*18:69     | B*08:76+B*18:06     |                 |
| B*08:15+B*35:56     | B*08:47+B*35:74     |                 |
| B*08:15+B*35:85     | B*08:65+B*35:74     |                 |
| B*08:15+B*35:167    | B*08:53+B*35:74     |                 |
| B*08:15+B*35:195    | B*08:39+B*35:74     |                 |
| B*08:15+B*38:14     | B*08:78+B*39:27     |                 |
| B*08:15+B*39:05:01  | B*08:23+B*39:27     |                 |
| B*08:15+B*39:35     | B*08:53+B*39:27     |                 |
| B*08:15+B*39:42     | B*08:60+B*39:27     |                 |
| B*08:15+B*39:74     | B*08:21+B*39:27     |                 |
| B*08:15+B*40:36     | B*08:69+B*40:73     |                 |
| B*08:15+B*40:38     | B*08:35+B*40:73     |                 |
| B*08:15+B*40:52     | B*08:37+B*40:73     |                 |
| B*08:15+B*40:84     | B*08:24+B*40:73     |                 |
| B*08:15+B*40:87:02  | B*08:71+B*40:73     |                 |
| B*08:15+B*40:117    | B*08:78+B*40:73     |                 |
| B*08:15+B*40:135    | B*08:36+B*40:73     |                 |
| B*08:15+B*40:160    | B*08:60+B*40:73     |                 |
| B*08:15+B*40:172    | B*08:74+B*40:73     |                 |
| B*08:15+B*40:175    | B*08:92+B*40:73     |                 |
| B*08:15+B*40:183    | B*08:53+B*40:73     |                 |
| B*08:15+B*40:192    | B*08:64+B*40:73     |                 |
| B*08:15+B*53:04     | B*08:78+B*35:74     |                 |
| B*08:15+B*55:31     | B*08:23+B*55:03     |                 |
| B*08:15+B*55:53     | B*08:91+B*55:03     |                 |
| B*08:15+B*55:54     | B*08:68+B*55:03     |                 |
| B*08:15+B*56:25     | B*08:21+B*55:03     |                 |
| B*08:17+B*08:23     | B*08:47+B*08:54     |                 |
| B*08:17+B*15:29     | B*08:47+B*15:03:01G |                 |
| B*08:17+B*15:191    | B*08:47+B*15:234    |                 |
| B*08:17+B*18:07:01  | B*08:47+B*18:12     |                 |

|                     |                     |                 |
|---------------------|---------------------|-----------------|
| B*08:17+B*27:44     | B*08:54+B*27:89     |                 |
| B*08:17+B*35:01:01G | B*08:47+B*35:28     |                 |
| B*08:17+B*35:43:01G | B*08:47+B*15:239    |                 |
| B*08:17+B*39:58     | B*08:47+B*39:02:01  |                 |
| B*08:17+B*40:68     | B*08:47+B*40:04     |                 |
| B*08:17+B*40:106    | B*08:47+B*40:01:01G |                 |
| B*08:17+B*48:06     | B*08:47+B*46:01:01G |                 |
| B*08:17+B*51:01:01G | B*08:47+B*52:01:02  |                 |
| B*08:17+B*51:01:02  | B*08:47+B*52:01:01G | B*08:78+B*78:06 |
| B*08:17+B*51:01:03  | B*08:47+B*52:01:09  |                 |
| B*08:17+B*51:02:02  | B*08:47+B*52:11     |                 |
| B*08:17+B*51:09:02  | B*08:47+B*52:10:01  |                 |
| B*08:17+B*51:61:02  | B*08:47+B*52:21     |                 |
| B*08:17+B*51:104    | B*08:47+B*52:02     |                 |
| B*08:17+B*53:01:01  | B*08:47+B*53:17:02  |                 |
| B*08:18+B*35:07     | B*08:75+B*35:178    |                 |
| B*08:18+B*35:11:01  | B*08:53+B*35:178    |                 |
| B*08:18+B*35:27     | B*08:47+B*35:178    |                 |
| B*08:18+B*35:82     | B*08:65+B*35:178    |                 |
| B*08:18+B*35:101:02 | B*08:39+B*35:178    |                 |
| B*08:18+B*35:108:01 | B*08:59+B*35:178    |                 |
| B*08:18+B*35:180    | B*08:68+B*35:178    |                 |
| B*08:18+B*53:01:01  | B*08:78+B*35:178    |                 |
| B*08:18+B*53:05     | B*08:52+B*35:178    |                 |
| B*08:21+B*13:53     | B*08:83+B*13:03     |                 |
| B*08:21+B*14:14     | B*08:23+B*14:19     |                 |
| B*08:21+B*14:18     | B*08:23+B*14:27     |                 |
| B*08:21+B*15:05:02  | B*08:25+B*15:179    |                 |
| B*08:21+B*15:69     | B*08:53+B*15:235    |                 |
| B*08:21+B*15:186    | B*08:55+B*15:51     |                 |
| B*08:21+B*18:15     | B*08:53+B*18:36     |                 |
| B*08:21+B*18:20     | B*08:74+B*18:36     |                 |
| B*08:21+B*18:49     | B*08:47+B*18:36     |                 |
| B*08:21+B*18:67     | B*08:52+B*18:36     |                 |
| B*08:21+B*18:69     | B*08:76+B*18:36     |                 |
| B*08:21+B*35:01:01G | B*08:25+B*35:115    |                 |
| B*08:21+B*35:03:01G | B*08:25+B*35:38     |                 |
| B*08:21+B*35:35     | B*08:55+B*35:115    |                 |
| B*08:21+B*35:96     | B*08:53+B*35:109    |                 |
| B*08:21+B*38:14     | B*08:78+B*39:74     |                 |
| B*08:21+B*39:05:01  | B*08:23+B*39:74     |                 |
| B*08:21+B*39:35     | B*08:53+B*39:74     |                 |
| B*08:21+B*39:42     | B*08:60+B*39:74     |                 |
| B*08:21+B*40:14:01  | B*08:25+B*40:136    |                 |
| B*08:21+B*44:03:01G | B*08:25+B*44:02:01G |                 |
| B*08:21+B*44:03:02  | B*08:25+B*44:02:07  |                 |
| B*08:21+B*44:03:05  | B*08:25+B*44:02:24  |                 |
| B*08:21+B*44:13     | B*08:25+B*44:67     |                 |
| B*08:21+B*44:29     | B*08:25+B*44:89     |                 |
| B*08:21+B*44:37:01  | B*08:25+B*44:91     |                 |
| B*08:21+B*44:40     | B*08:25+B*44:44     |                 |
| B*08:21+B*44:43:01  | B*08:25+B*44:17     |                 |
| B*08:21+B*44:45     | B*08:25+B*44:51     |                 |
| B*08:21+B*44:46     | B*08:25+B*44:09     |                 |
| B*08:21+B*44:47     | B*08:25+B*44:20     |                 |
| B*08:21+B*44:50     | B*08:25+B*44:95     |                 |
| B*08:21+B*44:54     | B*08:25+B*44:106    |                 |
| B*08:21+B*44:57     | B*08:25+B*44:08     |                 |
| B*08:21+B*44:64:02  | B*08:25+B*44:16     |                 |
| B*08:21+B*44:65     | B*08:25+B*44:41:01  |                 |
| B*08:21+B*44:105    | B*08:25+B*44:22     |                 |
| B*08:21+B*44:107    | B*08:25+B*44:123    |                 |
| B*08:21+B*51:09:01  | B*08:25+B*51:08     |                 |
| B*08:21+B*51:42     | B*08:25+B*44:06     |                 |
| B*08:21+B*51:101    | B*08:53+B*51:19     |                 |
| B*08:21+B*52:10:01  | B*08:25+B*52:19     |                 |
| B*08:21+B*54:12     | B*08:78+B*54:03     |                 |
| B*08:21+B*55:12     | B*08:47+B*56:01:01G |                 |
| B*08:21+B*55:23     | B*08:37+B*56:15     |                 |
| B*08:21+B*55:28     | B*08:53+B*56:15     |                 |
| B*08:21+B*55:31     | B*08:23+B*56:25     |                 |
| B*08:21+B*55:32     | B*08:35+B*56:15     |                 |
| B*08:21+B*55:38     | B*08:53+B*56:27     |                 |
| B*08:21+B*55:41     | B*08:74+B*56:01:01G |                 |
| B*08:21+B*55:50     | B*08:83+B*56:01:01G |                 |
| B*08:21+B*55:53     | B*08:91+B*56:25     |                 |
| B*08:21+B*55:54     | B*08:68+B*56:25     |                 |
| B*08:21+B*55:56     | B*08:53+B*56:13     |                 |
| B*08:21+B*56:01:01G | B*08:25+B*56:13     |                 |
| B*08:21+B*56:23     | B*08:23+B*56:17     |                 |
| B*08:21+B*57:01:01G | B*08:25+B*57:24     |                 |
| B*08:21+B*57:57     | B*08:25+B*57:09     |                 |
| B*08:23+B*15:01:01G | B*08:54+B*15:08     |                 |
| B*08:23+B*15:03:01G | B*08:54+B*15:29     |                 |
| B*08:23+B*15:234    | B*08:54+B*15:191    |                 |
| B*08:23+B*15:239    | B*08:54+B*35:43:01G |                 |
| B*08:23+B*18:12     | B*08:54+B*18:07:01  |                 |
| B*08:23+B*27:40     | B*08:53+B*27:44     |                 |
| B*08:23+B*27:89     | B*08:47+B*27:44     |                 |
| B*08:23+B*35:28     | B*08:54+B*35:01:01G |                 |
| B*08:23+B*39:02:01  | B*08:54+B*39:58     |                 |
| B*08:23+B*39:35     | B*08:53+B*39:05:01  |                 |
| B*08:23+B*39:42     | B*08:60+B*39:05:01  |                 |
| B*08:23+B*40:01:01G | B*08:54+B*40:106    |                 |
| B*08:23+B*40:02:01G | B*08:54+B*40:08     |                 |
| B*08:23+B*40:04     | B*08:54+B*40:68     |                 |
| B*08:23+B*48:01:01G | B*08:54+B*48:06     |                 |
| B*08:23+B*52:01:02  | B*08:54+B*51:01:01G |                 |
| B*08:23+B*52:01:09  | B*08:54+B*51:01:03  |                 |
| B*08:23+B*52:02     | B*08:54+B*51:104    |                 |
| B*08:23+B*52:10:01  | B*08:54+B*51:09:02  |                 |
| B*08:23+B*52:11     | B*08:54+B*51:02:02  |                 |
| B*08:23+B*52:20     | B*08:54+B*51:78:02  |                 |
| B*08:23+B*52:21     | B*08:54+B*51:61:02  |                 |
| B*08:23+B*55:53     | B*08:91+B*55:31     |                 |

|                     |                     |                     |                  |
|---------------------|---------------------|---------------------|------------------|
| B*08:23+B*55:54     | B*08:68+B*55:31     |                     |                  |
| B*08:23+B*78:03     | B*08:65+B*78:02:02  |                     |                  |
| B*08:23+B*78:05     | B*08:54+B*78:02:01  |                     |                  |
| B*08:24+B*40:36     | B*08:69+B*40:84     |                     |                  |
| B*08:24+B*40:38     | B*08:35+B*40:84     |                     |                  |
| B*08:24+B*40:52     | B*08:37+B*40:84     |                     |                  |
| B*08:24+B*40:87:02  | B*08:71+B*40:84     |                     |                  |
| B*08:24+B*40:117    | B*08:78+B*40:84     |                     |                  |
| B*08:24+B*40:135    | B*08:36+B*40:84     |                     |                  |
| B*08:24+B*40:160    | B*08:60+B*40:84     |                     |                  |
| B*08:24+B*40:172    | B*08:74+B*40:84     |                     |                  |
| B*08:24+B*40:175    | B*08:92+B*40:84     |                     |                  |
| B*08:24+B*40:183    | B*08:53+B*40:84     |                     |                  |
| B*08:24+B*40:192    | B*08:64+B*40:84     |                     |                  |
| B*08:25+B*15:47:01  | B*08:40+B*15:03:01G |                     |                  |
| B*08:25+B*15:69     | B*08:55+B*15:03:01G |                     |                  |
| B*08:25+B*27:45     | B*08:40+B*27:38     |                     |                  |
| B*08:25+B*35:35     | B*08:55+B*35:01:01G |                     |                  |
| B*08:25+B*40:128    | B*08:40+B*40:63     |                     |                  |
| B*08:25+B*51:82     | B*08:40+B*51:01:01G |                     |                  |
| B*08:25+B*51:101    | B*08:55+B*51:01:01G |                     |                  |
| B*08:25+B*55:09     | B*08:40+B*56:25     |                     |                  |
| B*08:25+B*55:21     | B*08:70+B*56:25     |                     |                  |
| B*08:26+B*15:251    | B*08:50+B*15:01:01G |                     |                  |
| B*08:26+B*35:124    | B*08:50+B*35:01:01G |                     |                  |
| B*08:26+B*35:125    | B*08:50+B*35:17     |                     |                  |
| B*08:26+B*35:142    | B*08:50+B*35:08:01  |                     |                  |
| B*08:26+B*38:01:01  | B*08:50+B*38:28     |                     |                  |
| B*08:26+B*52:27     | B*08:50+B*52:01:01G |                     |                  |
| B*08:26+B*54:21     | B*08:50+B*54:01:01G |                     |                  |
| B*08:26+B*55:10     | B*08:94+B*55:02:01G |                     |                  |
| B*08:26+B*56:16     | B*08:50+B*56:01:01G |                     |                  |
| B*08:26+B*57:49     | B*08:56+B*57:01:09  |                     |                  |
| B*08:26+B*57:58     | B*08:50+B*57:01:01G |                     |                  |
| B*08:26+B*58:12     | B*08:50+B*58:01:01G |                     |                  |
| B*08:27+B*18:69     | B*08:60+B*18:01:01G |                     |                  |
| B*08:27+B*35:03:01G | B*08:60+B*35:75     |                     |                  |
| B*08:27+B*58:01:01G | B*08:60+B*58:26     |                     |                  |
| B*08:28+B*15:01:01G | B*08:37+B*15:128    |                     |                  |
| B*08:28+B*15:03:01G | B*08:37+B*15:156    |                     |                  |
| B*08:28+B*15:58     | B*08:69+B*15:128    |                     |                  |
| B*08:28+B*15:150    | B*08:74+B*15:78:02  |                     |                  |
| B*08:28+B*15:195    | B*08:37+B*15:06     |                     |                  |
| B*08:28+B*15:223    | B*08:37+B*15:02:01G |                     |                  |
| B*08:28+B*15:233    | B*08:87+B*15:128    |                     |                  |
| B*08:28+B*18:01:01G | B*08:37+B*18:20     |                     |                  |
| B*08:28+B*18:61     | B*08:74+B*18:40     |                     |                  |
| B*08:28+B*27:05:02G | B*08:87+B*27:78     |                     |                  |
| B*08:28+B*27:27     | B*08:74+B*27:41     |                     |                  |
| B*08:28+B*35:02:01  | B*08:74+B*35:146    |                     |                  |
| B*08:28+B*35:04:01  | B*08:74+B*35:01:01G |                     |                  |
| B*08:28+B*35:04:02  | B*08:74+B*35:01:10  |                     |                  |
| B*08:28+B*35:04:03  | B*08:74+B*35:01:17  |                     |                  |
| B*08:28+B*35:09:02  | B*08:74+B*35:64     |                     |                  |
| B*08:28+B*35:22     | B*08:74+B*35:51     |                     |                  |
| B*08:28+B*35:44     | B*08:74+B*35:43:01G |                     |                  |
| B*08:28+B*40:01:01G | B*08:35+B*40:42     | B*08:37+B*40:172    | B*08:74+B*40:52  |
| B*08:28+B*40:02:01G | B*08:35+B*40:09     | B*08:37+B*40:89     | B*08:74+B*40:03  |
| B*08:28+B*40:06:01G | B*08:74+B*40:159    |                     |                  |
| B*08:28+B*40:11:01  | B*08:74+B*40:20     | B*08:89+B*40:89     |                  |
| B*08:28+B*40:18     | B*08:37+B*40:09     |                     |                  |
| B*08:28+B*40:33     | B*08:37+B*40:42     |                     |                  |
| B*08:28+B*42:02     | B*08:74+B*42:09     |                     |                  |
| B*08:28+B*44:03:01G | B*08:87+B*44:144    |                     |                  |
| B*08:28+B*44:14     | B*08:35+B*44:02:01G |                     |                  |
| B*08:28+B*44:43:01  | B*08:37+B*44:144    |                     |                  |
| B*08:28+B*44:45     | B*08:37+B*44:03:01G |                     |                  |
| B*08:28+B*44:51     | B*08:37+B*44:02:01G | B*08:87+B*44:43:01  | B*08:89+B*44:110 |
| B*08:28+B*44:123    | B*08:37+B*44:05:01  | B*08:87+B*44:17     |                  |
| B*08:28+B*44:135    | B*08:37+B*44:54     |                     |                  |
| B*08:28+B*48:03:01  | B*08:74+B*48:23     |                     |                  |
| B*08:28+B*51:01:01G | B*08:74+B*51:37     |                     |                  |
| B*08:28+B*54:04     | B*08:74+B*54:14     |                     |                  |
| B*08:28+B*55:02:01G | B*08:37+B*55:41     |                     |                  |
| B*08:28+B*57:01:01G | B*08:37+B*57:41     |                     |                  |
| B*08:28+B*57:02:01  | B*08:74+B*57:19     |                     |                  |
| B*08:28+B*57:46     | B*08:68+B*57:41     |                     |                  |
| B*08:28+B*57:57     | B*08:53+B*57:41     | B*08:74+B*57:22     |                  |
| B*08:30N+B*13:16    | B*08:53+B*13:56N    |                     |                  |
| B*08:30N+B*13:30    | B*08:41+B*13:56N    |                     |                  |
| B*08:35+B*15:133    | B*08:37+B*15:229    | B*08:69+B*15:18:01G |                  |
| B*08:35+B*15:253    | B*08:69+B*15:03:01G |                     |                  |
| B*08:35+B*35:03:01G | B*08:37+B*35:06     | B*08:69+B*35:01:01G |                  |
| B*08:35+B*35:03:07  | B*08:69+B*35:01:17  |                     |                  |
| B*08:35+B*35:13     | B*08:69+B*35:10     |                     |                  |
| B*08:35+B*35:33     | B*08:69+B*35:15     |                     |                  |
| B*08:35+B*35:38     | B*08:69+B*35:115    |                     |                  |
| B*08:35+B*35:39     | B*08:37+B*35:12:01  | B*08:60+B*35:32:02  |                  |
| B*08:35+B*35:56     | B*08:69+B*35:27     |                     |                  |
| B*08:35+B*35:85     | B*08:69+B*35:82     |                     |                  |
| B*08:35+B*35:96     | B*08:69+B*35:188    |                     |                  |
| B*08:35+B*35:109    | B*08:69+B*35:24:01  |                     |                  |
| B*08:35+B*35:136    | B*08:69+B*35:29:01  |                     |                  |
| B*08:35+B*35:150    | B*08:69+B*35:90     |                     |                  |
| B*08:35+B*35:151    | B*08:69+B*35:68:02  |                     |                  |
| B*08:35+B*35:156    | B*08:69+B*35:08:01  |                     |                  |
| B*08:35+B*35:163    | B*08:69+B*35:62     |                     |                  |
| B*08:35+B*35:167    | B*08:69+B*35:11:01  |                     |                  |
| B*08:35+B*35:195    | B*08:69+B*35:101:02 |                     |                  |
| B*08:35+B*35:205    | B*08:69+B*35:64     |                     |                  |
| B*08:35+B*38:29     | B*08:37+B*38:02:01G |                     |                  |
| B*08:35+B*39:15     | B*08:37+B*39:01:01G | B*08:89+B*39:03     |                  |
| B*08:35+B*39:29     | B*08:37+B*39:14     |                     |                  |
| B*08:35+B*39:49     | B*08:37+B*39:13:01  |                     |                  |
| B*08:35+B*39:55     | B*08:37+B*39:05:01  | B*08:69+B*39:07     | B*08:89+B*39:37  |

|                     |                     |                 |
|---------------------|---------------------|-----------------|
| B*08:35+B*40:03     | B*08:37+B*40:105    |                 |
| B*08:35+B*40:19     | B*08:78+B*40:105    |                 |
| B*08:35+B*40:20     | B*08:89+B*40:105    |                 |
| B*08:35+B*40:31     | B*08:37+B*40:80     |                 |
| B*08:35+B*40:32     | B*08:37+B*40:16     |                 |
| B*08:35+B*40:35     | B*08:71+B*40:105    |                 |
| B*08:35+B*40:36     | B*08:69+B*40:38     |                 |
| B*08:35+B*40:37     | B*08:47+B*40:105    |                 |
| B*08:35+B*40:52     | B*08:37+B*40:38     |                 |
| B*08:35+B*40:87:02  | B*08:71+B*40:38     |                 |
| B*08:35+B*40:89     | B*08:74+B*40:105    |                 |
| B*08:35+B*40:91     | B*08:83+B*40:105    |                 |
| B*08:35+B*40:117    | B*08:78+B*40:38     |                 |
| B*08:35+B*40:135    | B*08:36+B*40:38     |                 |
| B*08:35+B*40:160    | B*08:60+B*40:38     |                 |
| B*08:35+B*40:172    | B*08:74+B*40:38     |                 |
| B*08:35+B*40:175    | B*08:92+B*40:38     |                 |
| B*08:35+B*40:183    | B*08:53+B*40:38     |                 |
| B*08:35+B*40:192    | B*08:64+B*40:38     |                 |
| B*08:35+B*41:21     | B*08:37+B*41:01     |                 |
| B*08:35+B*42:16     | B*08:37+B*42:01:01  |                 |
| B*08:35+B*44:05:01  | B*08:74+B*44:17     |                 |
| B*08:35+B*44:51     | B*08:37+B*44:14     |                 |
| B*08:35+B*51:13:02  | B*08:69+B*51:63     |                 |
| B*08:35+B*51:19     | B*08:55+B*51:97     |                 |
| B*08:35+B*51:22     | B*08:65+B*51:63     |                 |
| B*08:35+B*51:37     | B*08:37+B*51:63     |                 |
| B*08:35+B*51:41N    | B*08:72N+B*51:63    |                 |
| B*08:35+B*51:53     | B*08:68+B*51:63     |                 |
| B*08:35+B*51:76     | B*08:39+B*51:63     |                 |
| B*08:35+B*51:92     | B*08:37+B*51:13:01  |                 |
| B*08:35+B*51:128    | B*08:85+B*51:63     |                 |
| B*08:35+B*51:134    | B*08:73+B*51:63     |                 |
| B*08:35+B*51:135    | B*08:37+B*51:06:01  | B*08:89+B*51:64 |
| B*08:35+B*52:12     | B*08:37+B*52:01:01G |                 |
| B*08:35+B*53:04     | B*08:69+B*53:01:01  |                 |
| B*08:35+B*54:16     | B*08:37+B*54:01:01G |                 |
| B*08:35+B*55:13     | B*08:69+B*55:32     |                 |
| B*08:35+B*55:23     | B*08:37+B*55:32     |                 |
| B*08:35+B*55:28     | B*08:53+B*55:32     |                 |
| B*08:35+B*55:46     | B*08:37+B*55:02:01G |                 |
| B*08:35+B*56:11     | B*08:69+B*56:09     |                 |
| B*08:35+B*58:34     | B*08:69+B*58:01:01G |                 |
| B*08:36+B*40:36     | B*08:69+B*40:135    |                 |
| B*08:36+B*40:52     | B*08:37+B*40:135    |                 |
| B*08:36+B*40:87:02  | B*08:71+B*40:135    |                 |
| B*08:36+B*40:117    | B*08:78+B*40:135    |                 |
| B*08:36+B*40:160    | B*08:60+B*40:135    |                 |
| B*08:36+B*40:172    | B*08:74+B*40:135    |                 |
| B*08:36+B*40:175    | B*08:92+B*40:135    |                 |
| B*08:36+B*40:183    | B*08:53+B*40:135    |                 |
| B*08:36+B*40:192    | B*08:64+B*40:135    |                 |
| B*08:37+B*14:06:01  | B*08:89+B*14:05     |                 |
| B*08:37+B*15:01:01G | B*08:89+B*15:07:01G |                 |
| B*08:37+B*15:31     | B*08:89+B*15:55     |                 |
| B*08:37+B*15:48     | B*08:55+B*15:179    |                 |
| B*08:37+B*15:58     | B*08:69+B*15:01:01G |                 |
| B*08:37+B*15:77     | B*08:87+B*15:154    |                 |
| B*08:37+B*15:233    | B*08:87+B*15:01:01G |                 |
| B*08:37+B*18:01:01G | B*08:89+B*18:14     |                 |
| B*08:37+B*27:70     | B*08:89+B*27:32     |                 |
| B*08:37+B*35:01:04  | B*08:89+B*35:30     |                 |
| B*08:37+B*35:32:02  | B*08:89+B*35:51     |                 |
| B*08:37+B*35:68:02  | B*08:89+B*35:05:01  |                 |
| B*08:37+B*38:01:01  | B*08:89+B*38:19     |                 |
| B*08:37+B*39:70     | B*08:89+B*39:14     |                 |
| B*08:37+B*40:19     | B*08:78+B*40:03     |                 |
| B*08:37+B*40:20     | B*08:89+B*40:03     |                 |
| B*08:37+B*40:35     | B*08:71+B*40:03     |                 |
| B*08:37+B*40:36     | B*08:69+B*40:52     |                 |
| B*08:37+B*40:37     | B*08:47+B*40:03     |                 |
| B*08:37+B*40:86     | B*08:69+B*40:159    |                 |
| B*08:37+B*40:87:02  | B*08:71+B*40:52     |                 |
| B*08:37+B*40:91     | B*08:83+B*40:03     |                 |
| B*08:37+B*40:109    | B*08:52+B*40:159    |                 |
| B*08:37+B*40:114    | B*08:89+B*40:45     |                 |
| B*08:37+B*40:117    | B*08:78+B*40:52     |                 |
| B*08:37+B*40:148    | B*08:53+B*40:159    |                 |
| B*08:37+B*40:160    | B*08:60+B*40:52     |                 |
| B*08:37+B*40:175    | B*08:92+B*40:52     |                 |
| B*08:37+B*40:177    | B*08:51+B*40:159    |                 |
| B*08:37+B*40:183    | B*08:53+B*40:52     |                 |
| B*08:37+B*40:192    | B*08:64+B*40:52     |                 |
| B*08:37+B*41:03:02  | B*08:89+B*41:02:01  |                 |
| B*08:37+B*42:17     | B*08:71+B*42:09     |                 |
| B*08:37+B*44:41:01  | B*08:89+B*44:106    |                 |
| B*08:37+B*44:65     | B*08:89+B*44:54     |                 |
| B*08:37+B*46:01:01G | B*08:89+B*46:12     |                 |
| B*08:37+B*51:13:02  | B*08:69+B*51:37     |                 |
| B*08:37+B*51:22     | B*08:65+B*51:37     |                 |
| B*08:37+B*51:41N    | B*08:72N+B*51:37    |                 |
| B*08:37+B*51:53     | B*08:68+B*51:37     |                 |
| B*08:37+B*51:76     | B*08:39+B*51:37     |                 |
| B*08:37+B*51:128    | B*08:85+B*51:37     |                 |
| B*08:37+B*51:134    | B*08:73+B*51:37     |                 |
| B*08:37+B*53:19     | B*08:78+B*35:146    |                 |
| B*08:37+B*55:13     | B*08:69+B*55:23     |                 |
| B*08:37+B*55:28     | B*08:53+B*55:23     |                 |
| B*08:37+B*56:12     | B*08:60+B*56:18     |                 |
| B*08:37+B*57:04     | B*08:87+B*57:19     |                 |
| B*08:37+B*57:09     | B*08:53+B*57:24     |                 |
| B*08:37+B*57:39     | B*08:62+B*57:49     |                 |
| B*08:37+B*57:46     | B*08:68+B*57:01:01G |                 |
| B*08:37+B*58:16     | B*08:89+B*58:18     |                 |
| B*08:39+B*35:07     | B*08:75+B*35:101:02 |                 |



|                     |                     |                     |
|---------------------|---------------------|---------------------|
| B*08:39+B*35:11:01  | B*08:53+B*35:101:02 |                     |
| B*08:39+B*35:27     | B*08:47+B*35:101:02 |                     |
| B*08:39+B*35:56     | B*08:47+B*35:195    |                     |
| B*08:39+B*35:82     | B*08:65+B*35:101:02 |                     |
| B*08:39+B*35:85     | B*08:65+B*35:195    |                     |
| B*08:39+B*35:108:01 | B*08:59+B*35:101:02 |                     |
| B*08:39+B*35:167    | B*08:53+B*35:195    |                     |
| B*08:39+B*35:180    | B*08:68+B*35:101:02 |                     |
| B*08:39+B*38:20     | B*08:60+B*38:27     |                     |
| B*08:39+B*38:32     | B*08:53+B*38:27     |                     |
| B*08:39+B*38:38     | B*08:83+B*38:27     |                     |
| B*08:39+B*51:13:02  | B*08:69+B*51:76     |                     |
| B*08:39+B*51:22     | B*08:65+B*51:76     |                     |
| B*08:39+B*51:41N    | B*08:72N+B*51:76    |                     |
| B*08:39+B*51:53     | B*08:68+B*51:76     |                     |
| B*08:39+B*51:128    | B*08:85+B*51:76     |                     |
| B*08:39+B*51:134    | B*08:73+B*51:76     |                     |
| B*08:39+B*53:01:01  | B*08:78+B*35:101:02 |                     |
| B*08:39+B*53:04     | B*08:78+B*35:195    |                     |
| B*08:39+B*53:05     | B*08:52+B*35:101:02 |                     |
| B*08:40+B*15:69     | B*08:55+B*15:47:01  |                     |
| B*08:40+B*51:101    | B*08:55+B*51:82     |                     |
| B*08:40+B*55:21     | B*08:70+B*55:09     |                     |
| B*08:41+B*13:16     | B*08:53+B*13:30     |                     |
| B*08:41+B*15:212    | B*15:180+B*41:11    |                     |
| B*08:41+B*40:16     | B*08:79+B*41:11     |                     |
| B*08:41+B*53:16     | B*08:52+B*35:192    |                     |
| B*08:41+B*53:24     | B*08:78+B*35:192    |                     |
| B*08:42+B*49:17     | B*08:64+B*49:14     |                     |
| B*08:43+B*56:25     | B*08:53+B*56:30     |                     |
| B*08:47+B*15:24     | B*08:78+B*15:135    |                     |
| B*08:47+B*15:94N    | B*08:72N+B*15:135   |                     |
| B*08:47+B*15:105    | B*08:68+B*15:135    |                     |
| B*08:47+B*15:128    | B*08:74+B*15:135    |                     |
| B*08:47+B*15:154    | B*08:60+B*15:135    |                     |
| B*08:47+B*15:165    | B*08:76+B*15:135    |                     |
| B*08:47+B*15:203    | B*08:48+B*15:135    |                     |
| B*08:47+B*18:15     | B*08:53+B*18:49     |                     |
| B*08:47+B*18:20     | B*08:74+B*18:49     |                     |
| B*08:47+B*18:69     | B*08:76+B*18:49     |                     |
| B*08:47+B*27:02:01  | B*08:78+B*27:89     |                     |
| B*08:47+B*27:40     | B*08:53+B*27:89     |                     |
| B*08:47+B*27:53     | B*08:78+B*27:42     |                     |
| B*08:47+B*35:07     | B*08:75+B*35:27     |                     |
| B*08:47+B*35:11:01  | B*08:53+B*35:27     |                     |
| B*08:47+B*35:82     | B*08:65+B*35:27     |                     |
| B*08:47+B*35:85     | B*08:65+B*35:56     |                     |
| B*08:47+B*35:108:01 | B*08:59+B*35:27     |                     |
| B*08:47+B*35:167    | B*08:53+B*35:56     |                     |
| B*08:47+B*35:180    | B*08:68+B*35:27     |                     |
| B*08:47+B*40:19     | B*08:78+B*40:37     |                     |
| B*08:47+B*40:20     | B*08:89+B*40:37     |                     |
| B*08:47+B*40:35     | B*08:71+B*40:37     |                     |
| B*08:47+B*40:89     | B*08:74+B*40:37     |                     |
| B*08:47+B*40:91     | B*08:83+B*40:37     |                     |
| B*08:47+B*42:06     | B*08:69+B*42:15     |                     |
| B*08:47+B*42:10     | B*08:71+B*42:15     |                     |
| B*08:47+B*44:25     | B*08:78+B*44:75     |                     |
| B*08:47+B*48:18     | B*08:78+B*48:01:01G |                     |
| B*08:47+B*53:01:01  | B*08:78+B*35:27     |                     |
| B*08:47+B*53:04     | B*08:78+B*35:56     |                     |
| B*08:47+B*55:01:01G | B*08:53+B*55:12     |                     |
| B*08:47+B*55:41     | B*08:74+B*55:12     |                     |
| B*08:47+B*55:50     | B*08:83+B*55:12     |                     |
| B*08:48+B*15:24     | B*08:78+B*15:203    |                     |
| B*08:48+B*15:87     | B*08:52+B*15:203    |                     |
| B*08:48+B*15:94N    | B*08:72N+B*15:203   |                     |
| B*08:48+B*15:105    | B*08:68+B*15:203    |                     |
| B*08:48+B*15:128    | B*08:74+B*15:203    |                     |
| B*08:48+B*15:154    | B*08:60+B*15:203    |                     |
| B*08:48+B*15:165    | B*08:76+B*15:203    |                     |
| B*08:50+B*13:14     | B*08:94+B*13:02:01G |                     |
| B*08:50+B*13:23     | B*08:62+B*13:01:01G |                     |
| B*08:50+B*13:55     | B*08:62+B*13:02:01G |                     |
| B*08:50+B*14:01:01  | B*08:94+B*14:11     |                     |
| B*08:50+B*15:71     | B*08:94+B*15:225    |                     |
| B*08:50+B*15:204    | B*08:62+B*15:25:01G |                     |
| B*08:50+B*15:210    | B*08:62+B*15:03:01G |                     |
| B*08:50+B*15:212    | B*08:62+B*15:53     |                     |
| B*08:50+B*15:225    | B*08:62+B*15:01:01G |                     |
| B*08:50+B*18:01:01G | B*08:62+B*18:43     | B*08:94+B*18:68     |
| B*08:50+B*18:43     | B*08:94+B*18:25     |                     |
| B*08:50+B*18:68     | B*08:62+B*18:25     |                     |
| B*08:50+B*27:05:02G | B*08:62+B*27:37     |                     |
| B*08:50+B*35:50     | B*08:62+B*35:197    |                     |
| B*08:50+B*35:197    | B*08:94+B*35:01:01G |                     |
| B*08:50+B*38:01:01  | B*08:94+B*38:33     |                     |
| B*08:50+B*39:01:01G | B*08:94+B*39:04     |                     |
| B*08:50+B*39:31     | B*08:62+B*39:01:01G |                     |
| B*08:50+B*40:01:01G | B*08:62+B*40:49     |                     |
| B*08:50+B*40:02:01G | B*08:62+B*40:40     |                     |
| B*08:50+B*40:06:01G | B*08:94+B*40:53     |                     |
| B*08:50+B*40:74     | B*08:62+B*40:210    | B*08:94+B*40:01:01G |
| B*08:50+B*40:98     | B*08:94+B*40:32     |                     |
| B*08:50+B*40:210    | B*08:94+B*40:49     |                     |
| B*08:50+B*42:02     | B*08:62+B*42:01:01  |                     |
| B*08:50+B*42:17     | B*08:62+B*42:10     |                     |
| B*08:50+B*44:55     | B*08:62+B*44:02:01G |                     |
| B*08:50+B*46:14     | B*08:62+B*46:01:01G |                     |
| B*08:50+B*49:01:01  | B*08:62+B*49:10     |                     |
| B*08:50+B*50:01:01  | B*08:62+B*50:13     |                     |
| B*08:50+B*51:57     | B*08:94+B*51:01:01G |                     |
| B*08:50+B*53:21     | B*08:94+B*53:01:01  |                     |
| B*08:50+B*55:16     | B*08:62+B*55:02:01G |                     |
| B*08:50+B*57:10     | B*08:94+B*57:01:01G |                     |

|                     |                     |
|---------------------|---------------------|
| B*08:50+B*57:39     | B*08:62+B*57:03:01  |
| B*08:51+B*40:86     | B*08:69+B*40:177    |
| B*08:51+B*40:109    | B*08:52+B*40:177    |
| B*08:51+B*40:148    | B*08:53+B*40:177    |
| B*08:52+B*13:01:01G | B*08:78+B*13:25     |
| B*08:52+B*15:24     | B*08:78+B*15:87     |
| B*08:52+B*15:94N    | B*08:72N+B*15:87    |
| B*08:52+B*15:105    | B*08:68+B*15:87     |
| B*08:52+B*15:128    | B*08:74+B*15:87     |
| B*08:52+B*15:154    | B*08:60+B*15:87     |
| B*08:52+B*15:165    | B*08:76+B*15:87     |
| B*08:52+B*18:15     | B*08:53+B*18:67     |
| B*08:52+B*18:20     | B*08:74+B*18:67     |
| B*08:52+B*18:69     | B*08:76+B*18:67     |
| B*08:52+B*35:07     | B*08:75+B*53:05     |
| B*08:52+B*35:11:01  | B*08:53+B*53:05     |
| B*08:52+B*35:82     | B*08:65+B*53:05     |
| B*08:52+B*35:108:01 | B*08:59+B*53:05     |
| B*08:52+B*35:180    | B*08:68+B*53:05     |
| B*08:52+B*40:86     | B*08:69+B*40:109    |
| B*08:52+B*40:148    | B*08:53+B*40:109    |
| B*08:52+B*40:157    | B*08:78+B*40:201    |
| B*08:52+B*42:15     | B*08:78+B*42:01:01  |
| B*08:52+B*44:03:01G | B*08:78+B*44:109    |
| B*08:52+B*48:07     | B*08:69+B*48:18     |
| B*08:52+B*48:15     | B*08:53+B*48:18     |
| B*08:52+B*48:23     | B*08:89+B*48:18     |
| B*08:52+B*48:27     | B*08:77+B*48:18     |
| B*08:52+B*52:01:02  | B*08:78+B*52:09     |
| B*08:52+B*53:01:01  | B*08:78+B*53:05     |
| B*08:52+B*53:24     | B*08:78+B*53:16     |
| B*08:52+B*55:12     | B*08:78+B*55:02:01G |
| B*08:53+B*13:28     | B*08:92+B*13:20     |
| B*08:53+B*18:20     | B*08:74+B*18:15     |
| B*08:53+B*18:69     | B*08:76+B*18:15     |
| B*08:53+B*27:02:01  | B*08:78+B*27:40     |
| B*08:53+B*35:07     | B*08:75+B*35:11:01  |
| B*08:53+B*35:30     | B*08:60+B*35:58     |
| B*08:53+B*35:82     | B*08:65+B*35:11:01  |
| B*08:53+B*35:85     | B*08:65+B*35:167    |
| B*08:53+B*35:108:01 | B*08:59+B*35:11:01  |
| B*08:53+B*35:180    | B*08:68+B*35:11:01  |
| B*08:53+B*38:14     | B*08:78+B*39:35     |
| B*08:53+B*38:20     | B*08:60+B*38:32     |
| B*08:53+B*38:38     | B*08:83+B*38:32     |
| B*08:53+B*39:42     | B*08:60+B*39:35     |
| B*08:53+B*40:36     | B*08:69+B*40:183    |
| B*08:53+B*40:86     | B*08:69+B*40:148    |
| B*08:53+B*40:87:02  | B*08:71+B*40:183    |
| B*08:53+B*40:117    | B*08:78+B*40:183    |
| B*08:53+B*40:160    | B*08:60+B*40:183    |
| B*08:53+B*40:172    | B*08:74+B*40:183    |
| B*08:53+B*40:175    | B*08:92+B*40:183    |
| B*08:53+B*40:192    | B*08:64+B*40:183    |
| B*08:53+B*48:07     | B*08:69+B*48:15     |
| B*08:53+B*48:23     | B*08:89+B*48:15     |
| B*08:53+B*48:27     | B*08:77+B*48:15     |
| B*08:53+B*51:122    | B*08:83+B*51:01:01G |
| B*08:53+B*53:02     | B*08:78+B*35:21     |
| B*08:53+B*53:04     | B*08:78+B*35:167    |
| B*08:53+B*53:14     | B*08:78+B*35:58     |
| B*08:53+B*53:26     | B*08:59+B*53:08:01  |
| B*08:53+B*55:13     | B*08:69+B*55:28     |
| B*08:53+B*55:41     | B*08:74+B*55:01:01G |
| B*08:53+B*55:50     | B*08:83+B*55:01:01G |
| B*08:53+B*57:46     | B*08:68+B*57:57     |
| B*08:53+B*58:24     | B*08:91+B*58:19     |
| B*08:54+B*39:01:09  | B*08:65+B*39:13:01  |
| B*08:55+B*39:36     | B*08:70+B*39:35     |
| B*08:55+B*44:02:08  | B*08:86N+B*44:29    |
| B*08:55+B*44:68     | B*08:64+B*44:29     |
| B*08:55+B*44:102    | B*08:68+B*44:29     |
| B*08:55+B*46:09     | B*08:70+B*46:19     |
| B*08:59+B*35:07     | B*08:75+B*35:108:01 |
| B*08:59+B*35:82     | B*08:65+B*35:108:01 |
| B*08:59+B*35:180    | B*08:68+B*35:108:01 |
| B*08:60+B*15:23     | B*08:78+B*15:80     |
| B*08:60+B*15:24     | B*08:78+B*15:154    |
| B*08:60+B*15:94N    | B*08:72N+B*15:154   |
| B*08:60+B*15:105    | B*08:68+B*15:154    |
| B*08:60+B*15:128    | B*08:74+B*15:154    |
| B*08:60+B*15:165    | B*08:76+B*15:154    |
| B*08:60+B*38:14     | B*08:78+B*39:42     |
| B*08:60+B*38:38     | B*08:83+B*38:20     |
| B*08:60+B*40:36     | B*08:69+B*40:160    |
| B*08:60+B*40:87:02  | B*08:71+B*40:160    |
| B*08:60+B*40:117    | B*08:78+B*40:160    |
| B*08:60+B*40:172    | B*08:74+B*40:160    |
| B*08:60+B*40:175    | B*08:92+B*40:160    |
| B*08:60+B*40:192    | B*08:64+B*40:160    |
| B*08:60+B*44:82     | B*08:76+B*44:77     |
| B*08:60+B*53:14     | B*08:78+B*35:30     |
| B*08:62+B*13:14     | B*08:94+B*13:55     |
| B*08:62+B*48:01:01G | B*08:94+B*48:22     |
| B*08:64+B*40:36     | B*08:69+B*40:192    |
| B*08:64+B*40:87:02  | B*08:71+B*40:192    |
| B*08:64+B*40:117    | B*08:78+B*40:192    |
| B*08:64+B*40:172    | B*08:74+B*40:192    |
| B*08:64+B*40:175    | B*08:92+B*40:192    |
| B*08:64+B*44:02:08  | B*08:86N+B*44:68    |
| B*08:64+B*44:102    | B*08:68+B*44:68     |
| B*08:65+B*35:07     | B*08:75+B*35:82     |
| B*08:65+B*35:180    | B*08:68+B*35:82     |
| B*08:65+B*51:13:02  | B*08:69+B*51:22     |
| B*08:65+B*51:41N    | B*08:72N+B*51:22    |

|                         |                        |                  |                 |                 |
|-------------------------|------------------------|------------------|-----------------|-----------------|
| B*08:65+B*51:53         | B*08:68+B*51:22        |                  |                 |                 |
| B*08:65+B*51:128        | B*08:85+B*51:22        |                  |                 |                 |
| B*08:65+B*51:134        | B*08:73+B*51:22        |                  |                 |                 |
| B*08:65+B*53:01:01      | B*08:78+B*35:82        |                  |                 |                 |
| B*08:65+B*53:04         | B*08:78+B*35:85        |                  |                 |                 |
| B*08:68+B*15:24         | B*08:78+B*15:105       |                  |                 |                 |
| B*08:68+B*15:94N        | B*08:72N+B*15:105      |                  |                 |                 |
| B*08:68+B*15:128        | B*08:74+B*15:105       |                  |                 |                 |
| B*08:68+B*15:165        | B*08:76+B*15:105       |                  |                 |                 |
| B*08:68+B*35:07         | B*08:75+B*35:180       |                  |                 |                 |
| B*08:68+B*44:02:08      | B*08:86N+B*44:102      |                  |                 |                 |
| B*08:68+B*44:18         | B*08:78+B*45:11        |                  |                 |                 |
| B*08:68+B*51:13:02      | B*08:69+B*51:53        |                  |                 |                 |
| B*08:68+B*51:41N        | B*08:72N+B*51:53       |                  |                 |                 |
| B*08:68+B*51:128        | B*08:85+B*51:53        |                  |                 |                 |
| B*08:68+B*51:134        | B*08:73+B*51:53        |                  |                 |                 |
| B*08:68+B*52:26         | B*08:87+B*52:29        |                  |                 |                 |
| B*08:68+B*53:01:01      | B*08:78+B*35:180       |                  |                 |                 |
| B*08:68+B*55:53         | B*08:91+B*55:54        |                  |                 |                 |
| B*08:69+B*15:233        | B*08:87+B*15:58        |                  |                 |                 |
| B*08:69+B*40:32         | B*08:79+B*41:18        |                  |                 |                 |
| B*08:69+B*40:87:02      | B*08:71+B*40:36        |                  |                 |                 |
| B*08:69+B*40:117        | B*08:78+B*40:36        |                  |                 |                 |
| B*08:69+B*40:172        | B*08:74+B*40:36        |                  |                 |                 |
| B*08:69+B*40:175        | B*08:92+B*40:36        |                  |                 |                 |
| B*08:69+B*42:10         | B*08:71+B*42:06        |                  |                 |                 |
| B*08:69+B*44:58N        | B*08:72N+B*44:117      |                  |                 |                 |
| B*08:69+B*48:23         | B*08:89+B*48:07        |                  |                 |                 |
| B*08:69+B*48:27         | B*08:77+B*48:07        |                  |                 |                 |
| B*08:69+B*51:41N        | B*08:72N+B*51:13:02    |                  |                 |                 |
| B*08:69+B*51:128        | B*08:85+B*51:13:02     |                  |                 |                 |
| B*08:69+B*51:134        | B*08:73+B*51:13:02     |                  |                 |                 |
| B*08:71+B*40:19         | B*08:78+B*40:35        |                  |                 |                 |
| B*08:71+B*40:20         | B*08:89+B*40:35        |                  |                 |                 |
| B*08:71+B*40:89         | B*08:74+B*40:35        |                  |                 |                 |
| B*08:71+B*40:91         | B*08:83+B*40:35        |                  |                 |                 |
| B*08:71+B*40:117        | B*08:78+B*40:87:02     |                  |                 |                 |
| B*08:71+B*40:172        | B*08:74+B*40:87:02     |                  |                 |                 |
| B*08:71+B*40:175        | B*08:92+B*40:87:02     |                  |                 |                 |
| B*08:72N+B*15:24        | B*08:78+B*15:94N       |                  |                 |                 |
| B*08:72N+B*15:128       | B*08:74+B*15:94N       |                  |                 |                 |
| B*08:72N+B*15:165       | B*08:76+B*15:94N       |                  |                 |                 |
| B*08:72N+B*51:128       | B*08:85+B*51:41N       |                  |                 |                 |
| B*08:72N+B*51:134       | B*08:73+B*51:41N       |                  |                 |                 |
| B*08:73+B*51:128        | B*08:85+B*51:134       |                  |                 |                 |
| B*08:74+B*15:24         | B*08:78+B*15:128       |                  |                 |                 |
| B*08:74+B*15:165        | B*08:76+B*15:128       |                  |                 |                 |
| B*08:74+B*18:69         | B*08:76+B*18:20        |                  |                 |                 |
| B*08:74+B*40:19         | B*08:78+B*40:89        |                  |                 |                 |
| B*08:74+B*40:91         | B*08:83+B*40:89        |                  |                 |                 |
| B*08:74+B*40:117        | B*08:78+B*40:172       |                  |                 |                 |
| B*08:74+B*40:175        | B*08:92+B*40:172       |                  |                 |                 |
| B*08:74+B*55:50         | B*08:83+B*55:41        |                  |                 |                 |
| B*08:75+B*53:01:01      | B*08:78+B*35:07        |                  |                 |                 |
| B*08:76+B*15:24         | B*08:78+B*15:165       |                  |                 |                 |
| B*08:76+B*44:65         | B*08:87+B*44:82        |                  |                 |                 |
| B*08:77+B*48:23         | B*08:89+B*48:27        |                  |                 |                 |
| B*08:78+B*40:20         | B*08:89+B*40:19        |                  |                 |                 |
| B*08:78+B*40:91         | B*08:83+B*40:19        |                  |                 |                 |
| B*08:78+B*40:175        | B*08:92+B*40:117       |                  |                 |                 |
| B*08:79+B*15:212        | B*15:180+B*40:16       |                  |                 |                 |
| B*08:83+B*40:20         | B*08:89+B*40:91        |                  |                 |                 |
| B*13:01:01G+B*13:02:04  | B*13:01:06+B*13:02:01G |                  |                 |                 |
| B*13:01:01G+B*13:16     | B*13:02:01G+B*13:20    |                  |                 |                 |
| B*13:01:01G+B*13:31     | B*13:20+B*13:41        |                  |                 |                 |
| B*13:01:01G+B*13:33     | B*13:02:01G+B*13:17    |                  |                 |                 |
| B*13:01:01G+B*13:45     | B*13:02:01G+B*13:22:02 |                  |                 |                 |
| B*13:01:01G+B*13:48     | B*13:03+B*13:20        |                  |                 |                 |
| B*13:01:01G+B*13:53     | B*13:02:01G+B*13:06    |                  |                 |                 |
| B*13:01:01G+B*13:55     | B*13:02:01G+B*13:23    |                  |                 |                 |
| B*13:01:01G+B*15:01:01G | B*13:17+B*15:183       | B*13:25+B*15:135 |                 |                 |
| B*13:01:01G+B*15:02:01G | B*13:36+B*15:25:01G    |                  |                 |                 |
| B*13:01:01G+B*15:02:05  | B*13:36+B*15:25:02     |                  |                 |                 |
| B*13:01:01G+B*15:03:01G | B*13:20+B*15:123:01G   |                  |                 |                 |
| B*13:01:01G+B*15:08     | B*13:36+B*15:56        |                  |                 |                 |
| B*13:01:01G+B*15:09     | B*13:36+B*15:243       |                  |                 |                 |
| B*13:01:01G+B*15:11:01G | B*13:36+B*15:152       |                  |                 |                 |
| B*13:01:01G+B*15:15     | B*13:36+B*15:01:01G    |                  |                 |                 |
| B*13:01:01G+B*15:16:01  | B*13:20+B*15:222       |                  |                 |                 |
| B*13:01:01G+B*15:18:01G | B*13:39+B*15:115       |                  |                 |                 |
| B*13:01:01G+B*15:30     | B*13:13+B*15:73        |                  |                 |                 |
| B*13:01:01G+B*15:39:01  | B*13:20+B*15:05:01     |                  |                 |                 |
| B*13:01:01G+B*15:39:02  | B*13:20+B*15:05:02     |                  |                 |                 |
| B*13:01:01G+B*15:50     | B*13:06+B*15:117       |                  |                 |                 |
| B*13:01:01G+B*15:64     | B*13:36+B*15:03:01G    |                  |                 |                 |
| B*13:01:01G+B*15:65     | B*13:20+B*15:237       |                  |                 |                 |
| B*13:01:01G+B*15:76     | B*13:36+B*15:101       |                  |                 |                 |
| B*13:01:01G+B*15:87     | B*13:25+B*15:24        |                  |                 |                 |
| B*13:01:01G+B*15:89     | B*13:36+B*15:36        |                  |                 |                 |
| B*13:01:01G+B*15:93     | B*13:06+B*15:238       |                  |                 |                 |
| B*13:01:01G+B*15:131    | B*13:20+B*15:91        |                  |                 |                 |
| B*13:01:01G+B*15:188    | B*13:21+B*15:86        |                  |                 |                 |
| B*13:01:01G+B*15:204    | B*13:23+B*15:25:01G    |                  |                 |                 |
| B*13:01:01G+B*15:210    | B*13:23+B*15:03:01G    |                  |                 |                 |
| B*13:01:01G+B*15:212    | B*13:23+B*15:53        |                  |                 |                 |
| B*13:01:01G+B*15:225    | B*13:23+B*15:01:01G    |                  |                 |                 |
| B*13:01:01G+B*15:238    | B*13:20+B*15:52        |                  |                 |                 |
| B*13:01:01G+B*18:01:01G | B*13:06+B*18:50        | B*13:23+B*18:43  | B*13:25+B*18:49 | B*13:36+B*18:12 |
| B*13:01:01G+B*18:11     | B*13:06+B*18:10        |                  |                 |                 |
| B*13:01:01G+B*18:15     | B*13:20+B*18:01:01G    |                  |                 |                 |
| B*13:01:01G+B*18:30     | B*13:20+B*18:13        |                  |                 |                 |
| B*13:01:01G+B*18:49     | B*13:39+B*18:09        |                  |                 |                 |
| B*13:01:01G+B*18:68     | B*13:23+B*18:25        |                  |                 |                 |
| B*13:01:01G+B*27:04:01G | B*13:20+B*27:61        |                  |                 |                 |
| B*13:01:01G+B*27:05:02G | B*13:23+B*27:37        |                  |                 |                 |

|                         |                         |                       |                    |                    |
|-------------------------|-------------------------|-----------------------|--------------------|--------------------|
| B*13:01:01G+B*27:05:10  | B*13:01:06+B*27:05:02G  |                       |                    |                    |
| B*13:01:01G+B*27:08     | B*13:25+B*27:89         |                       |                    |                    |
| B*13:01:01G+B*27:10     | B*13:20+B*27:05:02G     |                       |                    |                    |
| B*13:01:01G+B*27:15     | B*13:06+B*27:04:01G     |                       |                    |                    |
| B*13:01:01G+B*27:40     | B*13:20+B*27:08         |                       |                    |                    |
| B*13:01:01G+B*27:43     | B*13:43+B*27:07:01G     |                       |                    |                    |
| B*13:01:01G+B*27:71     | B*13:06+B*27:05:02G     |                       |                    |                    |
| B*13:01:01G+B*27:82     | B*13:50+B*27:05:02G     |                       |                    |                    |
| B*13:01:01G+B*35:01:01G | B*13:17+B*35:90         | B*13:25+B*35:27       | B*13:36+B*35:10    | B*13:39+B*53:12    |
| B*13:01:01G+B*35:02:01  | B*13:17+B*35:184        |                       |                    |                    |
| B*13:01:01G+B*35:03:01G | B*13:17+B*35:150        | B*13:25+B*35:56       | B*13:36+B*35:13    |                    |
| B*13:01:01G+B*35:05:02  | B*13:01:04+B*35:05:01   |                       |                    |                    |
| B*13:01:01G+B*35:08:01  | B*13:36+B*35:80         |                       |                    |                    |
| B*13:01:01G+B*35:11:01  | B*13:20+B*35:01:01G     |                       |                    |                    |
| B*13:01:01G+B*35:14:01  | B*13:20+B*35:62         |                       |                    |                    |
| B*13:01:01G+B*35:17     | B*13:36+B*35:16         |                       |                    |                    |
| B*13:01:01G+B*35:20:01  | B*13:36+B*35:28         |                       |                    |                    |
| B*13:01:01G+B*35:21     | B*13:20+B*35:24:01      |                       |                    |                    |
| B*13:01:01G+B*35:27     | B*13:39+B*53:13         |                       |                    |                    |
| B*13:01:01G+B*35:29:01  | B*13:36+B*35:69         |                       |                    |                    |
| B*13:01:01G+B*35:37     | B*13:02:01G+B*35:01:01G | B*13:02:06+B*35:01:17 | B*13:09+B*53:13    | B*13:33+B*35:90    |
|                         | B*13:58+B*35:46         |                       |                    |                    |
| B*13:01:01G+B*35:50     | B*13:23+B*35:197        |                       |                    |                    |
| B*13:01:01G+B*35:58     | B*13:20+B*35:05:01      |                       |                    |                    |
| B*13:01:01G+B*35:68:02  | B*13:11+B*35:01:01G     |                       |                    |                    |
| B*13:01:01G+B*35:93     | B*13:06+B*35:15         |                       |                    |                    |
| B*13:01:01G+B*35:105    | B*13:43+B*35:08:01      |                       |                    |                    |
| B*13:01:01G+B*35:113    | B*13:43+B*35:17         |                       |                    |                    |
| B*13:01:01G+B*35:151    | B*13:11+B*35:03:01G     |                       |                    |                    |
| B*13:01:01G+B*35:159    | B*13:43+B*35:01:01G     |                       |                    |                    |
| B*13:01:01G+B*35:167    | B*13:20+B*35:03:01G     |                       |                    |                    |
| B*13:01:01G+B*35:188    | B*13:20+B*35:190        |                       |                    |                    |
| B*13:01:01G+B*37:13     | B*13:20+B*37:01:01G     |                       |                    |                    |
| B*13:01:01G+B*38:01:01  | B*13:22:02+B*38:38      |                       |                    |                    |
| B*13:01:01G+B*38:01:02  | B*13:01:03+B*38:01:01   |                       |                    |                    |
| B*13:01:01G+B*38:01:03  | B*13:22:01+B*38:38      |                       |                    |                    |
| B*13:01:01G+B*38:02:03  | B*13:36+B*38:04         |                       |                    |                    |
| B*13:01:01G+B*38:10     | B*13:20+B*38:36         |                       |                    |                    |
| B*13:01:01G+B*38:28     | B*13:17+B*38:16         |                       |                    |                    |
| B*13:01:01G+B*38:32     | B*13:20+B*38:01:01      |                       |                    |                    |
| B*13:01:01G+B*39:01:01G | B*13:06+B*39:47         | B*13:36+B*39:22       |                    |                    |
| B*13:01:01G+B*39:01:10  | B*13:01:02+B*39:01:01G  |                       |                    |                    |
| B*13:01:01G+B*39:02:01  | B*13:39+B*38:03         |                       |                    |                    |
| B*13:01:01G+B*39:06:01  | B*13:02:01G+B*39:42     |                       |                    |                    |
| B*13:01:01G+B*39:06:02  | B*13:06+B*39:50         |                       |                    |                    |
| B*13:01:01G+B*39:31     | B*13:23+B*39:01:01G     |                       |                    |                    |
| B*13:01:01G+B*39:35     | B*13:20+B*39:01:01G     |                       |                    |                    |
| B*13:01:01G+B*39:39:01  | B*13:36+B*39:02:01      |                       |                    |                    |
| B*13:01:01G+B*39:62     | B*13:43+B*39:06:02      |                       |                    |                    |
| B*13:01:01G+B*40:01:01G | B*13:13+B*40:48         | B*13:23+B*40:49       |                    |                    |
| B*13:01:01G+B*40:02:01G | B*13:22:02+B*40:91      | B*13:23+B*40:40       | B*13:25+B*40:37    | B*13:39+B*40:201   |
| B*13:01:01G+B*40:06:01G | B*13:02:01G+B*40:64     |                       |                    |                    |
| B*13:01:01G+B*40:11:01  | B*13:11+B*40:64         |                       |                    |                    |
| B*13:01:01G+B*40:21     | B*13:11+B*40:137        |                       |                    |                    |
| B*13:01:01G+B*40:25     | B*13:36+B*40:01:01G     |                       |                    |                    |
| B*13:01:01G+B*40:37     | B*13:39+B*40:157        |                       |                    |                    |
| B*13:01:01G+B*40:39     | B*13:06+B*40:02:01G     |                       |                    |                    |
| B*13:01:01G+B*40:70     | B*13:02:01G+B*40:04     |                       |                    |                    |
| B*13:01:01G+B*40:74     | B*13:23+B*40:210        |                       |                    |                    |
| B*13:01:01G+B*40:106    | B*13:36+B*40:07         |                       |                    |                    |
| B*13:01:01G+B*40:148    | B*13:16+B*40:64         | B*13:20+B*40:06:01G   |                    |                    |
| B*13:01:01G+B*40:175    | B*13:28+B*40:01:01G     |                       |                    |                    |
| B*13:01:01G+B*40:183    | B*13:20+B*40:01:01G     |                       |                    |                    |
| B*13:01:01G+B*40:189    | B*13:29+B*40:02:01G     |                       |                    |                    |
| B*13:01:01G+B*40:198    | B*13:20+B*40:128        |                       |                    |                    |
| B*13:01:01G+B*40:199    | B*13:06+B*40:01:01G     |                       |                    |                    |
| B*13:01:01G+B*40:201    | B*13:25+B*40:157        |                       |                    |                    |
| B*13:01:01G+B*40:202    | B*13:43+B*40:02:01G     |                       |                    |                    |
| B*13:01:01G+B*41:02:01  | B*13:06+B*41:19         |                       |                    |                    |
| B*13:01:01G+B*42:01:01  | B*13:25+B*42:15         |                       |                    |                    |
| B*13:01:01G+B*42:02     | B*13:23+B*42:01:01      |                       |                    |                    |
| B*13:01:01G+B*42:04     | B*13:02:01G+B*42:13     |                       |                    |                    |
| B*13:01:01G+B*42:17     | B*13:23+B*42:10         |                       |                    |                    |
| B*13:01:01G+B*44:12     | B*13:36+B*44:02:01G     |                       |                    |                    |
| B*13:01:01G+B*44:20     | B*13:02:01G+B*44:02:07  |                       |                    |                    |
| B*13:01:01G+B*44:34     | B*13:17+B*44:02:10      |                       |                    |                    |
| B*13:01:01G+B*44:41:01  | B*13:11+B*44:02:07      |                       |                    |                    |
| B*13:01:01G+B*44:46     | B*13:39+B*44:109        |                       |                    |                    |
| B*13:01:01G+B*44:47     | B*13:02:01G+B*44:03:02  |                       |                    |                    |
| B*13:01:01G+B*44:55     | B*13:23+B*44:02:01G     |                       |                    |                    |
| B*13:01:01G+B*44:65     | B*13:11+B*44:03:02      |                       |                    |                    |
| B*13:01:01G+B*44:75     | B*13:39+B*44:05:01      |                       |                    |                    |
| B*13:01:01G+B*44:76     | B*13:20+B*44:28:02      |                       |                    |                    |
| B*13:01:01G+B*44:79     | B*13:20+B*44:03:01G     |                       |                    |                    |
| B*13:01:01G+B*44:98     | B*13:43+B*44:03:01G     |                       |                    |                    |
| B*13:01:01G+B*44:109    | B*13:25+B*44:03:01G     |                       |                    |                    |
| B*13:01:01G+B*44:132    | B*13:06+B*44:16         |                       |                    |                    |
| B*13:01:01G+B*45:01:01G | B*13:39+B*44:15         |                       |                    |                    |
| B*13:01:01G+B*45:08     | B*13:06+B*45:10         |                       |                    |                    |
| B*13:01:01G+B*45:09     | B*13:26+B*45:14         |                       |                    |                    |
| B*13:01:01G+B*46:01:01G | B*13:17+B*46:10         | B*13:20+B*46:09       |                    |                    |
| B*13:01:01G+B*46:08     | B*13:20+B*46:13:03      |                       |                    |                    |
| B*13:01:01G+B*46:14     | B*13:23+B*46:01:01G     |                       |                    |                    |
| B*13:01:01G+B*46:27     | B*13:43+B*46:01:01G     |                       |                    |                    |
| B*13:01:01G+B*46:29     | B*13:06+B*46:30         |                       |                    |                    |
| B*13:01:01G+B*47:08     | B*13:06+B*47:01:01G     |                       |                    |                    |
| B*13:01:01G+B*48:15     | B*13:20+B*48:01:01G     |                       |                    |                    |
| B*13:01:01G+B*48:25     | B*13:20+B*48:02:01      |                       |                    |                    |
| B*13:01:01G+B*49:01:01  | B*13:20+B*49:11         | B*13:23+B*49:10       |                    |                    |
| B*13:01:01G+B*50:01:01  | B*13:23+B*50:13         |                       |                    |                    |
| B*13:01:01G+B*50:15     | B*13:36+B*50:01:01      |                       |                    |                    |
| B*13:01:01G+B*51:01:01G | B*13:02:01G+B*51:04     | B*13:13+B*51:106      | B*13:20+B*51:09:01 | B*13:36+B*52:06:02 |
| B*13:01:01G+B*51:01:02  | B*13:17+B*51:119        | B*13:20+B*51:09:02    |                    |                    |
| B*13:01:01G+B*51:01:24  | B*13:02:03+B*51:04      |                       |                    |                    |
| B*13:01:01G+B*51:01:31  | B*13:01:03+B*51:01:01G  |                       |                    |                    |

|                         |                        |                     |                  |                    |
|-------------------------|------------------------|---------------------|------------------|--------------------|
| B*13:01:01G+B*51:01:33  | B*13:36+B*52:06:01     |                     |                  |                    |
| B*13:01:01G+B*51:02:03  | B*13:01:03+B*51:02:01  |                     |                  |                    |
| B*13:01:01G+B*51:02:05  | B*13:20+B*51:40        |                     |                  |                    |
| B*13:01:01G+B*51:06:01  | B*13:11+B*51:04        |                     |                  |                    |
| B*13:01:01G+B*51:07:01  | B*13:36+B*52:01:02     |                     |                  |                    |
| B*13:01:01G+B*51:07:02  | B*13:36+B*52:01:01G    |                     |                  |                    |
| B*13:01:01G+B*51:09:01  | B*13:22:02+B*51:122    |                     |                  |                    |
| B*13:01:01G+B*51:16     | B*13:20+B*51:31        |                     |                  |                    |
| B*13:01:01G+B*51:21     | B*13:06+B*51:16        |                     |                  |                    |
| B*13:01:01G+B*51:23     | B*13:20+B*51:108       |                     |                  |                    |
| B*13:01:01G+B*51:29     | B*13:18+B*51:04        |                     |                  |                    |
| B*13:01:01G+B*51:38     | B*13:42+B*51:04        |                     |                  |                    |
| B*13:01:01G+B*51:57     | B*13:14+B*51:04        |                     |                  |                    |
| B*13:01:01G+B*51:61:02  | B*13:41+B*51:04        |                     |                  |                    |
| B*13:01:01G+B*52:01:01G | B*13:20+B*52:10:01     |                     |                  |                    |
| B*13:01:01G+B*52:01:05  | B*13:13+B*52:25        |                     |                  |                    |
| B*13:01:01G+B*52:01:07  | B*13:20+B*52:10:02     |                     |                  |                    |
| B*13:01:01G+B*52:01:12  | B*13:01:02+B*52:01:01G |                     |                  |                    |
| B*13:01:01G+B*52:09     | B*13:25+B*52:01:02     |                     |                  |                    |
| B*13:01:01G+B*53:05     | B*13:25+B*53:01:01     |                     |                  |                    |
| B*13:01:01G+B*53:08:01  | B*13:20+B*53:01:01     |                     |                  |                    |
| B*13:01:01G+B*53:08:02  | B*13:20+B*53:01:03     |                     |                  |                    |
| B*13:01:01G+B*53:12     | B*13:25+B*53:13        |                     |                  |                    |
| B*13:01:01G+B*53:16     | B*13:25+B*53:24        |                     |                  |                    |
| B*13:01:01G+B*54:01:01G | B*13:06+B*54:26        |                     |                  |                    |
| B*13:01:01G+B*54:04     | B*13:13+B*54:01:01G    |                     |                  |                    |
| B*13:01:01G+B*54:20     | B*13:20+B*54:10        |                     |                  |                    |
| B*13:01:01G+B*55:01:01G | B*13:06+B*55:24        | B*13:20+B*55:02:01G | B*13:36+B*55:40  |                    |
| B*13:01:01G+B*55:02:01G | B*13:06+B*55:22        | B*13:22:02+B*55:50  | B*13:25+B*55:12  |                    |
| B*13:01:01G+B*55:16     | B*13:23+B*55:02:01G    |                     |                  |                    |
| B*13:01:01G+B*55:17     | B*13:13+B*55:38        |                     |                  |                    |
| B*13:01:01G+B*55:24     | B*13:20+B*55:22        |                     |                  |                    |
| B*13:01:01G+B*55:28     | B*13:13+B*55:01:01G    |                     |                  |                    |
| B*13:01:01G+B*55:47     | B*13:36+B*55:34        |                     |                  |                    |
| B*13:01:01G+B*55:52     | B*13:06+B*55:09        | B*13:20+B*55:37     |                  |                    |
| B*13:01:01G+B*56:01:01G | B*13:17+B*56:36        |                     |                  |                    |
| B*13:01:01G+B*56:15     | B*13:13+B*56:01:01G    |                     |                  |                    |
| B*13:01:01G+B*56:25     | B*13:20+B*56:01:01G    |                     |                  |                    |
| B*13:01:01G+B*56:32     | B*13:20+B*56:18        |                     |                  |                    |
| B*13:01:01G+B*57:01:04  | B*13:01:06+B*57:01:01G |                     |                  |                    |
| B*13:01:01G+B*57:22     | B*13:20+B*57:01:01G    |                     |                  |                    |
| B*13:01:01G+B*57:26     | B*13:06+B*57:25        |                     |                  |                    |
| B*13:01:01G+B*57:39     | B*13:23+B*57:03:01     |                     |                  |                    |
| B*13:01:01G+B*57:57     | B*13:20+B*57:03:01     |                     |                  |                    |
| B*13:01:01G+B*58:06     | B*13:20+B*58:02        |                     |                  |                    |
| B*13:01:01G+B*58:16     | B*13:11+B*58:01:01G    |                     |                  |                    |
| B*13:01:01G+B*58:19     | B*13:20+B*58:01:01G    |                     |                  |                    |
| B*13:01:01G+B*58:35     | B*13:06+B*58:37        |                     |                  |                    |
| B*13:01:01G+B*78:05     | B*13:25+B*78:06        |                     |                  |                    |
| B*13:01:01G+B*78:06     | B*13:39+B*52:20        |                     |                  |                    |
| B*13:01:02+B*39:31      | B*13:23+B*39:01:10     |                     |                  |                    |
| B*13:01:02+B*39:35      | B*13:20+B*39:01:10     |                     |                  |                    |
| B*13:01:02+B*51:07:02   | B*13:36+B*52:01:12     |                     |                  |                    |
| B*13:01:03+B*38:32      | B*13:20+B*38:01:02     |                     |                  |                    |
| B*13:01:04+B*35:58      | B*13:20+B*35:05:02     |                     |                  |                    |
| B*13:01:06+B*13:16      | B*13:02:04+B*13:20     |                     |                  |                    |
| B*13:01:06+B*13:33      | B*13:02:04+B*13:17     |                     |                  |                    |
| B*13:01:06+B*13:45      | B*13:02:04+B*13:22:02  |                     |                  |                    |
| B*13:01:06+B*13:53      | B*13:02:04+B*13:06     |                     |                  |                    |
| B*13:01:06+B*13:55      | B*13:02:04+B*13:23     |                     |                  |                    |
| B*13:01:06+B*27:10      | B*13:20+B*27:05:10     |                     |                  |                    |
| B*13:01:06+B*27:71      | B*13:06+B*27:05:10     |                     |                  |                    |
| B*13:01:06+B*27:82      | B*13:50+B*27:05:10     |                     |                  |                    |
| B*13:01:06+B*35:37      | B*13:02:04+B*35:01:01G |                     |                  |                    |
| B*13:01:06+B*39:06:01   | B*13:02:04+B*39:42     |                     |                  |                    |
| B*13:01:06+B*40:06:01G  | B*13:02:04+B*40:64     |                     |                  |                    |
| B*13:01:06+B*40:70      | B*13:02:04+B*40:04     |                     |                  |                    |
| B*13:01:06+B*42:04      | B*13:02:04+B*42:13     |                     |                  |                    |
| B*13:01:06+B*44:20      | B*13:02:04+B*44:02:07  |                     |                  |                    |
| B*13:01:06+B*44:47      | B*13:02:04+B*44:03:02  |                     |                  |                    |
| B*13:01:06+B*51:01:01G  | B*13:02:04+B*51:04     |                     |                  |                    |
| B*13:01:06+B*57:22      | B*13:20+B*57:01:04     |                     |                  |                    |
| B*13:02:01G+B*13:31     | B*13:16+B*13:41        |                     |                  |                    |
| B*13:02:01G+B*13:48     | B*13:03+B*13:16        |                     |                  |                    |
| B*13:02:01G+B*14:01:01  | B*13:14+B*14:11        |                     |                  |                    |
| B*13:02:01G+B*14:03     | B*13:18+B*14:02:01     |                     |                  |                    |
| B*13:02:01G+B*15:01:01G | B*13:11+B*15:04        | B*13:31+B*15:05:01  | B*13:33+B*15:183 | B*13:41+B*15:39:01 |
| B*13:02:01G+B*15:01:29  | B*13:02:08+B*15:01:01G |                     |                  |                    |
| B*13:02:01G+B*15:02:01G | B*13:09+B*15:89        |                     |                  |                    |
| B*13:02:01G+B*15:03:01G | B*13:16+B*15:123:01G   |                     |                  |                    |
| B*13:02:01G+B*15:04     | B*13:31+B*15:155       |                     |                  |                    |
| B*13:02:01G+B*15:05:01  | B*13:11+B*15:155       |                     |                  |                    |
| B*13:02:01G+B*15:16:01  | B*13:16+B*15:222       |                     |                  |                    |
| B*13:02:01G+B*15:16:03  | B*13:02:06+B*15:16:01  |                     |                  |                    |
| B*13:02:01G+B*15:25:01G | B*13:09+B*15:36        |                     |                  |                    |
| B*13:02:01G+B*15:27:01  | B*13:27+B*15:01:14     | B*13:41+B*15:195    |                  |                    |
| B*13:02:01G+B*15:27:02  | B*13:27+B*15:01:01G    |                     |                  |                    |
| B*13:02:01G+B*15:37     | B*13:15+B*15:10:01     |                     |                  |                    |
| B*13:02:01G+B*15:38:01  | B*13:15+B*15:01:01G    | B*13:31+B*15:185    |                  |                    |
| B*13:02:01G+B*15:39:01  | B*13:16+B*15:05:01     |                     |                  |                    |
| B*13:02:01G+B*15:39:02  | B*13:16+B*15:05:02     |                     |                  |                    |
| B*13:02:01G+B*15:50     | B*13:53+B*15:117       |                     |                  |                    |
| B*13:02:01G+B*15:54     | B*13:31+B*15:123:01G   | B*13:41+B*15:03:01G |                  |                    |
| B*13:02:01G+B*15:65     | B*13:16+B*15:237       | B*13:18+B*15:39:01  |                  |                    |
| B*13:02:01G+B*15:71     | B*13:14+B*15:225       |                     |                  |                    |
| B*13:02:01G+B*15:78:02  | B*13:31+B*15:107       |                     |                  |                    |
| B*13:02:01G+B*15:93     | B*13:53+B*15:238       |                     |                  |                    |
| B*13:02:01G+B*15:99     | B*13:18+B*15:10:01     |                     |                  |                    |
| B*13:02:01G+B*15:117    | B*13:41+B*15:40        |                     |                  |                    |
| B*13:02:01G+B*15:131    | B*13:16+B*15:91        |                     |                  |                    |
| B*13:02:01G+B*15:134    | B*13:44+B*15:18:01G    |                     |                  |                    |
| B*13:02:01G+B*15:139    | B*13:54+B*15:02:01G    |                     |                  |                    |
| B*13:02:01G+B*15:144    | B*13:41+B*15:02:01G    |                     |                  |                    |
| B*13:02:01G+B*15:145    | B*13:32+B*15:01:01G    |                     |                  |                    |
| B*13:02:01G+B*15:176    | B*13:32+B*15:18:01G    |                     |                  |                    |

|                         |                        |                     |                    |                 |
|-------------------------|------------------------|---------------------|--------------------|-----------------|
| B*13:02:01G+B*15:185    | B*13:15+B*15:05:01     |                     |                    |                 |
| B*13:02:01G+B*15:204    | B*13:55+B*15:25:01G    |                     |                    |                 |
| B*13:02:01G+B*15:207    | B*13:34+B*15:07:01G    |                     |                    |                 |
| B*13:02:01G+B*15:210    | B*13:55+B*15:03:01G    |                     |                    |                 |
| B*13:02:01G+B*15:212    | B*13:55+B*15:53        |                     |                    |                 |
| B*13:02:01G+B*15:221    | B*13:18+B*15:18:01G    |                     |                    |                 |
| B*13:02:01G+B*15:225    | B*13:55+B*15:01:01G    |                     |                    |                 |
| B*13:02:01G+B*15:237    | B*13:18+B*15:05:01     |                     |                    |                 |
| B*13:02:01G+B*15:238    | B*13:16+B*15:52        |                     |                    |                 |
| B*13:02:01G+B*15:241    | B*13:41+B*15:138       |                     |                    |                 |
| B*13:02:01G+B*15:249    | B*13:31+B*15:136       |                     |                    |                 |
| B*13:02:01G+B*18:01:01G | B*13:09+B*18:09        | B*13:14+B*18:68     | B*13:15+B*18:11    | B*13:53+B*18:50 |
|                         | B*13:55+B*18:43        |                     |                    |                 |
| B*13:02:01G+B*18:11     | B*13:53+B*18:10        |                     |                    |                 |
| B*13:02:01G+B*18:13     | B*13:18+B*18:01:01G    |                     |                    |                 |
| B*13:02:01G+B*18:15     | B*13:16+B*18:01:01G    |                     |                    |                 |
| B*13:02:01G+B*18:19     | B*13:31+B*18:01:01G    | B*13:41+B*18:15     |                    |                 |
| B*13:02:01G+B*18:30     | B*13:16+B*18:13        | B*13:18+B*18:15     |                    |                 |
| B*13:02:01G+B*18:31     | B*13:32+B*18:01:01G    |                     |                    |                 |
| B*13:02:01G+B*18:36     | B*13:15+B*18:58        |                     |                    |                 |
| B*13:02:01G+B*18:43     | B*13:14+B*18:25        |                     |                    |                 |
| B*13:02:01G+B*18:50     | B*13:15+B*18:10        |                     |                    |                 |
| B*13:02:01G+B*18:68     | B*13:55+B*18:25        |                     |                    |                 |
| B*13:02:01G+B*27:04:01G | B*13:16+B*27:61        |                     |                    |                 |
| B*13:02:01G+B*27:05:02G | B*13:55+B*27:37        |                     |                    |                 |
| B*13:02:01G+B*27:05:06  | B*13:02:03+B*27:05:02G |                     |                    |                 |
| B*13:02:01G+B*27:05:08  | B*13:02:10+B*27:05:02G |                     |                    |                 |
| B*13:02:01G+B*27:05:10  | B*13:02:04+B*27:05:02G |                     |                    |                 |
| B*13:02:01G+B*27:10     | B*13:16+B*27:05:02G    |                     |                    |                 |
| B*13:02:01G+B*27:15     | B*13:53+B*27:04:01G    |                     |                    |                 |
| B*13:02:01G+B*27:25     | B*13:41+B*27:63        |                     |                    |                 |
| B*13:02:01G+B*27:28     | B*13:15+B*27:71        |                     |                    |                 |
| B*13:02:01G+B*27:40     | B*13:16+B*27:08        |                     |                    |                 |
| B*13:02:01G+B*27:44     | B*13:09+B*27:01        |                     |                    |                 |
| B*13:02:01G+B*27:45     | B*13:18+B*27:05:02G    |                     |                    |                 |
| B*13:02:01G+B*27:70     | B*13:11+B*27:81        |                     |                    |                 |
| B*13:02:01G+B*27:71     | B*13:53+B*27:05:02G    |                     |                    |                 |
| B*13:02:01G+B*27:91     | B*13:30+B*27:06        |                     |                    |                 |
| B*13:02:01G+B*35:02:01  | B*13:33+B*35:184       |                     |                    |                 |
| B*13:02:01G+B*35:03:01G | B*13:02:06+B*35:03:07  | B*13:33+B*35:150    |                    |                 |
| B*13:02:01G+B*35:04:01  | B*13:02:06+B*35:04:03  |                     |                    |                 |
| B*13:02:01G+B*35:08:01  | B*13:09+B*53:11        | B*13:18+B*35:01:01G |                    |                 |
| B*13:02:01G+B*35:08:03  | B*13:18+B*35:01:04     |                     |                    |                 |
| B*13:02:01G+B*35:11:01  | B*13:16+B*35:01:01G    | B*13:20+B*35:37     |                    |                 |
| B*13:02:01G+B*35:14:01  | B*13:16+B*35:62        | B*13:31+B*35:01:01G | B*13:41+B*35:11:01 |                 |
| B*13:02:01G+B*35:14:02  | B*13:41+B*35:11:02     |                     |                    |                 |
| B*13:02:01G+B*35:18     | B*13:18+B*35:09:02     |                     |                    |                 |
| B*13:02:01G+B*35:20:01  | B*13:09+B*53:09        |                     |                    |                 |
| B*13:02:01G+B*35:21     | B*13:15+B*35:11:01     | B*13:16+B*35:24:01  |                    |                 |
| B*13:02:01G+B*35:23     | B*13:27+B*35:01:01G    |                     |                    |                 |
| B*13:02:01G+B*35:24:01  | B*13:15+B*35:01:01G    |                     |                    |                 |
| B*13:02:01G+B*35:32:01  | B*13:02:06+B*35:32:02  |                     |                    |                 |
| B*13:02:01G+B*35:45     | B*13:18+B*35:71        |                     |                    |                 |
| B*13:02:01G+B*35:50     | B*13:55+B*35:197       |                     |                    |                 |
| B*13:02:01G+B*35:58     | B*13:16+B*35:05:01     |                     |                    |                 |
| B*13:02:01G+B*35:62     | B*13:41+B*35:01:01G    |                     |                    |                 |
| B*13:02:01G+B*35:68:02  | B*13:11+B*35:37        |                     |                    |                 |
| B*13:02:01G+B*35:78     | B*13:54+B*35:01:01G    |                     |                    |                 |
| B*13:02:01G+B*35:80     | B*13:18+B*35:10        |                     |                    |                 |
| B*13:02:01G+B*35:81     | B*13:15+B*35:02:01     |                     |                    |                 |
| B*13:02:01G+B*35:93     | B*13:26+B*35:60        | B*13:53+B*35:15     |                    |                 |
| B*13:02:01G+B*35:105    | B*13:18+B*35:159       |                     |                    |                 |
| B*13:02:01G+B*35:109    | B*13:15+B*35:03:01G    |                     |                    |                 |
| B*13:02:01G+B*35:142    | B*13:18+B*35:124       |                     |                    |                 |
| B*13:02:01G+B*35:156    | B*13:18+B*35:03:01G    |                     |                    |                 |
| B*13:02:01G+B*35:159    | B*13:43+B*35:37        |                     |                    |                 |
| B*13:02:01G+B*35:163    | B*13:41+B*35:03:01G    |                     |                    |                 |
| B*13:02:01G+B*35:167    | B*13:16+B*35:03:01G    |                     |                    |                 |
| B*13:02:01G+B*35:172    | B*13:18+B*35:02:01     |                     |                    |                 |
| B*13:02:01G+B*35:188    | B*13:16+B*35:190       |                     |                    |                 |
| B*13:02:01G+B*35:190    | B*13:15+B*35:93        |                     |                    |                 |
| B*13:02:01G+B*35:192    | B*13:30+B*35:08:01     |                     |                    |                 |
| B*13:02:01G+B*35:197    | B*13:14+B*35:01:01G    |                     |                    |                 |
| B*13:02:01G+B*37:04:01  | B*13:15+B*37:01:01G    |                     |                    |                 |
| B*13:02:01G+B*37:11     | B*13:09+B*37:10        |                     |                    |                 |
| B*13:02:01G+B*37:13     | B*13:16+B*37:01:01G    |                     |                    |                 |
| B*13:02:01G+B*38:01:01  | B*13:14+B*38:33        | B*13:45+B*38:38     |                    |                 |
| B*13:02:01G+B*38:01:05  | B*13:02:10+B*38:01:01  |                     |                    |                 |
| B*13:02:01G+B*38:10     | B*13:16+B*38:36        |                     |                    |                 |
| B*13:02:01G+B*38:28     | B*13:33+B*38:16        |                     |                    |                 |
| B*13:02:01G+B*38:32     | B*13:16+B*38:01:01     |                     |                    |                 |
| B*13:02:01G+B*39:01:01G | B*13:11+B*39:06:02     | B*13:14+B*39:04     | B*13:53+B*39:47    |                 |
| B*13:02:01G+B*39:05:01  | B*13:09+B*38:02:01G    |                     |                    |                 |
| B*13:02:01G+B*39:06:02  | B*13:53+B*39:50        |                     |                    |                 |
| B*13:02:01G+B*39:11     | B*13:18+B*39:05:01     |                     |                    |                 |
| B*13:02:01G+B*39:18     | B*13:31+B*39:01:05     |                     |                    |                 |
| B*13:02:01G+B*39:30     | B*13:11+B*39:34        |                     |                    |                 |
| B*13:02:01G+B*39:31     | B*13:55+B*39:01:01G    |                     |                    |                 |
| B*13:02:01G+B*39:32     | B*13:15+B*39:74        |                     |                    |                 |
| B*13:02:01G+B*39:35     | B*13:16+B*39:01:01G    |                     |                    |                 |
| B*13:02:01G+B*39:36     | B*13:31+B*39:30        |                     |                    |                 |
| B*13:02:01G+B*39:47     | B*13:11+B*39:50        |                     |                    |                 |
| B*13:02:01G+B*39:48     | B*13:15+B*39:01:01G    |                     |                    |                 |
| B*13:02:01G+B*39:53     | B*13:11+B*39:57        |                     |                    |                 |
| B*13:02:01G+B*39:55     | B*13:09+B*38:29        |                     |                    |                 |
| B*13:02:01G+B*40:01:01G | B*13:09+B*40:47        | B*13:55+B*40:49     |                    |                 |
| B*13:02:01G+B*40:01:10  | B*13:02:03+B*40:01:01G |                     |                    |                 |
| B*13:02:01G+B*40:01:17  | B*13:02:06+B*40:01:01G |                     |                    |                 |
| B*13:02:01G+B*40:02:01G | B*13:09+B*40:157       | B*13:45+B*40:91     | B*13:55+B*40:40    |                 |
| B*13:02:01G+B*40:02:08  | B*13:02:06+B*40:02:01G |                     |                    |                 |
| B*13:02:01G+B*40:02:11  | B*13:02:03+B*40:02:01G |                     |                    |                 |
| B*13:02:01G+B*40:05     | B*13:48+B*40:91        |                     |                    |                 |
| B*13:02:01G+B*40:06:01G | B*13:09+B*40:96        | B*13:14+B*40:53     |                    |                 |
| B*13:02:01G+B*40:11:01  | B*13:11+B*40:06:01G    |                     |                    |                 |
| B*13:02:01G+B*40:20     | B*13:11+B*40:159       |                     |                    |                 |

|                         |                        |                     |                    |                 |
|-------------------------|------------------------|---------------------|--------------------|-----------------|
| B*13:02:01G+B*40:39     | B*13:53+B*40:02:01G    |                     |                    |                 |
| B*13:02:01G+B*40:67     | B*13:32+B*40:01:01G    |                     |                    |                 |
| B*13:02:01G+B*40:74     | B*13:14+B*40:01:01G    | B*13:55+B*40:210    |                    |                 |
| B*13:02:01G+B*40:98     | B*13:14+B*40:32        |                     |                    |                 |
| B*13:02:01G+B*40:100    | B*13:27+B*40:01:04     |                     |                    |                 |
| B*13:02:01G+B*40:113    | B*13:15+B*40:01:01G    |                     |                    |                 |
| B*13:02:01G+B*40:128    | B*13:18+B*40:01:01G    |                     |                    |                 |
| B*13:02:01G+B*40:143    | B*13:27+B*40:02:01G    |                     |                    |                 |
| B*13:02:01G+B*40:148    | B*13:16+B*40:06:01G    |                     |                    |                 |
| B*13:02:01G+B*40:161    | B*13:18+B*40:148       |                     |                    |                 |
| B*13:02:01G+B*40:174    | B*13:15+B*40:05        |                     |                    |                 |
| B*13:02:01G+B*40:183    | B*13:16+B*40:01:01G    |                     |                    |                 |
| B*13:02:01G+B*40:198    | B*13:16+B*40:128       | B*13:18+B*40:183    |                    |                 |
| B*13:02:01G+B*40:199    | B*13:53+B*40:01:01G    |                     |                    |                 |
| B*13:02:01G+B*40:204    | B*13:19+B*40:01:01G    |                     |                    |                 |
| B*13:02:01G+B*40:210    | B*13:14+B*40:49        |                     |                    |                 |
| B*13:02:01G+B*41:02:01  | B*13:53+B*41:19        |                     |                    |                 |
| B*13:02:01G+B*41:11     | B*13:30+B*41:02:01     |                     |                    |                 |
| B*13:02:01G+B*42:02     | B*13:55+B*42:01:01     |                     |                    |                 |
| B*13:02:01G+B*42:17     | B*13:55+B*42:10        |                     |                    |                 |
| B*13:02:01G+B*44:03:08  | B*13:02:03+B*44:03:01G |                     |                    |                 |
| B*13:02:01G+B*44:09     | B*13:09+B*44:02:01G    |                     |                    |                 |
| B*13:02:01G+B*44:28:01  | B*13:18+B*44:03:02     |                     |                    |                 |
| B*13:02:01G+B*44:28:02  | B*13:18+B*44:03:01G    |                     |                    |                 |
| B*13:02:01G+B*44:34     | B*13:33+B*44:02:10     |                     |                    |                 |
| B*13:02:01G+B*44:41:01  | B*13:11+B*44:20        |                     |                    |                 |
| B*13:02:01G+B*44:46     | B*13:09+B*44:03:01G    |                     |                    |                 |
| B*13:02:01G+B*44:55     | B*13:55+B*44:02:01G    |                     |                    |                 |
| B*13:02:01G+B*44:65     | B*13:11+B*44:47        |                     |                    |                 |
| B*13:02:01G+B*44:76     | B*13:16+B*44:28:02     | B*13:18+B*44:79     |                    |                 |
| B*13:02:01G+B*44:79     | B*13:16+B*44:03:01G    |                     |                    |                 |
| B*13:02:01G+B*44:132    | B*13:53+B*44:16        |                     |                    |                 |
| B*13:02:01G+B*44:142Q   | B*13:08Q+B*44:02:01G   |                     |                    |                 |
| B*13:02:01G+B*44:146    | B*13:31+B*44:03:01G    | B*13:41+B*44:79     |                    |                 |
| B*13:02:01G+B*45:08     | B*13:53+B*45:10        |                     |                    |                 |
| B*13:02:01G+B*46:01:01G | B*13:11+B*46:32        | B*13:16+B*46:09     | B*13:31+B*46:13:03 | B*13:33+B*46:10 |
|                         | B*13:41+B*46:08        |                     |                    |                 |
| B*13:02:01G+B*46:01:03  | B*13:31+B*46:13:01     |                     |                    |                 |
| B*13:02:01G+B*46:01:07  | B*13:02:06+B*46:01:01G |                     |                    |                 |
| B*13:02:01G+B*46:08     | B*13:16+B*46:13:03     |                     |                    |                 |
| B*13:02:01G+B*46:09     | B*13:41+B*46:13:03     |                     |                    |                 |
| B*13:02:01G+B*46:14     | B*13:55+B*46:01:01G    |                     |                    |                 |
| B*13:02:01G+B*46:29     | B*13:31+B*46:21:01     | B*13:53+B*46:30     |                    |                 |
| B*13:02:01G+B*46:33     | B*13:26+B*46:11        |                     |                    |                 |
| B*13:02:01G+B*47:06     | B*13:32+B*47:01:01G    |                     |                    |                 |
| B*13:02:01G+B*47:08     | B*13:53+B*47:01:01G    |                     |                    |                 |
| B*13:02:01G+B*48:15     | B*13:16+B*48:01:01G    |                     |                    |                 |
| B*13:02:01G+B*48:19     | B*13:41+B*48:01:01G    |                     |                    |                 |
| B*13:02:01G+B*48:25     | B*13:16+B*48:02:01     |                     |                    |                 |
| B*13:02:01G+B*49:01:01  | B*13:16+B*49:11        | B*13:55+B*49:10     |                    |                 |
| B*13:02:01G+B*49:09     | B*13:15+B*49:01:01     |                     |                    |                 |
| B*13:02:01G+B*50:01:01  | B*13:09+B*49:02        | B*13:55+B*50:13     |                    |                 |
| B*13:02:01G+B*51:01:01G | B*13:15+B*51:02:01     | B*13:16+B*51:09:01  |                    |                 |
| B*13:02:01G+B*51:01:02  | B*13:15+B*51:02:02     | B*13:16+B*51:09:02  | B*13:33+B*51:119   |                 |
| B*13:02:01G+B*51:01:04  | B*13:15+B*51:02:04     |                     |                    |                 |
| B*13:02:01G+B*51:01:24  | B*13:02:03+B*51:01:01G |                     |                    |                 |
| B*13:02:01G+B*51:01:31  | B*13:15+B*51:02:03     |                     |                    |                 |
| B*13:02:01G+B*51:02:02  | B*13:48+B*51:93        |                     |                    |                 |
| B*13:02:01G+B*51:02:05  | B*13:16+B*51:40        |                     |                    |                 |
| B*13:02:01G+B*51:06:01  | B*13:11+B*51:01:01G    | B*13:15+B*51:59     |                    |                 |
| B*13:02:01G+B*51:09:01  | B*13:45+B*51:122       |                     |                    |                 |
| B*13:02:01G+B*51:16     | B*13:15+B*51:34        | B*13:16+B*51:31     |                    |                 |
| B*13:02:01G+B*51:21     | B*13:53+B*51:16        |                     |                    |                 |
| B*13:02:01G+B*51:23     | B*13:16+B*51:108       |                     |                    |                 |
| B*13:02:01G+B*51:29     | B*13:18+B*51:01:01G    |                     |                    |                 |
| B*13:02:01G+B*51:38     | B*13:42+B*51:01:01G    |                     |                    |                 |
| B*13:02:01G+B*51:57     | B*13:14+B*51:01:01G    |                     |                    |                 |
| B*13:02:01G+B*51:59     | B*13:11+B*51:02:01     |                     |                    |                 |
| B*13:02:01G+B*51:61:02  | B*13:31+B*51:09:01     | B*13:41+B*51:01:01G |                    |                 |
| B*13:02:01G+B*51:82     | B*13:18+B*51:16        |                     |                    |                 |
| B*13:02:01G+B*51:135    | B*13:11+B*51:90        |                     |                    |                 |
| B*13:02:01G+B*52:01:01G | B*13:15+B*52:11        | B*13:16+B*52:10:01  |                    |                 |
| B*13:02:01G+B*52:01:07  | B*13:16+B*52:10:02     |                     |                    |                 |
| B*13:02:01G+B*52:21     | B*13:41+B*52:01:02     |                     |                    |                 |
| B*13:02:01G+B*52:24     | B*13:18+B*52:01:01G    |                     |                    |                 |
| B*13:02:01G+B*52:28     | B*13:32+B*52:01:01G    |                     |                    |                 |
| B*13:02:01G+B*53:01:01  | B*13:26+B*51:15        |                     |                    |                 |
| B*13:02:01G+B*53:02     | B*13:15+B*53:01:01     |                     |                    |                 |
| B*13:02:01G+B*53:08:01  | B*13:16+B*53:01:01     |                     |                    |                 |
| B*13:02:01G+B*53:08:02  | B*13:16+B*53:01:03     |                     |                    |                 |
| B*13:02:01G+B*53:11     | B*13:18+B*53:13        |                     |                    |                 |
| B*13:02:01G+B*53:16     | B*13:18+B*53:05        |                     |                    |                 |
| B*13:02:01G+B*53:21     | B*13:14+B*53:01:01     |                     |                    |                 |
| B*13:02:01G+B*53:24     | B*13:18+B*53:01:01     |                     |                    |                 |
| B*13:02:01G+B*54:01:01G | B*13:53+B*54:26        |                     |                    |                 |
| B*13:02:01G+B*54:10     | B*13:18+B*54:01:01G    |                     |                    |                 |
| B*13:02:01G+B*54:20     | B*13:16+B*54:10        |                     |                    |                 |
| B*13:02:01G+B*55:01:01G | B*13:16+B*55:02:01G    | B*13:53+B*55:24     |                    |                 |
| B*13:02:01G+B*55:02:01G | B*13:45+B*55:50        | B*13:53+B*55:22     |                    |                 |
| B*13:02:01G+B*55:09     | B*13:18+B*55:24        |                     |                    |                 |
| B*13:02:01G+B*55:16     | B*13:55+B*55:02:01G    |                     |                    |                 |
| B*13:02:01G+B*55:21     | B*13:31+B*55:02:01G    | B*13:41+B*55:01:01G |                    |                 |
| B*13:02:01G+B*55:24     | B*13:16+B*55:22        |                     |                    |                 |
| B*13:02:01G+B*55:37     | B*13:18+B*55:02:01G    |                     |                    |                 |
| B*13:02:01G+B*55:52     | B*13:16+B*55:37        | B*13:18+B*55:01:01G | B*13:53+B*55:09    |                 |
| B*13:02:01G+B*56:01:01G | B*13:09+B*56:07        | B*13:33+B*56:36     |                    |                 |
| B*13:02:01G+B*56:02     | B*13:11+B*56:01:01G    |                     |                    |                 |
| B*13:02:01G+B*56:04     | B*13:11+B*56:27        |                     |                    |                 |
| B*13:02:01G+B*56:09     | B*13:26+B*56:01:01G    |                     |                    |                 |
| B*13:02:01G+B*56:10     | B*13:11+B*55:02:01G    |                     |                    |                 |
| B*13:02:01G+B*56:25     | B*13:16+B*56:01:01G    |                     |                    |                 |
| B*13:02:01G+B*56:31     | B*13:15+B*56:18        |                     |                    |                 |
| B*13:02:01G+B*56:32     | B*13:16+B*56:18        |                     |                    |                 |
| B*13:02:01G+B*56:34     | B*13:15+B*56:01:01G    |                     |                    |                 |
| B*13:02:01G+B*57:01:04  | B*13:02:04+B*57:01:01G |                     |                    |                 |

|                        |                       |                     |
|------------------------|-----------------------|---------------------|
| B*13:02:01G+B*57:02:01 | B*13:18+B*57:03:01    |                     |
| B*13:02:01G+B*57:10    | B*13:14+B*57:01:01G   |                     |
| B*13:02:01G+B*57:19    | B*13:18+B*57:01:01G   |                     |
| B*13:02:01G+B*57:22    | B*13:16+B*57:01:01G   |                     |
| B*13:02:01G+B*57:26    | B*13:53+B*57:25       |                     |
| B*13:02:01G+B*57:39    | B*13:55+B*57:03:01    |                     |
| B*13:02:01G+B*57:57    | B*13:16+B*57:03:01    |                     |
| B*13:02:01G+B*58:06    | B*13:16+B*58:02       |                     |
| B*13:02:01G+B*58:09    | B*13:15+B*58:01:01G   |                     |
| B*13:02:01G+B*58:19    | B*13:16+B*58:01:01G   |                     |
| B*13:02:01G+B*58:22    | B*13:18+B*58:01:01G   |                     |
| B*13:02:01G+B*58:35    | B*13:53+B*58:37       |                     |
| B*13:02:01G+B*78:02:01 | B*13:09+B*51:78:02    |                     |
| B*13:02:01G+B*78:02:02 | B*13:09+B*51:78:01    |                     |
| B*13:02:01G+B*78:05    | B*13:09+B*52:20       |                     |
| B*13:02:03+B*27:05:08  | B*13:02:10+B*27:05:06 |                     |
| B*13:02:03+B*27:05:10  | B*13:02:04+B*27:05:06 |                     |
| B*13:02:03+B*27:10     | B*13:16+B*27:05:06    |                     |
| B*13:02:03+B*27:45     | B*13:18+B*27:05:06    |                     |
| B*13:02:03+B*27:71     | B*13:53+B*27:05:06    |                     |
| B*13:02:03+B*40:01:17  | B*13:02:06+B*40:01:10 |                     |
| B*13:02:03+B*40:02:08  | B*13:02:06+B*40:02:11 |                     |
| B*13:02:03+B*40:39     | B*13:53+B*40:02:11    |                     |
| B*13:02:03+B*40:67     | B*13:32+B*40:01:10    |                     |
| B*13:02:03+B*40:74     | B*13:14+B*40:01:10    |                     |
| B*13:02:03+B*40:113    | B*13:15+B*40:01:10    |                     |
| B*13:02:03+B*40:128    | B*13:18+B*40:01:10    |                     |
| B*13:02:03+B*40:143    | B*13:27+B*40:02:11    |                     |
| B*13:02:03+B*40:183    | B*13:16+B*40:01:10    |                     |
| B*13:02:03+B*40:199    | B*13:53+B*40:01:10    |                     |
| B*13:02:03+B*40:204    | B*13:19+B*40:01:10    |                     |
| B*13:02:03+B*44:28:02  | B*13:18+B*44:03:08    |                     |
| B*13:02:03+B*44:46     | B*13:09+B*44:03:08    |                     |
| B*13:02:03+B*44:79     | B*13:16+B*44:03:08    |                     |
| B*13:02:03+B*44:146    | B*13:31+B*44:03:08    |                     |
| B*13:02:03+B*51:06:01  | B*13:11+B*51:01:24    |                     |
| B*13:02:03+B*51:29     | B*13:18+B*51:01:24    |                     |
| B*13:02:03+B*51:38     | B*13:42+B*51:01:24    |                     |
| B*13:02:03+B*51:57     | B*13:14+B*51:01:24    |                     |
| B*13:02:03+B*51:61:02  | B*13:41+B*51:01:24    |                     |
| B*13:02:04+B*27:05:08  | B*13:02:10+B*27:05:10 |                     |
| B*13:02:04+B*27:10     | B*13:16+B*27:05:10    |                     |
| B*13:02:04+B*27:45     | B*13:18+B*27:05:10    |                     |
| B*13:02:04+B*27:71     | B*13:53+B*27:05:10    |                     |
| B*13:02:04+B*57:10     | B*13:14+B*57:01:04    |                     |
| B*13:02:04+B*57:19     | B*13:18+B*57:01:04    |                     |
| B*13:02:04+B*57:22     | B*13:16+B*57:01:04    |                     |
| B*13:02:06+B*40:39     | B*13:53+B*40:02:08    |                     |
| B*13:02:06+B*40:67     | B*13:32+B*40:01:17    |                     |
| B*13:02:06+B*40:74     | B*13:14+B*40:01:17    |                     |
| B*13:02:06+B*40:113    | B*13:15+B*40:01:17    |                     |
| B*13:02:06+B*40:128    | B*13:18+B*40:01:17    |                     |
| B*13:02:06+B*40:143    | B*13:27+B*40:02:08    |                     |
| B*13:02:06+B*40:183    | B*13:16+B*40:01:17    |                     |
| B*13:02:06+B*40:199    | B*13:53+B*40:01:17    |                     |
| B*13:02:06+B*40:204    | B*13:19+B*40:01:17    |                     |
| B*13:02:06+B*46:14     | B*13:55+B*46:01:07    |                     |
| B*13:02:08+B*15:27:02  | B*13:27+B*15:01:29    |                     |
| B*13:02:08+B*15:38:01  | B*13:15+B*15:01:29    |                     |
| B*13:02:08+B*15:145    | B*13:32+B*15:01:29    |                     |
| B*13:02:08+B*15:225    | B*13:55+B*15:01:29    |                     |
| B*13:02:10+B*27:10     | B*13:16+B*27:05:08    |                     |
| B*13:02:10+B*27:45     | B*13:18+B*27:05:08    |                     |
| B*13:02:10+B*27:71     | B*13:53+B*27:05:08    |                     |
| B*13:02:10+B*38:32     | B*13:16+B*38:01:05    |                     |
| B*13:03+B*13:31        | B*13:41+B*13:48       |                     |
| B*13:03+B*15:03:01G    | B*13:48+B*15:123:01G  |                     |
| B*13:03+B*15:16:01     | B*13:48+B*15:222      |                     |
| B*13:03+B*15:39:01     | B*13:48+B*15:05:01    |                     |
| B*13:03+B*15:39:02     | B*13:48+B*15:05:02    |                     |
| B*13:03+B*15:40        | B*13:45+B*15:39:01    |                     |
| B*13:03+B*15:65        | B*13:48+B*15:237      |                     |
| B*13:03+B*15:117       | B*13:45+B*15:01:01G   |                     |
| B*13:03+B*15:131       | B*13:48+B*15:91       |                     |
| B*13:03+B*15:238       | B*13:45+B*15:18:01G   | B*13:48+B*15:52     |
| B*13:03+B*18:10        | B*13:45+B*18:58       |                     |
| B*13:03+B*18:15        | B*13:48+B*18:01:01G   |                     |
| B*13:03+B*18:30        | B*13:48+B*18:13       |                     |
| B*13:03+B*18:50        | B*13:45+B*18:36       |                     |
| B*13:03+B*27:04:01G    | B*13:45+B*27:63       | B*13:48+B*27:61     |
| B*13:03+B*27:05:02G    | B*13:45+B*27:38       |                     |
| B*13:03+B*27:10        | B*13:48+B*27:05:02G   |                     |
| B*13:03+B*27:40        | B*13:48+B*27:08       |                     |
| B*13:03+B*35:11:01     | B*13:48+B*35:01:01G   |                     |
| B*13:03+B*35:14:01     | B*13:48+B*35:62       |                     |
| B*13:03+B*35:15        | B*13:22:02+B*35:37    | B*13:45+B*35:01:01G |
| B*13:03+B*35:21        | B*13:48+B*35:24:01    |                     |
| B*13:03+B*35:33        | B*13:45+B*35:03:01G   |                     |
| B*13:03+B*35:58        | B*13:48+B*35:05:01    |                     |
| B*13:03+B*35:86        | B*13:45+B*35:43:01G   |                     |
| B*13:03+B*35:167       | B*13:48+B*35:03:01G   |                     |
| B*13:03+B*35:188       | B*13:48+B*35:190      |                     |
| B*13:03+B*37:13        | B*13:48+B*37:01:01G   |                     |
| B*13:03+B*38:10        | B*13:48+B*38:36       |                     |
| B*13:03+B*38:32        | B*13:48+B*38:01:01    |                     |
| B*13:03+B*39:35        | B*13:48+B*39:01:01G   |                     |
| B*13:03+B*39:47        | B*13:45+B*39:74       |                     |
| B*13:03+B*40:01:01G    | B*13:45+B*40:63       |                     |
| B*13:03+B*40:148       | B*13:48+B*40:06:01G   |                     |
| B*13:03+B*40:183       | B*13:48+B*40:01:01G   |                     |
| B*13:03+B*40:198       | B*13:48+B*40:128      |                     |
| B*13:03+B*44:16        | B*13:45+B*44:91       |                     |
| B*13:03+B*44:21        | B*13:45+B*44:02:01G   |                     |
| B*13:03+B*44:64:01     | B*13:45+B*44:37:02    |                     |
| B*13:03+B*44:64:02     | B*13:45+B*44:37:01    |                     |



|                     |                     |                    |
|---------------------|---------------------|--------------------|
| B*13:03+B*44:76     | B*13:48+B*44:28:02  |                    |
| B*13:03+B*44:79     | B*13:48+B*44:03:01G |                    |
| B*13:03+B*44:124    | B*13:22:02+B*44:47  | B*13:45+B*44:03:02 |
| B*13:03+B*45:10     | B*13:45+B*45:04     |                    |
| B*13:03+B*46:01:01G | B*13:48+B*46:09     |                    |
| B*13:03+B*46:08     | B*13:48+B*46:13:03  |                    |
| B*13:03+B*46:30     | B*13:45+B*46:01:01G |                    |
| B*13:03+B*48:15     | B*13:48+B*48:01:01G |                    |
| B*13:03+B*48:25     | B*13:48+B*48:02:01  |                    |
| B*13:03+B*49:01:01  | B*13:48+B*49:11     |                    |
| B*13:03+B*49:07     | B*13:45+B*49:01:01  |                    |
| B*13:03+B*51:01:01G | B*13:48+B*51:09:01  |                    |
| B*13:03+B*51:01:02  | B*13:48+B*51:09:02  |                    |
| B*13:03+B*51:02:05  | B*13:48+B*51:40     |                    |
| B*13:03+B*51:16     | B*13:45+B*51:01:01G | B*13:48+B*51:31    |
| B*13:03+B*51:23     | B*13:48+B*51:108    |                    |
| B*13:03+B*51:31     | B*13:45+B*51:09:01  |                    |
| B*13:03+B*51:34     | B*13:45+B*51:02:01  |                    |
| B*13:03+B*51:82     | B*13:45+B*51:29     |                    |
| B*13:03+B*52:01:01G | B*13:48+B*52:10:01  |                    |
| B*13:03+B*52:01:07  | B*13:48+B*52:10:02  |                    |
| B*13:03+B*52:08     | B*13:45+B*52:01:01G |                    |
| B*13:03+B*53:08:01  | B*13:48+B*53:01:01  |                    |
| B*13:03+B*53:08:02  | B*13:48+B*53:01:03  |                    |
| B*13:03+B*54:20     | B*13:48+B*54:10     |                    |
| B*13:03+B*54:26     | B*13:45+B*54:03     |                    |
| B*13:03+B*55:01:01G | B*13:48+B*55:02:01G |                    |
| B*13:03+B*55:22     | B*13:45+B*56:01:01G |                    |
| B*13:03+B*55:24     | B*13:45+B*56:25     | B*13:48+B*55:22    |
| B*13:03+B*55:50     | B*13:53+B*56:01:01G |                    |
| B*13:03+B*55:52     | B*13:48+B*55:37     |                    |
| B*13:03+B*56:25     | B*13:48+B*56:01:01G |                    |
| B*13:03+B*56:32     | B*13:48+B*56:18     |                    |
| B*13:03+B*57:22     | B*13:48+B*57:01:01G |                    |
| B*13:03+B*57:25     | B*13:45+B*57:01:01G |                    |
| B*13:03+B*57:57     | B*13:48+B*57:03:01  |                    |
| B*13:03+B*58:06     | B*13:48+B*58:02     |                    |
| B*13:03+B*58:19     | B*13:48+B*58:01:01G |                    |
| B*13:03+B*58:37     | B*13:45+B*58:01:01G |                    |
| B*13:06+B*13:16     | B*13:20+B*13:53     |                    |
| B*13:06+B*13:33     | B*13:17+B*13:53     |                    |
| B*13:06+B*13:45     | B*13:22:02+B*13:53  |                    |
| B*13:06+B*13:55     | B*13:23+B*13:53     |                    |
| B*13:06+B*27:10     | B*13:20+B*27:71     |                    |
| B*13:06+B*27:82     | B*13:50+B*27:71     |                    |
| B*13:06+B*35:37     | B*13:53+B*35:01:01G |                    |
| B*13:06+B*39:06:01  | B*13:53+B*39:42     |                    |
| B*13:06+B*40:06:01G | B*13:53+B*40:64     |                    |
| B*13:06+B*40:25     | B*13:36+B*40:199    |                    |
| B*13:06+B*40:70     | B*13:53+B*40:04     |                    |
| B*13:06+B*40:175    | B*13:28+B*40:199    |                    |
| B*13:06+B*40:183    | B*13:20+B*40:199    |                    |
| B*13:06+B*40:189    | B*13:29+B*40:39     |                    |
| B*13:06+B*40:202    | B*13:43+B*40:39     |                    |
| B*13:06+B*42:04     | B*13:53+B*42:13     |                    |
| B*13:06+B*44:20     | B*13:53+B*44:02:07  |                    |
| B*13:06+B*44:47     | B*13:53+B*44:03:02  |                    |
| B*13:06+B*51:01:01G | B*13:53+B*51:04     |                    |
| B*13:08Q+B*44:09    | B*13:09+B*44:142Q   |                    |
| B*13:08Q+B*44:55    | B*13:55+B*44:142Q   |                    |
| B*13:09+B*35:27     | B*13:39+B*35:37     |                    |
| B*13:09+B*44:28:02  | B*13:18+B*44:46     |                    |
| B*13:09+B*44:55     | B*13:55+B*44:09     |                    |
| B*13:09+B*44:79     | B*13:16+B*44:46     |                    |
| B*13:09+B*44:146    | B*13:31+B*44:46     |                    |
| B*13:09+B*51:54     | B*13:18+B*78:04     |                    |
| B*13:09+B*53:12     | B*13:25+B*35:37     |                    |
| B*13:10+B*15:62     | B*13:26+B*15:156    |                    |
| B*13:10+B*15:85     | B*13:26+B*15:128    |                    |
| B*13:10+B*35:06     | B*13:51+B*35:32:01  |                    |
| B*13:11+B*15:02:01G | B*13:20+B*15:31     |                    |
| B*13:11+B*15:144    | B*13:36+B*15:128    |                    |
| B*13:11+B*15:223    | B*13:36+B*15:39:01  |                    |
| B*13:11+B*35:11:01  | B*13:20+B*35:68:02  |                    |
| B*13:11+B*35:159    | B*13:43+B*35:68:02  |                    |
| B*13:11+B*35:167    | B*13:20+B*35:151    |                    |
| B*13:11+B*40:148    | B*13:16+B*40:11:01  |                    |
| B*13:11+B*51:29     | B*13:18+B*51:06:01  |                    |
| B*13:11+B*51:38     | B*13:42+B*51:06:01  |                    |
| B*13:11+B*51:57     | B*13:14+B*51:06:01  |                    |
| B*13:11+B*51:61:02  | B*13:41+B*51:06:01  |                    |
| B*13:11+B*55:01:01G | B*13:16+B*56:10     |                    |
| B*13:11+B*55:16     | B*13:55+B*56:10     |                    |
| B*13:11+B*55:21     | B*13:31+B*56:10     |                    |
| B*13:11+B*55:37     | B*13:18+B*56:10     |                    |
| B*13:11+B*56:09     | B*13:26+B*56:02     |                    |
| B*13:11+B*56:25     | B*13:16+B*56:02     |                    |
| B*13:11+B*56:34     | B*13:15+B*56:02     |                    |
| B*13:11+B*58:19     | B*13:20+B*58:16     |                    |
| B*13:13+B*14:05     | B*13:51+B*14:13     |                    |
| B*13:13+B*27:35     | B*13:51+B*27:27     |                    |
| B*13:13+B*35:01:01G | B*13:26+B*35:04:03  |                    |
| B*13:13+B*44:117    | B*13:51+B*44:123    |                    |
| B*13:13+B*56:25     | B*13:20+B*56:15     |                    |
| B*13:13+B*58:01:01G | B*13:26+B*56:28     |                    |
| B*13:14+B*35:08:01  | B*13:18+B*35:197    |                    |
| B*13:14+B*35:11:01  | B*13:16+B*35:197    |                    |
| B*13:14+B*35:14:01  | B*13:31+B*35:197    |                    |
| B*13:14+B*35:23     | B*13:27+B*35:197    |                    |
| B*13:14+B*35:24:01  | B*13:15+B*35:197    |                    |
| B*13:14+B*35:62     | B*13:41+B*35:197    |                    |
| B*13:14+B*35:78     | B*13:54+B*35:197    |                    |
| B*13:14+B*40:67     | B*13:32+B*40:74     |                    |
| B*13:14+B*40:113    | B*13:15+B*40:74     |                    |
| B*13:14+B*40:128    | B*13:18+B*40:74     |                    |

|                     |                     |                  |
|---------------------|---------------------|------------------|
| B*13:14+B*40:183    | B*13:16+B*40:74     |                  |
| B*13:14+B*40:199    | B*13:53+B*40:74     |                  |
| B*13:14+B*40:204    | B*13:19+B*40:74     |                  |
| B*13:14+B*48:22     | B*13:55+B*48:01:01G |                  |
| B*13:14+B*51:29     | B*13:18+B*51:57     |                  |
| B*13:14+B*51:38     | B*13:42+B*51:57     |                  |
| B*13:14+B*51:61:02  | B*13:41+B*51:57     |                  |
| B*13:14+B*53:02     | B*13:15+B*53:21     |                  |
| B*13:14+B*53:08:01  | B*13:16+B*53:21     |                  |
| B*13:14+B*53:24     | B*13:18+B*53:21     |                  |
| B*13:14+B*57:19     | B*13:18+B*57:10     |                  |
| B*13:14+B*57:22     | B*13:16+B*57:10     |                  |
| B*13:15+B*15:27:02  | B*13:27+B*15:38:01  |                  |
| B*13:15+B*15:39:01  | B*13:16+B*15:185    |                  |
| B*13:15+B*15:99     | B*13:18+B*15:37     |                  |
| B*13:15+B*15:145    | B*13:32+B*15:38:01  |                  |
| B*13:15+B*15:225    | B*13:55+B*15:38:01  |                  |
| B*13:15+B*15:237    | B*13:18+B*15:185    |                  |
| B*13:15+B*35:08:01  | B*13:18+B*35:24:01  |                  |
| B*13:15+B*35:14:01  | B*13:31+B*35:24:01  | B*13:41+B*35:21  |
| B*13:15+B*35:23     | B*13:27+B*35:24:01  |                  |
| B*13:15+B*35:62     | B*13:41+B*35:24:01  |                  |
| B*13:15+B*35:78     | B*13:54+B*35:24:01  |                  |
| B*13:15+B*35:156    | B*13:18+B*35:109    |                  |
| B*13:15+B*35:163    | B*13:41+B*35:109    |                  |
| B*13:15+B*35:167    | B*13:16+B*35:109    |                  |
| B*13:15+B*35:172    | B*13:18+B*35:81     |                  |
| B*13:15+B*37:13     | B*13:16+B*37:04:01  |                  |
| B*13:15+B*39:31     | B*13:55+B*39:48     |                  |
| B*13:15+B*39:35     | B*13:16+B*39:48     |                  |
| B*13:15+B*40:67     | B*13:32+B*40:113    |                  |
| B*13:15+B*40:128    | B*13:18+B*40:113    |                  |
| B*13:15+B*40:183    | B*13:16+B*40:113    |                  |
| B*13:15+B*40:199    | B*13:53+B*40:113    |                  |
| B*13:15+B*40:204    | B*13:19+B*40:113    |                  |
| B*13:15+B*51:05     | B*13:18+B*51:09:02  |                  |
| B*13:15+B*53:08:01  | B*13:16+B*53:02     |                  |
| B*13:15+B*53:24     | B*13:18+B*53:02     |                  |
| B*13:15+B*56:09     | B*13:26+B*56:34     |                  |
| B*13:15+B*56:25     | B*13:16+B*56:34     |                  |
| B*13:15+B*56:32     | B*13:16+B*56:31     |                  |
| B*13:15+B*58:19     | B*13:16+B*58:09     |                  |
| B*13:15+B*58:22     | B*13:18+B*58:09     |                  |
| B*13:16+B*13:17     | B*13:20+B*13:33     |                  |
| B*13:16+B*13:22:02  | B*13:20+B*13:45     |                  |
| B*13:16+B*13:23     | B*13:20+B*13:55     |                  |
| B*13:16+B*15:01:01G | B*13:31+B*15:39:01  |                  |
| B*13:16+B*15:27:01  | B*13:31+B*15:195    |                  |
| B*13:16+B*15:54     | B*13:31+B*15:03:01G |                  |
| B*13:16+B*15:84     | B*13:18+B*15:195    |                  |
| B*13:16+B*15:117    | B*13:31+B*15:40     |                  |
| B*13:16+B*15:144    | B*13:31+B*15:02:01G |                  |
| B*13:16+B*15:241    | B*13:31+B*15:138    |                  |
| B*13:16+B*18:19     | B*13:31+B*18:15     |                  |
| B*13:16+B*18:31     | B*13:32+B*18:15     |                  |
| B*13:16+B*27:25     | B*13:31+B*27:63     |                  |
| B*13:16+B*27:45     | B*13:18+B*27:10     |                  |
| B*13:16+B*27:71     | B*13:53+B*27:10     |                  |
| B*13:16+B*35:08:01  | B*13:18+B*35:11:01  |                  |
| B*13:16+B*35:14:01  | B*13:31+B*35:11:01  |                  |
| B*13:16+B*35:14:02  | B*13:31+B*35:11:02  |                  |
| B*13:16+B*35:23     | B*13:27+B*35:11:01  |                  |
| B*13:16+B*35:78     | B*13:54+B*35:11:01  |                  |
| B*13:16+B*35:156    | B*13:18+B*35:167    |                  |
| B*13:16+B*35:163    | B*13:31+B*35:03:01G | B*13:41+B*35:167 |
| B*13:16+B*39:31     | B*13:55+B*39:35     |                  |
| B*13:16+B*39:42     | B*13:20+B*39:06:01  |                  |
| B*13:16+B*40:04     | B*13:20+B*40:70     |                  |
| B*13:16+B*40:67     | B*13:32+B*40:183    |                  |
| B*13:16+B*40:199    | B*13:53+B*40:183    |                  |
| B*13:16+B*40:204    | B*13:19+B*40:183    |                  |
| B*13:16+B*42:13     | B*13:20+B*42:04     |                  |
| B*13:16+B*44:02:07  | B*13:20+B*44:20     |                  |
| B*13:16+B*44:03:02  | B*13:20+B*44:47     |                  |
| B*13:16+B*44:146    | B*13:31+B*44:79     |                  |
| B*13:16+B*46:01:01G | B*13:31+B*46:08     |                  |
| B*13:16+B*48:19     | B*13:31+B*48:01:01G | B*13:41+B*48:15  |
| B*13:16+B*51:04     | B*13:20+B*51:01:01G |                  |
| B*13:16+B*51:05     | B*13:18+B*51:02:02  |                  |
| B*13:16+B*51:61:02  | B*13:31+B*51:01:01G |                  |
| B*13:16+B*52:21     | B*13:31+B*52:01:02  |                  |
| B*13:16+B*53:24     | B*13:18+B*53:08:01  |                  |
| B*13:16+B*55:16     | B*13:55+B*55:01:01G |                  |
| B*13:16+B*55:21     | B*13:31+B*55:01:01G |                  |
| B*13:16+B*56:09     | B*13:26+B*56:25     |                  |
| B*13:16+B*57:02:01  | B*13:18+B*57:57     |                  |
| B*13:16+B*57:19     | B*13:18+B*57:22     |                  |
| B*13:16+B*57:39     | B*13:55+B*57:57     |                  |
| B*13:16+B*58:22     | B*13:18+B*58:19     |                  |
| B*13:17+B*13:45     | B*13:22:02+B*13:33  |                  |
| B*13:17+B*13:55     | B*13:23+B*13:33     |                  |
| B*13:17+B*35:37     | B*13:33+B*35:01:01G |                  |
| B*13:17+B*39:06:01  | B*13:33+B*39:42     |                  |
| B*13:17+B*40:06:01G | B*13:33+B*40:64     |                  |
| B*13:17+B*40:70     | B*13:33+B*40:04     |                  |
| B*13:17+B*42:04     | B*13:33+B*42:13     |                  |
| B*13:17+B*44:20     | B*13:33+B*44:02:07  |                  |
| B*13:17+B*44:47     | B*13:33+B*44:03:02  |                  |
| B*13:17+B*51:01:01G | B*13:33+B*51:04     |                  |
| B*13:18+B*15:01:01G | B*13:31+B*15:237    | B*13:41+B*15:65  |
| B*13:18+B*15:27:01  | B*13:31+B*15:84     |                  |
| B*13:18+B*15:134    | B*13:44+B*15:221    |                  |
| B*13:18+B*15:176    | B*13:32+B*15:221    |                  |
| B*13:18+B*18:19     | B*13:31+B*18:13     | B*13:41+B*18:30  |
| B*13:18+B*18:31     | B*13:32+B*18:13     |                  |

|                        |                        |                 |
|------------------------|------------------------|-----------------|
| B*13:18+B*27:71        | B*13:53+B*27:45        |                 |
| B*13:18+B*35:14:01     | B*13:31+B*35:08:01     |                 |
| B*13:18+B*35:23        | B*13:27+B*35:08:01     |                 |
| B*13:18+B*35:43:01G    | B*13:41+B*35:99        |                 |
| B*13:18+B*35:62        | B*13:41+B*35:08:01     |                 |
| B*13:18+B*35:78        | B*13:54+B*35:08:01     |                 |
| B*13:18+B*35:163       | B*13:41+B*35:156       |                 |
| B*13:18+B*40:67        | B*13:32+B*40:128       |                 |
| B*13:18+B*40:199       | B*13:53+B*40:128       |                 |
| B*13:18+B*40:204       | B*13:19+B*40:128       |                 |
| B*13:18+B*44:146       | B*13:31+B*44:28:02     | B*13:41+B*44:76 |
| B*13:18+B*46:29        | B*13:41+B*46:03        |                 |
| B*13:18+B*51:21        | B*13:53+B*51:82        |                 |
| B*13:18+B*51:38        | B*13:42+B*51:29        |                 |
| B*13:18+B*51:61:02     | B*13:41+B*51:29        |                 |
| B*13:18+B*52:28        | B*13:32+B*52:24        |                 |
| B*13:18+B*55:16        | B*13:55+B*55:37        |                 |
| B*13:18+B*55:21        | B*13:31+B*55:37        | B*13:41+B*55:52 |
| B*13:18+B*57:39        | B*13:55+B*57:02:01     |                 |
| B*13:19+B*40:67        | B*13:32+B*40:204       |                 |
| B*13:19+B*40:199       | B*13:53+B*40:204       |                 |
| B*13:20+B*27:82        | B*13:50+B*27:10        |                 |
| B*13:20+B*35:159       | B*13:43+B*35:11:01     |                 |
| B*13:20+B*39:31        | B*13:23+B*39:35        |                 |
| B*13:20+B*40:25        | B*13:36+B*40:183       |                 |
| B*13:20+B*40:175       | B*13:28+B*40:183       |                 |
| B*13:20+B*44:98        | B*13:43+B*44:79        |                 |
| B*13:20+B*44:109       | B*13:25+B*44:79        |                 |
| B*13:20+B*51:61:02     | B*13:31+B*51:04        |                 |
| B*13:20+B*53:05        | B*13:25+B*53:08:01     |                 |
| B*13:20+B*55:16        | B*13:23+B*55:01:01G    |                 |
| B*13:20+B*57:39        | B*13:23+B*57:57        |                 |
| B*13:22:01+B*15:05:02  | B*13:22:02+B*15:05:01  |                 |
| B*13:22:01+B*15:13:02  | B*13:22:02+B*15:13:01  |                 |
| B*13:22:01+B*15:27:03  | B*13:22:02+B*15:27:01  |                 |
| B*13:22:01+B*15:38:02  | B*13:22:02+B*15:38:01  |                 |
| B*13:22:01+B*15:39:02  | B*13:22:02+B*15:39:01  |                 |
| B*13:22:01+B*18:01:01G | B*13:22:02+B*18:01:10  |                 |
| B*13:22:01+B*35:03:01G | B*13:22:02+B*35:03:02  |                 |
| B*13:22:01+B*35:09:03  | B*13:22:02+B*35:09:02  |                 |
| B*13:22:01+B*35:11:01  | B*13:22:02+B*35:11:02  |                 |
| B*13:22:01+B*35:14:01  | B*13:22:02+B*35:14:02  |                 |
| B*13:22:01+B*38:01:01  | B*13:22:02+B*38:01:03  |                 |
| B*13:22:01+B*39:01:01G | B*13:22:02+B*39:01:05  |                 |
| B*13:22:01+B*40:14:01  | B*13:22:02+B*40:14:02  |                 |
| B*13:22:01+B*44:02:01G | B*13:22:02+B*44:02:09  |                 |
| B*13:22:01+B*46:01:03  | B*13:22:02+B*46:01:01G |                 |
| B*13:22:01+B*46:13:01  | B*13:22:02+B*46:13:03  |                 |
| B*13:22:01+B*46:21:02  | B*13:22:02+B*46:21:01  |                 |
| B*13:22:01+B*51:01:21  | B*13:22:02+B*51:01:25  |                 |
| B*13:22:01+B*51:02:01  | B*13:22:02+B*51:02:05  |                 |
| B*13:22:01+B*51:24:04  | B*13:22:02+B*51:24:03  |                 |
| B*13:22:01+B*51:61:02  | B*13:22:02+B*51:61:01  |                 |
| B*13:22:01+B*52:01:01G | B*13:22:02+B*52:01:07  |                 |
| B*13:22:01+B*52:10:01  | B*13:22:02+B*52:10:02  |                 |
| B*13:22:01+B*53:01:01  | B*13:22:02+B*53:01:03  |                 |
| B*13:22:01+B*53:08:01  | B*13:22:02+B*53:08:02  |                 |
| B*13:22:01+B*56:01:01G | B*13:22:02+B*56:01:03  |                 |
| B*13:22:01+B*58:01:01G | B*13:22:02+B*58:01:05  |                 |
| B*13:22:02+B*13:55     | B*13:23+B*13:45        |                 |
| B*13:22:02+B*39:06:01  | B*13:45+B*39:42        |                 |
| B*13:22:02+B*40:06:01G | B*13:45+B*40:64        |                 |
| B*13:22:02+B*40:70     | B*13:45+B*40:04        |                 |
| B*13:22:02+B*42:04     | B*13:45+B*42:13        |                 |
| B*13:22:02+B*44:20     | B*13:45+B*44:02:07     |                 |
| B*13:22:02+B*51:01:01G | B*13:45+B*51:04        |                 |
| B*13:23+B*15:02:01G    | B*13:36+B*15:204       |                 |
| B*13:23+B*15:15        | B*13:36+B*15:225       |                 |
| B*13:23+B*15:64        | B*13:36+B*15:210       |                 |
| B*13:23+B*35:37        | B*13:55+B*35:01:01G    |                 |
| B*13:23+B*39:06:01     | B*13:55+B*39:42        |                 |
| B*13:23+B*40:06:01G    | B*13:55+B*40:64        |                 |
| B*13:23+B*40:70        | B*13:55+B*40:04        |                 |
| B*13:23+B*42:04        | B*13:55+B*42:13        |                 |
| B*13:23+B*44:12        | B*13:36+B*44:55        |                 |
| B*13:23+B*44:20        | B*13:55+B*44:02:07     |                 |
| B*13:23+B*44:47        | B*13:55+B*44:03:02     |                 |
| B*13:23+B*46:27        | B*13:43+B*46:14        |                 |
| B*13:23+B*51:01:01G    | B*13:55+B*51:04        |                 |
| B*13:25+B*44:98        | B*13:43+B*44:109       |                 |
| B*13:25+B*51:07:01     | B*13:36+B*52:09        |                 |
| B*13:27+B*15:145       | B*13:32+B*15:27:02     |                 |
| B*13:27+B*15:225       | B*13:55+B*15:27:02     |                 |
| B*13:27+B*35:14:01     | B*13:31+B*35:23        |                 |
| B*13:27+B*35:62        | B*13:41+B*35:23        |                 |
| B*13:27+B*35:78        | B*13:54+B*35:23        |                 |
| B*13:27+B*40:39        | B*13:53+B*40:143       |                 |
| B*13:28+B*40:25        | B*13:36+B*40:175       |                 |
| B*13:29+B*40:202       | B*13:43+B*40:189       |                 |
| B*13:31+B*15:05:02     | B*13:41+B*15:39:02     |                 |
| B*13:31+B*15:52        | B*13:41+B*15:238       |                 |
| B*13:31+B*15:91        | B*13:41+B*15:131       |                 |
| B*13:31+B*15:222       | B*13:41+B*15:16:01     |                 |
| B*13:31+B*18:31        | B*13:32+B*18:19        |                 |
| B*13:31+B*27:05:02G    | B*13:41+B*27:10        |                 |
| B*13:31+B*27:08        | B*13:41+B*27:40        |                 |
| B*13:31+B*27:61        | B*13:41+B*27:04:01G    |                 |
| B*13:31+B*35:05:01     | B*13:41+B*35:58        |                 |
| B*13:31+B*35:62        | B*13:41+B*35:14:01     |                 |
| B*13:31+B*35:78        | B*13:54+B*35:14:01     |                 |
| B*13:31+B*35:190       | B*13:41+B*35:188       |                 |
| B*13:31+B*37:01:01G    | B*13:41+B*37:13        |                 |
| B*13:31+B*38:01:01     | B*13:41+B*38:32        |                 |
| B*13:31+B*38:36        | B*13:41+B*38:10        |                 |
| B*13:31+B*39:01:01G    | B*13:41+B*39:35        |                 |

|                        |                       |                    |                 |
|------------------------|-----------------------|--------------------|-----------------|
| B*13:31+B*40:01:01G    | B*13:41+B*40:183      |                    |                 |
| B*13:31+B*40:06:01G    | B*13:41+B*40:148      |                    |                 |
| B*13:31+B*40:128       | B*13:41+B*40:198      |                    |                 |
| B*13:31+B*46:09        | B*13:41+B*46:01:01G   |                    |                 |
| B*13:31+B*48:02:01     | B*13:41+B*48:25       |                    |                 |
| B*13:31+B*49:11        | B*13:41+B*49:01:01    |                    |                 |
| B*13:31+B*51:09:02     | B*13:41+B*51:01:02    |                    |                 |
| B*13:31+B*51:31        | B*13:41+B*51:16       |                    |                 |
| B*13:31+B*51:40        | B*13:41+B*51:02:05    |                    |                 |
| B*13:31+B*51:108       | B*13:41+B*51:23       |                    |                 |
| B*13:31+B*52:10:01     | B*13:41+B*52:01:01G   |                    |                 |
| B*13:31+B*52:10:02     | B*13:41+B*52:01:07    |                    |                 |
| B*13:31+B*53:01:01     | B*13:41+B*53:08:01    |                    |                 |
| B*13:31+B*53:01:03     | B*13:41+B*53:08:02    |                    |                 |
| B*13:31+B*54:10        | B*13:41+B*54:20       |                    |                 |
| B*13:31+B*55:16        | B*13:55+B*55:21       |                    |                 |
| B*13:31+B*55:22        | B*13:41+B*55:24       |                    |                 |
| B*13:31+B*56:01:01G    | B*13:41+B*56:25       |                    |                 |
| B*13:31+B*56:18        | B*13:41+B*56:32       |                    |                 |
| B*13:31+B*57:01:01G    | B*13:41+B*57:22       |                    |                 |
| B*13:31+B*57:03:01     | B*13:41+B*57:57       |                    |                 |
| B*13:31+B*58:01:01G    | B*13:41+B*58:19       |                    |                 |
| B*13:31+B*58:02        | B*13:41+B*58:06       |                    |                 |
| B*13:32+B*15:134       | B*13:44+B*15:176      |                    |                 |
| B*13:32+B*15:225       | B*13:55+B*15:145      |                    |                 |
| B*13:32+B*40:199       | B*13:53+B*40:67       |                    |                 |
| B*13:32+B*47:08        | B*13:53+B*47:06       |                    |                 |
| B*13:36+B*15:04        | B*13:41+B*15:223      |                    |                 |
| B*13:41+B*15:139       | B*13:54+B*15:144      |                    |                 |
| B*13:41+B*15:210       | B*13:55+B*15:54       |                    |                 |
| B*13:41+B*35:78        | B*13:54+B*35:62       |                    |                 |
| B*13:41+B*51:38        | B*13:42+B*51:61:02    |                    |                 |
| B*13:45+B*15:153       | B*13:48+B*15:114      |                    |                 |
| B*13:45+B*35:11:01     | B*13:48+B*35:15       |                    |                 |
| B*13:45+B*35:167       | B*13:48+B*35:33       |                    |                 |
| B*13:45+B*40:05        | B*13:48+B*40:02:01G   |                    |                 |
| B*13:45+B*57:22        | B*13:48+B*57:25       |                    |                 |
| B*13:45+B*58:19        | B*13:48+B*58:37       |                    |                 |
| B*13:48+B*55:50        | B*13:53+B*56:25       |                    |                 |
| B*14:01:01+B*14:06:02  | B*14:02:01+B*14:08    |                    |                 |
| B*14:01:01+B*14:18     | B*14:02:01+B*14:14    |                    |                 |
| B*14:01:01+B*14:27     | B*14:02:01+B*14:19    |                    |                 |
| B*14:01:01+B*15:01:01G | B*14:14+B*15:70       | B*14:19+B*15:50    |                 |
| B*14:01:01+B*15:02:01G | B*14:19+B*15:121      |                    |                 |
| B*14:01:01+B*15:03:01G | B*14:14+B*15:61       |                    |                 |
| B*14:01:01+B*15:09     | B*14:19+B*15:252      |                    |                 |
| B*14:01:01+B*15:18:01G | B*14:19+B*15:93       |                    |                 |
| B*14:01:01+B*15:21     | B*14:19+B*15:44       |                    |                 |
| B*14:01:01+B*15:56     | B*14:14+B*15:236      |                    |                 |
| B*14:01:01+B*15:225    | B*14:11+B*15:71       |                    |                 |
| B*14:01:01+B*18:01:01G | B*14:08+B*18:44:01    | B*14:14+B*18:03    |                 |
| B*14:01:01+B*18:01:06  | B*14:08+B*18:44:02    |                    |                 |
| B*14:01:01+B*18:25     | B*14:11+B*18:43       |                    |                 |
| B*14:01:01+B*18:36     | B*14:19+B*18:01:01G   |                    |                 |
| B*14:01:01+B*18:58     | B*14:19+B*18:11       |                    |                 |
| B*14:01:01+B*18:68     | B*14:11+B*18:01:01G   |                    |                 |
| B*14:01:01+B*27:38     | B*14:19+B*27:71       |                    |                 |
| B*14:01:01+B*27:44     | B*14:14+B*27:08       |                    |                 |
| B*14:01:01+B*27:63     | B*14:19+B*27:15       |                    |                 |
| B*14:01:01+B*35:01:01G | B*14:11+B*35:197      | B*14:14+B*35:29:01 | B*14:19+B*35:93 |
| B*14:01:01+B*35:01:15  | B*14:14+B*35:29:02    |                    |                 |
| B*14:01:01+B*35:03:01G | B*14:14+B*35:136      |                    |                 |
| B*14:01:01+B*35:10     | B*14:14+B*35:69       |                    |                 |
| B*14:01:01+B*35:21     | B*14:19+B*35:188      |                    |                 |
| B*14:01:01+B*35:24:01  | B*14:19+B*35:190      |                    |                 |
| B*14:01:01+B*35:54     | B*14:02:01+B*35:197   |                    |                 |
| B*14:01:01+B*35:81     | B*14:19+B*35:157      |                    |                 |
| B*14:01:01+B*38:01:01  | B*14:14+B*38:14       |                    |                 |
| B*14:01:01+B*38:05     | B*14:02:01+B*38:01:01 | B*14:18+B*38:14    |                 |
| B*14:01:01+B*38:33     | B*14:11+B*38:01:01    |                    |                 |
| B*14:01:01+B*39:04     | B*14:11+B*39:01:01G   |                    |                 |
| B*14:01:01+B*39:05:01  | B*14:14+B*39:01:01G   |                    |                 |
| B*14:01:01+B*39:13:01  | B*14:14+B*39:02:02    |                    |                 |
| B*14:01:01+B*39:32     | B*14:19+B*39:48       |                    |                 |
| B*14:01:01+B*39:37     | B*14:14+B*39:03       |                    |                 |
| B*14:01:01+B*39:40N    | B*14:07N+B*39:01:01G  |                    |                 |
| B*14:01:01+B*39:55     | B*14:14+B*39:15       |                    |                 |
| B*14:01:01+B*39:67     | B*14:26+B*39:01:01G   |                    |                 |
| B*14:01:01+B*39:74     | B*14:19+B*39:01:01G   |                    |                 |
| B*14:01:01+B*40:01:01G | B*14:11+B*40:74       | B*14:14+B*40:43    |                 |
| B*14:01:01+B*40:02:01G | B*14:14+B*40:50       |                    |                 |
| B*14:01:01+B*40:32     | B*14:11+B*40:98       |                    |                 |
| B*14:01:01+B*40:49     | B*14:11+B*40:210      |                    |                 |
| B*14:01:01+B*40:53     | B*14:11+B*40:06:01G   |                    |                 |
| B*14:01:01+B*40:63     | B*14:19+B*40:199      |                    |                 |
| B*14:01:01+B*40:140    | B*14:32+B*40:01:01G   |                    |                 |
| B*14:01:01+B*41:02:03  | B*14:01:02+B*41:02:01 |                    |                 |
| B*14:01:01+B*44:28:02  | B*14:19+B*44:04       |                    |                 |
| B*14:01:01+B*44:91     | B*14:19+B*44:132      |                    |                 |
| B*14:01:01+B*44:148    | B*14:32+B*44:02:01G   |                    |                 |
| B*14:01:01+B*45:04     | B*14:19+B*45:08       |                    |                 |
| B*14:01:01+B*46:01:01G | B*14:19+B*46:29       |                    |                 |
| B*14:01:01+B*46:07N    | B*14:07N+B*46:01:01G  |                    |                 |
| B*14:01:01+B*46:11     | B*14:19+B*46:18       |                    |                 |
| B*14:01:01+B*46:13:01  | B*14:19+B*46:21:02    |                    |                 |
| B*14:01:01+B*46:13:03  | B*14:19+B*46:21:01    |                    |                 |
| B*14:01:01+B*49:16     | B*14:26+B*49:01:01    |                    |                 |
| B*14:01:01+B*51:01:01G | B*14:11+B*51:57       | B*14:19+B*51:21    |                 |
| B*14:01:01+B*51:08     | B*14:14+B*51:20       |                    |                 |
| B*14:01:01+B*51:68     | B*14:28+B*51:57       |                    |                 |
| B*14:01:01+B*53:01:01  | B*14:11+B*53:21       | B*14:14+B*53:23    |                 |
| B*14:01:01+B*54:03     | B*14:19+B*54:01:01G   |                    |                 |
| B*14:01:01+B*55:31     | B*14:14+B*55:01:01G   |                    |                 |
| B*14:01:01+B*56:01:01G | B*14:19+B*55:02:01G   |                    |                 |
| B*14:01:01+B*56:02     | B*14:19+B*56:10       |                    |                 |

|                        |                        |                       |                 |
|------------------------|------------------------|-----------------------|-----------------|
| B*14:01:01+B*56:19N    | B*14:07N+B*56:01:01G   |                       |                 |
| B*14:01:01+B*56:22     | B*14:19+B*55:13        |                       |                 |
| B*14:01:01+B*56:25     | B*14:19+B*55:01:01G    |                       |                 |
| B*14:01:01+B*57:01:01G | B*14:11+B*57:10        | B*14:19+B*57:26       |                 |
| B*14:01:01+B*57:49     | B*14:28+B*57:10        |                       |                 |
| B*14:01:01+B*58:01:01G | B*14:19+B*58:35        |                       |                 |
| B*14:01:01+B*59:04     | B*14:19+B*59:01:01G    |                       |                 |
| B*14:01:01+B*78:01:01  | B*14:19+B*78:07        |                       |                 |
| B*14:01:01+B*78:02:02  | B*14:14+B*78:01:01     |                       |                 |
| B*14:02:01+B*15:01:01G | B*14:11+B*15:125       | B*14:18+B*15:70       | B*14:27+B*15:50 |
| B*14:02:01+B*15:02:01G | B*14:27+B*15:121       |                       |                 |
| B*14:02:01+B*15:03:01G | B*14:18+B*15:61        |                       |                 |
| B*14:02:01+B*15:09     | B*14:27+B*15:252       |                       |                 |
| B*14:02:01+B*15:18:01G | B*14:27+B*15:93        |                       |                 |
| B*14:02:01+B*15:21     | B*14:27+B*15:44        |                       |                 |
| B*14:02:01+B*15:34     | B*14:22+B*15:01:01G    |                       |                 |
| B*14:02:01+B*15:56     | B*14:18+B*15:236       |                       |                 |
| B*14:02:01+B*15:65     | B*14:03+B*15:39:01     |                       |                 |
| B*14:02:01+B*15:76     | B*14:21+B*15:189       |                       |                 |
| B*14:02:01+B*15:99     | B*14:03+B*15:10:01     |                       |                 |
| B*14:02:01+B*15:142    | B*14:28+B*15:125       |                       |                 |
| B*14:02:01+B*15:221    | B*14:03+B*15:18:01G    |                       |                 |
| B*14:02:01+B*15:237    | B*14:03+B*15:05:01     |                       |                 |
| B*14:02:01+B*18:01:01G | B*14:06:01+B*18:44:02  | B*14:06:02+B*18:44:01 | B*14:18+B*18:03 |
| B*14:02:01+B*18:01:06  | B*14:06:02+B*18:44:02  |                       |                 |
| B*14:02:01+B*18:05     | B*14:25+B*18:01:01G    |                       |                 |
| B*14:02:01+B*18:13     | B*14:03+B*18:01:01G    |                       |                 |
| B*14:02:01+B*18:14     | B*14:05+B*18:44:02     |                       |                 |
| B*14:02:01+B*18:30     | B*14:03+B*18:15        |                       |                 |
| B*14:02:01+B*18:36     | B*14:27+B*18:01:01G    |                       |                 |
| B*14:02:01+B*18:58     | B*14:27+B*18:11        |                       |                 |
| B*14:02:01+B*27:14     | B*14:22+B*27:81        |                       |                 |
| B*14:02:01+B*27:38     | B*14:27+B*27:71        |                       |                 |
| B*14:02:01+B*27:44     | B*14:18+B*27:08        |                       |                 |
| B*14:02:01+B*27:45     | B*14:03+B*27:05:02G    |                       |                 |
| B*14:02:01+B*27:63     | B*14:27+B*27:15        |                       |                 |
| B*14:02:01+B*35:01:01G | B*14:11+B*35:54        | B*14:18+B*35:29:01    | B*14:27+B*35:93 |
| B*14:02:01+B*35:01:15  | B*14:18+B*35:29:02     |                       |                 |
| B*14:02:01+B*35:03:01G | B*14:18+B*35:136       |                       |                 |
| B*14:02:01+B*35:04:03  | B*14:22+B*35:12:02     |                       |                 |
| B*14:02:01+B*35:08:01  | B*14:03+B*35:01:01G    |                       |                 |
| B*14:02:01+B*35:08:03  | B*14:03+B*35:01:04     |                       |                 |
| B*14:02:01+B*35:10     | B*14:18+B*35:69        |                       |                 |
| B*14:02:01+B*35:12:03  | B*14:02:04+B*35:12:01  |                       |                 |
| B*14:02:01+B*35:18     | B*14:03+B*35:09:02     |                       |                 |
| B*14:02:01+B*35:21     | B*14:27+B*35:188       |                       |                 |
| B*14:02:01+B*35:24:01  | B*14:27+B*35:190       |                       |                 |
| B*14:02:01+B*35:30     | B*14:22+B*35:17        |                       |                 |
| B*14:02:01+B*35:45     | B*14:03+B*35:71        |                       |                 |
| B*14:02:01+B*35:68:02  | B*14:22+B*35:32:01     |                       |                 |
| B*14:02:01+B*35:80     | B*14:03+B*35:10        |                       |                 |
| B*14:02:01+B*35:81     | B*14:27+B*35:157       |                       |                 |
| B*14:02:01+B*35:105    | B*14:03+B*35:159       |                       |                 |
| B*14:02:01+B*35:142    | B*14:03+B*35:124       |                       |                 |
| B*14:02:01+B*35:156    | B*14:03+B*35:03:01G    |                       |                 |
| B*14:02:01+B*35:171    | B*14:16+B*35:01:01G    |                       |                 |
| B*14:02:01+B*35:172    | B*14:03+B*35:02:01     |                       |                 |
| B*14:02:01+B*38:02:03  | B*14:02:03+B*38:02:01G |                       |                 |
| B*14:02:01+B*38:33     | B*14:11+B*38:05        |                       |                 |
| B*14:02:01+B*39:01:09  | B*14:02:03+B*39:01:01G |                       |                 |
| B*14:02:01+B*39:02:02  | B*14:02:03+B*39:02:01  |                       |                 |
| B*14:02:01+B*39:05:01  | B*14:18+B*39:01:01G    |                       |                 |
| B*14:02:01+B*39:11     | B*14:03+B*39:05:01     |                       |                 |
| B*14:02:01+B*39:13:01  | B*14:18+B*39:02:02     |                       |                 |
| B*14:02:01+B*39:32     | B*14:27+B*39:48        |                       |                 |
| B*14:02:01+B*39:37     | B*14:18+B*39:03        |                       |                 |
| B*14:02:01+B*39:55     | B*14:18+B*39:15        |                       |                 |
| B*14:02:01+B*39:74     | B*14:27+B*39:01:01G    |                       |                 |
| B*14:02:01+B*40:01:01G | B*14:18+B*40:43        |                       |                 |
| B*14:02:01+B*40:02:01G | B*14:18+B*40:50        |                       |                 |
| B*14:02:01+B*40:04     | B*14:22+B*40:64        |                       |                 |
| B*14:02:01+B*40:63     | B*14:27+B*40:199       |                       |                 |
| B*14:02:01+B*40:70     | B*14:22+B*40:06:01G    |                       |                 |
| B*14:02:01+B*40:125    | B*14:22+B*40:01:04     |                       |                 |
| B*14:02:01+B*40:128    | B*14:03+B*40:01:01G    |                       |                 |
| B*14:02:01+B*40:161    | B*14:03+B*40:148       |                       |                 |
| B*14:02:01+B*40:198    | B*14:03+B*40:183       |                       |                 |
| B*14:02:01+B*41:07     | B*14:22+B*41:01        |                       |                 |
| B*14:02:01+B*44:02:01G | B*14:11+B*44:22        |                       |                 |
| B*14:02:01+B*44:02:04  | B*14:02:07+B*44:02:01G |                       |                 |
| B*14:02:01+B*44:03:01G | B*14:11+B*44:105       |                       |                 |
| B*14:02:01+B*44:28:01  | B*14:03+B*44:03:02     |                       |                 |
| B*14:02:01+B*44:28:02  | B*14:03+B*44:03:01G    | B*14:27+B*44:04       |                 |
| B*14:02:01+B*44:48     | B*14:22+B*44:02:07     |                       |                 |
| B*14:02:01+B*44:49     | B*14:28+B*44:22        |                       |                 |
| B*14:02:01+B*44:59     | B*14:25+B*44:02:01G    |                       |                 |
| B*14:02:01+B*44:76     | B*14:03+B*44:79        |                       |                 |
| B*14:02:01+B*44:91     | B*14:27+B*44:132       |                       |                 |
| B*14:02:01+B*45:04     | B*14:27+B*45:08        |                       |                 |
| B*14:02:01+B*46:01:01G | B*14:11+B*46:05        | B*14:27+B*46:29       |                 |
| B*14:02:01+B*46:11     | B*14:27+B*46:18        |                       |                 |
| B*14:02:01+B*46:13:01  | B*14:27+B*46:21:02     |                       |                 |
| B*14:02:01+B*46:13:03  | B*14:27+B*46:21:01     |                       |                 |
| B*14:02:01+B*51:01:01G | B*14:27+B*51:21        |                       |                 |
| B*14:02:01+B*51:08     | B*14:18+B*51:20        |                       |                 |
| B*14:02:01+B*51:29     | B*14:03+B*51:01:01G    |                       |                 |
| B*14:02:01+B*51:82     | B*14:03+B*51:16        |                       |                 |
| B*14:02:01+B*51:137    | B*14:09+B*51:01:01G    |                       |                 |
| B*14:02:01+B*52:01:01G | B*14:02:03+B*52:01:10  |                       |                 |
| B*14:02:01+B*52:24     | B*14:03+B*52:01:01G    |                       |                 |
| B*14:02:01+B*53:01:01  | B*14:18+B*53:23        |                       |                 |
| B*14:02:01+B*53:01:06  | B*14:02:04+B*53:01:01  |                       |                 |
| B*14:02:01+B*53:11     | B*14:03+B*53:13        |                       |                 |
| B*14:02:01+B*53:16     | B*14:03+B*53:05        |                       |                 |
| B*14:02:01+B*53:24     | B*14:03+B*53:01:01     |                       |                 |

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| B*14:02:01+B*54:03     | B*14:27+B*54:01:01G    |                        |
| B*14:02:01+B*54:10     | B*14:03+B*54:01:01G    |                        |
| B*14:02:01+B*55:01:01G | B*14:22+B*55:38        |                        |
| B*14:02:01+B*55:09     | B*14:03+B*55:24        |                        |
| B*14:02:01+B*55:28     | B*14:22+B*55:17        |                        |
| B*14:02:01+B*55:31     | B*14:18+B*55:01:01G    |                        |
| B*14:02:01+B*55:37     | B*14:03+B*55:02:01G    |                        |
| B*14:02:01+B*55:52     | B*14:03+B*55:01:01G    |                        |
| B*14:02:01+B*56:01:01G | B*14:22+B*56:27        | B*14:27+B*55:02:01G    |
| B*14:02:01+B*56:02     | B*14:22+B*56:04        | B*14:27+B*56:10        |
| B*14:02:01+B*56:22     | B*14:27+B*55:13        |                        |
| B*14:02:01+B*56:25     | B*14:27+B*55:01:01G    |                        |
| B*14:02:01+B*57:01:01G | B*14:27+B*57:26        |                        |
| B*14:02:01+B*57:02:01  | B*14:03+B*57:03:01     |                        |
| B*14:02:01+B*57:19     | B*14:03+B*57:01:01G    |                        |
| B*14:02:01+B*58:01:01G | B*14:27+B*58:35        |                        |
| B*14:02:01+B*58:16     | B*14:06:01+B*58:02     |                        |
| B*14:02:01+B*58:18     | B*14:05+B*58:02        |                        |
| B*14:02:01+B*58:22     | B*14:03+B*58:01:01G    |                        |
| B*14:02:01+B*59:04     | B*14:27+B*59:01:01G    |                        |
| B*14:02:01+B*67:01:02  | B*14:02:03+B*67:01:01  | B*14:21+B*39:01:01G    |
| B*14:02:01+B*78:01:01  | B*14:27+B*78:07        |                        |
| B*14:02:01+B*78:02:02  | B*14:18+B*78:01:01     |                        |
| B*14:02:03+B*15:02:01G | B*14:02:06+B*15:02:02  |                        |
| B*14:02:03+B*35:01:01G | B*14:02:06+B*35:01:08  |                        |
| B*14:02:03+B*35:01:19  | B*14:02:06+B*35:01:15  |                        |
| B*14:02:03+B*38:26     | B*14:21+B*38:14        |                        |
| B*14:02:03+B*39:05:01  | B*14:18+B*39:01:09     |                        |
| B*14:02:03+B*39:08     | B*14:03+B*39:13:01     |                        |
| B*14:02:03+B*39:74     | B*14:27+B*39:01:09     |                        |
| B*14:02:03+B*51:01:01G | B*14:02:06+B*51:01:33  |                        |
| B*14:02:03+B*52:01:01G | B*14:02:06+B*52:01:03  |                        |
| B*14:02:03+B*52:06:02  | B*14:02:06+B*52:06:01  |                        |
| B*14:02:03+B*56:01:01G | B*14:21+B*56:33        |                        |
| B*14:02:03+B*56:06     | B*14:21+B*78:03        |                        |
| B*14:02:03+B*67:01:02  | B*14:21+B*39:01:09     |                        |
| B*14:02:04+B*53:24     | B*14:03+B*53:01:06     |                        |
| B*14:02:07+B*44:59     | B*14:25+B*44:02:04     |                        |
| B*14:03+B*18:05        | B*14:25+B*18:13        |                        |
| B*14:03+B*18:36        | B*14:27+B*18:13        |                        |
| B*14:03+B*35:171       | B*14:16+B*35:08:01     |                        |
| B*14:03+B*46:08        | B*14:27+B*46:03        |                        |
| B*14:03+B*51:137       | B*14:09+B*51:29        |                        |
| B*14:03+B*54:03        | B*14:27+B*54:10        |                        |
| B*14:03+B*55:31        | B*14:18+B*55:52        |                        |
| B*14:03+B*56:01:01G    | B*14:27+B*55:37        |                        |
| B*14:03+B*56:25        | B*14:27+B*55:52        |                        |
| B*14:05+B*15:01:01G    | B*14:06:01+B*15:07:01G |                        |
| B*14:05+B*15:01:14     | B*14:06:02+B*15:07:01G |                        |
| B*14:05+B*15:31        | B*14:06:01+B*15:55     |                        |
| B*14:05+B*15:63        | B*14:06:01+B*15:45     |                        |
| B*14:05+B*18:01:01G    | B*14:06:01+B*18:14     |                        |
| B*14:05+B*18:01:06     | B*14:06:02+B*18:14     |                        |
| B*14:05+B*27:27        | B*14:13+B*27:35        |                        |
| B*14:05+B*27:70        | B*14:06:01+B*27:32     |                        |
| B*14:05+B*35:01:01G    | B*14:06:02+B*35:30     |                        |
| B*14:05+B*35:01:04     | B*14:06:01+B*35:30     |                        |
| B*14:05+B*35:32:02     | B*14:06:01+B*35:51     |                        |
| B*14:05+B*35:68:01     | B*14:06:02+B*35:05:01  |                        |
| B*14:05+B*35:68:02     | B*14:06:01+B*35:05:01  |                        |
| B*14:05+B*38:01:01     | B*14:06:01+B*38:19     |                        |
| B*14:05+B*39:01:01G    | B*14:06:01+B*39:03     |                        |
| B*14:05+B*39:05:01     | B*14:06:01+B*39:37     |                        |
| B*14:05+B*39:70        | B*14:06:01+B*39:14     |                        |
| B*14:05+B*40:01:01G    | B*14:06:01+B*40:80     |                        |
| B*14:05+B*40:01:04     | B*14:06:02+B*40:80     |                        |
| B*14:05+B*40:11:01     | B*14:06:01+B*40:02:01G |                        |
| B*14:05+B*40:11:02     | B*14:06:01+B*40:02:09  | B*14:06:02+B*40:02:01G |
| B*14:05+B*40:20        | B*14:06:01+B*40:03     |                        |
| B*14:05+B*40:33        | B*14:06:01+B*40:31     |                        |
| B*14:05+B*40:114       | B*14:06:01+B*40:45     |                        |
| B*14:05+B*41:03:02     | B*14:06:01+B*41:02:01  |                        |
| B*14:05+B*44:03:01G    | B*14:06:01+B*44:110    |                        |
| B*14:05+B*44:03:02     | B*14:06:02+B*44:110    |                        |
| B*14:05+B*44:41:01     | B*14:06:01+B*44:106    |                        |
| B*14:05+B*44:41:02     | B*14:06:02+B*44:106    |                        |
| B*14:05+B*44:65        | B*14:06:01+B*44:54     |                        |
| B*14:05+B*44:123       | B*14:13+B*44:117       |                        |
| B*14:05+B*46:01:01G    | B*14:06:01+B*46:12     |                        |
| B*14:05+B*48:03:01     | B*14:06:01+B*48:01:01G |                        |
| B*14:05+B*48:03:02     | B*14:06:02+B*48:01:01G |                        |
| B*14:05+B*51:06:01     | B*14:06:01+B*51:64     |                        |
| B*14:05+B*51:06:02     | B*14:06:02+B*51:64     |                        |
| B*14:05+B*58:16        | B*14:06:01+B*58:18     |                        |
| B*14:06:01+B*15:01:14  | B*14:06:02+B*15:01:01G |                        |
| B*14:06:01+B*15:02:01G | B*14:06:02+B*15:02:05  |                        |
| B*14:06:01+B*15:11:03  | B*14:06:02+B*15:11:01G |                        |
| B*14:06:01+B*15:18:02  | B*14:06:02+B*15:18:01G |                        |
| B*14:06:01+B*15:25:01G | B*14:06:02+B*15:25:02  |                        |
| B*14:06:01+B*15:27:01  | B*14:06:02+B*15:27:02  |                        |
| B*14:06:01+B*18:01:06  | B*14:06:02+B*18:01:01G |                        |
| B*14:06:01+B*35:01:01G | B*14:06:02+B*35:01:04  |                        |
| B*14:06:01+B*35:08:01  | B*14:06:02+B*35:08:03  |                        |
| B*14:06:01+B*35:12:02  | B*14:06:02+B*35:12:01  |                        |
| B*14:06:01+B*35:68:01  | B*14:06:02+B*35:68:02  |                        |
| B*14:06:01+B*38:20     | B*14:10+B*38:05        |                        |
| B*14:06:01+B*39:06:02  | B*14:06:02+B*39:06:01  |                        |
| B*14:06:01+B*40:01:04  | B*14:06:02+B*40:01:01G |                        |
| B*14:06:01+B*40:11:02  | B*14:06:02+B*40:11:01  |                        |
| B*14:06:01+B*40:124:01 | B*14:06:02+B*40:124:02 |                        |
| B*14:06:01+B*44:02:07  | B*14:06:02+B*44:02:01G |                        |
| B*14:06:01+B*44:03:02  | B*14:06:02+B*44:03:01G |                        |
| B*14:06:01+B*44:28:01  | B*14:06:02+B*44:28:02  |                        |
| B*14:06:01+B*44:37:02  | B*14:06:02+B*44:37:01  |                        |
| B*14:06:01+B*44:41:02  | B*14:06:02+B*44:41:01  |                        |

|                          |                        |                     |                     |                   |
|--------------------------|------------------------|---------------------|---------------------|-------------------|
| B*14:06:01+B*44:64:01    | B*14:06:02+B*44:64:02  |                     |                     |                   |
| B*14:06:01+B*48:03:02    | B*14:06:02+B*48:03:01  |                     |                     |                   |
| B*14:06:01+B*51:01:01G   | B*14:06:02+B*51:01:16  |                     |                     |                   |
| B*14:06:01+B*51:06:02    | B*14:06:02+B*51:06:01  |                     |                     |                   |
| B*14:06:01+B*55:02:01G   | B*14:06:02+B*55:02:04  |                     |                     |                   |
| B*14:06:02+B*14:14       | B*14:08+B*14:18        |                     |                     |                   |
| B*14:06:02+B*14:19       | B*14:08+B*14:27        |                     |                     |                   |
| B*14:06:02+B*35:197      | B*14:08+B*35:54        |                     |                     |                   |
| B*14:06:02+B*38:01:01    | B*14:08+B*38:05        |                     |                     |                   |
| B*14:07N+B*39:04         | B*14:11+B*39:40N       |                     |                     |                   |
| B*14:07N+B*39:05:01      | B*14:14+B*39:40N       |                     |                     |                   |
| B*14:07N+B*39:67         | B*14:26+B*39:40N       |                     |                     |                   |
| B*14:07N+B*39:74         | B*14:19+B*39:40N       |                     |                     |                   |
| B*14:08+B*15:80          | B*14:10+B*15:18:02     |                     |                     |                   |
| B*14:08+B*15:154         | B*14:10+B*15:01:14     |                     |                     |                   |
| B*14:08+B*35:01:04       | B*14:10+B*35:68:01     |                     |                     |                   |
| B*14:08+B*40:160         | B*14:10+B*40:01:04     |                     |                     |                   |
| B*14:08+B*44:02:01G      | B*14:10+B*44:41:02     |                     |                     |                   |
| B*14:10+B*15:136         | B*15:25:02+B*39:48     |                     |                     |                   |
| B*14:11+B*15:142         | B*14:28+B*15:01:01G    |                     |                     |                   |
| B*14:11+B*18:36          | B*14:19+B*18:68        |                     |                     |                   |
| B*14:11+B*39:05:01       | B*14:14+B*39:04        |                     |                     |                   |
| B*14:11+B*39:67          | B*14:26+B*39:04        |                     |                     |                   |
| B*14:11+B*39:74          | B*14:19+B*39:04        |                     |                     |                   |
| B*14:11+B*44:49          | B*14:28+B*44:02:01G    |                     |                     |                   |
| B*14:11+B*51:68          | B*14:28+B*51:01:01G    |                     |                     |                   |
| B*14:11+B*56:35          | B*14:19+B*55:16        |                     |                     |                   |
| B*14:11+B*57:49          | B*14:28+B*57:01:01G    |                     |                     |                   |
| B*14:14+B*14:27          | B*14:18+B*14:19        |                     |                     |                   |
| B*14:14+B*35:54          | B*14:18+B*35:197       |                     |                     |                   |
| B*14:14+B*38:05          | B*14:18+B*38:01:01     |                     |                     |                   |
| B*14:14+B*39:67          | B*14:26+B*39:05:01     |                     |                     |                   |
| B*14:14+B*39:74          | B*14:19+B*39:05:01     |                     |                     |                   |
| B*14:14+B*56:17          | B*14:19+B*56:23        |                     |                     |                   |
| B*14:14+B*56:25          | B*14:19+B*55:31        |                     |                     |                   |
| B*14:18+B*39:74          | B*14:27+B*39:05:01     |                     |                     |                   |
| B*14:18+B*56:17          | B*14:27+B*56:23        |                     |                     |                   |
| B*14:18+B*56:25          | B*14:27+B*55:31        |                     |                     |                   |
| B*14:18+B*67:01:02       | B*14:21+B*39:05:01     |                     |                     |                   |
| B*14:19+B*35:54          | B*14:27+B*35:197       |                     |                     |                   |
| B*14:19+B*38:05          | B*14:27+B*38:01:01     |                     |                     |                   |
| B*14:19+B*39:67          | B*14:26+B*39:74        |                     |                     |                   |
| B*14:21+B*39:74          | B*14:27+B*67:01:02     |                     |                     |                   |
| B*14:25+B*18:36          | B*14:27+B*18:05        |                     |                     |                   |
| B*15:01:01G+B*15:02:01G  | B*15:01:14+B*15:02:05  | B*15:15+B*15:25:01G | B*15:39:01+B*15:144 | B*15:128+B*15:223 |
| B*15:01:01G+B*15:02:05   | B*15:15+B*15:25:02     |                     |                     |                   |
| B*15:01:01G+B*15:03:01G  | B*15:39:01+B*15:54     |                     |                     |                   |
| B*15:01:01G+B*15:06      | B*15:128+B*15:195      |                     |                     |                   |
| B*15:01:01G+B*15:08      | B*15:15+B*15:56        |                     |                     |                   |
| B*15:01:01G+B*15:09      | B*15:15+B*15:243       |                     |                     |                   |
| B*15:01:01G+B*15:10:01   | B*15:18:01G+B*15:63    |                     |                     |                   |
| B*15:01:01G+B*15:11:01G  | B*15:15+B*15:152       |                     |                     |                   |
| B*15:01:01G+B*15:11:03   | B*15:01:14+B*15:11:01G |                     |                     |                   |
| B*15:01:01G+B*15:13:01   | B*15:02:01G+B*15:24    |                     |                     |                   |
| B*15:01:01G+B*15:18:01G  | B*15:64+B*15:66        |                     |                     |                   |
| B*15:01:01G+B*15:18:02   | B*15:01:14+B*15:18:01G |                     |                     |                   |
| B*15:01:01G+B*15:20      | B*15:05:02+B*15:85     |                     |                     |                   |
| B*15:01:01G+B*15:21      | B*15:02:01G+B*15:66    |                     |                     |                   |
| B*15:01:01G+B*15:23      | B*15:18:01G+B*15:24    |                     |                     |                   |
| B*15:01:01G+B*15:24      | B*15:87+B*15:135       |                     |                     |                   |
| B*15:01:01G+B*15:25:01G  | B*15:01:14+B*15:25:02  |                     |                     |                   |
| B*15:01:01G+B*15:27:01   | B*15:01:14+B*15:27:02  |                     |                     |                   |
| B*15:01:01G+B*15:29      | B*15:03:01G+B*15:08    | B*15:56+B*15:64     |                     |                   |
| B*15:01:01G+B*15:37      | B*15:10:01+B*15:38:01  |                     |                     |                   |
| B*15:01:01G+B*15:40      | B*15:39:01+B*15:117    |                     |                     |                   |
| B*15:01:01G+B*15:44      | B*15:21+B*15:50        | B*15:66+B*15:121    |                     |                   |
| B*15:01:01G+B*15:45      | B*15:07:01G+B*15:63    |                     |                     |                   |
| B*15:01:01G+B*15:55      | B*15:07:01G+B*15:31    |                     |                     |                   |
| B*15:01:01G+B*15:61      | B*15:03:01G+B*15:70    |                     |                     |                   |
| B*15:01:01G+B*15:62      | B*15:03:01G+B*15:85    |                     |                     |                   |
| B*15:01:01G+B*15:64      | B*15:03:01G+B*15:15    |                     |                     |                   |
| B*15:01:01G+B*15:72      | B*15:18:01G+B*15:78:01 |                     |                     |                   |
| B*15:01:01G+B*15:76      | B*15:15+B*15:101       |                     |                     |                   |
| B*15:01:01G+B*15:77      | B*15:154+B*15:233      |                     |                     |                   |
| B*15:01:01G+B*15:78:03   | B*15:01:17+B*15:78:01  |                     |                     |                   |
| B*15:01:01G+B*15:80      | B*15:18:01G+B*15:154   |                     |                     |                   |
| B*15:01:01G+B*15:84      | B*15:27:01+B*15:237    |                     |                     |                   |
| B*15:01:01G+B*15:89      | B*15:15+B*15:36        |                     |                     |                   |
| B*15:01:01G+B*15:91      | B*15:14+B*15:123:01G   |                     |                     |                   |
| B*15:01:01G+B*15:93      | B*15:18:01G+B*15:50    |                     |                     |                   |
| B*15:01:01G+B*15:98      | B*15:03:01G+B*15:163   |                     |                     |                   |
| B*15:01:01G+B*15:99      | B*15:63+B*15:221       |                     |                     |                   |
| B*15:01:01G+B*15:106     | B*15:25:01G+B*15:46    |                     |                     |                   |
| B*15:01:01G+B*15:107     | B*15:05:01+B*15:78:02  |                     |                     |                   |
| B*15:01:01G+B*15:108     | B*15:18:01G+B*15:249   |                     |                     |                   |
| B*15:01:01G+B*15:109     | B*15:27:01+B*15:163    |                     |                     |                   |
| B*15:01:01G+B*15:121     | B*15:02:01G+B*15:50    |                     |                     |                   |
| B*15:01:01G+B*15:123:01G | B*15:05:01+B*15:54     |                     |                     |                   |
| B*15:01:01G+B*15:131     | B*15:03:01G+B*15:14    |                     |                     |                   |
| B*15:01:01G+B*15:136     | B*15:05:01+B*15:249    |                     |                     |                   |
| B*15:01:01G+B*15:138     | B*15:39:01+B*15:241    |                     |                     |                   |
| B*15:01:01G+B*15:141     | B*15:35+B*15:78:02     |                     |                     |                   |
| B*15:01:01G+B*15:150     | B*15:30+B*15:78:02     |                     |                     |                   |
| B*15:01:01G+B*15:155     | B*15:04+B*15:05:01     |                     |                     |                   |
| B*15:01:01G+B*15:156     | B*15:03:01G+B*15:128   |                     |                     |                   |
| B*15:01:01G+B*15:161     | B*15:14+B*15:18:01G    |                     |                     |                   |
| B*15:01:01G+B*15:176     | B*15:18:01G+B*15:145   |                     |                     |                   |
| B*15:01:01G+B*15:185     | B*15:05:01+B*15:38:01  |                     |                     |                   |
| B*15:01:01G+B*15:191     | B*15:08+B*15:234       |                     |                     |                   |
| B*15:01:01G+B*15:195     | B*15:27:01+B*15:39:01  |                     |                     |                   |
| B*15:01:01G+B*15:204     | B*15:25:01G+B*15:225   |                     |                     |                   |
| B*15:01:01G+B*15:210     | B*15:03:01G+B*15:225   |                     |                     |                   |
| B*15:01:01G+B*15:212     | B*15:53+B*15:225       |                     |                     |                   |
| B*15:01:01G+B*15:213     | B*15:02:01G+B*15:92    |                     |                     |                   |
| B*15:01:01G+B*15:229     | B*15:18:01G+B*15:58    |                     |                     |                   |

|                         |                         |                        |                       |                     |
|-------------------------|-------------------------|------------------------|-----------------------|---------------------|
| B*15:01:01G+B*15:235    | B*15:54+B*15:136        | B*15:123:01G+B*15:249  |                       |                     |
| B*15:01:01G+B*15:236    | B*15:56+B*15:70         |                        |                       |                     |
| B*15:01:01G+B*15:238    | B*15:18:01G+B*15:117    |                        |                       |                     |
| B*15:01:01G+B*15:248    | B*15:33+B*15:63         |                        |                       |                     |
| B*15:01:01G+B*15:252    | B*15:09+B*15:50         |                        |                       |                     |
| B*15:01:01G+B*18:01:01G | B*15:05:01+B*18:19      | B*15:15+B*18:12        | B*15:38:01+B*18:11    | B*15:50+B*18:36     |
|                         | B*15:71+B*18:25         | B*15:202+B*18:66       | B*15:225+B*18:43      |                     |
| B*15:01:01G+B*18:01:06  | B*15:01:14+B*18:01:01G  |                        |                       |                     |
| B*15:01:01G+B*18:02     | B*15:129+B*18:01:01G    |                        |                       |                     |
| B*15:01:01G+B*18:03     | B*15:70+B*18:01:01G     |                        |                       |                     |
| B*15:01:01G+B*18:07:01  | B*15:08+B*18:12         | B*15:56+B*18:01:01G    |                       |                     |
| B*15:01:01G+B*18:07:02  | B*15:56+B*18:01:12      |                        |                       |                     |
| B*15:01:01G+B*18:08     | B*15:110+B*18:01:01G    |                        |                       |                     |
| B*15:01:01G+B*18:10     | B*15:117+B*18:58        |                        |                       |                     |
| B*15:01:01G+B*18:11     | B*15:50+B*18:58         |                        |                       |                     |
| B*15:01:01G+B*18:13     | B*15:237+B*18:19        |                        |                       |                     |
| B*15:01:01G+B*18:14     | B*15:07:01G+B*18:01:01G |                        |                       |                     |
| B*15:01:01G+B*18:15     | B*15:39:01+B*18:19      |                        |                       |                     |
| B*15:01:01G+B*18:18     | B*15:32+B*18:01:01G     |                        |                       |                     |
| B*15:01:01G+B*18:20     | B*15:128+B*18:01:01G    |                        |                       |                     |
| B*15:01:01G+B*18:26     | B*15:30+B*18:01:01G     |                        |                       |                     |
| B*15:01:01G+B*18:30     | B*15:65+B*18:19         |                        |                       |                     |
| B*15:01:01G+B*18:31     | B*15:145+B*18:01:01G    |                        |                       |                     |
| B*15:01:01G+B*18:32     | B*15:192+B*18:01:01G    |                        |                       |                     |
| B*15:01:01G+B*18:33     | B*15:66+B*18:01:01G     |                        |                       |                     |
| B*15:01:01G+B*18:36     | B*15:38:01+B*18:58      |                        |                       |                     |
| B*15:01:01G+B*18:40     | B*15:78:01+B*18:01:01G  |                        |                       |                     |
| B*15:01:01G+B*18:44:02  | B*15:01:14+B*18:44:01   |                        |                       |                     |
| B*15:01:01G+B*18:49     | B*15:135+B*18:01:01G    |                        |                       |                     |
| B*15:01:01G+B*18:50     | B*15:38:01+B*18:10      | B*15:117+B*18:36       |                       |                     |
| B*15:01:01G+B*18:54     | B*15:43+B*18:01:01G     |                        |                       |                     |
| B*15:01:01G+B*18:61     | B*15:30+B*18:40         | B*15:78:01+B*18:26     |                       |                     |
| B*15:01:01G+B*18:67     | B*15:87+B*18:01:01G     |                        |                       |                     |
| B*15:01:01G+B*18:68     | B*15:225+B*18:25        |                        |                       |                     |
| B*15:01:01G+B*18:69     | B*15:165+B*18:01:01G    |                        |                       |                     |
| B*15:01:01G+B*18:71     | B*15:122+B*18:01:01G    |                        |                       |                     |
| B*15:01:01G+B*27:02:01  | B*15:24+B*27:08         | B*15:87+B*27:89        |                       |                     |
| B*15:01:01G+B*27:02:02  | B*15:01:08+B*27:02:01   |                        |                       |                     |
| B*15:01:01G+B*27:03     | B*15:160+B*27:05:02G    |                        |                       |                     |
| B*15:01:01G+B*27:04:01G | B*15:40+B*27:25         | B*15:117+B*27:63       |                       |                     |
| B*15:01:01G+B*27:04:03  | B*15:01:02+B*27:04:01G  |                        |                       |                     |
| B*15:01:01G+B*27:05:02G | B*15:43+B*27:08         | B*15:117+B*27:38       | B*15:129+B*27:70      | B*15:225+B*27:37    |
| B*15:01:01G+B*27:05:15  | B*15:01:03+B*27:05:02G  |                        |                       |                     |
| B*15:01:01G+B*27:06     | B*15:129+B*27:21        |                        |                       |                     |
| B*15:01:01G+B*27:07:01G | B*15:43+B*27:33         |                        |                       |                     |
| B*15:01:01G+B*27:08     | B*15:70+B*27:44         |                        |                       |                     |
| B*15:01:01G+B*27:10     | B*15:43+B*27:40         |                        |                       |                     |
| B*15:01:01G+B*27:14     | B*15:34+B*27:81         |                        |                       |                     |
| B*15:01:01G+B*27:15     | B*15:50+B*27:63         |                        |                       |                     |
| B*15:01:01G+B*27:16     | B*15:43+B*27:12         |                        |                       |                     |
| B*15:01:01G+B*27:19     | B*15:154+B*27:70        |                        |                       |                     |
| B*15:01:01G+B*27:27     | B*15:30+B*27:41         |                        |                       |                     |
| B*15:01:01G+B*27:28     | B*15:38:01+B*27:71      |                        |                       |                     |
| B*15:01:01G+B*27:32     | B*15:07:01G+B*27:70     |                        |                       |                     |
| B*15:01:01G+B*27:46     | B*15:63+B*27:78         |                        |                       |                     |
| B*15:01:01G+B*27:50     | B*15:14+B*27:05:03      |                        |                       |                     |
| B*15:01:01G+B*27:53     | B*15:87+B*27:42         |                        |                       |                     |
| B*15:01:01G+B*27:58     | B*15:231+B*27:05:02G    |                        |                       |                     |
| B*15:01:01G+B*27:63     | B*15:39:01+B*27:25      |                        |                       |                     |
| B*15:01:01G+B*27:71     | B*15:50+B*27:38         |                        |                       |                     |
| B*15:01:01G+B*27:81     | B*15:04+B*27:70         |                        |                       |                     |
| B*15:01:01G+B*27:89     | B*15:135+B*27:08        |                        |                       |                     |
| B*15:01:01G+B*35:01:01G | B*15:01:14+B*35:01:04   | B*15:05:01+B*35:14:01  | B*15:05:02+B*35:14:02 | B*15:08+B*35:28     |
|                         | B*15:15+B*35:10         | B*15:20+B*35:43:01G    | B*15:39:01+B*35:62    | B*15:56+B*35:20:01  |
|                         | B*15:85+B*35:32:02      | B*15:154+B*35:68:01    |                       |                     |
| B*15:01:01G+B*35:01:04  | B*15:154+B*35:68:02     |                        |                       |                     |
| B*15:01:01G+B*35:01:06  | B*15:01:24+B*35:01:01G  |                        |                       |                     |
| B*15:01:01G+B*35:01:10  | B*15:01:02+B*35:01:01G  |                        |                       |                     |
| B*15:01:01G+B*35:01:27  | B*15:01:15+B*35:01:01G  |                        |                       |                     |
| B*15:01:01G+B*35:02:01  | B*15:30+B*35:146        | B*15:56+B*35:95        |                       |                     |
| B*15:01:01G+B*35:03:01G | B*15:15+B*35:13         | B*15:39:01+B*35:163    | B*15:165+B*35:75      |                     |
| B*15:01:01G+B*35:03:09  | B*15:01:08+B*35:03:01G  |                        |                       |                     |
| B*15:01:01G+B*35:04:01  | B*15:20+B*35:44         | B*15:30+B*35:01:01G    |                       |                     |
| B*15:01:01G+B*35:04:02  | B*15:01:02+B*35:04:01   | B*15:30+B*35:01:10     |                       |                     |
| B*15:01:01G+B*35:04:03  | B*15:30+B*35:01:17      | B*15:34+B*35:12:02     |                       |                     |
| B*15:01:01G+B*35:05:01  | B*15:07:01G+B*35:68:02  | B*15:56+B*35:72        |                       |                     |
| B*15:01:01G+B*35:06     | B*15:58+B*35:01:01G     |                        |                       |                     |
| B*15:01:01G+B*35:08:01  | B*15:01:14+B*35:08:03   | B*15:15+B*35:80        | B*15:65+B*35:62       | B*15:237+B*35:14:01 |
| B*15:01:01G+B*35:09:01  | B*15:78:01+B*35:04:01   |                        |                       |                     |
| B*15:01:01G+B*35:09:02  | B*15:30+B*35:64         |                        |                       |                     |
| B*15:01:01G+B*35:09:03  | B*15:78:02+B*35:04:01   | B*15:150+B*35:01:01G   |                       |                     |
| B*15:01:01G+B*35:10     | B*15:56+B*35:28         |                        |                       |                     |
| B*15:01:01G+B*35:11:01  | B*15:39:01+B*35:14:01   | B*15:39:02+B*35:14:02  |                       |                     |
| B*15:01:01G+B*35:11:02  | B*15:39:01+B*35:14:02   |                        |                       |                     |
| B*15:01:01G+B*35:12:02  | B*15:01:14+B*35:12:01   |                        |                       |                     |
| B*15:01:01G+B*35:14:02  | B*15:85+B*35:43:01G     |                        |                       |                     |
| B*15:01:01G+B*35:15     | B*15:20+B*35:86         | B*15:40+B*35:62        | B*15:117+B*35:01:01G  |                     |
| B*15:01:01G+B*35:17     | B*15:15+B*35:16         |                        |                       |                     |
| B*15:01:01G+B*35:20:01  | B*15:15+B*35:28         |                        |                       |                     |
| B*15:01:01G+B*35:21     | B*15:38:01+B*35:11:01   | B*15:38:02+B*35:11:02  |                       |                     |
| B*15:01:01G+B*35:22     | B*15:30+B*35:51         |                        |                       |                     |
| B*15:01:01G+B*35:23     | B*15:27:01+B*35:01:04   | B*15:27:02+B*35:01:01G |                       |                     |
| B*15:01:01G+B*35:24:01  | B*15:38:01+B*35:01:01G  | B*15:185+B*35:14:01    |                       |                     |
| B*15:01:01G+B*35:27     | B*15:135+B*35:01:01G    |                        |                       |                     |
| B*15:01:01G+B*35:28     | B*15:20+B*15:239        |                        |                       |                     |
| B*15:01:01G+B*35:29:01  | B*15:15+B*35:69         | B*15:70+B*35:01:01G    | B*15:236+B*35:20:01   |                     |
| B*15:01:01G+B*35:29:02  | B*15:70+B*35:01:15      |                        |                       |                     |
| B*15:01:01G+B*35:30     | B*15:07:01G+B*35:01:04  | B*15:34+B*35:17        | B*15:154+B*35:05:01   |                     |
| B*15:01:01G+B*35:32:02  | B*15:05:02+B*35:43:01G  |                        |                       |                     |
| B*15:01:01G+B*35:33     | B*15:40+B*35:163        | B*15:117+B*35:03:01G   |                       |                     |
| B*15:01:01G+B*35:34     | B*15:63+B*35:01:01G     |                        |                       |                     |
| B*15:01:01G+B*35:35     | B*15:249+B*35:93        |                        |                       |                     |
| B*15:01:01G+B*35:37     | B*15:04+B*35:68:02      |                        |                       |                     |
| B*15:01:01G+B*35:43:01G | B*15:08+B*15:239        |                        |                       |                     |
| B*15:01:01G+B*35:44     | B*15:30+B*35:43:01G     |                        |                       |                     |



|                         |                         |                        |                       |                       |
|-------------------------|-------------------------|------------------------|-----------------------|-----------------------|
| B*15:01:01G+B*35:45     | B*15:14+B*35:08:01      |                        |                       |                       |
| B*15:01:01G+B*35:48     | B*15:32+B*35:01:04      |                        |                       |                       |
| B*15:01:01G+B*35:50     | B*15:71+B*35:01:01G     | B*15:225+B*35:197      |                       |                       |
| B*15:01:01G+B*35:51     | B*15:07:01G+B*35:32:02  |                        |                       |                       |
| B*15:01:01G+B*35:54     | B*15:125+B*35:01:01G    |                        |                       |                       |
| B*15:01:01G+B*35:56     | B*15:135+B*35:03:01G    |                        |                       |                       |
| B*15:01:01G+B*35:63     | B*15:20+B*15:212        |                        |                       |                       |
| B*15:01:01G+B*35:64     | B*15:107+B*35:14:02     |                        |                       |                       |
| B*15:01:01G+B*35:68:01  | B*15:01:14+B*35:68:02   |                        |                       |                       |
| B*15:01:01G+B*35:68:02  | B*15:34+B*35:32:01      |                        |                       |                       |
| B*15:01:01G+B*35:69     | B*15:70+B*35:10         | B*15:236+B*35:28       |                       |                       |
| B*15:01:01G+B*35:71     | B*15:14+B*35:01:01G     |                        |                       |                       |
| B*15:01:01G+B*35:76     | B*15:76+B*35:28         | B*15:101+B*35:20:01    |                       |                       |
| B*15:01:01G+B*35:81     | B*15:38:01+B*35:02:01   |                        |                       |                       |
| B*15:01:01G+B*35:82     | B*15:20+B*35:135        | B*15:66+B*35:20:01     |                       |                       |
| B*15:01:01G+B*35:84     | B*15:71+B*35:150        |                        |                       |                       |
| B*15:01:01G+B*35:86     | B*15:117+B*35:43:01G    |                        |                       |                       |
| B*15:01:01G+B*35:90     | B*15:183+B*35:01:01G    |                        |                       |                       |
| B*15:01:01G+B*35:91     | B*15:192+B*35:01:01G    |                        |                       |                       |
| B*15:01:01G+B*35:93     | B*15:50+B*35:01:01G     |                        |                       |                       |
| B*15:01:01G+B*35:99     | B*15:65+B*35:43:01G     |                        |                       |                       |
| B*15:01:01G+B*35:103    | B*15:163+B*35:01:01G    |                        |                       |                       |
| B*15:01:01G+B*35:109    | B*15:38:01+B*35:03:01G  | B*15:38:02+B*35:03:02  |                       |                       |
| B*15:01:01G+B*35:115    | B*15:179+B*35:14:02     |                        |                       |                       |
| B*15:01:01G+B*35:118    | B*15:78:02+B*35:43:01G  |                        |                       |                       |
| B*15:01:01G+B*35:124    | B*15:251+B*35:01:01G    |                        |                       |                       |
| B*15:01:01G+B*35:125    | B*15:251+B*35:17        |                        |                       |                       |
| B*15:01:01G+B*35:136    | B*15:70+B*35:03:01G     |                        |                       |                       |
| B*15:01:01G+B*35:142    | B*15:251+B*35:08:01     |                        |                       |                       |
| B*15:01:01G+B*35:150    | B*15:183+B*35:03:01G    |                        |                       |                       |
| B*15:01:01G+B*35:156    | B*15:65+B*35:163        |                        |                       |                       |
| B*15:01:01G+B*35:157    | B*15:50+B*35:81         |                        |                       |                       |
| B*15:01:01G+B*35:169    | B*15:14+B*35:38         |                        |                       |                       |
| B*15:01:01G+B*35:174    | B*15:78:01+B*35:08:01   |                        |                       |                       |
| B*15:01:01G+B*35:175    | B*15:92+B*35:01:01G     |                        |                       |                       |
| B*15:01:01G+B*35:180    | B*15:105+B*35:01:01G    |                        |                       |                       |
| B*15:01:01G+B*35:184    | B*15:183+B*35:02:01     |                        |                       |                       |
| B*15:01:01G+B*35:186    | B*15:239+B*46:33        | B*35:28+B*46:01:01G    |                       |                       |
| B*15:01:01G+B*35:188    | B*15:50+B*35:21         |                        |                       |                       |
| B*15:01:01G+B*35:190    | B*15:38:01+B*35:93      | B*15:50+B*35:24:01     |                       |                       |
| B*15:01:01G+B*35:199    | B*15:45+B*35:32:02      | B*15:63+B*35:51        |                       |                       |
| B*15:01:01G+B*35:205    | B*15:78:02+B*35:03:02   |                        |                       |                       |
| B*15:01:01G+B*37:01:01G | B*15:43+B*37:11         |                        |                       |                       |
| B*15:01:01G+B*37:01:03  | B*15:01:11+B*37:01:01G  |                        |                       |                       |
| B*15:01:01G+B*37:04:01  | B*15:38:01+B*37:01:01G  |                        |                       |                       |
| B*15:01:01G+B*37:21     | B*15:56+B*37:01:01G     |                        |                       |                       |
| B*15:01:01G+B*37:34     | B*15:24+B*37:11         |                        |                       |                       |
| B*15:01:01G+B*38:01:01  | B*15:24+B*39:05:01      | B*15:249+B*38:36       | B*15:251+B*38:28      |                       |
| B*15:01:01G+B*38:02:03  | B*15:15+B*38:04         |                        |                       |                       |
| B*15:01:01G+B*38:05     | B*15:125+B*38:33        |                        |                       |                       |
| B*15:01:01G+B*38:14     | B*15:24+B*39:01:01G     | B*15:70+B*38:01:01     |                       |                       |
| B*15:01:01G+B*38:16     | B*15:183+B*38:28        |                        |                       |                       |
| B*15:01:01G+B*38:17     | B*15:43+B*39:05:01      |                        |                       |                       |
| B*15:01:01G+B*38:19     | B*15:07:01G+B*38:01:01  | B*15:24+B*39:37        |                       |                       |
| B*15:01:01G+B*38:20     | B*15:154+B*38:01:01     |                        |                       |                       |
| B*15:01:01G+B*38:26     | B*15:24+B*67:01:01      |                        |                       |                       |
| B*15:01:01G+B*38:32     | B*15:249+B*38:10        |                        |                       |                       |
| B*15:01:01G+B*39:01:01G | B*15:05:02+B*39:18      | B*15:15+B*39:22        | B*15:50+B*39:74       | B*15:66+B*39:39:01    |
|                         | B*15:70+B*39:05:01      | B*15:136+B*39:36       | B*15:189+B*39:13:01   | B*15:249+B*39:30      |
| B*15:01:01G+B*39:01:05  | B*15:05:01+B*39:18      |                        |                       |                       |
| B*15:01:01G+B*39:01:14  | B*15:189+B*39:13:02     |                        |                       |                       |
| B*15:01:01G+B*39:02:02  | B*15:70+B*39:13:01      |                        |                       |                       |
| B*15:01:01G+B*39:03     | B*15:07:01G+B*39:01:01G | B*15:70+B*39:37        |                       |                       |
| B*15:01:01G+B*39:05:01  | B*15:58+B*39:07         |                        |                       |                       |
| B*15:01:01G+B*39:06:02  | B*15:01:14+B*39:06:01   | B*15:04+B*39:01:01G    | B*15:249+B*39:34      |                       |
| B*15:01:01G+B*39:09     | B*15:32+B*39:01:01G     |                        |                       |                       |
| B*15:01:01G+B*39:10:01  | B*15:11:01G+B*39:02:02  |                        |                       |                       |
| B*15:01:01G+B*39:14     | B*15:07:01G+B*39:70     |                        |                       |                       |
| B*15:01:01G+B*39:15     | B*15:70+B*39:55         | B*15:189+B*39:49       |                       |                       |
| B*15:01:01G+B*39:22     | B*15:66+B*39:02:01      |                        |                       |                       |
| B*15:01:01G+B*39:24:01  | B*15:184+B*39:03        |                        |                       |                       |
| B*15:01:01G+B*39:28     | B*15:35+B*39:01:01G     |                        |                       |                       |
| B*15:01:01G+B*39:30     | B*15:05:01+B*39:36      |                        |                       |                       |
| B*15:01:01G+B*39:31     | B*15:71+B*39:04         | B*15:225+B*39:01:01G   |                       |                       |
| B*15:01:01G+B*39:32     | B*15:38:01+B*39:74      |                        |                       |                       |
| B*15:01:01G+B*39:34     | B*15:04+B*39:30         | B*15:155+B*39:36       |                       |                       |
| B*15:01:01G+B*39:35     | B*15:39:02+B*39:18      |                        |                       |                       |
| B*15:01:01G+B*39:37     | B*15:07:01G+B*39:05:01  |                        |                       |                       |
| B*15:01:01G+B*39:38Q    | B*15:245Q+B*39:01:01G   |                        |                       |                       |
| B*15:01:01G+B*39:39:01  | B*15:15+B*39:02:01      |                        |                       |                       |
| B*15:01:01G+B*39:42     | B*15:154+B*39:01:01G    |                        |                       |                       |
| B*15:01:01G+B*39:47     | B*15:117+B*39:74        |                        |                       |                       |
| B*15:01:01G+B*39:48     | B*15:38:01+B*39:01:01G  | B*15:38:02+B*39:01:05  | B*15:50+B*39:32       |                       |
| B*15:01:01G+B*39:50     | B*15:04+B*39:47         |                        |                       |                       |
| B*15:01:01G+B*39:53     | B*15:193+B*39:01:01G    |                        |                       |                       |
| B*15:01:01G+B*39:54     | B*15:244+B*39:01:01G    |                        |                       |                       |
| B*15:01:01G+B*39:57     | B*15:04+B*39:53         | B*15:193+B*39:06:02    |                       |                       |
| B*15:01:01G+B*39:58     | B*15:08+B*39:02:01      | B*15:56+B*39:39:01     |                       |                       |
| B*15:01:01G+B*39:68     | B*15:78:01+B*39:01:01G  |                        |                       |                       |
| B*15:01:01G+B*40:01:01G | B*15:30+B*40:52         | B*15:63+B*40:38        | B*15:78:01+B*40:87:02 | B*15:78:02+B*40:87:01 |
|                         | B*15:117+B*40:63        | B*15:212+B*40:21       | B*15:225+B*40:49      | B*15:241+B*40:92      |
| B*15:01:01G+B*40:01:04  | B*15:01:14+B*40:01:01G  |                        |                       |                       |
| B*15:01:01G+B*40:01:06  | B*15:01:02+B*40:01:01G  |                        |                       |                       |
| B*15:01:01G+B*40:01:14  | B*15:78:01+B*40:87:01   |                        |                       |                       |
| B*15:01:01G+B*40:02:01G | B*15:07:01G+B*40:11:01  | B*15:30+B*40:03        | B*15:63+B*40:105      | B*15:78:01+B*40:35    |
|                         | B*15:225+B*40:40        |                        |                       |                       |
| B*15:01:01G+B*40:02:09  | B*15:01:14+B*40:02:01G  | B*15:07:01G+B*40:11:02 |                       |                       |
| B*15:01:01G+B*40:02:13  | B*15:01:23+B*40:02:01G  |                        |                       |                       |
| B*15:01:01G+B*40:03     | B*15:07:01G+B*40:20     |                        |                       |                       |
| B*15:01:01G+B*40:04     | B*15:34+B*40:64         | B*15:71+B*40:129       |                       |                       |
| B*15:01:01G+B*40:06:01G | B*15:04+B*40:11:01      | B*15:30+B*40:159       |                       |                       |
| B*15:01:01G+B*40:07     | B*15:56+B*40:01:01G     |                        |                       |                       |
| B*15:01:01G+B*40:08     | B*15:08+B*40:02:01G     |                        |                       |                       |
| B*15:01:01G+B*40:09     | B*15:128+B*40:18        |                        |                       |                       |
| B*15:01:01G+B*40:10:02  | B*15:46+B*40:21         |                        |                       |                       |

|                         |                         |                       |                     |                     |
|-------------------------|-------------------------|-----------------------|---------------------|---------------------|
| B*15:01:01G+B*40:11:01  | B*15:30+B*40:20         |                       |                     |                     |
| B*15:01:01G+B*40:11:02  | B*15:01:14+B*40:11:01   |                       |                     |                     |
| B*15:01:01G+B*40:13     | B*15:56+B*40:19         |                       |                     |                     |
| B*15:01:01G+B*40:14:01  | B*15:78:01+B*40:121     |                       |                     |                     |
| B*15:01:01G+B*40:18     | B*15:45+B*40:20         | B*15:63+B*40:03       |                     |                     |
| B*15:01:01G+B*40:19     | B*15:24+B*40:02:01G     | B*15:87+B*40:37       |                     |                     |
| B*15:01:01G+B*40:25     | B*15:15+B*40:01:01G     |                       |                     |                     |
| B*15:01:01G+B*40:31     | B*15:07:01G+B*40:33     | B*15:45+B*40:52       |                     |                     |
| B*15:01:01G+B*40:33     | B*15:63+B*40:52         |                       |                     |                     |
| B*15:01:01G+B*40:36     | B*15:58+B*40:52         |                       |                     |                     |
| B*15:01:01G+B*40:37     | B*15:135+B*40:02:01G    |                       |                     |                     |
| B*15:01:01G+B*40:42     | B*15:128+B*40:33        |                       |                     |                     |
| B*15:01:01G+B*40:43     | B*15:70+B*40:01:01G     |                       |                     |                     |
| B*15:01:01G+B*40:44     | B*15:63+B*40:159        |                       |                     |                     |
| B*15:01:01G+B*40:45     | B*15:07:01G+B*40:114    |                       |                     |                     |
| B*15:01:01G+B*40:48     | B*15:73+B*40:52         |                       |                     |                     |
| B*15:01:01G+B*40:49     | B*15:53+B*40:21         |                       |                     |                     |
| B*15:01:01G+B*40:50     | B*15:70+B*40:02:01G     |                       |                     |                     |
| B*15:01:01G+B*40:59     | B*15:85+B*40:52         |                       |                     |                     |
| B*15:01:01G+B*40:61     | B*15:152+B*40:01:01G    |                       |                     |                     |
| B*15:01:01G+B*40:64     | B*15:154+B*40:11:02     |                       |                     |                     |
| B*15:01:01G+B*40:67     | B*15:145+B*40:01:01G    |                       |                     |                     |
| B*15:01:01G+B*40:68     | B*15:08+B*40:04         |                       |                     |                     |
| B*15:01:01G+B*40:69     | B*15:28+B*40:01:01G     |                       |                     |                     |
| B*15:01:01G+B*40:70     | B*15:34+B*40:06:01G     |                       |                     |                     |
| B*15:01:01G+B*40:74     | B*15:71+B*40:49         | B*15:225+B*40:210     |                     |                     |
| B*15:01:01G+B*40:75     | B*15:66+B*40:06:01G     |                       |                     |                     |
| B*15:01:01G+B*40:79     | B*15:159+B*40:01:01G    |                       |                     |                     |
| B*15:01:01G+B*40:80     | B*15:07:01G+B*40:01:01G | B*15:45+B*40:38       |                     |                     |
| B*15:01:01G+B*40:86     | B*15:58+B*40:159        |                       |                     |                     |
| B*15:01:01G+B*40:89     | B*15:128+B*40:02:01G    |                       |                     |                     |
| B*15:01:01G+B*40:96     | B*15:71+B*40:110        |                       |                     |                     |
| B*15:01:01G+B*40:100    | B*15:27:01+B*40:01:01G  | B*15:27:02+B*40:01:04 |                     |                     |
| B*15:01:01G+B*40:106    | B*15:08+B*40:01:01G     | B*15:15+B*40:07       | B*15:56+B*40:25     |                     |
| B*15:01:01G+B*40:109    | B*15:87+B*40:06:01G     |                       |                     |                     |
| B*15:01:01G+B*40:113    | B*15:38:01+B*40:01:01G  |                       |                     |                     |
| B*15:01:01G+B*40:117    | B*15:24+B*40:01:01G     |                       |                     |                     |
| B*15:01:01G+B*40:124:01 | B*15:01:14+B*40:124:02  |                       |                     |                     |
| B*15:01:01G+B*40:125    | B*15:34+B*40:01:04      |                       |                     |                     |
| B*15:01:01G+B*40:132    | B*15:14+B*40:01:01G     |                       |                     |                     |
| B*15:01:01G+B*40:143    | B*15:27:02+B*40:02:01G  |                       |                     |                     |
| B*15:01:01G+B*40:157    | B*15:135+B*40:201       |                       |                     |                     |
| B*15:01:01G+B*40:159    | B*15:04+B*40:20         |                       |                     |                     |
| B*15:01:01G+B*40:160    | B*15:154+B*40:01:01G    |                       |                     |                     |
| B*15:01:01G+B*40:162    | B*15:56+B*40:06:01G     |                       |                     |                     |
| B*15:01:01G+B*40:166    | B*15:76+B*40:01:01G     | B*15:101+B*40:25      |                     |                     |
| B*15:01:01G+B*40:169    | B*15:167+B*40:02:01G    |                       |                     |                     |
| B*15:01:01G+B*40:171    | B*15:193+B*40:01:01G    |                       |                     |                     |
| B*15:01:01G+B*40:172    | B*15:128+B*40:01:01G    |                       |                     |                     |
| B*15:01:01G+B*40:173    | B*15:184+B*40:02:01G    |                       |                     |                     |
| B*15:01:01G+B*40:174    | B*15:38:01+B*40:05      |                       |                     |                     |
| B*15:01:01G+B*40:186    | B*15:82+B*40:01:01G     |                       |                     |                     |
| B*15:01:01G+B*40:188    | B*15:43+B*40:01:01G     |                       |                     |                     |
| B*15:01:01G+B*40:190    | B*15:159+B*40:06:01G    |                       |                     |                     |
| B*15:01:01G+B*40:199    | B*15:50+B*40:63         |                       |                     |                     |
| B*15:01:01G+B*40:200    | B*15:97+B*40:02:01G     |                       |                     |                     |
| B*15:01:01G+B*41:02:01  | B*15:07:01G+B*41:03:02  |                       |                     |                     |
| B*15:01:01G+B*41:02:04  | B*15:01:09+B*41:02:01   |                       |                     |                     |
| B*15:01:01G+B*41:07     | B*15:34+B*41:01         |                       |                     |                     |
| B*15:01:01G+B*41:14     | B*15:159+B*41:01        |                       |                     |                     |
| B*15:01:01G+B*42:01:01  | B*15:76+B*42:11         | B*15:78:01+B*42:10    |                     |                     |
| B*15:01:01G+B*42:02     | B*15:30+B*42:09         | B*15:78:01+B*42:17    |                     |                     |
| B*15:01:01G+B*42:15     | B*15:135+B*42:01:01     |                       | B*15:225+B*42:01:01 |                     |
| B*15:01:01G+B*42:17     | B*15:225+B*42:10        |                       |                     |                     |
| B*15:01:01G+B*44:02:01G | B*15:14+B*44:91         | B*15:46+B*44:08       | B*15:128+B*44:51    | B*15:154+B*44:41:01 |
|                         | B*15:233+B*44:17        |                       |                     |                     |
| B*15:01:01G+B*44:02:07  | B*15:01:14+B*44:02:01G  | B*15:154+B*44:41:02   |                     |                     |
| B*15:01:01G+B*44:02:10  | B*15:183+B*44:34        |                       |                     |                     |
| B*15:01:01G+B*44:03:01G | B*15:05:01+B*44:146     | B*15:14+B*44:37:01    | B*15:46+B*44:57     | B*15:128+B*44:45    |
|                         | B*15:135+B*44:109       | B*15:154+B*44:65      | B*15:233+B*44:43:01 |                     |
| B*15:01:01G+B*44:03:02  | B*15:01:14+B*44:03:01G  | B*15:14+B*44:37:02    |                     |                     |
| B*15:01:01G+B*44:04     | B*15:50+B*44:28:02      |                       |                     |                     |
| B*15:01:01G+B*44:05:01  | B*15:14+B*44:42         | B*15:128+B*44:123     |                     |                     |
| B*15:01:01G+B*44:12     | B*15:15+B*44:02:01G     |                       |                     |                     |
| B*15:01:01G+B*44:16     | B*15:117+B*44:91        |                       |                     |                     |
| B*15:01:01G+B*44:18     | B*15:24+B*45:01:01G     |                       |                     |                     |
| B*15:01:01G+B*44:20     | B*15:04+B*44:41:01      |                       |                     |                     |
| B*15:01:01G+B*44:21     | B*15:14+B*44:16         | B*15:117+B*44:02:01G  |                     |                     |
| B*15:01:01G+B*44:22     | B*15:125+B*44:02:01G    |                       |                     |                     |
| B*15:01:01G+B*44:25     | B*15:87+B*44:75         |                       |                     |                     |
| B*15:01:01G+B*44:27:02  | B*15:01:10+B*44:02:01G  |                       |                     |                     |
| B*15:01:01G+B*44:28:01  | B*15:01:14+B*44:28:02   |                       |                     |                     |
| B*15:01:01G+B*44:28:02  | B*15:237+B*44:146       |                       |                     |                     |
| B*15:01:01G+B*44:29     | B*15:136+B*44:146       | B*15:249+B*44:03:01G  |                     |                     |
| B*15:01:01G+B*44:37:02  | B*15:01:14+B*44:37:01   |                       |                     |                     |
| B*15:01:01G+B*44:41:02  | B*15:01:14+B*44:41:01   |                       |                     |                     |
| B*15:01:01G+B*44:47     | B*15:04+B*44:65         |                       |                     |                     |
| B*15:01:01G+B*44:48     | B*15:34+B*44:02:07      |                       |                     |                     |
| B*15:01:01G+B*44:49     | B*15:142+B*44:02:01G    |                       |                     |                     |
| B*15:01:01G+B*44:50     | B*15:24+B*44:46         |                       |                     |                     |
| B*15:01:01G+B*44:53     | B*15:78:01+B*44:02:01G  |                       |                     |                     |
| B*15:01:01G+B*44:54     | B*15:07:01G+B*44:65     | B*15:128+B*44:135     |                     |                     |
| B*15:01:01G+B*44:55     | B*15:225+B*44:02:01G    |                       |                     |                     |
| B*15:01:01G+B*44:56N    | B*15:26N+B*44:04        |                       |                     |                     |
| B*15:01:01G+B*44:58N    | B*15:94N+B*44:05:01     |                       |                     |                     |
| B*15:01:01G+B*44:64:01  | B*15:01:14+B*44:64:02   | B*15:117+B*44:37:02   |                     |                     |
| B*15:01:01G+B*44:64:02  | B*15:117+B*44:37:01     |                       |                     |                     |
| B*15:01:01G+B*44:71     | B*15:231+B*44:02:01G    |                       |                     |                     |
| B*15:01:01G+B*44:76     | B*15:65+B*44:146        |                       |                     |                     |
| B*15:01:01G+B*44:77     | B*15:30+B*44:43:01      |                       |                     |                     |
| B*15:01:01G+B*44:79     | B*15:39:01+B*44:146     |                       |                     |                     |
| B*15:01:01G+B*44:88     | B*15:232+B*44:02:01G    |                       |                     |                     |
| B*15:01:01G+B*44:89     | B*15:249+B*44:02:01G    |                       |                     |                     |
| B*15:01:01G+B*44:90     | B*15:101+B*44:09        |                       |                     |                     |
| B*15:01:01G+B*44:95     | B*15:24+B*44:09         |                       |                     |                     |

Copyright © IMGT/HLA Database, see <http://www.ebi.ac.uk/imgt/hla/licence.html> for further details.

|                         |                        |                       |                       |                     |
|-------------------------|------------------------|-----------------------|-----------------------|---------------------|
| B*15:01:01G+B*51:127    | B*15:178+B*51:01:01G   |                       |                       |                     |
| B*15:01:01G+B*51:130    | B*15:192+B*51:01:01G   |                       |                       |                     |
| B*15:01:01G+B*52:01:01G | B*15:01:02+B*52:01:05  | B*15:24+B*78:05       | B*15:38:01+B*52:11    | B*15:87+B*78:06     |
| B*15:01:01G+B*52:01:02  | B*15:39:01+B*52:21     | B*15:135+B*52:09      | B*15:239+B*52:02      |                     |
| B*15:01:01G+B*52:01:06  | B*15:01:25+B*52:01:01G |                       |                       |                     |
| B*15:01:01G+B*52:06:02  | B*15:56+B*52:01:02     |                       |                       |                     |
| B*15:01:01G+B*52:08     | B*15:117+B*52:01:01G   |                       |                       |                     |
| B*15:01:01G+B*52:15     | B*15:14+B*52:01:01G    |                       |                       |                     |
| B*15:01:01G+B*52:27     | B*15:251+B*52:01:01G   |                       |                       |                     |
| B*15:01:01G+B*52:28     | B*15:145+B*52:01:01G   |                       |                       |                     |
| B*15:01:01G+B*52:29     | B*15:105+B*52:01:01G   |                       |                       |                     |
| B*15:01:01G+B*53:01:01  | B*15:08+B*53:17:02     | B*15:24+B*35:01:01G   | B*15:87+B*35:27       | B*15:135+B*53:05    |
| B*15:01:01G+B*53:01:02  | B*15:24+B*35:01:16     |                       |                       |                     |
| B*15:01:01G+B*53:02     | B*15:24+B*35:24:01     | B*15:38:01+B*53:01:01 | B*15:38:02+B*53:01:03 |                     |
| B*15:01:01G+B*53:03     | B*15:43+B*35:01:01G    |                       |                       |                     |
| B*15:01:01G+B*53:04     | B*15:24+B*35:03:01G    | B*15:87+B*35:56       |                       |                     |
| B*15:01:01G+B*53:05     | B*15:87+B*35:01:01G    |                       |                       |                     |
| B*15:01:01G+B*53:06     | B*15:85+B*51:45        |                       |                       |                     |
| B*15:01:01G+B*53:08:01  | B*15:24+B*35:11:01     |                       |                       |                     |
| B*15:01:01G+B*53:08:02  | B*15:24+B*35:11:02     |                       |                       |                     |
| B*15:01:01G+B*53:13     | B*15:56+B*53:09        | B*15:135+B*53:12      |                       |                     |
| B*15:01:01G+B*53:14     | B*15:24+B*35:05:01     |                       |                       |                     |
| B*15:01:01G+B*53:16     | B*15:87+B*35:08:01     |                       |                       |                     |
| B*15:01:01G+B*53:17:02  | B*15:24+B*35:28        |                       |                       |                     |
| B*15:01:01G+B*53:19     | B*15:24+B*35:02:01     |                       |                       |                     |
| B*15:01:01G+B*53:21     | B*15:24+B*35:197       |                       |                       |                     |
| B*15:01:01G+B*53:23     | B*15:24+B*35:29:01     | B*15:70+B*53:01:01    |                       |                     |
| B*15:01:01G+B*53:24     | B*15:24+B*35:08:01     | B*15:135+B*53:16      |                       |                     |
| B*15:01:01G+B*53:26     | B*15:24+B*35:108:01    |                       |                       |                     |
| B*15:01:01G+B*54:01:01G | B*15:01:04+B*54:01:02  | B*15:50+B*54:03       | B*15:73+B*54:14       |                     |
| B*15:01:01G+B*54:02     | B*15:71+B*54:01:01G    |                       |                       |                     |
| B*15:01:01G+B*54:04     | B*15:30+B*54:14        |                       |                       |                     |
| B*15:01:01G+B*54:12     | B*15:24+B*54:01:01G    |                       |                       |                     |
| B*15:01:01G+B*54:13     | B*15:217+B*54:01:01G   |                       |                       |                     |
| B*15:01:01G+B*54:21     | B*15:251+B*54:01:01G   |                       |                       |                     |
| B*15:01:01G+B*54:26     | B*15:117+B*54:03       |                       |                       |                     |
| B*15:01:01G+B*55:01:01G | B*15:15+B*55:40        | B*15:34+B*55:38       | B*15:39:01+B*55:21    | B*15:50+B*56:25     |
|                         | B*15:70+B*55:31        |                       |                       |                     |
| B*15:01:01G+B*55:01:04  | B*15:01:02+B*55:01:01G |                       |                       |                     |
| B*15:01:01G+B*55:02:01G | B*15:01:14+B*55:02:04  | B*15:04+B*56:10       | B*15:05:01+B*55:21    | B*15:11:01G+B*55:34 |
|                         | B*15:50+B*56:01:01G    | B*15:73+B*55:23       | B*15:152+B*55:47      |                     |
| B*15:01:01G+B*55:02:03  | B*15:01:10+B*55:02:01G |                       |                       |                     |
| B*15:01:01G+B*55:12     | B*15:135+B*55:02:01G   |                       |                       |                     |
| B*15:01:01G+B*55:13     | B*15:50+B*56:22        | B*15:58+B*55:23       |                       |                     |
| B*15:01:01G+B*55:16     | B*15:225+B*55:02:01G   |                       |                       |                     |
| B*15:01:01G+B*55:22     | B*15:117+B*56:01:01G   |                       |                       |                     |
| B*15:01:01G+B*55:24     | B*15:117+B*56:25       |                       |                       |                     |
| B*15:01:01G+B*55:28     | B*15:34+B*55:17        |                       |                       |                     |
| B*15:01:01G+B*55:36     | B*15:244+B*55:01:01G   |                       |                       |                     |
| B*15:01:01G+B*55:37     | B*15:237+B*55:21       |                       |                       |                     |
| B*15:01:01G+B*55:41     | B*15:128+B*55:02:01G   |                       |                       |                     |
| B*15:01:01G+B*55:43     | B*15:178+B*55:02:01G   |                       |                       |                     |
| B*15:01:01G+B*55:45     | B*15:60+B*55:01:01G    |                       |                       |                     |
| B*15:01:01G+B*55:47     | B*15:15+B*55:34        |                       |                       |                     |
| B*15:01:01G+B*55:52     | B*15:65+B*55:21        |                       |                       |                     |
| B*15:01:01G+B*55:54     | B*15:105+B*55:01:01G   |                       |                       |                     |
| B*15:01:01G+B*56:01:01G | B*15:04+B*56:02        | B*15:34+B*56:27       |                       |                     |
| B*15:01:01G+B*56:02     | B*15:34+B*56:04        |                       |                       |                     |
| B*15:01:01G+B*56:10     | B*15:50+B*56:02        |                       |                       |                     |
| B*15:01:01G+B*56:16     | B*15:251+B*56:01:01G   |                       |                       |                     |
| B*15:01:01G+B*56:20:01  | B*15:78:01+B*56:01:01G |                       |                       |                     |
| B*15:01:01G+B*56:20:02  | B*15:78:02+B*56:01:03  |                       |                       |                     |
| B*15:01:01G+B*56:21     | B*15:24+B*56:05:02     |                       |                       |                     |
| B*15:01:01G+B*56:27     | B*15:04+B*56:04        |                       |                       |                     |
| B*15:01:01G+B*56:31     | B*15:38:01+B*56:18     |                       |                       |                     |
| B*15:01:01G+B*56:34     | B*15:38:01+B*56:01:01G | B*15:38:02+B*56:01:03 |                       |                     |
| B*15:01:01G+B*56:35     | B*15:71+B*56:01:01G    |                       |                       |                     |
| B*15:01:01G+B*56:36     | B*15:183+B*56:01:01G   |                       |                       |                     |
| B*15:01:01G+B*57:02:01  | B*15:24+B*57:12        | B*15:30+B*57:19       |                       |                     |
| B*15:01:01G+B*57:03:01  | B*15:30+B*57:01:01G    |                       |                       |                     |
| B*15:01:01G+B*57:04     | B*15:233+B*57:19       |                       |                       |                     |
| B*15:01:01G+B*57:07     | B*15:14+B*57:03:01     |                       |                       |                     |
| B*15:01:01G+B*57:14     | B*15:38:02+B*57:01:01G |                       |                       |                     |
| B*15:01:01G+B*57:25     | B*15:117+B*57:01:01G   |                       |                       |                     |
| B*15:01:01G+B*57:26     | B*15:50+B*57:01:01G    |                       |                       |                     |
| B*15:01:01G+B*57:31     | B*15:78:01+B*57:01:01G |                       |                       |                     |
| B*15:01:01G+B*57:39     | B*15:225+B*57:03:01    |                       |                       |                     |
| B*15:01:01G+B*57:41     | B*15:128+B*57:01:01G   |                       |                       |                     |
| B*15:01:01G+B*57:45     | B*15:46+B*57:01:01G    |                       |                       |                     |
| B*15:01:01G+B*57:46     | B*15:105+B*57:03:01    |                       |                       |                     |
| B*15:01:01G+B*57:49     | B*15:142+B*57:01:01G   |                       |                       |                     |
| B*15:01:01G+B*57:51     | B*15:212+B*57:01:01G   |                       |                       |                     |
| B*15:01:01G+B*57:57     | B*15:30+B*57:22        |                       |                       |                     |
| B*15:01:01G+B*57:58     | B*15:251+B*57:01:01G   |                       |                       |                     |
| B*15:01:01G+B*58:01:01G | B*15:165+B*58:26       | B*15:239+B*58:36      |                       |                     |
| B*15:01:01G+B*58:07     | B*15:14+B*58:02        |                       |                       |                     |
| B*15:01:01G+B*58:09     | B*15:38:01+B*58:01:01G | B*15:38:02+B*58:01:05 |                       |                     |
| B*15:01:01G+B*58:12     | B*15:251+B*58:01:01G   |                       |                       |                     |
| B*15:01:01G+B*58:15     | B*15:164+B*58:01:01G   |                       |                       |                     |
| B*15:01:01G+B*58:18     | B*15:07:01G+B*58:16    |                       |                       |                     |
| B*15:01:01G+B*58:35     | B*15:50+B*58:01:01G    |                       |                       |                     |
| B*15:01:01G+B*58:37     | B*15:117+B*58:01:01G   |                       |                       |                     |
| B*15:01:01G+B*59:01:01G | B*15:50+B*59:04        |                       |                       |                     |
| B*15:01:01G+B*67:01:02  | B*15:76+B*39:13:01     |                       |                       |                     |
| B*15:01:01G+B*67:03     | B*15:78:02+B*67:01:01  |                       |                       |                     |
| B*15:01:01G+B*78:01:01  | B*15:70+B*78:02:02     |                       |                       |                     |
| B*15:01:01G+B*78:02:01  | B*15:08+B*78:05        |                       |                       |                     |
| B*15:01:01G+B*78:06     | B*15:135+B*78:05       |                       |                       |                     |
| B*15:01:01G+B*78:07     | B*15:50+B*78:01:01     |                       |                       |                     |
| B*15:01:01G+B*81:01:01G | B*15:76+B*48:01:01G    |                       |                       |                     |
| B*15:01:02+B*35:01:06   | B*15:01:24+B*35:01:10  |                       |                       |                     |
| B*15:01:02+B*35:01:27   | B*15:01:15+B*35:01:10  |                       |                       |                     |
| B*15:01:02+B*35:06      | B*15:58+B*35:01:10     |                       |                       |                     |
| B*15:01:02+B*35:09:01   | B*15:78:01+B*35:04:02  |                       |                       |                     |
| B*15:01:02+B*35:09:03   | B*15:78:02+B*35:04:02  | B*15:150+B*35:01:10   |                       |                     |

|                        |                         |                  |
|------------------------|-------------------------|------------------|
| B*15:01:02+B*35:15     | B*15:117+B*35:01:10     |                  |
| B*15:01:02+B*35:23     | B*15:27:02+B*35:01:10   |                  |
| B*15:01:02+B*35:24:01  | B*15:38:01+B*35:01:10   |                  |
| B*15:01:02+B*35:27     | B*15:135+B*35:01:10     |                  |
| B*15:01:02+B*35:29:01  | B*15:70+B*35:01:10      |                  |
| B*15:01:02+B*35:34     | B*15:63+B*35:01:10      |                  |
| B*15:01:02+B*35:50     | B*15:71+B*35:01:10      |                  |
| B*15:01:02+B*35:54     | B*15:125+B*35:01:10     |                  |
| B*15:01:02+B*35:71     | B*15:14+B*35:01:10      |                  |
| B*15:01:02+B*35:90     | B*15:183+B*35:01:10     |                  |
| B*15:01:02+B*35:91     | B*15:192+B*35:01:10     |                  |
| B*15:01:02+B*35:93     | B*15:50+B*35:01:10      |                  |
| B*15:01:02+B*35:103    | B*15:163+B*35:01:10     |                  |
| B*15:01:02+B*35:124    | B*15:251+B*35:01:10     |                  |
| B*15:01:02+B*35:175    | B*15:92+B*35:01:10      |                  |
| B*15:01:02+B*35:180    | B*15:105+B*35:01:10     |                  |
| B*15:01:02+B*40:01:04  | B*15:01:14+B*40:01:06   |                  |
| B*15:01:02+B*40:07     | B*15:56+B*40:01:06      |                  |
| B*15:01:02+B*40:25     | B*15:15+B*40:01:06      |                  |
| B*15:01:02+B*40:43     | B*15:70+B*40:01:06      |                  |
| B*15:01:02+B*40:61     | B*15:152+B*40:01:06     |                  |
| B*15:01:02+B*40:67     | B*15:145+B*40:01:06     |                  |
| B*15:01:02+B*40:69     | B*15:28+B*40:01:06      |                  |
| B*15:01:02+B*40:79     | B*15:159+B*40:01:06     |                  |
| B*15:01:02+B*40:80     | B*15:07:01G+B*40:01:06  |                  |
| B*15:01:02+B*40:100    | B*15:27:01+B*40:01:06   |                  |
| B*15:01:02+B*40:106    | B*15:08+B*40:01:06      |                  |
| B*15:01:02+B*40:113    | B*15:38:01+B*40:01:06   |                  |
| B*15:01:02+B*40:117    | B*15:24+B*40:01:06      |                  |
| B*15:01:02+B*40:132    | B*15:14+B*40:01:06      |                  |
| B*15:01:02+B*40:160    | B*15:154+B*40:01:06     |                  |
| B*15:01:02+B*40:166    | B*15:76+B*40:01:06      |                  |
| B*15:01:02+B*40:171    | B*15:193+B*40:01:06     |                  |
| B*15:01:02+B*40:172    | B*15:128+B*40:01:06     |                  |
| B*15:01:02+B*40:186    | B*15:82+B*40:01:06      |                  |
| B*15:01:02+B*40:188    | B*15:43+B*40:01:06      |                  |
| B*15:01:02+B*51:24:01  | B*15:78:01+B*51:01:01G  |                  |
| B*15:01:02+B*53:01:01  | B*15:24+B*35:01:10      |                  |
| B*15:01:02+B*53:03     | B*15:43+B*35:01:10      |                  |
| B*15:01:02+B*53:05     | B*15:87+B*35:01:10      |                  |
| B*15:01:02+B*55:36     | B*15:244+B*55:01:04     |                  |
| B*15:01:02+B*55:45     | B*15:60+B*55:01:04      |                  |
| B*15:01:02+B*55:54     | B*15:105+B*55:01:04     |                  |
| B*15:01:03+B*27:03     | B*15:160+B*27:05:15     |                  |
| B*15:01:03+B*27:58     | B*15:231+B*27:05:15     |                  |
| B*15:01:08+B*35:33     | B*15:117+B*35:03:09     |                  |
| B*15:01:08+B*35:56     | B*15:135+B*35:03:09     |                  |
| B*15:01:08+B*35:109    | B*15:38:01+B*35:03:09   |                  |
| B*15:01:08+B*35:136    | B*15:70+B*35:03:09      |                  |
| B*15:01:08+B*35:150    | B*15:183+B*35:03:09     |                  |
| B*15:01:08+B*53:04     | B*15:24+B*35:03:09      |                  |
| B*15:01:10+B*44:02:07  | B*15:01:14+B*44:27:02   |                  |
| B*15:01:10+B*44:12     | B*15:15+B*44:27:02      |                  |
| B*15:01:10+B*44:21     | B*15:117+B*44:27:02     |                  |
| B*15:01:10+B*44:22     | B*15:125+B*44:27:02     |                  |
| B*15:01:10+B*44:49     | B*15:142+B*44:27:02     |                  |
| B*15:01:10+B*44:53     | B*15:78:01+B*44:27:02   |                  |
| B*15:01:10+B*44:55     | B*15:225+B*44:27:02     |                  |
| B*15:01:10+B*44:71     | B*15:231+B*44:27:02     |                  |
| B*15:01:10+B*44:88     | B*15:232+B*44:27:02     |                  |
| B*15:01:10+B*44:89     | B*15:249+B*44:27:02     |                  |
| B*15:01:10+B*44:102    | B*15:105+B*44:27:02     |                  |
| B*15:01:10+B*55:12     | B*15:135+B*55:02:03     |                  |
| B*15:01:10+B*55:16     | B*15:225+B*55:02:03     |                  |
| B*15:01:10+B*55:41     | B*15:128+B*55:02:03     |                  |
| B*15:01:10+B*55:43     | B*15:178+B*55:02:03     |                  |
| B*15:01:11+B*37:04:01  | B*15:38:01+B*37:01:03   |                  |
| B*15:01:11+B*37:21     | B*15:56+B*37:01:03      |                  |
| B*15:01:14+B*15:10:01  | B*15:18:02+B*15:63      |                  |
| B*15:01:14+B*15:23     | B*15:18:02+B*15:24      |                  |
| B*15:01:14+B*15:72     | B*15:18:02+B*15:78:01   |                  |
| B*15:01:14+B*15:80     | B*15:18:02+B*15:154     |                  |
| B*15:01:14+B*15:93     | B*15:18:02+B*15:50      |                  |
| B*15:01:14+B*15:108    | B*15:18:02+B*15:249     |                  |
| B*15:01:14+B*15:161    | B*15:14+B*15:18:02      |                  |
| B*15:01:14+B*15:176    | B*15:18:02+B*15:145     |                  |
| B*15:01:14+B*15:229    | B*15:18:02+B*15:58      |                  |
| B*15:01:14+B*15:238    | B*15:18:02+B*15:117     |                  |
| B*15:01:14+B*18:02     | B*15:129+B*18:01:06     |                  |
| B*15:01:14+B*18:03     | B*15:70+B*18:01:06      |                  |
| B*15:01:14+B*18:07:01  | B*15:56+B*18:01:06      |                  |
| B*15:01:14+B*18:08     | B*15:110+B*18:01:06     |                  |
| B*15:01:14+B*18:14     | B*15:07:01G+B*18:01:06  |                  |
| B*15:01:14+B*18:18     | B*15:32+B*18:01:06      |                  |
| B*15:01:14+B*18:20     | B*15:128+B*18:01:06     |                  |
| B*15:01:14+B*18:22     | B*15:85+B*18:14         |                  |
| B*15:01:14+B*18:26     | B*15:30+B*18:01:06      |                  |
| B*15:01:14+B*18:31     | B*15:145+B*18:01:06     |                  |
| B*15:01:14+B*18:32     | B*15:192+B*18:01:06     |                  |
| B*15:01:14+B*18:33     | B*15:66+B*18:01:06      |                  |
| B*15:01:14+B*18:40     | B*15:78:01+B*18:01:06   |                  |
| B*15:01:14+B*18:49     | B*15:135+B*18:01:06     |                  |
| B*15:01:14+B*18:54     | B*15:43+B*18:01:06      |                  |
| B*15:01:14+B*18:67     | B*15:87+B*18:01:06      |                  |
| B*15:01:14+B*18:69     | B*15:165+B*18:01:06     |                  |
| B*15:01:14+B*18:71     | B*15:122+B*18:01:06     |                  |
| B*15:01:14+B*35:05:01  | B*15:07:01G+B*35:68:01  |                  |
| B*15:01:14+B*35:23     | B*15:27:01+B*35:01:01G  | B*15:195+B*35:62 |
| B*15:01:14+B*35:30     | B*15:07:01G+B*35:01:01G | B*15:85+B*35:51  |
| B*15:01:14+B*35:37     | B*15:04+B*35:68:01      |                  |
| B*15:01:14+B*35:48     | B*15:32+B*35:01:01G     |                  |
| B*15:01:14+B*39:10:01  | B*15:11:03+B*39:02:02   |                  |
| B*15:01:14+B*40:02:13  | B*15:01:23+B*40:02:09   |                  |
| B*15:01:14+B*40:06:01G | B*15:04+B*40:11:02      |                  |
| B*15:01:14+B*40:07     | B*15:56+B*40:01:04      |                  |

|                        |                        |                       |
|------------------------|------------------------|-----------------------|
| B*15:01:14+B*40:08     | B*15:08+B*40:02:09     |                       |
| B*15:01:14+B*40:19     | B*15:24+B*40:02:09     |                       |
| B*15:01:14+B*40:25     | B*15:15+B*40:01:04     |                       |
| B*15:01:14+B*40:37     | B*15:135+B*40:02:09    |                       |
| B*15:01:14+B*40:43     | B*15:70+B*40:01:04     |                       |
| B*15:01:14+B*40:50     | B*15:70+B*40:02:09     |                       |
| B*15:01:14+B*40:61     | B*15:152+B*40:01:04    |                       |
| B*15:01:14+B*40:67     | B*15:145+B*40:01:04    |                       |
| B*15:01:14+B*40:69     | B*15:28+B*40:01:04     |                       |
| B*15:01:14+B*40:79     | B*15:159+B*40:01:04    |                       |
| B*15:01:14+B*40:80     | B*15:07:01G+B*40:01:04 |                       |
| B*15:01:14+B*40:89     | B*15:128+B*40:02:09    |                       |
| B*15:01:14+B*40:100    | B*15:27:01+B*40:01:04  |                       |
| B*15:01:14+B*40:106    | B*15:08+B*40:01:04     |                       |
| B*15:01:14+B*40:113    | B*15:38:01+B*40:01:04  |                       |
| B*15:01:14+B*40:117    | B*15:24+B*40:01:04     |                       |
| B*15:01:14+B*40:132    | B*15:14+B*40:01:04     |                       |
| B*15:01:14+B*40:143    | B*15:27:01+B*40:02:01G | B*15:27:02+B*40:02:09 |
| B*15:01:14+B*40:160    | B*15:154+B*40:01:04    | B*15:212+B*40:137     |
| B*15:01:14+B*40:166    | B*15:76+B*40:01:04     |                       |
| B*15:01:14+B*40:169    | B*15:167+B*40:02:09    |                       |
| B*15:01:14+B*40:171    | B*15:193+B*40:01:04    |                       |
| B*15:01:14+B*40:172    | B*15:128+B*40:01:04    |                       |
| B*15:01:14+B*40:173    | B*15:184+B*40:02:09    |                       |
| B*15:01:14+B*40:186    | B*15:82+B*40:01:04     |                       |
| B*15:01:14+B*40:188    | B*15:43+B*40:01:04     |                       |
| B*15:01:14+B*40:200    | B*15:97+B*40:02:09     |                       |
| B*15:01:14+B*44:04     | B*15:50+B*44:28:01     |                       |
| B*15:01:14+B*44:12     | B*15:15+B*44:02:07     |                       |
| B*15:01:14+B*44:20     | B*15:04+B*44:41:02     |                       |
| B*15:01:14+B*44:21     | B*15:117+B*44:02:07    |                       |
| B*15:01:14+B*44:22     | B*15:125+B*44:02:07    |                       |
| B*15:01:14+B*44:29     | B*15:249+B*44:03:02    |                       |
| B*15:01:14+B*44:49     | B*15:142+B*44:02:07    |                       |
| B*15:01:14+B*44:53     | B*15:78:01+B*44:02:07  |                       |
| B*15:01:14+B*44:55     | B*15:225+B*44:02:07    |                       |
| B*15:01:14+B*44:71     | B*15:231+B*44:02:07    |                       |
| B*15:01:14+B*44:88     | B*15:232+B*44:02:07    |                       |
| B*15:01:14+B*44:89     | B*15:249+B*44:02:07    |                       |
| B*15:01:14+B*44:102    | B*15:105+B*44:02:07    |                       |
| B*15:01:14+B*44:103    | B*15:71+B*44:03:02     |                       |
| B*15:01:14+B*44:105    | B*15:125+B*44:03:02    |                       |
| B*15:01:14+B*44:106    | B*15:07:01G+B*44:41:02 |                       |
| B*15:01:14+B*44:110    | B*15:07:01G+B*44:03:02 |                       |
| B*15:01:14+B*46:18     | B*15:86+B*46:32        |                       |
| B*15:01:14+B*48:01:01G | B*15:07:01G+B*48:03:02 |                       |
| B*15:01:14+B*48:21     | B*15:129+B*48:03:02    |                       |
| B*15:01:14+B*51:01:01G | B*15:04+B*51:06:02     |                       |
| B*15:01:14+B*51:56:01  | B*15:34+B*51:04        |                       |
| B*15:01:14+B*51:56:02  | B*15:85+B*51:06:02     |                       |
| B*15:01:14+B*51:64     | B*15:07:01G+B*51:06:02 |                       |
| B*15:01:14+B*55:02:01G | B*15:11:03+B*55:34     |                       |
| B*15:01:15+B*35:01:06  | B*15:01:24+B*35:01:27  |                       |
| B*15:01:15+B*35:04:01  | B*15:30+B*35:01:27     |                       |
| B*15:01:15+B*35:06     | B*15:58+B*35:01:27     |                       |
| B*15:01:15+B*35:09:03  | B*15:150+B*35:01:27    |                       |
| B*15:01:15+B*35:15     | B*15:117+B*35:01:27    |                       |
| B*15:01:15+B*35:23     | B*15:27:02+B*35:01:27  |                       |
| B*15:01:15+B*35:24:01  | B*15:38:01+B*35:01:27  |                       |
| B*15:01:15+B*35:27     | B*15:135+B*35:01:27    |                       |
| B*15:01:15+B*35:29:01  | B*15:70+B*35:01:27     |                       |
| B*15:01:15+B*35:34     | B*15:63+B*35:01:27     |                       |
| B*15:01:15+B*35:50     | B*15:71+B*35:01:27     |                       |
| B*15:01:15+B*35:54     | B*15:125+B*35:01:27    |                       |
| B*15:01:15+B*35:71     | B*15:14+B*35:01:27     |                       |
| B*15:01:15+B*35:90     | B*15:183+B*35:01:27    |                       |
| B*15:01:15+B*35:91     | B*15:192+B*35:01:27    |                       |
| B*15:01:15+B*35:93     | B*15:50+B*35:01:27     |                       |
| B*15:01:15+B*35:103    | B*15:163+B*35:01:27    |                       |
| B*15:01:15+B*35:124    | B*15:251+B*35:01:27    |                       |
| B*15:01:15+B*35:175    | B*15:92+B*35:01:27     |                       |
| B*15:01:15+B*35:180    | B*15:105+B*35:01:27    |                       |
| B*15:01:15+B*53:01:01  | B*15:24+B*35:01:27     |                       |
| B*15:01:15+B*53:03     | B*15:43+B*35:01:27     |                       |
| B*15:01:15+B*53:05     | B*15:87+B*35:01:27     |                       |
| B*15:01:17+B*15:72     | B*15:18:01G+B*15:78:03 |                       |
| B*15:01:17+B*18:40     | B*15:78:03+B*18:01:01G |                       |
| B*15:01:17+B*18:61     | B*15:78:03+B*18:26     |                       |
| B*15:01:17+B*35:09:01  | B*15:78:03+B*35:04:01  |                       |
| B*15:01:17+B*35:174    | B*15:78:03+B*35:08:01  |                       |
| B*15:01:17+B*39:68     | B*15:78:03+B*39:01:01G |                       |
| B*15:01:17+B*40:01:01G | B*15:78:03+B*40:87:02  |                       |
| B*15:01:17+B*40:01:14  | B*15:78:03+B*40:87:01  |                       |
| B*15:01:17+B*40:02:01G | B*15:78:03+B*40:35     |                       |
| B*15:01:17+B*40:14:01  | B*15:78:03+B*40:121    |                       |
| B*15:01:17+B*42:01:01  | B*15:78:03+B*42:10     |                       |
| B*15:01:17+B*42:02     | B*15:78:03+B*42:17     |                       |
| B*15:01:17+B*44:53     | B*15:78:03+B*44:02:01G |                       |
| B*15:01:17+B*51:24:01  | B*15:78:03+B*51:01:04  |                       |
| B*15:01:17+B*51:24:03  | B*15:78:03+B*51:01:25  |                       |
| B*15:01:17+B*51:24:04  | B*15:78:03+B*51:01:21  |                       |
| B*15:01:17+B*56:20:01  | B*15:78:03+B*56:01:01G |                       |
| B*15:01:17+B*57:31     | B*15:78:03+B*57:01:01G |                       |
| B*15:01:18+B*49:07     | B*15:117+B*49:01:02    |                       |
| B*15:01:18+B*49:09     | B*15:38:01+B*49:01:02  |                       |
| B*15:01:18+B*49:12     | B*15:192+B*49:01:02    |                       |
| B*15:01:18+B*49:20     | B*15:14+B*49:01:02     |                       |
| B*15:01:23+B*40:08     | B*15:08+B*40:02:13     |                       |
| B*15:01:23+B*40:19     | B*15:24+B*40:02:13     |                       |
| B*15:01:23+B*40:37     | B*15:135+B*40:02:13    |                       |
| B*15:01:23+B*40:50     | B*15:70+B*40:02:13     |                       |
| B*15:01:23+B*40:89     | B*15:128+B*40:02:13    |                       |
| B*15:01:23+B*40:143    | B*15:27:02+B*40:02:13  |                       |
| B*15:01:23+B*40:169    | B*15:167+B*40:02:13    |                       |
| B*15:01:23+B*40:173    | B*15:184+B*40:02:13    |                       |

|                         |                         |                       |                  |
|-------------------------|-------------------------|-----------------------|------------------|
| B*15:01:23+B*40:200     | B*15:97+B*40:02:13      |                       |                  |
| B*15:01:24+B*35:04:01   | B*15:30+B*35:01:06      |                       |                  |
| B*15:01:24+B*35:06      | B*15:58+B*35:01:06      |                       |                  |
| B*15:01:24+B*35:09:03   | B*15:150+B*35:01:06     |                       |                  |
| B*15:01:24+B*35:15      | B*15:117+B*35:01:06     |                       |                  |
| B*15:01:24+B*35:23      | B*15:27:02+B*35:01:06   |                       |                  |
| B*15:01:24+B*35:24:01   | B*15:38:01+B*35:01:06   |                       |                  |
| B*15:01:24+B*35:27      | B*15:135+B*35:01:06     |                       |                  |
| B*15:01:24+B*35:29:01   | B*15:70+B*35:01:06      |                       |                  |
| B*15:01:24+B*35:34      | B*15:63+B*35:01:06      |                       |                  |
| B*15:01:24+B*35:50      | B*15:71+B*35:01:06      |                       |                  |
| B*15:01:24+B*35:54      | B*15:125+B*35:01:06     |                       |                  |
| B*15:01:24+B*35:71      | B*15:14+B*35:01:06      |                       |                  |
| B*15:01:24+B*35:90      | B*15:183+B*35:01:06     |                       |                  |
| B*15:01:24+B*35:91      | B*15:192+B*35:01:06     |                       |                  |
| B*15:01:24+B*35:93      | B*15:50+B*35:01:06      |                       |                  |
| B*15:01:24+B*35:103     | B*15:163+B*35:01:06     |                       |                  |
| B*15:01:24+B*35:124     | B*15:251+B*35:01:06     |                       |                  |
| B*15:01:24+B*35:175     | B*15:92+B*35:01:06      |                       |                  |
| B*15:01:24+B*35:180     | B*15:105+B*35:01:06     |                       |                  |
| B*15:01:24+B*53:01:01   | B*15:24+B*35:01:06      |                       |                  |
| B*15:01:24+B*53:03      | B*15:43+B*35:01:06      |                       |                  |
| B*15:01:24+B*53:05      | B*15:87+B*35:01:06      |                       |                  |
| B*15:01:25+B*51:01:02   | B*15:08+B*52:01:06      |                       |                  |
| B*15:01:25+B*51:07:02   | B*15:15+B*52:01:06      |                       |                  |
| B*15:01:25+B*51:16      | B*15:117+B*51:01:22     |                       |                  |
| B*15:01:25+B*51:21      | B*15:50+B*51:01:22      |                       |                  |
| B*15:01:25+B*51:24:04   | B*15:78:02+B*51:01:22   |                       |                  |
| B*15:01:25+B*51:27N     | B*15:181N+B*51:01:22    |                       |                  |
| B*15:01:25+B*51:41N     | B*15:94N+B*51:01:22     |                       |                  |
| B*15:01:25+B*51:43      | B*15:217+B*51:01:22     |                       |                  |
| B*15:01:25+B*51:53      | B*15:105+B*51:01:22     |                       |                  |
| B*15:01:25+B*51:66      | B*15:113+B*51:01:22     |                       |                  |
| B*15:01:25+B*51:68      | B*15:142+B*51:01:22     |                       |                  |
| B*15:01:25+B*51:95      | B*15:193+B*51:01:22     |                       |                  |
| B*15:01:25+B*51:124     | B*15:110+B*51:01:22     |                       |                  |
| B*15:01:25+B*51:127     | B*15:178+B*51:01:22     |                       |                  |
| B*15:01:25+B*51:130     | B*15:192+B*51:01:22     |                       |                  |
| B*15:01:25+B*52:08      | B*15:117+B*52:01:06     |                       |                  |
| B*15:01:25+B*52:15      | B*15:14+B*52:01:06      |                       |                  |
| B*15:01:25+B*52:27      | B*15:251+B*52:01:06     |                       |                  |
| B*15:01:25+B*52:28      | B*15:145+B*52:01:06     |                       |                  |
| B*15:01:25+B*52:29      | B*15:105+B*52:01:06     |                       |                  |
| B*15:02:01G+B*15:03:01G | B*15:25:01G+B*15:64     | B*15:156+B*15:223     |                  |
| B*15:02:01G+B*15:11:01G | B*15:02:05+B*15:11:03   |                       |                  |
| B*15:02:01G+B*15:18:01G | B*15:02:05+B*15:18:02   | B*15:21+B*15:64       |                  |
| B*15:02:01G+B*15:23     | B*15:13:01+B*15:18:01G  |                       |                  |
| B*15:02:01G+B*15:25:02  | B*15:02:05+B*15:25:01G  |                       |                  |
| B*15:02:01G+B*15:27:01  | B*15:144+B*15:195       |                       |                  |
| B*15:02:01G+B*15:27:02  | B*15:02:05+B*15:27:01   |                       |                  |
| B*15:02:01G+B*15:36     | B*15:25:01G+B*15:89     |                       |                  |
| B*15:02:01G+B*15:44     | B*15:21+B*15:121        |                       |                  |
| B*15:02:01G+B*15:46     | B*15:15+B*15:106        |                       |                  |
| B*15:02:01G+B*15:47:02  | B*15:02:03+B*15:47:01   |                       |                  |
| B*15:02:01G+B*15:54     | B*15:03:01G+B*15:144    |                       |                  |
| B*15:02:01G+B*15:56     | B*15:08+B*15:25:01G     |                       |                  |
| B*15:02:01G+B*15:78:02  | B*15:02:03+B*15:78:01   |                       |                  |
| B*15:02:01G+B*15:93     | B*15:18:01G+B*15:121    | B*15:44+B*15:64       |                  |
| B*15:02:01G+B*15:101    | B*15:25:01G+B*15:76     |                       |                  |
| B*15:02:01G+B*15:117    | B*15:40+B*15:144        |                       |                  |
| B*15:02:01G+B*15:152    | B*15:11:01G+B*15:25:01G | B*15:11:03+B*15:25:02 |                  |
| B*15:02:01G+B*15:195    | B*15:06+B*15:223        |                       |                  |
| B*15:02:01G+B*15:200    | B*15:18:01G+B*15:88     |                       |                  |
| B*15:02:01G+B*15:210    | B*15:64+B*15:204        |                       |                  |
| B*15:02:01G+B*15:225    | B*15:15+B*15:204        |                       |                  |
| B*15:02:01G+B*15:241    | B*15:138+B*15:144       |                       |                  |
| B*15:02:01G+B*15:243    | B*15:09+B*15:25:01G     |                       |                  |
| B*15:02:01G+B*15:252    | B*15:09+B*15:121        |                       |                  |
| B*15:02:01G+B*18:01:01G | B*15:02:05+B*18:01:06   | B*15:121+B*18:36      | B*15:223+B*18:20 |
| B*15:02:01G+B*18:09     | B*15:89+B*18:01:01G     |                       |                  |
| B*15:02:01G+B*18:11     | B*15:121+B*18:58        |                       |                  |
| B*15:02:01G+B*18:12     | B*15:25:01G+B*18:01:01G | B*15:25:02+B*18:01:06 | B*15:204+B*18:43 |
| B*15:02:01G+B*18:19     | B*15:144+B*18:15        |                       |                  |
| B*15:02:01G+B*18:33     | B*15:21+B*18:01:01G     | B*15:44+B*18:36       |                  |
| B*15:02:01G+B*18:44:01  | B*15:02:05+B*18:44:02   |                       |                  |
| B*15:02:01G+B*27:01     | B*15:89+B*27:44         |                       |                  |
| B*15:02:01G+B*27:02:01  | B*15:13:01+B*27:08      |                       |                  |
| B*15:02:01G+B*27:15     | B*15:121+B*27:63        |                       |                  |
| B*15:02:01G+B*27:25     | B*15:144+B*27:63        |                       |                  |
| B*15:02:01G+B*27:71     | B*15:121+B*27:38        |                       |                  |
| B*15:02:01G+B*35:01:04  | B*15:02:05+B*35:01:01G  |                       |                  |
| B*15:02:01G+B*35:01:08  | B*15:02:02+B*35:01:01G  |                       |                  |
| B*15:02:01G+B*35:01:14  | B*15:02:04+B*35:01:01G  |                       |                  |
| B*15:02:01G+B*35:01:15  | B*15:02:02+B*35:01:19   |                       |                  |
| B*15:02:01G+B*35:03:11  | B*15:02:03+B*35:03:01G  |                       |                  |
| B*15:02:01G+B*35:05:01  | B*15:55+B*35:11:01      |                       |                  |
| B*15:02:01G+B*35:08:03  | B*15:02:05+B*35:08:01   |                       |                  |
| B*15:02:01G+B*35:09:03  | B*15:02:03+B*35:09:01   |                       |                  |
| B*15:02:01G+B*35:10     | B*15:25:01G+B*35:01:01G |                       |                  |
| B*15:02:01G+B*35:12:01  | B*15:02:05+B*35:12:02   |                       |                  |
| B*15:02:01G+B*35:13     | B*15:25:01G+B*35:03:01G |                       |                  |
| B*15:02:01G+B*35:14:01  | B*15:144+B*35:11:01     |                       |                  |
| B*15:02:01G+B*35:14:02  | B*15:144+B*35:11:02     |                       |                  |
| B*15:02:01G+B*35:16     | B*15:25:01G+B*35:17     |                       |                  |
| B*15:02:01G+B*35:28     | B*15:25:01G+B*35:20:01  |                       |                  |
| B*15:02:01G+B*35:62     | B*15:144+B*35:01:01G    |                       |                  |
| B*15:02:01G+B*35:68:02  | B*15:02:05+B*35:68:01   | B*15:31+B*35:11:01    |                  |
| B*15:02:01G+B*35:69     | B*15:25:01G+B*35:29:01  |                       |                  |
| B*15:02:01G+B*35:78     | B*15:139+B*35:01:01G    |                       |                  |
| B*15:02:01G+B*35:80     | B*15:25:01G+B*35:08:01  |                       |                  |
| B*15:02:01G+B*35:82     | B*15:21+B*35:20:01      |                       |                  |
| B*15:02:01G+B*35:93     | B*15:121+B*35:01:01G    |                       |                  |
| B*15:02:01G+B*35:151    | B*15:31+B*35:167        |                       |                  |
| B*15:02:01G+B*35:157    | B*15:121+B*35:81        |                       |                  |
| B*15:02:01G+B*35:163    | B*15:144+B*35:03:01G    |                       |                  |

|                         |                         |                         |                     |                   |
|-------------------------|-------------------------|-------------------------|---------------------|-------------------|
| B*15:02:01G+B*35:175    | B*15:213+B*35:01:01G    |                         |                     |                   |
| B*15:02:01G+B*35:188    | B*15:121+B*35:21        |                         |                     |                   |
| B*15:02:01G+B*35:190    | B*15:121+B*35:24:01     |                         |                     |                   |
| B*15:02:01G+B*37:10     | B*15:89+B*37:11         |                         |                     |                   |
| B*15:02:01G+B*37:34     | B*15:13:01+B*37:11      |                         |                     |                   |
| B*15:02:01G+B*38:01:01  | B*15:13:01+B*39:05:01   |                         |                     |                   |
| B*15:02:01G+B*38:02:01G | B*15:89+B*39:05:01      |                         |                     |                   |
| B*15:02:01G+B*38:04     | B*15:25:01G+B*38:02:03  |                         |                     |                   |
| B*15:02:01G+B*38:14     | B*15:13:01+B*39:01:01G  | B*15:13:02+B*39:01:05   |                     |                   |
| B*15:02:01G+B*38:19     | B*15:13:01+B*39:37      |                         |                     |                   |
| B*15:02:01G+B*38:26     | B*15:13:01+B*67:01:01   |                         |                     |                   |
| B*15:02:01G+B*38:29     | B*15:89+B*39:55         |                         |                     |                   |
| B*15:02:01G+B*39:01:01G | B*15:21+B*39:39:01      | B*15:121+B*39:74        |                     |                   |
| B*15:02:01G+B*39:02:01  | B*15:25:01G+B*39:39:01  |                         |                     |                   |
| B*15:02:01G+B*39:06:01  | B*15:02:05+B*39:06:02   |                         |                     |                   |
| B*15:02:01G+B*39:16     | B*15:112+B*39:10:01     |                         |                     |                   |
| B*15:02:01G+B*39:22     | B*15:21+B*39:02:01      | B*15:25:01G+B*39:01:01G |                     |                   |
| B*15:02:01G+B*39:48     | B*15:121+B*39:32        |                         |                     |                   |
| B*15:02:01G+B*40:01:01G | B*15:02:03+B*40:01:14   | B*15:02:05+B*40:01:04   | B*15:25:01G+B*40:25 | B*15:223+B*40:172 |
| B*15:02:01G+B*40:02:01G | B*15:02:05+B*40:02:09   | B*15:223+B*40:89        |                     |                   |
| B*15:02:01G+B*40:07     | B*15:25:01G+B*40:106    |                         |                     |                   |
| B*15:02:01G+B*40:11:01  | B*15:02:05+B*40:11:02   |                         |                     |                   |
| B*15:02:01G+B*40:14:03  | B*15:02:03+B*40:14:02   |                         |                     |                   |
| B*15:02:01G+B*40:18     | B*15:223+B*40:09        |                         |                     |                   |
| B*15:02:01G+B*40:19     | B*15:13:01+B*40:02:01G  |                         |                     |                   |
| B*15:02:01G+B*40:24     | B*15:194+B*40:09        |                         |                     |                   |
| B*15:02:01G+B*40:33     | B*15:223+B*40:42        |                         |                     |                   |
| B*15:02:01G+B*40:47     | B*15:36+B*40:25         | B*15:89+B*40:01:01G     |                     |                   |
| B*15:02:01G+B*40:75     | B*15:21+B*40:06:01G     |                         |                     |                   |
| B*15:02:01G+B*40:87:02  | B*15:02:03+B*40:87:01   |                         |                     |                   |
| B*15:02:01G+B*40:96     | B*15:89+B*40:06:01G     |                         |                     |                   |
| B*15:02:01G+B*40:117    | B*15:13:01+B*40:01:01G  |                         |                     |                   |
| B*15:02:01G+B*40:124:02 | B*15:02:05+B*40:124:01  |                         |                     |                   |
| B*15:02:01G+B*40:157    | B*15:89+B*40:02:01G     |                         |                     |                   |
| B*15:02:01G+B*40:199    | B*15:121+B*40:63        |                         |                     |                   |
| B*15:02:01G+B*44:02:01G | B*15:02:05+B*44:02:07   | B*15:25:01G+B*44:12     | B*15:89+B*44:09     |                   |
| B*15:02:01G+B*44:03:01G | B*15:02:05+B*44:03:02   | B*15:89+B*44:46         |                     |                   |
| B*15:02:01G+B*44:04     | B*15:121+B*44:28:02     |                         |                     |                   |
| B*15:02:01G+B*44:18     | B*15:13:01+B*45:01:01G  |                         |                     |                   |
| B*15:02:01G+B*44:28:02  | B*15:02:05+B*44:28:01   |                         |                     |                   |
| B*15:02:01G+B*44:37:01  | B*15:02:05+B*44:37:02   |                         |                     |                   |
| B*15:02:01G+B*44:41:01  | B*15:02:05+B*44:41:02   |                         |                     |                   |
| B*15:02:01G+B*44:43:01  | B*15:223+B*44:144       |                         |                     |                   |
| B*15:02:01G+B*44:45     | B*15:223+B*44:03:01G    |                         |                     |                   |
| B*15:02:01G+B*44:50     | B*15:13:01+B*44:46      |                         |                     |                   |
| B*15:02:01G+B*44:51     | B*15:223+B*44:02:01G    |                         |                     |                   |
| B*15:02:01G+B*44:55     | B*15:204+B*44:12        |                         |                     |                   |
| B*15:02:01G+B*44:64:02  | B*15:02:05+B*44:64:01   |                         |                     |                   |
| B*15:02:01G+B*44:95     | B*15:13:01+B*44:09      |                         |                     |                   |
| B*15:02:01G+B*44:123    | B*15:223+B*44:05:01     |                         |                     |                   |
| B*15:02:01G+B*44:132    | B*15:121+B*44:91        |                         |                     |                   |
| B*15:02:01G+B*44:135    | B*15:223+B*44:54        |                         |                     |                   |
| B*15:02:01G+B*44:146    | B*15:144+B*44:79        |                         |                     |                   |
| B*15:02:01G+B*45:08     | B*15:121+B*45:04        |                         |                     |                   |
| B*15:02:01G+B*46:01:01G | B*15:144+B*46:08        |                         |                     |                   |
| B*15:02:01G+B*46:09     | B*15:144+B*46:13:03     |                         |                     |                   |
| B*15:02:01G+B*46:18     | B*15:121+B*46:11        |                         |                     |                   |
| B*15:02:01G+B*46:21:01  | B*15:121+B*46:13:03     |                         |                     |                   |
| B*15:02:01G+B*46:21:02  | B*15:121+B*46:13:01     |                         |                     |                   |
| B*15:02:01G+B*46:29     | B*15:121+B*46:01:01G    |                         |                     |                   |
| B*15:02:01G+B*48:03:01  | B*15:02:05+B*48:03:02   |                         |                     |                   |
| B*15:02:01G+B*48:19     | B*15:144+B*48:01:01G    |                         |                     |                   |
| B*15:02:01G+B*49:01:01  | B*15:13:01+B*50:01:01   |                         |                     |                   |
| B*15:02:01G+B*49:02     | B*15:36+B*50:15         | B*15:89+B*50:01:01      |                     |                   |
| B*15:02:01G+B*49:10     | B*15:13:01+B*50:13      |                         |                     |                   |
| B*15:02:01G+B*49:18     | B*15:13:01+B*50:14      |                         |                     |                   |
| B*15:02:01G+B*49:20     | B*15:13:01+B*50:02      |                         |                     |                   |
| B*15:02:01G+B*50:01:01  | B*15:25:01G+B*50:15     |                         |                     |                   |
| B*15:02:01G+B*51:01:01G | B*15:13:01+B*78:02:02   |                         |                     |                   |
| B*15:02:01G+B*51:01:02  | B*15:13:01+B*78:02:01   |                         |                     |                   |
| B*15:02:01G+B*51:01:09  | B*15:02:03+B*51:01:02   |                         |                     |                   |
| B*15:02:01G+B*51:01:16  | B*15:02:05+B*51:01:01G  |                         |                     |                   |
| B*15:02:01G+B*51:01:21  | B*15:02:03+B*51:01:01G  |                         |                     |                   |
| B*15:02:01G+B*51:01:33  | B*15:02:02+B*51:01:01G  |                         |                     |                   |
| B*15:02:01G+B*51:06:01  | B*15:02:05+B*51:06:02   |                         |                     |                   |
| B*15:02:01G+B*51:21     | B*15:121+B*51:01:01G    |                         |                     |                   |
| B*15:02:01G+B*51:22     | B*15:21+B*51:07:01      |                         |                     |                   |
| B*15:02:01G+B*51:61:02  | B*15:144+B*51:01:01G    |                         |                     |                   |
| B*15:02:01G+B*51:78:01  | B*15:89+B*78:02:02      |                         |                     |                   |
| B*15:02:01G+B*51:78:02  | B*15:89+B*78:02:01      |                         |                     |                   |
| B*15:02:01G+B*52:01:01G | B*15:13:01+B*78:05      | B*15:25:01G+B*51:07:02  |                     |                   |
| B*15:02:01G+B*52:01:02  | B*15:25:01G+B*51:07:01  |                         |                     |                   |
| B*15:02:01G+B*52:01:03  | B*15:02:02+B*52:01:01G  |                         |                     |                   |
| B*15:02:01G+B*52:06:01  | B*15:02:02+B*52:06:02   | B*15:25:01G+B*51:01:33  |                     |                   |
| B*15:02:01G+B*52:06:02  | B*15:25:01G+B*51:01:01G |                         |                     |                   |
| B*15:02:01G+B*52:20     | B*15:89+B*78:05         |                         |                     |                   |
| B*15:02:01G+B*52:21     | B*15:144+B*52:01:02     |                         |                     |                   |
| B*15:02:01G+B*53:01:01  | B*15:13:01+B*35:01:01G  |                         |                     |                   |
| B*15:02:01G+B*53:01:02  | B*15:13:01+B*35:01:16   |                         |                     |                   |
| B*15:02:01G+B*53:02     | B*15:13:01+B*35:24:01   |                         |                     |                   |
| B*15:02:01G+B*53:04     | B*15:13:01+B*35:03:01G  | B*15:13:02+B*35:03:02   |                     |                   |
| B*15:02:01G+B*53:08:01  | B*15:13:01+B*35:11:01   | B*15:13:02+B*35:11:02   |                     |                   |
| B*15:02:01G+B*53:08:02  | B*15:13:01+B*35:11:02   |                         |                     |                   |
| B*15:02:01G+B*53:09     | B*15:89+B*35:20:01      |                         |                     |                   |
| B*15:02:01G+B*53:11     | B*15:89+B*35:08:01      |                         |                     |                   |
| B*15:02:01G+B*53:13     | B*15:89+B*35:01:01G     |                         |                     |                   |
| B*15:02:01G+B*53:14     | B*15:13:01+B*35:05:01   | B*15:55+B*53:08:01      |                     |                   |
| B*15:02:01G+B*53:17:02  | B*15:13:01+B*35:28      |                         |                     |                   |
| B*15:02:01G+B*53:19     | B*15:13:01+B*35:02:01   |                         |                     |                   |
| B*15:02:01G+B*53:21     | B*15:13:01+B*35:197     |                         |                     |                   |
| B*15:02:01G+B*53:23     | B*15:13:01+B*35:29:01   |                         |                     |                   |
| B*15:02:01G+B*53:24     | B*15:13:01+B*35:08:01   |                         |                     |                   |
| B*15:02:01G+B*53:26     | B*15:13:01+B*35:108:01  |                         |                     |                   |
| B*15:02:01G+B*54:01:01G | B*15:121+B*54:03        |                         |                     |                   |
| B*15:02:01G+B*54:12     | B*15:13:01+B*54:01:01G  |                         |                     |                   |



|                         |                         |                        |
|-------------------------|-------------------------|------------------------|
| B*15:02:01G+B*55:01:01G | B*15:121+B*56:25        |                        |
| B*15:02:01G+B*55:02:01G | B*15:121+B*56:01:01G    | B*15:223+B*55:41       |
| B*15:02:01G+B*55:02:04  | B*15:02:05+B*55:02:01G  |                        |
| B*15:02:01G+B*55:13     | B*15:121+B*56:22        |                        |
| B*15:02:01G+B*55:21     | B*15:144+B*55:01:01G    |                        |
| B*15:02:01G+B*55:34     | B*15:25:01G+B*55:47     |                        |
| B*15:02:01G+B*55:40     | B*15:25:01G+B*55:01:01G |                        |
| B*15:02:01G+B*56:07     | B*15:89+B*56:01:01G     |                        |
| B*15:02:01G+B*56:10     | B*15:121+B*56:02        |                        |
| B*15:02:01G+B*56:21     | B*15:13:01+B*56:05:02   |                        |
| B*15:02:01G+B*57:01:01G | B*15:223+B*57:41        |                        |
| B*15:02:01G+B*57:01:07  | B*15:02:03+B*57:01:01G  |                        |
| B*15:02:01G+B*57:02:01  | B*15:13:01+B*57:12      |                        |
| B*15:02:01G+B*57:26     | B*15:121+B*57:01:01G    |                        |
| B*15:02:01G+B*58:16     | B*15:31+B*58:19         |                        |
| B*15:02:01G+B*58:18     | B*15:55+B*58:19         |                        |
| B*15:02:01G+B*58:35     | B*15:121+B*58:01:01G    |                        |
| B*15:02:01G+B*59:01:01G | B*15:121+B*59:04        |                        |
| B*15:02:01G+B*78:07     | B*15:121+B*78:01:01     |                        |
| B*15:02:02+B*35:01:04   | B*15:02:05+B*35:01:08   |                        |
| B*15:02:02+B*35:01:14   | B*15:02:04+B*35:01:08   |                        |
| B*15:02:02+B*35:10      | B*15:25:01G+B*35:01:08  |                        |
| B*15:02:02+B*35:62      | B*15:144+B*35:01:08     |                        |
| B*15:02:02+B*35:78      | B*15:139+B*35:01:08     |                        |
| B*15:02:02+B*35:93      | B*15:121+B*35:01:08     |                        |
| B*15:02:02+B*35:175     | B*15:213+B*35:01:08     |                        |
| B*15:02:02+B*51:01:16   | B*15:02:05+B*51:01:33   |                        |
| B*15:02:02+B*51:01:21   | B*15:02:03+B*51:01:33   |                        |
| B*15:02:02+B*51:21      | B*15:121+B*51:01:33     |                        |
| B*15:02:02+B*51:61:02   | B*15:144+B*51:01:33     |                        |
| B*15:02:02+B*53:01:01   | B*15:13:01+B*35:01:08   |                        |
| B*15:02:02+B*53:13      | B*15:89+B*35:01:08      |                        |
| B*15:02:03+B*35:13      | B*15:25:01G+B*35:03:11  |                        |
| B*15:02:03+B*35:163     | B*15:144+B*35:03:11     |                        |
| B*15:02:03+B*51:01:16   | B*15:02:05+B*51:01:21   |                        |
| B*15:02:03+B*51:21      | B*15:121+B*51:01:21     |                        |
| B*15:02:03+B*51:61:01   | B*15:144+B*51:01:25     |                        |
| B*15:02:03+B*51:61:02   | B*15:144+B*51:01:21     |                        |
| B*15:02:03+B*52:06:02   | B*15:25:01G+B*51:01:21  |                        |
| B*15:02:03+B*53:04      | B*15:13:01+B*35:03:11   |                        |
| B*15:02:03+B*57:26      | B*15:121+B*57:01:07     |                        |
| B*15:02:04+B*35:01:04   | B*15:02:05+B*35:01:14   |                        |
| B*15:02:04+B*35:10      | B*15:25:01G+B*35:01:14  |                        |
| B*15:02:04+B*35:62      | B*15:144+B*35:01:14     |                        |
| B*15:02:04+B*35:78      | B*15:139+B*35:01:14     |                        |
| B*15:02:04+B*35:93      | B*15:121+B*35:01:14     |                        |
| B*15:02:04+B*35:175     | B*15:213+B*35:01:14     |                        |
| B*15:02:04+B*53:01:01   | B*15:13:01+B*35:01:14   |                        |
| B*15:02:04+B*53:13      | B*15:89+B*35:01:14      |                        |
| B*15:02:05+B*15:03:01G  | B*15:25:02+B*15:64      |                        |
| B*15:02:05+B*15:36      | B*15:25:02+B*15:89      |                        |
| B*15:02:05+B*15:56      | B*15:08+B*15:25:02      |                        |
| B*15:02:05+B*15:101     | B*15:25:02+B*15:76      |                        |
| B*15:02:05+B*15:152     | B*15:11:01G+B*15:25:02  |                        |
| B*15:02:05+B*15:243     | B*15:09+B*15:25:02      |                        |
| B*15:02:05+B*18:12      | B*15:25:02+B*18:01:01G  |                        |
| B*15:02:05+B*18:52      | B*15:194+B*18:20        |                        |
| B*15:02:05+B*35:10      | B*15:25:01G+B*35:01:04  | B*15:25:02+B*35:01:01G |
| B*15:02:05+B*35:13      | B*15:25:02+B*35:03:01G  |                        |
| B*15:02:05+B*35:16      | B*15:25:02+B*35:17      |                        |
| B*15:02:05+B*35:28      | B*15:25:02+B*35:20:01   |                        |
| B*15:02:05+B*35:62      | B*15:144+B*35:01:04     |                        |
| B*15:02:05+B*35:69      | B*15:25:02+B*35:29:01   |                        |
| B*15:02:05+B*35:78      | B*15:139+B*35:01:04     |                        |
| B*15:02:05+B*35:80      | B*15:25:01G+B*35:08:03  | B*15:25:02+B*35:08:01  |
| B*15:02:05+B*35:93      | B*15:121+B*35:01:04     |                        |
| B*15:02:05+B*35:175     | B*15:213+B*35:01:04     |                        |
| B*15:02:05+B*38:04      | B*15:25:02+B*38:02:03   |                        |
| B*15:02:05+B*39:02:01   | B*15:25:02+B*39:39:01   |                        |
| B*15:02:05+B*39:22      | B*15:25:02+B*39:01:01G  |                        |
| B*15:02:05+B*40:01:01G  | B*15:25:02+B*40:25      |                        |
| B*15:02:05+B*40:07      | B*15:25:02+B*40:106     |                        |
| B*15:02:05+B*44:02:01G  | B*15:25:02+B*44:12      |                        |
| B*15:02:05+B*44:54      | B*15:55+B*44:79         |                        |
| B*15:02:05+B*44:65      | B*15:31+B*44:79         |                        |
| B*15:02:05+B*50:01:01   | B*15:25:02+B*50:15      |                        |
| B*15:02:05+B*51:21      | B*15:121+B*51:01:16     |                        |
| B*15:02:05+B*51:61:02   | B*15:144+B*51:01:16     |                        |
| B*15:02:05+B*52:01:01G  | B*15:25:02+B*51:07:02   |                        |
| B*15:02:05+B*52:01:02   | B*15:25:02+B*51:07:01   |                        |
| B*15:02:05+B*52:06:01   | B*15:25:02+B*51:01:33   |                        |
| B*15:02:05+B*52:06:02   | B*15:25:01G+B*51:01:16  | B*15:25:02+B*51:01:01G |
| B*15:02:05+B*53:01:01   | B*15:13:01+B*35:01:04   |                        |
| B*15:02:05+B*53:11      | B*15:89+B*35:08:03      |                        |
| B*15:02:05+B*53:13      | B*15:89+B*35:01:04      |                        |
| B*15:02:05+B*53:24      | B*15:13:01+B*35:08:03   |                        |
| B*15:02:05+B*55:34      | B*15:25:02+B*55:47      |                        |
| B*15:02:05+B*55:40      | B*15:25:02+B*55:01:01G  |                        |
| B*15:03:01G+B*15:05:01  | B*15:39:01+B*15:123:01G |                        |
| B*15:03:01G+B*15:05:02  | B*15:39:02+B*15:123:01G |                        |
| B*15:03:01G+B*15:06     | B*15:156+B*15:195       |                        |
| B*15:03:01G+B*15:09     | B*15:64+B*15:243        |                        |
| B*15:03:01G+B*15:10:02  | B*15:03:03+B*15:10:01   |                        |
| B*15:03:01G+B*15:11:01G | B*15:03:03+B*15:11:04   | B*15:64+B*15:152       |
| B*15:03:01G+B*15:20     | B*15:05:02+B*15:62      |                        |
| B*15:03:01G+B*15:21     | B*15:18:01G+B*15:25:01G | B*15:18:02+B*15:25:02  |
| B*15:03:01G+B*15:27:01  | B*15:54+B*15:195        |                        |
| B*15:03:01G+B*15:44     | B*15:25:01G+B*15:93     |                        |
| B*15:03:01G+B*15:52     | B*15:123:01G+B*15:238   |                        |
| B*15:03:01G+B*15:76     | B*15:64+B*15:101        |                        |
| B*15:03:01G+B*15:89     | B*15:36+B*15:64         |                        |
| B*15:03:01G+B*15:91     | B*15:123:01G+B*15:131   |                        |
| B*15:03:01G+B*15:109    | B*15:27:01+B*15:98      |                        |
| B*15:03:01G+B*15:117    | B*15:40+B*15:54         |                        |
| B*15:03:01G+B*15:133    | B*15:18:01G+B*15:253    |                        |

|                         |                          |                         |                      |                         |
|-------------------------|--------------------------|-------------------------|----------------------|-------------------------|
| B*15:03:01G+B*15:136    | B*15:39:01+B*15:235      |                         |                      |                         |
| B*15:03:01G+B*15:161    | B*15:18:01G+B*15:131     |                         |                      |                         |
| B*15:03:01G+B*15:186    | B*15:93+B*15:235         |                         |                      |                         |
| B*15:03:01G+B*15:191    | B*15:29+B*15:234         |                         |                      |                         |
| B*15:03:01G+B*15:204    | B*15:25:01G+B*15:210     |                         |                      |                         |
| B*15:03:01G+B*15:212    | B*15:53+B*15:210         |                         |                      |                         |
| B*15:03:01G+B*15:222    | B*15:16:01+B*15:123:01G  |                         |                      |                         |
| B*15:03:01G+B*15:236    | B*15:56+B*15:61          |                         |                      |                         |
| B*15:03:01G+B*15:237    | B*15:65+B*15:123:01G     |                         |                      |                         |
| B*15:03:01G+B*15:241    | B*15:54+B*15:138         |                         |                      |                         |
| B*15:03:01G+B*18:01:01G | B*15:64+B*18:12          | B*15:123:01G+B*18:15    | B*15:210+B*18:43     |                         |
| B*15:03:01G+B*18:03     | B*15:61+B*18:01:01G      |                         |                      |                         |
| B*15:03:01G+B*18:07:01  | B*15:29+B*18:12          |                         |                      |                         |
| B*15:03:01G+B*18:13     | B*15:123:01G+B*18:30     |                         |                      |                         |
| B*15:03:01G+B*18:19     | B*15:54+B*18:15          |                         |                      |                         |
| B*15:03:01G+B*18:20     | B*15:156+B*18:01:01G     |                         |                      |                         |
| B*15:03:01G+B*18:33     | B*15:18:01G+B*18:12      |                         |                      |                         |
| B*15:03:01G+B*18:63     | B*15:173+B*18:01:01G     |                         |                      |                         |
| B*15:03:01G+B*18:68     | B*15:210+B*18:25         |                         |                      |                         |
| B*15:03:01G+B*27:05:02G | B*15:123:01G+B*27:10     | B*15:210+B*27:37        |                      |                         |
| B*15:03:01G+B*27:08     | B*15:61+B*27:44          | B*15:123:01G+B*27:40    |                      |                         |
| B*15:03:01G+B*27:25     | B*15:54+B*27:63          |                         |                      |                         |
| B*15:03:01G+B*27:45     | B*15:47:01+B*27:38       |                         |                      |                         |
| B*15:03:01G+B*27:50     | B*15:131+B*27:05:03      |                         |                      |                         |
| B*15:03:01G+B*27:61     | B*15:123:01G+B*27:04:01G |                         |                      |                         |
| B*15:03:01G+B*35:01:01G | B*15:29+B*35:28          | B*15:62+B*35:32:02      | B*15:64+B*35:10      | B*15:123:01G+B*35:11:01 |
| B*15:03:01G+B*35:03:01G | B*15:64+B*35:13          | B*15:123:01G+B*35:167   | B*15:253+B*35:01:01G |                         |
| B*15:03:01G+B*35:03:07  | B*15:253+B*35:01:17      |                         |                      |                         |
| B*15:03:01G+B*35:03:11  | B*15:03:02+B*35:03:02    |                         |                      |                         |
| B*15:03:01G+B*35:05:01  | B*15:123:01G+B*35:58     |                         |                      |                         |
| B*15:03:01G+B*35:08:01  | B*15:64+B*35:80          |                         |                      |                         |
| B*15:03:01G+B*35:13     | B*15:253+B*35:10         |                         |                      |                         |
| B*15:03:01G+B*35:14:01  | B*15:54+B*35:11:01       |                         |                      |                         |
| B*15:03:01G+B*35:14:02  | B*15:54+B*35:11:02       | B*15:62+B*35:43:01G     |                      |                         |
| B*15:03:01G+B*35:17     | B*15:64+B*35:16          |                         |                      |                         |
| B*15:03:01G+B*35:20:01  | B*15:64+B*35:28          |                         |                      |                         |
| B*15:03:01G+B*35:24:01  | B*15:123:01G+B*35:21     |                         |                      |                         |
| B*15:03:01G+B*35:29:01  | B*15:61+B*35:01:01G      | B*15:64+B*35:69         |                      |                         |
| B*15:03:01G+B*35:29:02  | B*15:61+B*35:01:15       |                         |                      |                         |
| B*15:03:01G+B*35:33     | B*15:253+B*35:15         |                         |                      |                         |
| B*15:03:01G+B*35:35     | B*15:69+B*35:01:01G      |                         |                      |                         |
| B*15:03:01G+B*35:38     | B*15:253+B*35:115        |                         |                      |                         |
| B*15:03:01G+B*35:43:01G | B*15:29+B*15:239         |                         |                      |                         |
| B*15:03:01G+B*35:45     | B*15:131+B*35:08:01      |                         |                      |                         |
| B*15:03:01G+B*35:50     | B*15:210+B*35:197        |                         |                      |                         |
| B*15:03:01G+B*35:56     | B*15:253+B*35:27         |                         |                      |                         |
| B*15:03:01G+B*35:62     | B*15:54+B*35:01:01G      | B*15:123:01G+B*35:14:01 | B*15:239+B*35:25     |                         |
| B*15:03:01G+B*35:69     | B*15:61+B*35:10          |                         |                      |                         |
| B*15:03:01G+B*35:71     | B*15:91+B*35:11:01       | B*15:131+B*35:01:01G    |                      |                         |
| B*15:03:01G+B*35:82     | B*15:18:01G+B*35:28      |                         |                      |                         |
| B*15:03:01G+B*35:85     | B*15:133+B*35:28         | B*15:253+B*35:82        |                      |                         |
| B*15:03:01G+B*35:96     | B*15:253+B*35:188        |                         |                      |                         |
| B*15:03:01G+B*35:103    | B*15:98+B*35:01:01G      |                         |                      |                         |
| B*15:03:01G+B*35:109    | B*15:253+B*35:24:01      |                         |                      |                         |
| B*15:03:01G+B*35:135    | B*15:18:01G+B*15:239     |                         |                      |                         |
| B*15:03:01G+B*35:136    | B*15:61+B*35:03:01G      | B*15:253+B*35:29:01     |                      |                         |
| B*15:03:01G+B*35:150    | B*15:253+B*35:90         |                         |                      |                         |
| B*15:03:01G+B*35:151    | B*15:253+B*35:68:02      |                         |                      |                         |
| B*15:03:01G+B*35:156    | B*15:253+B*35:08:01      |                         |                      |                         |
| B*15:03:01G+B*35:163    | B*15:54+B*35:03:01G      | B*15:253+B*35:62        |                      |                         |
| B*15:03:01G+B*35:167    | B*15:253+B*35:11:01      |                         |                      |                         |
| B*15:03:01G+B*35:169    | B*15:131+B*35:38         |                         |                      |                         |
| B*15:03:01G+B*35:190    | B*15:123:01G+B*35:188    |                         |                      |                         |
| B*15:03:01G+B*35:195    | B*15:253+B*35:101:02     |                         |                      |                         |
| B*15:03:01G+B*35:205    | B*15:253+B*35:64         |                         |                      |                         |
| B*15:03:01G+B*37:01:01G | B*15:123:01G+B*37:13     |                         |                      |                         |
| B*15:03:01G+B*38:01:01  | B*15:123:01G+B*38:32     | B*15:235+B*38:10        |                      |                         |
| B*15:03:01G+B*38:02:03  | B*15:64+B*38:04          |                         |                      |                         |
| B*15:03:01G+B*38:14     | B*15:23+B*39:02:01       | B*15:61+B*38:01:01      |                      |                         |
| B*15:03:01G+B*38:36     | B*15:123:01G+B*38:10     |                         |                      |                         |
| B*15:03:01G+B*39:01:01G | B*15:18:01G+B*39:02:01   | B*15:61+B*39:05:01      | B*15:64+B*39:22      | B*15:123:01G+B*39:35    |
| B*15:03:01G+B*39:01:09  | B*15:18:01G+B*39:02:02   |                         |                      |                         |
| B*15:03:01G+B*39:01:13  | B*15:18:04+B*39:02:01    |                         |                      |                         |
| B*15:03:01G+B*39:01:14  | B*15:03:03+B*39:01:01G   |                         |                      |                         |
| B*15:03:01G+B*39:02:02  | B*15:61+B*39:13:01       |                         |                      |                         |
| B*15:03:01G+B*39:03     | B*15:61+B*39:37          |                         |                      |                         |
| B*15:03:01G+B*39:11     | B*15:18:01G+B*39:08      |                         |                      |                         |
| B*15:03:01G+B*39:13:02  | B*15:03:03+B*39:13:01    |                         |                      |                         |
| B*15:03:01G+B*39:15     | B*15:61+B*39:55          |                         |                      |                         |
| B*15:03:01G+B*39:31     | B*15:210+B*39:01:01G     |                         |                      |                         |
| B*15:03:01G+B*39:39:01  | B*15:64+B*39:02:01       |                         |                      |                         |
| B*15:03:01G+B*39:42     | B*15:80+B*39:02:01       |                         |                      |                         |
| B*15:03:01G+B*39:55     | B*15:253+B*39:07         |                         |                      |                         |
| B*15:03:01G+B*39:58     | B*15:29+B*39:02:01       |                         |                      |                         |
| B*15:03:01G+B*39:68     | B*15:72+B*39:02:01       |                         |                      |                         |
| B*15:03:01G+B*40:01:01G | B*15:123:01G+B*40:183    | B*15:210+B*40:49        |                      |                         |
| B*15:03:01G+B*40:02:01G | B*15:210+B*40:40         |                         |                      |                         |
| B*15:03:01G+B*40:02:04  | B*15:03:03+B*40:02:01G   |                         |                      |                         |
| B*15:03:01G+B*40:06:01G | B*15:123:01G+B*40:148    |                         |                      |                         |
| B*15:03:01G+B*40:08     | B*15:29+B*40:02:01G      |                         |                      |                         |
| B*15:03:01G+B*40:09     | B*15:156+B*40:18         |                         |                      |                         |
| B*15:03:01G+B*40:10:02  | B*15:03:03+B*40:10:01    |                         |                      |                         |
| B*15:03:01G+B*40:25     | B*15:64+B*40:01:01G      |                         |                      |                         |
| B*15:03:01G+B*40:36     | B*15:253+B*40:38         |                         |                      |                         |
| B*15:03:01G+B*40:42     | B*15:156+B*40:33         |                         |                      |                         |
| B*15:03:01G+B*40:43     | B*15:61+B*40:01:01G      |                         |                      |                         |
| B*15:03:01G+B*40:50     | B*15:61+B*40:02:01G      |                         |                      |                         |
| B*15:03:01G+B*40:59     | B*15:62+B*40:52          |                         |                      |                         |
| B*15:03:01G+B*40:68     | B*15:29+B*40:04          |                         |                      |                         |
| B*15:03:01G+B*40:74     | B*15:210+B*40:210        |                         |                      |                         |
| B*15:03:01G+B*40:89     | B*15:156+B*40:02:01G     |                         |                      |                         |
| B*15:03:01G+B*40:106    | B*15:29+B*40:01:01G      | B*15:64+B*40:07         |                      |                         |
| B*15:03:01G+B*40:128    | B*15:47:01+B*40:63       | B*15:123:01G+B*40:198   |                      |                         |
| B*15:03:01G+B*40:132    | B*15:91+B*40:183         | B*15:131+B*40:01:01G    |                      |                         |
| B*15:03:01G+B*40:172    | B*15:156+B*40:01:01G     |                         |                      |                         |

|                         |                          |                          |                  |
|-------------------------|--------------------------|--------------------------|------------------|
| B*15:03:01G+B*42:02     | B*15:210+B*42:01:01      |                          |                  |
| B*15:03:01G+B*42:17     | B*15:210+B*42:10         |                          |                  |
| B*15:03:01G+B*44:02:01G | B*15:131+B*44:91         | B*15:156+B*44:51         |                  |
| B*15:03:01G+B*44:03:01G | B*15:123:01G+B*44:79     | B*15:131+B*44:37:01      | B*15:156+B*44:45 |
| B*15:03:01G+B*44:03:02  | B*15:131+B*44:37:02      |                          |                  |
| B*15:03:01G+B*44:05:01  | B*15:131+B*44:42         | B*15:156+B*44:123        |                  |
| B*15:03:01G+B*44:12     | B*15:64+B*44:02:01G      |                          |                  |
| B*15:03:01G+B*44:21     | B*15:131+B*44:16         |                          |                  |
| B*15:03:01G+B*44:28:02  | B*15:123:01G+B*44:76     |                          |                  |
| B*15:03:01G+B*44:29     | B*15:235+B*44:79         |                          |                  |
| B*15:03:01G+B*44:54     | B*15:156+B*44:135        |                          |                  |
| B*15:03:01G+B*44:55     | B*15:210+B*44:02:01G     |                          |                  |
| B*15:03:01G+B*44:124    | B*15:131+B*44:64:01      |                          |                  |
| B*15:03:01G+B*44:144    | B*15:156+B*44:43:01      |                          |                  |
| B*15:03:01G+B*44:146    | B*15:54+B*44:79          |                          |                  |
| B*15:03:01G+B*45:01:01G | B*15:131+B*45:04         |                          |                  |
| B*15:03:01G+B*46:01:01G | B*15:54+B*46:08          |                          |                  |
| B*15:03:01G+B*46:09     | B*15:54+B*46:13:03       | B*15:123:01G+B*46:01:01G |                  |
| B*15:03:01G+B*46:13:03  | B*15:123:01G+B*46:08     |                          |                  |
| B*15:03:01G+B*46:14     | B*15:210+B*46:01:01G     |                          |                  |
| B*15:03:01G+B*46:17     | B*15:131+B*46:01:01G     |                          |                  |
| B*15:03:01G+B*46:19     | B*15:235+B*46:08         |                          |                  |
| B*15:03:01G+B*46:33     | B*15:62+B*46:13:01       |                          |                  |
| B*15:03:01G+B*48:01:01G | B*15:123:01G+B*48:15     |                          |                  |
| B*15:03:01G+B*48:02:01  | B*15:123:01G+B*48:25     |                          |                  |
| B*15:03:01G+B*48:06     | B*15:29+B*48:01:01G      |                          |                  |
| B*15:03:01G+B*48:19     | B*15:54+B*48:01:01G      |                          |                  |
| B*15:03:01G+B*49:01:01  | B*15:210+B*49:10         |                          |                  |
| B*15:03:01G+B*49:11     | B*15:123:01G+B*49:01:01  |                          |                  |
| B*15:03:01G+B*49:20     | B*15:131+B*49:01:01      |                          |                  |
| B*15:03:01G+B*50:01:01  | B*15:210+B*50:13         |                          |                  |
| B*15:03:01G+B*50:02     | B*15:131+B*50:01:01      |                          |                  |
| B*15:03:01G+B*50:11     | B*15:173+B*50:01:01      |                          |                  |
| B*15:03:01G+B*50:15     | B*15:64+B*50:01:01       |                          |                  |
| B*15:03:01G+B*51:01:01G | B*15:29+B*52:01:02       | B*15:64+B*52:06:02       |                  |
| B*15:03:01G+B*51:01:02  | B*15:29+B*52:01:01G      |                          |                  |
| B*15:03:01G+B*51:01:03  | B*15:29+B*52:01:09       |                          |                  |
| B*15:03:01G+B*51:01:33  | B*15:64+B*52:06:01       |                          |                  |
| B*15:03:01G+B*51:02:02  | B*15:29+B*52:11          |                          |                  |
| B*15:03:01G+B*51:07:01  | B*15:64+B*52:01:02       |                          |                  |
| B*15:03:01G+B*51:07:02  | B*15:64+B*52:01:01G      |                          |                  |
| B*15:03:01G+B*51:09:01  | B*15:123:01G+B*51:01:01G |                          |                  |
| B*15:03:01G+B*51:09:02  | B*15:29+B*52:10:01       | B*15:123:01G+B*51:01:02  |                  |
| B*15:03:01G+B*51:13:02  | B*15:253+B*51:63         |                          |                  |
| B*15:03:01G+B*51:19     | B*15:235+B*51:01:01G     |                          |                  |
| B*15:03:01G+B*51:20     | B*15:61+B*51:08          |                          |                  |
| B*15:03:01G+B*51:22     | B*15:18:01G+B*52:01:02   |                          |                  |
| B*15:03:01G+B*51:23     | B*15:131+B*51:02:01      |                          |                  |
| B*15:03:01G+B*51:31     | B*15:123:01G+B*51:16     |                          |                  |
| B*15:03:01G+B*51:40     | B*15:123:01G+B*51:02:05  |                          |                  |
| B*15:03:01G+B*51:56:02  | B*15:62+B*51:06:01       |                          |                  |
| B*15:03:01G+B*51:61:02  | B*15:29+B*52:21          | B*15:54+B*51:01:01G      |                  |
| B*15:03:01G+B*51:77     | B*15:132+B*51:01:01G     |                          |                  |
| B*15:03:01G+B*51:78:02  | B*15:29+B*52:20          |                          |                  |
| B*15:03:01G+B*51:82     | B*15:47:01+B*51:01:01G   |                          |                  |
| B*15:03:01G+B*51:101    | B*15:69+B*51:01:01G      |                          |                  |
| B*15:03:01G+B*51:104    | B*15:29+B*52:02          |                          |                  |
| B*15:03:01G+B*51:108    | B*15:91+B*51:02:01       | B*15:123:01G+B*51:23     |                  |
| B*15:03:01G+B*52:10:01  | B*15:123:01G+B*52:01:01G |                          |                  |
| B*15:03:01G+B*52:10:02  | B*15:123:01G+B*52:01:07  |                          |                  |
| B*15:03:01G+B*52:15     | B*15:131+B*52:01:01G     |                          |                  |
| B*15:03:01G+B*52:21     | B*15:54+B*52:01:02       |                          |                  |
| B*15:03:01G+B*53:01:01  | B*15:29+B*53:17:02       | B*15:123:01G+B*53:08:01  |                  |
| B*15:03:01G+B*53:01:03  | B*15:123:01G+B*53:08:02  |                          |                  |
| B*15:03:01G+B*53:04     | B*15:253+B*53:01:01      |                          |                  |
| B*15:03:01G+B*53:06     | B*15:62+B*51:45          |                          |                  |
| B*15:03:01G+B*53:23     | B*15:61+B*53:01:01       |                          |                  |
| B*15:03:01G+B*54:10     | B*15:123:01G+B*54:20     |                          |                  |
| B*15:03:01G+B*55:01:01G | B*15:61+B*55:31          | B*15:64+B*55:40          |                  |
| B*15:03:01G+B*55:02:01G | B*15:123:01G+B*55:01:01G |                          |                  |
| B*15:03:01G+B*55:09     | B*15:47:01+B*56:25       |                          |                  |
| B*15:03:01G+B*55:13     | B*15:253+B*55:32         |                          |                  |
| B*15:03:01G+B*55:16     | B*15:210+B*55:02:01G     |                          |                  |
| B*15:03:01G+B*55:21     | B*15:54+B*55:01:01G      |                          |                  |
| B*15:03:01G+B*55:22     | B*15:123:01G+B*55:24     |                          |                  |
| B*15:03:01G+B*55:37     | B*15:123:01G+B*55:52     |                          |                  |
| B*15:03:01G+B*55:41     | B*15:156+B*55:02:01G     |                          |                  |
| B*15:03:01G+B*55:47     | B*15:64+B*55:34          |                          |                  |
| B*15:03:01G+B*56:01:01G | B*15:123:01G+B*56:25     |                          |                  |
| B*15:03:01G+B*56:11     | B*15:253+B*56:09         |                          |                  |
| B*15:03:01G+B*56:18     | B*15:123:01G+B*56:32     |                          |                  |
| B*15:03:01G+B*57:01:01G | B*15:03:03+B*57:01:09    | B*15:123:01G+B*57:22     |                  |
| B*15:03:01G+B*57:03:01  | B*15:123:01G+B*57:57     |                          |                  |
| B*15:03:01G+B*57:07     | B*15:91+B*57:57          | B*15:131+B*57:03:01      |                  |
| B*15:03:01G+B*57:39     | B*15:210+B*57:03:01      |                          |                  |
| B*15:03:01G+B*57:41     | B*15:156+B*57:01:01G     |                          |                  |
| B*15:03:01G+B*58:01:01G | B*15:123:01G+B*58:19     |                          |                  |
| B*15:03:01G+B*58:02     | B*15:123:01G+B*58:06     |                          |                  |
| B*15:03:01G+B*58:07     | B*15:91+B*58:06          | B*15:131+B*58:02         |                  |
| B*15:03:01G+B*58:34     | B*15:253+B*58:01:01G     |                          |                  |
| B*15:03:01G+B*78:01:01  | B*15:61+B*78:02:02       |                          |                  |
| B*15:03:01G+B*78:02:01  | B*15:29+B*78:05          |                          |                  |
| B*15:03:02+B*51:61:01   | B*15:54+B*51:01:21       |                          |                  |
| B*15:03:03+B*39:02:02   | B*15:61+B*39:13:02       |                          |                  |
| B*15:03:03+B*39:31      | B*15:210+B*39:01:14      |                          |                  |
| B*15:03:03+B*40:08      | B*15:29+B*40:02:04       |                          |                  |
| B*15:03:03+B*40:50      | B*15:61+B*40:02:04       |                          |                  |
| B*15:03:03+B*40:89      | B*15:156+B*40:02:04      |                          |                  |
| B*15:04+B*15:107        | B*15:78:02+B*15:155      |                          |                  |
| B*15:04+B*15:123:01G    | B*15:54+B*15:155         |                          |                  |
| B*15:04+B*15:136        | B*15:155+B*15:249        |                          |                  |
| B*15:04+B*15:185        | B*15:38:01+B*15:155      |                          |                  |
| B*15:04+B*18:01:01G     | B*15:155+B*18:19         |                          |                  |
| B*15:04+B*27:05:02G     | B*15:129+B*27:81         |                          |                  |
| B*15:04+B*27:19         | B*15:154+B*27:81         |                          |                  |

|                        |                         |                        |                  |
|------------------------|-------------------------|------------------------|------------------|
| B*15:04+B*27:32        | B*15:07:01G+B*27:81     |                        |                  |
| B*15:04+B*35:01:01G    | B*15:155+B*35:14:01     |                        |                  |
| B*15:04+B*35:01:04     | B*15:154+B*35:37        |                        |                  |
| B*15:04+B*35:04:02     | B*15:85+B*78:04         |                        |                  |
| B*15:04+B*35:05:01     | B*15:07:01G+B*35:37     |                        |                  |
| B*15:04+B*35:186       | B*35:28+B*46:32         |                        |                  |
| B*15:04+B*38:14        | B*15:24+B*39:06:02      |                        |                  |
| B*15:04+B*39:01:05     | B*15:155+B*39:18        |                        |                  |
| B*15:04+B*39:03        | B*15:07:01G+B*39:06:02  |                        |                  |
| B*15:04+B*39:09        | B*15:32+B*39:06:02      |                        |                  |
| B*15:04+B*39:28        | B*15:35+B*39:06:02      |                        |                  |
| B*15:04+B*39:31        | B*15:225+B*39:06:02     |                        |                  |
| B*15:04+B*39:38Q       | B*15:245Q+B*39:06:02    |                        |                  |
| B*15:04+B*39:42        | B*15:154+B*39:06:02     |                        |                  |
| B*15:04+B*39:48        | B*15:38:01+B*39:06:02   |                        |                  |
| B*15:04+B*39:54        | B*15:244+B*39:06:02     |                        |                  |
| B*15:04+B*39:68        | B*15:78:01+B*39:06:02   |                        |                  |
| B*15:04+B*40:02:01G    | B*15:07:01G+B*40:06:01G |                        |                  |
| B*15:04+B*40:02:07     | B*15:07:01G+B*40:06:02  |                        |                  |
| B*15:04+B*40:03        | B*15:07:01G+B*40:159    |                        |                  |
| B*15:04+B*40:18        | B*15:07:01G+B*40:44     | B*15:45+B*40:159       |                  |
| B*15:04+B*40:99        | B*15:165+B*40:70        |                        |                  |
| B*15:04+B*40:120       | B*15:85+B*40:44         |                        |                  |
| B*15:04+B*40:157       | B*15:07:01G+B*40:96     |                        |                  |
| B*15:04+B*41:03:02     | B*15:35+B*41:01         |                        |                  |
| B*15:04+B*42:01:01     | B*15:07:01G+B*42:04     |                        |                  |
| B*15:04+B*44:02:01G    | B*15:154+B*44:20        |                        |                  |
| B*15:04+B*44:03:01G    | B*15:154+B*44:47        | B*15:155+B*44:146      |                  |
| B*15:04+B*44:54        | B*15:07:01G+B*44:47     |                        |                  |
| B*15:04+B*44:106       | B*15:07:01G+B*44:20     |                        |                  |
| B*15:04+B*46:05        | B*15:125+B*46:32        |                        |                  |
| B*15:04+B*46:08        | B*15:39:01+B*46:32      |                        |                  |
| B*15:04+B*46:10        | B*15:183+B*46:32        |                        |                  |
| B*15:04+B*46:12        | B*15:07:01G+B*46:32     |                        |                  |
| B*15:04+B*46:13:01     | B*15:05:02+B*46:32      | B*15:155+B*46:01:03    |                  |
| B*15:04+B*46:13:03     | B*15:05:01+B*46:32      | B*15:155+B*46:01:01G   |                  |
| B*15:04+B*46:14        | B*15:225+B*46:32        |                        |                  |
| B*15:04+B*46:17        | B*15:14+B*46:32         |                        |                  |
| B*15:04+B*46:19        | B*15:136+B*46:32        |                        |                  |
| B*15:04+B*46:21:01     | B*15:155+B*46:29        |                        |                  |
| B*15:04+B*46:29        | B*15:50+B*46:32         |                        |                  |
| B*15:04+B*46:30        | B*15:117+B*46:32        |                        |                  |
| B*15:04+B*46:33        | B*15:20+B*46:32         |                        |                  |
| B*15:04+B*51:09:01     | B*15:155+B*51:61:02     |                        |                  |
| B*15:04+B*51:56:02     | B*15:85+B*51:01:01G     | B*35:14:02+B*52:02     |                  |
| B*15:04+B*51:64        | B*15:07:01G+B*51:01:01G | B*15:45+B*51:63        |                  |
| B*15:04+B*51:81        | B*15:07:01G+B*51:10     |                        |                  |
| B*15:04+B*55:02:01G    | B*15:155+B*55:21        |                        |                  |
| B*15:05:01+B*15:13:02  | B*15:05:02+B*15:13:01   |                        |                  |
| B*15:05:01+B*15:16:01  | B*15:39:01+B*15:222     |                        |                  |
| B*15:05:01+B*15:27:03  | B*15:05:02+B*15:27:01   |                        |                  |
| B*15:05:01+B*15:37     | B*15:10:01+B*15:185     |                        |                  |
| B*15:05:01+B*15:38:02  | B*15:05:02+B*15:38:01   |                        |                  |
| B*15:05:01+B*15:39:02  | B*15:05:02+B*15:39:01   |                        |                  |
| B*15:05:01+B*15:65     | B*15:39:01+B*15:237     |                        |                  |
| B*15:05:01+B*15:99     | B*15:10:01+B*15:237     |                        |                  |
| B*15:05:01+B*15:108    | B*15:18:01G+B*15:136    |                        |                  |
| B*15:05:01+B*15:131    | B*15:39:01+B*15:91      |                        |                  |
| B*15:05:01+B*15:141    | B*15:35+B*15:107        |                        |                  |
| B*15:05:01+B*15:150    | B*15:30+B*15:107        |                        |                  |
| B*15:05:01+B*15:221    | B*15:18:01G+B*15:237    |                        |                  |
| B*15:05:01+B*15:235    | B*15:123:01G+B*15:136   |                        |                  |
| B*15:05:01+B*15:238    | B*15:39:01+B*15:52      |                        |                  |
| B*15:05:01+B*18:01:01G | B*15:05:02+B*18:01:10   | B*15:185+B*18:11       |                  |
| B*15:05:01+B*18:13     | B*15:237+B*18:01:01G    |                        |                  |
| B*15:05:01+B*18:15     | B*15:39:01+B*18:01:01G  | B*15:39:02+B*18:01:10  |                  |
| B*15:05:01+B*18:20     | B*15:31+B*18:12         |                        |                  |
| B*15:05:01+B*18:30     | B*15:39:01+B*18:13      | B*15:65+B*18:01:01G    | B*15:237+B*18:15 |
| B*15:05:01+B*18:36     | B*15:185+B*18:58        |                        |                  |
| B*15:05:01+B*18:50     | B*15:185+B*18:10        |                        |                  |
| B*15:05:01+B*27:04:01G | B*15:39:01+B*27:61      |                        |                  |
| B*15:05:01+B*27:10     | B*15:39:01+B*27:05:02G  | B*15:40+B*27:38        |                  |
| B*15:05:01+B*27:28     | B*15:185+B*27:71        |                        |                  |
| B*15:05:01+B*27:40     | B*15:39:01+B*27:08      |                        |                  |
| B*15:05:01+B*27:45     | B*15:237+B*27:05:02G    |                        |                  |
| B*15:05:01+B*27:81     | B*15:155+B*27:70        |                        |                  |
| B*15:05:01+B*35:03:01G | B*15:05:02+B*35:03:02   |                        |                  |
| B*15:05:01+B*35:08:01  | B*15:237+B*35:01:01G    |                        |                  |
| B*15:05:01+B*35:08:03  | B*15:237+B*35:01:04     |                        |                  |
| B*15:05:01+B*35:09:03  | B*15:05:02+B*35:09:02   | B*15:107+B*35:04:01    |                  |
| B*15:05:01+B*35:11:01  | B*15:05:02+B*35:11:02   | B*15:39:01+B*35:01:01G |                  |
| B*15:05:01+B*35:18     | B*15:237+B*35:09:02     |                        |                  |
| B*15:05:01+B*35:21     | B*15:39:01+B*35:24:01   | B*15:185+B*35:11:01    |                  |
| B*15:05:01+B*35:24:01  | B*15:185+B*35:01:01G    |                        |                  |
| B*15:05:01+B*35:35     | B*15:136+B*35:93        |                        |                  |
| B*15:05:01+B*35:37     | B*15:155+B*35:68:02     |                        |                  |
| B*15:05:01+B*35:38     | B*15:179+B*35:03:02     |                        |                  |
| B*15:05:01+B*35:45     | B*15:237+B*35:71        |                        |                  |
| B*15:05:01+B*35:58     | B*15:39:01+B*35:05:01   |                        |                  |
| B*15:05:01+B*35:80     | B*15:237+B*35:10        |                        |                  |
| B*15:05:01+B*35:81     | B*15:185+B*35:02:01     |                        |                  |
| B*15:05:01+B*35:105    | B*15:237+B*35:159       |                        |                  |
| B*15:05:01+B*35:109    | B*15:185+B*35:03:01G    |                        |                  |
| B*15:05:01+B*35:118    | B*15:107+B*35:43:01G    |                        |                  |
| B*15:05:01+B*35:142    | B*15:237+B*35:124       |                        |                  |
| B*15:05:01+B*35:156    | B*15:237+B*35:03:01G    |                        |                  |
| B*15:05:01+B*35:167    | B*15:39:01+B*35:03:01G  | B*15:39:02+B*35:03:02  |                  |
| B*15:05:01+B*35:172    | B*15:237+B*35:02:01     |                        |                  |
| B*15:05:01+B*35:186    | B*35:28+B*46:13:03      |                        |                  |
| B*15:05:01+B*35:188    | B*15:39:01+B*35:190     |                        |                  |
| B*15:05:01+B*35:190    | B*15:185+B*35:93        |                        |                  |
| B*15:05:01+B*35:205    | B*15:107+B*35:03:02     |                        |                  |
| B*15:05:01+B*37:04:01  | B*15:185+B*37:01:01G    |                        |                  |
| B*15:05:01+B*37:13     | B*15:39:01+B*37:01:01G  |                        |                  |
| B*15:05:01+B*38:01:01  | B*15:05:02+B*38:01:03   | B*15:136+B*38:36       |                  |

|                        |                        |                       |                       |
|------------------------|------------------------|-----------------------|-----------------------|
| B*15:05:01+B*38:10     | B*15:39:01+B*38:36     |                       |                       |
| B*15:05:01+B*38:32     | B*15:39:01+B*38:01:01  |                       | B*15:136+B*38:10      |
| B*15:05:01+B*39:01:01G | B*15:05:02+B*39:01:05  | B*15:39:02+B*38:01:03 |                       |
| B*15:05:01+B*39:06:02  | B*15:136+B*39:34       | B*15:136+B*39:30      |                       |
| B*15:05:01+B*39:11     | B*15:237+B*39:05:01    | B*15:155+B*39:01:01G  |                       |
| B*15:05:01+B*39:32     | B*15:185+B*39:74       |                       |                       |
| B*15:05:01+B*39:34     | B*15:155+B*39:30       |                       |                       |
| B*15:05:01+B*39:35     | B*15:39:01+B*39:01:01G | B*15:39:02+B*39:01:05 |                       |
| B*15:05:01+B*39:48     | B*15:185+B*39:01:01G   |                       |                       |
| B*15:05:01+B*39:50     | B*15:155+B*39:47       |                       |                       |
| B*15:05:01+B*39:57     | B*15:155+B*39:53       |                       |                       |
| B*15:05:01+B*40:01:01G | B*15:107+B*40:87:01    |                       |                       |
| B*15:05:01+B*40:06:01G | B*15:155+B*40:11:01    |                       |                       |
| B*15:05:01+B*40:14:01  | B*15:05:02+B*40:14:02  |                       |                       |
| B*15:05:01+B*40:23     | B*15:65+B*40:114       |                       |                       |
| B*15:05:01+B*40:113    | B*15:185+B*40:01:01G   |                       |                       |
| B*15:05:01+B*40:128    | B*15:237+B*40:01:01G   |                       |                       |
| B*15:05:01+B*40:136    | B*15:179+B*40:14:02    |                       |                       |
| B*15:05:01+B*40:148    | B*15:39:01+B*40:06:01G |                       |                       |
| B*15:05:01+B*40:159    | B*15:155+B*40:20       |                       |                       |
| B*15:05:01+B*40:161    | B*15:65+B*40:06:01G    | B*15:237+B*40:148     |                       |
| B*15:05:01+B*40:174    | B*15:185+B*40:05       |                       |                       |
| B*15:05:01+B*40:183    | B*15:39:01+B*40:01:01G | B*15:40+B*40:63       | B*15:138+B*40:92      |
| B*15:05:01+B*40:198    | B*15:39:01+B*40:128    | B*15:65+B*40:01:01G   | B*15:237+B*40:183     |
| B*15:05:01+B*44:02:01G | B*15:05:02+B*44:02:09  |                       |                       |
| B*15:05:01+B*44:12     | B*15:31+B*44:51        |                       |                       |
| B*15:05:01+B*44:20     | B*15:155+B*44:41:01    |                       |                       |
| B*15:05:01+B*44:28:01  | B*15:237+B*44:03:02    |                       |                       |
| B*15:05:01+B*44:28:02  | B*15:237+B*44:03:01G   |                       |                       |
| B*15:05:01+B*44:29     | B*15:136+B*44:03:01G   |                       |                       |
| B*15:05:01+B*44:47     | B*15:155+B*44:65       |                       |                       |
| B*15:05:01+B*44:76     | B*15:39:01+B*44:28:02  | B*15:65+B*44:03:01G   | B*15:237+B*44:79      |
| B*15:05:01+B*44:79     | B*15:39:01+B*44:03:01G |                       |                       |
| B*15:05:01+B*44:89     | B*15:136+B*44:02:01G   |                       |                       |
| B*15:05:01+B*46:03     | B*15:65+B*46:21:01     |                       |                       |
| B*15:05:01+B*46:05     | B*15:125+B*46:13:03    |                       |                       |
| B*15:05:01+B*46:08     | B*15:39:01+B*46:13:03  |                       |                       |
| B*15:05:01+B*46:10     | B*15:183+B*46:13:03    |                       |                       |
| B*15:05:01+B*46:12     | B*15:07:01G+B*46:13:03 |                       |                       |
| B*15:05:01+B*46:13:01  | B*15:05:02+B*46:13:03  |                       |                       |
| B*15:05:01+B*46:14     | B*15:225+B*46:13:03    |                       |                       |
| B*15:05:01+B*46:17     | B*15:14+B*46:13:03     |                       |                       |
| B*15:05:01+B*46:19     | B*15:136+B*46:13:03    |                       |                       |
| B*15:05:01+B*46:21:02  | B*15:05:02+B*46:21:01  |                       |                       |
| B*15:05:01+B*46:30     | B*15:40+B*46:09        | B*15:117+B*46:13:03   |                       |
| B*15:05:01+B*46:33     | B*15:20+B*46:13:03     |                       |                       |
| B*15:05:01+B*48:15     | B*15:39:01+B*48:01:01G |                       |                       |
| B*15:05:01+B*48:25     | B*15:39:01+B*48:02:01  |                       |                       |
| B*15:05:01+B*49:01:01  | B*15:39:01+B*49:11     |                       |                       |
| B*15:05:01+B*49:07     | B*15:40+B*49:11        |                       |                       |
| B*15:05:01+B*49:09     | B*15:185+B*49:01:01    |                       |                       |
| B*15:05:01+B*51:01:01G | B*15:39:01+B*51:09:01  | B*15:155+B*51:06:01   | B*15:185+B*51:02:01   |
| B*15:05:01+B*51:01:02  | B*15:39:01+B*51:09:02  | B*15:185+B*51:02:02   |                       |
| B*15:05:01+B*51:01:04  | B*15:185+B*51:02:04    |                       |                       |
| B*15:05:01+B*51:01:21  | B*15:05:02+B*51:01:25  |                       |                       |
| B*15:05:01+B*51:01:31  | B*15:185+B*51:02:03    |                       |                       |
| B*15:05:01+B*51:02:01  | B*15:05:02+B*51:02:05  | B*15:39:02+B*51:40    | B*15:155+B*51:59      |
| B*15:05:01+B*51:02:05  | B*15:39:01+B*51:40     |                       |                       |
| B*15:05:01+B*51:06:01  | B*15:185+B*51:59       |                       |                       |
| B*15:05:01+B*51:16     | B*15:39:01+B*51:31     | B*15:40+B*51:09:01    | B*15:185+B*51:34      |
| B*15:05:01+B*51:19     | B*15:136+B*51:09:01    |                       |                       |
| B*15:05:01+B*51:23     | B*15:39:01+B*51:108    |                       |                       |
| B*15:05:01+B*51:24:04  | B*15:05:02+B*51:24:03  | B*15:107+B*51:01:01G  |                       |
| B*15:05:01+B*51:29     | B*15:65+B*51:09:01     | B*15:237+B*51:01:01G  |                       |
| B*15:05:01+B*51:61:01  | B*15:38:01+B*51:40     |                       |                       |
| B*15:05:01+B*51:82     | B*15:65+B*51:31        | B*15:237+B*51:16      |                       |
| B*15:05:01+B*51:90     | B*15:155+B*51:135      |                       |                       |
| B*15:05:01+B*51:101    | B*15:136+B*51:21       |                       |                       |
| B*15:05:01+B*52:01:01G | B*15:05:02+B*52:01:07  | B*15:39:01+B*52:10:01 | B*15:39:02+B*52:10:02 |
| B*15:05:01+B*52:01:07  | B*15:39:01+B*52:10:02  |                       | B*15:185+B*52:11      |
| B*15:05:01+B*52:08     | B*15:40+B*52:10:01     |                       |                       |
| B*15:05:01+B*52:10:01  | B*15:05:02+B*52:10:02  |                       |                       |
| B*15:05:01+B*52:19     | B*15:179+B*52:10:02    |                       |                       |
| B*15:05:01+B*52:21     | B*15:38:01+B*52:03     |                       |                       |
| B*15:05:01+B*52:24     | B*15:65+B*52:10:01     | B*15:237+B*52:01:01G  |                       |
| B*15:05:01+B*53:01:01  | B*15:05:02+B*53:01:03  |                       |                       |
| B*15:05:01+B*53:02     | B*15:185+B*53:01:01    |                       |                       |
| B*15:05:01+B*53:08:01  | B*15:05:02+B*53:08:02  | B*15:39:01+B*53:01:01 | B*15:39:02+B*53:01:03 |
| B*15:05:01+B*53:08:02  | B*15:39:01+B*53:01:03  |                       |                       |
| B*15:05:01+B*53:11     | B*15:237+B*53:13       |                       |                       |
| B*15:05:01+B*53:16     | B*15:237+B*53:05       |                       |                       |
| B*15:05:01+B*53:24     | B*15:237+B*53:01:01    |                       |                       |
| B*15:05:01+B*54:10     | B*15:237+B*54:01:01G   |                       |                       |
| B*15:05:01+B*54:20     | B*15:39:01+B*54:10     | B*15:65+B*54:01:01G   |                       |
| B*15:05:01+B*55:01:01G | B*15:39:01+B*55:02:01G |                       |                       |
| B*15:05:01+B*55:02:01G | B*15:155+B*56:10       |                       |                       |
| B*15:05:01+B*55:09     | B*15:65+B*55:22        | B*15:237+B*55:24      |                       |
| B*15:05:01+B*55:24     | B*15:39:01+B*55:22     | B*15:40+B*56:01:01G   |                       |
| B*15:05:01+B*55:37     | B*15:237+B*55:02:01G   |                       |                       |
| B*15:05:01+B*55:52     | B*15:39:01+B*55:37     | B*15:65+B*55:02:01G   | B*15:237+B*55:01:01G  |
| B*15:05:01+B*55:56     | B*15:199+B*56:01:01G   |                       |                       |
| B*15:05:01+B*56:01:01G | B*15:05:02+B*56:01:03  | B*15:155+B*56:02      |                       |
| B*15:05:01+B*56:13     | B*15:179+B*56:01:03    |                       |                       |
| B*15:05:01+B*56:20:02  | B*15:107+B*56:01:03    |                       |                       |
| B*15:05:01+B*56:25     | B*15:39:01+B*56:01:01G | B*15:39:02+B*56:01:03 |                       |
| B*15:05:01+B*56:27     | B*15:155+B*56:04       |                       |                       |
| B*15:05:01+B*56:31     | B*15:185+B*56:18       |                       |                       |
| B*15:05:01+B*56:32     | B*15:39:01+B*56:18     |                       |                       |
| B*15:05:01+B*56:34     | B*15:185+B*56:01:01G   |                       |                       |
| B*15:05:01+B*57:02:01  | B*15:237+B*57:03:01    |                       |                       |
| B*15:05:01+B*57:19     | B*15:237+B*57:01:01G   |                       |                       |
| B*15:05:01+B*57:22     | B*15:39:01+B*57:01:01G |                       |                       |
| B*15:05:01+B*57:57     | B*15:39:01+B*57:03:01  |                       |                       |
| B*15:05:01+B*58:01:01G | B*15:05:02+B*58:01:05  |                       |                       |
| B*15:05:01+B*58:06     | B*15:39:01+B*58:02     |                       |                       |

|                        |                        |                       |
|------------------------|------------------------|-----------------------|
| B*15:05:01+B*58:09     | B*15:185+B*58:01:01G   |                       |
| B*15:05:01+B*58:19     | B*15:39:01+B*58:01:01G | B*15:39:02+B*58:01:05 |
| B*15:05:01+B*58:22     | B*15:237+B*58:01:01G   |                       |
| B*15:05:01+B*67:03     | B*15:107+B*67:01:01    |                       |
| B*15:05:02+B*15:16:01  | B*15:39:02+B*15:222    |                       |
| B*15:05:02+B*15:65     | B*15:39:02+B*15:237    |                       |
| B*15:05:02+B*15:131    | B*15:39:02+B*15:91     |                       |
| B*15:05:02+B*15:238    | B*15:39:02+B*15:52     |                       |
| B*15:05:02+B*18:15     | B*15:39:02+B*18:01:01G |                       |
| B*15:05:02+B*18:19     | B*15:38:02+B*18:11     |                       |
| B*15:05:02+B*18:30     | B*15:39:02+B*18:13     |                       |
| B*15:05:02+B*18:57     | B*15:39:01+B*18:36     |                       |
| B*15:05:02+B*27:04:01G | B*15:39:02+B*27:61     |                       |
| B*15:05:02+B*27:10     | B*15:39:02+B*27:05:02G |                       |
| B*15:05:02+B*27:40     | B*15:39:02+B*27:08     |                       |
| B*15:05:02+B*35:01:01G | B*15:20+B*35:32:02     |                       |
| B*15:05:02+B*35:11:01  | B*15:39:02+B*35:01:01G |                       |
| B*15:05:02+B*35:14:01  | B*15:39:02+B*35:62     |                       |
| B*15:05:02+B*35:18     | B*15:237+B*35:09:03    |                       |
| B*15:05:02+B*35:21     | B*15:39:02+B*35:24:01  |                       |
| B*15:05:02+B*35:38     | B*15:179+B*35:03:01G   |                       |
| B*15:05:02+B*35:44     | B*15:30+B*35:32:02     |                       |
| B*15:05:02+B*35:58     | B*15:39:02+B*35:05:01  |                       |
| B*15:05:02+B*35:64     | B*15:107+B*35:01:01G   |                       |
| B*15:05:02+B*35:86     | B*15:117+B*35:32:02    |                       |
| B*15:05:02+B*35:99     | B*15:65+B*35:32:02     |                       |
| B*15:05:02+B*35:114    | B*15:107+B*35:05:01    |                       |
| B*15:05:02+B*35:115    | B*15:179+B*35:01:01G   |                       |
| B*15:05:02+B*35:118    | B*15:78:02+B*35:32:02  |                       |
| B*15:05:02+B*35:167    | B*15:39:02+B*35:03:01G |                       |
| B*15:05:02+B*35:186    | B*35:28+B*46:13:01     |                       |
| B*15:05:02+B*35:188    | B*15:39:02+B*35:190    |                       |
| B*15:05:02+B*35:205    | B*15:107+B*35:03:01G   |                       |
| B*15:05:02+B*37:13     | B*15:39:02+B*37:01:01G |                       |
| B*15:05:02+B*38:10     | B*15:39:02+B*38:36     |                       |
| B*15:05:02+B*38:32     | B*15:39:02+B*38:01:01  |                       |
| B*15:05:02+B*39:35     | B*15:39:02+B*39:01:01G |                       |
| B*15:05:02+B*40:14:03  | B*15:107+B*40:121      |                       |
| B*15:05:02+B*40:59     | B*15:20+B*40:52        |                       |
| B*15:05:02+B*40:136    | B*15:179+B*40:14:01    |                       |
| B*15:05:02+B*40:148    | B*15:39:02+B*40:06:01G |                       |
| B*15:05:02+B*40:183    | B*15:39:02+B*40:01:01G |                       |
| B*15:05:02+B*40:198    | B*15:39:02+B*40:128    |                       |
| B*15:05:02+B*44:02:01G | B*15:179+B*44:03:01G   |                       |
| B*15:05:02+B*44:02:07  | B*15:179+B*44:03:02    |                       |
| B*15:05:02+B*44:02:24  | B*15:179+B*44:03:05    |                       |
| B*15:05:02+B*44:06     | B*15:179+B*51:42       |                       |
| B*15:05:02+B*44:08     | B*15:179+B*44:57       |                       |
| B*15:05:02+B*44:09     | B*15:179+B*44:46       |                       |
| B*15:05:02+B*44:16     | B*15:179+B*44:64:02    |                       |
| B*15:05:02+B*44:17     | B*15:179+B*44:43:01    |                       |
| B*15:05:02+B*44:20     | B*15:179+B*44:47       |                       |
| B*15:05:02+B*44:22     | B*15:179+B*44:105      |                       |
| B*15:05:02+B*44:41:01  | B*15:179+B*44:65       |                       |
| B*15:05:02+B*44:44     | B*15:179+B*44:40       |                       |
| B*15:05:02+B*44:51     | B*15:179+B*44:45       |                       |
| B*15:05:02+B*44:67     | B*15:179+B*44:13       |                       |
| B*15:05:02+B*44:76     | B*15:39:02+B*44:28:02  |                       |
| B*15:05:02+B*44:79     | B*15:39:02+B*44:03:01G |                       |
| B*15:05:02+B*44:89     | B*15:179+B*44:29       |                       |
| B*15:05:02+B*44:91     | B*15:179+B*44:37:01    |                       |
| B*15:05:02+B*44:95     | B*15:179+B*44:50       |                       |
| B*15:05:02+B*44:106    | B*15:179+B*44:54       |                       |
| B*15:05:02+B*44:123    | B*15:179+B*44:107      |                       |
| B*15:05:02+B*46:03     | B*15:65+B*46:21:02     |                       |
| B*15:05:02+B*46:05     | B*15:125+B*46:13:01    |                       |
| B*15:05:02+B*46:08     | B*15:39:01+B*46:13:01  | B*15:39:02+B*46:13:03 |
| B*15:05:02+B*46:10     | B*15:183+B*46:13:01    |                       |
| B*15:05:02+B*46:12     | B*15:07:01G+B*46:13:01 |                       |
| B*15:05:02+B*46:14     | B*15:225+B*46:13:01    |                       |
| B*15:05:02+B*46:17     | B*15:14+B*46:13:01     |                       |
| B*15:05:02+B*46:19     | B*15:136+B*46:13:01    |                       |
| B*15:05:02+B*46:30     | B*15:117+B*46:13:01    |                       |
| B*15:05:02+B*46:33     | B*15:20+B*46:13:01     |                       |
| B*15:05:02+B*48:10     | B*15:107+B*48:12       |                       |
| B*15:05:02+B*48:15     | B*15:39:02+B*48:01:01G |                       |
| B*15:05:02+B*48:25     | B*15:39:02+B*48:02:01  |                       |
| B*15:05:02+B*49:01:01  | B*15:39:02+B*49:11     |                       |
| B*15:05:02+B*51:01:01G | B*15:39:02+B*51:09:01  | B*35:32:02+B*52:02    |
| B*15:05:02+B*51:01:02  | B*15:39:02+B*51:09:02  |                       |
| B*15:05:02+B*51:08     | B*15:179+B*51:09:01    |                       |
| B*15:05:02+B*51:16     | B*15:39:02+B*51:31     |                       |
| B*15:05:02+B*51:23     | B*15:39:02+B*51:108    |                       |
| B*15:05:02+B*51:24:02  | B*15:107+B*51:01:04    |                       |
| B*15:05:02+B*51:56:02  | B*15:20+B*51:06:01     |                       |
| B*15:05:02+B*52:01:01G | B*15:39:02+B*52:10:01  |                       |
| B*15:05:02+B*52:19     | B*15:179+B*52:10:01    |                       |
| B*15:05:02+B*52:21     | B*15:38:02+B*52:03     |                       |
| B*15:05:02+B*53:06     | B*15:20+B*51:45        |                       |
| B*15:05:02+B*53:08:01  | B*15:39:02+B*53:01:01  |                       |
| B*15:05:02+B*54:20     | B*15:39:02+B*54:10     |                       |
| B*15:05:02+B*55:01:01G | B*15:39:02+B*55:02:01G |                       |
| B*15:05:02+B*55:24     | B*15:39:02+B*55:22     |                       |
| B*15:05:02+B*55:52     | B*15:39:02+B*55:37     |                       |
| B*15:05:02+B*55:56     | B*15:179+B*55:01:01G   |                       |
| B*15:05:02+B*56:13     | B*15:179+B*56:01:01G   |                       |
| B*15:05:02+B*56:20:02  | B*15:107+B*56:01:01G   |                       |
| B*15:05:02+B*56:25     | B*15:39:02+B*56:01:01G |                       |
| B*15:05:02+B*56:32     | B*15:39:02+B*56:18     |                       |
| B*15:05:02+B*57:09     | B*15:179+B*57:57       |                       |
| B*15:05:02+B*57:22     | B*15:39:02+B*57:01:01G |                       |
| B*15:05:02+B*57:24     | B*15:179+B*57:01:01G   |                       |
| B*15:05:02+B*57:57     | B*15:39:02+B*57:03:01  |                       |
| B*15:05:02+B*58:06     | B*15:39:02+B*58:02     |                       |
| B*15:05:02+B*58:19     | B*15:39:02+B*58:01:01G |                       |

|                         |                        |                       |
|-------------------------|------------------------|-----------------------|
| B*15:06+B*15:54         | B*15:27:01+B*15:156    |                       |
| B*15:06+B*15:154        | B*15:25:01G+B*15:27:02 | B*15:25:02+B*15:27:01 |
| B*15:06+B*18:01:01G     | B*15:195+B*18:20       |                       |
| B*15:06+B*40:01:01G     | B*15:195+B*40:172      |                       |
| B*15:06+B*40:02:01G     | B*15:195+B*40:89       |                       |
| B*15:06+B*40:18         | B*15:195+B*40:09       |                       |
| B*15:06+B*40:33         | B*15:195+B*40:42       |                       |
| B*15:06+B*40:160        | B*15:25:02+B*40:100    |                       |
| B*15:06+B*44:43:01      | B*15:195+B*44:144      |                       |
| B*15:06+B*44:45         | B*15:195+B*44:03:01G   |                       |
| B*15:06+B*44:51         | B*15:195+B*44:02:01G   |                       |
| B*15:06+B*44:123        | B*15:195+B*44:05:01    |                       |
| B*15:06+B*44:135        | B*15:195+B*44:54       |                       |
| B*15:06+B*55:02:01G     | B*15:195+B*55:41       |                       |
| B*15:06+B*57:01:01G     | B*15:195+B*57:41       |                       |
| B*15:07:01G+B*15:10:01  | B*15:18:01G+B*15:45    |                       |
| B*15:07:01G+B*15:99     | B*15:45+B*15:221       |                       |
| B*15:07:01G+B*15:248    | B*15:33+B*15:45        |                       |
| B*15:07:01G+B*18:02     | B*15:129+B*18:14       |                       |
| B*15:07:01G+B*18:03     | B*15:70+B*18:14        |                       |
| B*15:07:01G+B*18:07:01  | B*15:56+B*18:14        |                       |
| B*15:07:01G+B*18:08     | B*15:110+B*18:14       |                       |
| B*15:07:01G+B*18:18     | B*15:32+B*18:14        |                       |
| B*15:07:01G+B*18:20     | B*15:128+B*18:14       |                       |
| B*15:07:01G+B*18:26     | B*15:30+B*18:14        |                       |
| B*15:07:01G+B*18:31     | B*15:145+B*18:14       |                       |
| B*15:07:01G+B*18:32     | B*15:192+B*18:14       |                       |
| B*15:07:01G+B*18:33     | B*15:66+B*18:14        |                       |
| B*15:07:01G+B*18:40     | B*15:78:01+B*18:14     |                       |
| B*15:07:01G+B*18:49     | B*15:135+B*18:14       |                       |
| B*15:07:01G+B*18:54     | B*15:43+B*18:14        |                       |
| B*15:07:01G+B*18:67     | B*15:87+B*18:14        |                       |
| B*15:07:01G+B*18:69     | B*15:165+B*18:14       |                       |
| B*15:07:01G+B*18:71     | B*15:122+B*18:14       |                       |
| B*15:07:01G+B*27:05:02G | B*15:129+B*27:32       |                       |
| B*15:07:01G+B*27:19     | B*15:154+B*27:32       |                       |
| B*15:07:01G+B*27:46     | B*15:45+B*27:78        |                       |
| B*15:07:01G+B*35:04:01  | B*15:85+B*35:22        |                       |
| B*15:07:01G+B*35:12:01  | B*15:154+B*35:22       |                       |
| B*15:07:01G+B*35:23     | B*15:27:01+B*35:30     |                       |
| B*15:07:01G+B*35:34     | B*15:45+B*35:01:01G    | B*15:85+B*35:199      |
| B*15:07:01G+B*35:39     | B*15:154+B*35:199      |                       |
| B*15:07:01G+B*35:41     | B*15:126+B*35:01:01G   |                       |
| B*15:07:01G+B*35:48     | B*15:32+B*35:30        |                       |
| B*15:07:01G+B*35:186    | B*35:28+B*46:12        |                       |
| B*15:07:01G+B*35:199    | B*15:45+B*35:51        |                       |
| B*15:07:01G+B*38:14     | B*15:24+B*39:03        | B*15:70+B*38:19       |
| B*15:07:01G+B*38:17     | B*15:43+B*39:37        |                       |
| B*15:07:01G+B*38:20     | B*15:154+B*38:19       |                       |
| B*15:07:01G+B*39:09     | B*15:32+B*39:03        |                       |
| B*15:07:01G+B*39:28     | B*15:35+B*39:03        |                       |
| B*15:07:01G+B*39:31     | B*15:225+B*39:03       |                       |
| B*15:07:01G+B*39:38Q    | B*15:245Q+B*39:03      |                       |
| B*15:07:01G+B*39:42     | B*15:154+B*39:03       |                       |
| B*15:07:01G+B*39:48     | B*15:38:01+B*39:03     |                       |
| B*15:07:01G+B*39:53     | B*15:193+B*39:03       |                       |
| B*15:07:01G+B*39:54     | B*15:244+B*39:03       |                       |
| B*15:07:01G+B*39:68     | B*15:78:01+B*39:03     |                       |
| B*15:07:01G+B*40:02:01G | B*15:45+B*40:105       |                       |
| B*15:07:01G+B*40:07     | B*15:56+B*40:80        |                       |
| B*15:07:01G+B*40:18     | B*15:45+B*40:03        |                       |
| B*15:07:01G+B*40:25     | B*15:15+B*40:80        |                       |
| B*15:07:01G+B*40:42     | B*15:128+B*40:31       |                       |
| B*15:07:01G+B*40:43     | B*15:70+B*40:80        |                       |
| B*15:07:01G+B*40:61     | B*15:152+B*40:80       |                       |
| B*15:07:01G+B*40:64     | B*15:154+B*40:02:09    |                       |
| B*15:07:01G+B*40:67     | B*15:145+B*40:80       |                       |
| B*15:07:01G+B*40:69     | B*15:28+B*40:80        |                       |
| B*15:07:01G+B*40:79     | B*15:159+B*40:80       |                       |
| B*15:07:01G+B*40:100    | B*15:27:01+B*40:80     |                       |
| B*15:07:01G+B*40:106    | B*15:08+B*40:80        |                       |
| B*15:07:01G+B*40:113    | B*15:38:01+B*40:80     |                       |
| B*15:07:01G+B*40:117    | B*15:24+B*40:80        |                       |
| B*15:07:01G+B*40:120    | B*15:85+B*40:18        |                       |
| B*15:07:01G+B*40:132    | B*15:14+B*40:80        |                       |
| B*15:07:01G+B*40:160    | B*15:154+B*40:80       |                       |
| B*15:07:01G+B*40:166    | B*15:76+B*40:80        |                       |
| B*15:07:01G+B*40:171    | B*15:193+B*40:80       |                       |
| B*15:07:01G+B*40:172    | B*15:128+B*40:80       |                       |
| B*15:07:01G+B*40:186    | B*15:82+B*40:80        |                       |
| B*15:07:01G+B*40:188    | B*15:43+B*40:80        |                       |
| B*15:07:01G+B*44:02:01G | B*15:154+B*44:106      |                       |
| B*15:07:01G+B*44:29     | B*15:249+B*44:110      |                       |
| B*15:07:01G+B*44:45     | B*15:154+B*44:135      |                       |
| B*15:07:01G+B*44:103    | B*15:71+B*44:110       |                       |
| B*15:07:01G+B*44:105    | B*15:125+B*44:110      |                       |
| B*15:07:01G+B*44:107    | B*15:45+B*44:43:01     |                       |
| B*15:07:01G+B*44:123    | B*15:45+B*44:17        |                       |
| B*15:07:01G+B*46:05     | B*15:125+B*46:12       |                       |
| B*15:07:01G+B*46:08     | B*15:39:01+B*46:12     |                       |
| B*15:07:01G+B*46:10     | B*15:183+B*46:12       |                       |
| B*15:07:01G+B*46:14     | B*15:225+B*46:12       |                       |
| B*15:07:01G+B*46:17     | B*15:14+B*46:12        |                       |
| B*15:07:01G+B*46:19     | B*15:136+B*46:12       |                       |
| B*15:07:01G+B*46:29     | B*15:50+B*46:12        |                       |
| B*15:07:01G+B*46:30     | B*15:117+B*46:12       |                       |
| B*15:07:01G+B*46:33     | B*15:20+B*46:12        |                       |
| B*15:07:01G+B*48:02:01  | B*15:20+B*15:68        |                       |
| B*15:07:01G+B*48:21     | B*15:129+B*48:01:01G   |                       |
| B*15:07:01G+B*51:08     | B*15:45+B*51:97        |                       |
| B*15:07:01G+B*51:56:02  | B*15:85+B*51:64        |                       |
| B*15:07:01G+B*51:90     | B*15:45+B*51:37        |                       |
| B*15:08+B*15:36         | B*15:56+B*15:89        |                       |
| B*15:08+B*15:61         | B*15:29+B*15:70        | B*15:64+B*15:236      |
| B*15:08+B*15:62         | B*15:29+B*15:85        |                       |

|                     |                         |                       |                     |                       |
|---------------------|-------------------------|-----------------------|---------------------|-----------------------|
| B*15:08+B*15:64     | B*15:15+B*15:29         |                       |                     |                       |
| B*15:08+B*15:70     | B*15:15+B*15:236        |                       |                     |                       |
| B*15:08+B*15:98     | B*15:29+B*15:163        |                       |                     |                       |
| B*15:08+B*15:101    | B*15:56+B*15:76         |                       |                     |                       |
| B*15:08+B*15:131    | B*15:14+B*15:29         |                       |                     |                       |
| B*15:08+B*15:152    | B*15:11:01G+B*15:56     |                       |                     |                       |
| B*15:08+B*15:156    | B*15:29+B*15:128        |                       |                     |                       |
| B*15:08+B*15:210    | B*15:29+B*15:225        |                       |                     |                       |
| B*15:08+B*15:243    | B*15:09+B*15:56         |                       |                     |                       |
| B*15:08+B*18:01:01G | B*15:15+B*18:07:01      |                       |                     |                       |
| B*15:08+B*18:01:12  | B*15:15+B*18:07:02      |                       |                     |                       |
| B*15:08+B*35:10     | B*15:56+B*35:01:01G     |                       |                     |                       |
| B*15:08+B*35:13     | B*15:56+B*35:03:01G     |                       |                     |                       |
| B*15:08+B*35:16     | B*15:56+B*35:17         |                       |                     |                       |
| B*15:08+B*35:20:01  | B*15:15+B*35:01:01G     |                       |                     |                       |
| B*15:08+B*35:69     | B*15:56+B*35:29:01      | B*15:236+B*35:01:01G  |                     |                       |
| B*15:08+B*35:72     | B*15:15+B*35:05:01      |                       |                     |                       |
| B*15:08+B*35:76     | B*15:76+B*35:01:01G     |                       |                     |                       |
| B*15:08+B*35:80     | B*15:56+B*35:08:01      |                       |                     |                       |
| B*15:08+B*35:95     | B*15:15+B*35:02:01      |                       |                     |                       |
| B*15:08+B*35:186    | B*35:01:01G+B*46:01:01G | B*35:01:17+B*46:01:07 | B*35:11:01+B*46:09  | B*35:14:01+B*46:13:03 |
|                     | B*35:14:02+B*46:13:01   | B*35:43:01G+B*46:33   | B*35:62+B*46:08     |                       |
| B*15:08+B*37:01:01G | B*15:15+B*37:21         |                       |                     |                       |
| B*15:08+B*38:04     | B*15:56+B*38:02:03      |                       |                     |                       |
| B*15:08+B*39:22     | B*15:56+B*39:01:01G     | B*15:66+B*39:58       | B*15:236+B*39:05:01 |                       |
| B*15:08+B*39:39:01  | B*15:15+B*39:58         |                       |                     |                       |
| B*15:08+B*40:06:01G | B*15:15+B*40:162        |                       |                     |                       |
| B*15:08+B*40:07     | B*15:56+B*40:106        |                       |                     |                       |
| B*15:08+B*40:19     | B*15:15+B*40:13         | B*15:24+B*40:08       |                     |                       |
| B*15:08+B*40:25     | B*15:15+B*40:106        |                       |                     |                       |
| B*15:08+B*40:37     | B*15:135+B*40:08        |                       |                     |                       |
| B*15:08+B*40:43     | B*15:70+B*40:106        | B*15:236+B*40:25      |                     |                       |
| B*15:08+B*40:50     | B*15:70+B*40:08         |                       |                     |                       |
| B*15:08+B*40:61     | B*15:11:01G+B*40:07     | B*15:152+B*40:106     |                     |                       |
| B*15:08+B*40:67     | B*15:145+B*40:106       |                       |                     |                       |
| B*15:08+B*40:69     | B*15:28+B*40:106        |                       |                     |                       |
| B*15:08+B*40:79     | B*15:159+B*40:106       |                       |                     |                       |
| B*15:08+B*40:89     | B*15:128+B*40:08        |                       |                     |                       |
| B*15:08+B*40:100    | B*15:27:01+B*40:106     |                       |                     |                       |
| B*15:08+B*40:113    | B*15:38:01+B*40:106     |                       |                     |                       |
| B*15:08+B*40:117    | B*15:24+B*40:106        |                       |                     |                       |
| B*15:08+B*40:132    | B*15:14+B*40:106        |                       |                     |                       |
| B*15:08+B*40:143    | B*15:27:02+B*40:08      |                       |                     |                       |
| B*15:08+B*40:160    | B*15:154+B*40:106       |                       |                     |                       |
| B*15:08+B*40:166    | B*15:76+B*40:106        |                       |                     |                       |
| B*15:08+B*40:169    | B*15:167+B*40:08        |                       |                     |                       |
| B*15:08+B*40:171    | B*15:193+B*40:106       |                       |                     |                       |
| B*15:08+B*40:172    | B*15:128+B*40:106       |                       |                     |                       |
| B*15:08+B*40:173    | B*15:184+B*40:08        |                       |                     |                       |
| B*15:08+B*40:186    | B*15:82+B*40:106        |                       |                     |                       |
| B*15:08+B*40:188    | B*15:43+B*40:106        |                       |                     |                       |
| B*15:08+B*40:200    | B*15:97+B*40:08         |                       |                     |                       |
| B*15:08+B*44:02:01G | B*15:56+B*44:12         |                       |                     |                       |
| B*15:08+B*46:01:01G | B*15:11:01G+B*46:16     |                       |                     |                       |
| B*15:08+B*48:18     | B*15:87+B*48:06         |                       |                     |                       |
| B*15:08+B*50:01:01  | B*15:56+B*50:15         |                       |                     |                       |
| B*15:08+B*51:01:01G | B*35:43:01G+B*51:104    |                       |                     |                       |
| B*15:08+B*51:07:01  | B*15:15+B*51:01:01G     |                       |                     |                       |
| B*15:08+B*51:07:02  | B*15:15+B*51:01:02      |                       |                     |                       |
| B*15:08+B*51:16     | B*35:86+B*51:104        |                       |                     |                       |
| B*15:08+B*51:22     | B*35:135+B*51:104       |                       |                     |                       |
| B*15:08+B*51:24:04  | B*35:118+B*51:104       |                       |                     |                       |
| B*15:08+B*52:06:01  | B*15:56+B*51:01:33      |                       |                     |                       |
| B*15:08+B*52:06:02  | B*15:56+B*51:01:01G     |                       |                     |                       |
| B*15:08+B*52:08     | B*15:117+B*51:01:02     |                       |                     |                       |
| B*15:08+B*52:09     | B*15:87+B*78:02:02      |                       |                     |                       |
| B*15:08+B*52:15     | B*15:14+B*51:01:02      |                       |                     |                       |
| B*15:08+B*52:27     | B*15:251+B*51:01:02     |                       |                     |                       |
| B*15:08+B*52:28     | B*15:145+B*51:01:02     |                       |                     |                       |
| B*15:08+B*52:29     | B*15:105+B*51:01:02     |                       |                     |                       |
| B*15:08+B*53:09     | B*15:15+B*53:13         |                       |                     |                       |
| B*15:08+B*54:01:01G | B*15:11:01G+B*54:24     |                       |                     |                       |
| B*15:08+B*55:34     | B*15:56+B*55:47         |                       |                     |                       |
| B*15:08+B*55:40     | B*15:56+B*55:01:01G     | B*15:236+B*55:31      |                     |                       |
| B*15:08+B*56:06     | B*15:76+B*78:02:02      |                       |                     |                       |
| B*15:08+B*58:01:01G | B*35:43:01G+B*58:36     |                       |                     |                       |
| B*15:08+B*58:37     | B*35:86+B*58:36         |                       |                     |                       |
| B*15:08+B*78:06     | B*15:135+B*78:02:01     |                       |                     |                       |
| B*15:08+B*81:01:01G | B*15:11:01G+B*81:05     | B*15:76+B*48:06       |                     |                       |
| B*15:09+B*15:36     | B*15:89+B*15:243        |                       |                     |                       |
| B*15:09+B*15:44     | B*15:21+B*15:252        |                       |                     |                       |
| B*15:09+B*15:93     | B*15:18:01G+B*15:252    |                       |                     |                       |
| B*15:09+B*15:101    | B*15:76+B*15:243        |                       |                     |                       |
| B*15:09+B*15:152    | B*15:11:01G+B*15:243    |                       |                     |                       |
| B*15:09+B*18:01:01G | B*15:252+B*18:36        |                       |                     |                       |
| B*15:09+B*18:11     | B*15:252+B*18:58        |                       |                     |                       |
| B*15:09+B*18:12     | B*15:243+B*18:01:01G    |                       |                     |                       |
| B*15:09+B*27:15     | B*15:252+B*27:63        |                       |                     |                       |
| B*15:09+B*27:71     | B*15:252+B*27:38        |                       |                     |                       |
| B*15:09+B*35:01:01G | B*15:18:01G+B*35:04:02  |                       |                     |                       |
| B*15:09+B*35:03:01G | B*15:133+B*35:04:02     |                       |                     |                       |
| B*15:09+B*35:06     | B*15:229+B*35:04:02     |                       |                     |                       |
| B*15:09+B*35:08:01  | B*15:221+B*35:04:02     |                       |                     |                       |
| B*15:09+B*35:10     | B*15:243+B*35:01:01G    |                       |                     |                       |
| B*15:09+B*35:13     | B*15:243+B*35:03:01G    |                       |                     |                       |
| B*15:09+B*35:15     | B*15:238+B*35:04:02     |                       |                     |                       |
| B*15:09+B*35:16     | B*15:243+B*35:17        |                       |                     |                       |
| B*15:09+B*35:28     | B*15:243+B*35:20:01     |                       |                     |                       |
| B*15:09+B*35:34     | B*15:10:01+B*35:04:02   |                       |                     |                       |
| B*15:09+B*35:69     | B*15:243+B*35:29:01     |                       |                     |                       |
| B*15:09+B*35:71     | B*15:161+B*35:04:02     |                       |                     |                       |
| B*15:09+B*35:80     | B*15:243+B*35:08:01     |                       |                     |                       |
| B*15:09+B*35:93     | B*15:93+B*35:04:02      | B*15:252+B*35:01:01G  |                     |                       |
| B*15:09+B*35:157    | B*15:252+B*35:81        |                       |                     |                       |
| B*15:09+B*35:188    | B*15:252+B*35:21        |                       |                     |                       |



|                        |                         |                      |                  |
|------------------------|-------------------------|----------------------|------------------|
| B*15:09+B*35:190       | B*15:252+B*35:24:01     |                      |                  |
| B*15:09+B*38:04        | B*15:243+B*38:02:03     |                      |                  |
| B*15:09+B*39:01:01G    | B*15:252+B*39:74        |                      |                  |
| B*15:09+B*39:02:01     | B*15:243+B*39:39:01     |                      |                  |
| B*15:09+B*39:22        | B*15:243+B*39:01:01G    |                      |                  |
| B*15:09+B*39:48        | B*15:252+B*39:32        |                      |                  |
| B*15:09+B*40:01:01G    | B*15:243+B*40:25        |                      |                  |
| B*15:09+B*40:07        | B*15:243+B*40:106       |                      |                  |
| B*15:09+B*40:33        | B*15:10:01+B*40:01:06   |                      |                  |
| B*15:09+B*40:36        | B*15:229+B*40:01:06     |                      |                  |
| B*15:09+B*40:52        | B*15:18:01G+B*40:01:06  |                      |                  |
| B*15:09+B*40:199       | B*15:252+B*40:63        |                      |                  |
| B*15:09+B*44:02:01G    | B*15:243+B*44:12        |                      |                  |
| B*15:09+B*44:04        | B*15:252+B*44:28:02     |                      |                  |
| B*15:09+B*44:17        | B*15:18:01G+B*44:62     |                      |                  |
| B*15:09+B*44:123       | B*15:10:01+B*44:62      |                      |                  |
| B*15:09+B*44:132       | B*15:252+B*44:91        |                      |                  |
| B*15:09+B*45:08        | B*15:252+B*45:04        |                      |                  |
| B*15:09+B*46:18        | B*15:252+B*46:11        |                      |                  |
| B*15:09+B*46:21:01     | B*15:252+B*46:13:03     |                      |                  |
| B*15:09+B*46:21:02     | B*15:252+B*46:13:01     |                      |                  |
| B*15:09+B*46:29        | B*15:252+B*46:01:01G    |                      |                  |
| B*15:09+B*50:01:01     | B*15:243+B*50:15        |                      |                  |
| B*15:09+B*50:09        | B*15:229+B*50:14        |                      |                  |
| B*15:09+B*51:13:01     | B*15:229+B*51:01:01G    |                      |                  |
| B*15:09+B*51:21        | B*15:252+B*51:01:01G    |                      |                  |
| B*15:09+B*51:45        | B*15:18:01G+B*51:06:01  |                      |                  |
| B*15:09+B*51:92        | B*15:10:01+B*51:13:02   | B*15:133+B*51:01:01G | B*15:229+B*51:90 |
| B*15:09+B*52:01:01G    | B*15:243+B*51:07:02     |                      |                  |
| B*15:09+B*52:01:02     | B*15:243+B*51:07:01     |                      |                  |
| B*15:09+B*52:06:01     | B*15:243+B*51:01:33     |                      |                  |
| B*15:09+B*52:06:02     | B*15:243+B*51:01:01G    |                      |                  |
| B*15:09+B*52:14        | B*15:229+B*52:01:01G    |                      |                  |
| B*15:09+B*53:01:01     | B*15:23+B*35:04:02      |                      |                  |
| B*15:09+B*53:06        | B*15:18:01G+B*51:56:02  |                      |                  |
| B*15:09+B*53:12        | B*15:115+B*35:04:02     |                      |                  |
| B*15:09+B*54:01:01G    | B*15:252+B*54:03        |                      |                  |
| B*15:09+B*55:01:01G    | B*15:252+B*56:25        |                      |                  |
| B*15:09+B*55:02:01G    | B*15:252+B*56:01:01G    |                      |                  |
| B*15:09+B*55:13        | B*15:252+B*56:22        |                      |                  |
| B*15:09+B*55:34        | B*15:243+B*55:47        |                      |                  |
| B*15:09+B*55:40        | B*15:243+B*55:01:01G    |                      |                  |
| B*15:09+B*56:10        | B*15:252+B*56:02        |                      |                  |
| B*15:09+B*57:26        | B*15:252+B*57:01:01G    |                      |                  |
| B*15:09+B*58:35        | B*15:252+B*58:01:01G    |                      |                  |
| B*15:09+B*59:01:01G    | B*15:252+B*59:04        |                      |                  |
| B*15:09+B*78:07        | B*15:252+B*78:01:01     |                      |                  |
| B*15:10:01+B*15:11:01G | B*15:10:02+B*15:11:04   |                      |                  |
| B*15:10:01+B*15:14     | B*15:63+B*15:161        |                      |                  |
| B*15:10:01+B*15:24     | B*15:23+B*15:63         |                      |                  |
| B*15:10:01+B*15:33     | B*15:18:01G+B*15:248    |                      |                  |
| B*15:10:01+B*15:50     | B*15:63+B*15:93         |                      |                  |
| B*15:10:01+B*15:58     | B*15:30+B*15:133        | B*15:63+B*15:229     |                  |
| B*15:10:01+B*15:65     | B*15:39:01+B*15:99      |                      |                  |
| B*15:10:01+B*15:78:01  | B*15:63+B*15:72         |                      |                  |
| B*15:10:01+B*15:117    | B*15:63+B*15:238        |                      |                  |
| B*15:10:01+B*15:145    | B*15:63+B*15:176        |                      |                  |
| B*15:10:01+B*15:154    | B*15:63+B*15:80         |                      |                  |
| B*15:10:01+B*15:221    | B*15:18:01G+B*15:99     |                      |                  |
| B*15:10:01+B*15:249    | B*15:63+B*15:108        |                      |                  |
| B*15:10:01+B*18:01:01G | B*15:37+B*18:11         |                      |                  |
| B*15:10:01+B*18:13     | B*15:99+B*18:01:01G     |                      |                  |
| B*15:10:01+B*18:30     | B*15:99+B*18:15         |                      |                  |
| B*15:10:01+B*18:36     | B*15:37+B*18:58         |                      |                  |
| B*15:10:01+B*18:50     | B*15:37+B*18:10         |                      |                  |
| B*15:10:01+B*27:28     | B*15:37+B*27:71         |                      |                  |
| B*15:10:01+B*27:45     | B*15:99+B*27:05:02G     |                      |                  |
| B*15:10:01+B*27:78     | B*15:18:01G+B*27:46     |                      |                  |
| B*15:10:01+B*35:01:01G | B*15:18:01G+B*35:34     |                      |                  |
| B*15:10:01+B*35:03:01G | B*15:133+B*35:34        |                      |                  |
| B*15:10:01+B*35:06     | B*15:133+B*35:04:01     | B*15:229+B*35:34     |                  |
| B*15:10:01+B*35:08:01  | B*15:99+B*35:01:01G     | B*15:221+B*35:34     |                  |
| B*15:10:01+B*35:08:03  | B*15:99+B*35:01:04      |                      |                  |
| B*15:10:01+B*35:15     | B*15:238+B*35:34        |                      |                  |
| B*15:10:01+B*35:18     | B*15:99+B*35:09:02      |                      |                  |
| B*15:10:01+B*35:21     | B*15:37+B*35:11:01      |                      |                  |
| B*15:10:01+B*35:24:01  | B*15:37+B*35:01:01G     |                      |                  |
| B*15:10:01+B*35:45     | B*15:99+B*35:71         |                      |                  |
| B*15:10:01+B*35:51     | B*15:18:01G+B*35:199    |                      |                  |
| B*15:10:01+B*35:59     | B*15:133+B*35:12:01     | B*15:229+B*35:39     |                  |
| B*15:10:01+B*35:61     | B*15:221+B*35:39        |                      |                  |
| B*15:10:01+B*35:71     | B*15:161+B*35:34        |                      |                  |
| B*15:10:01+B*35:80     | B*15:99+B*35:10         |                      |                  |
| B*15:10:01+B*35:81     | B*15:37+B*35:02:01      |                      |                  |
| B*15:10:01+B*35:93     | B*15:93+B*35:34         |                      |                  |
| B*15:10:01+B*35:105    | B*15:99+B*35:159        |                      |                  |
| B*15:10:01+B*35:109    | B*15:37+B*35:03:01G     |                      |                  |
| B*15:10:01+B*35:142    | B*15:99+B*35:124        |                      |                  |
| B*15:10:01+B*35:156    | B*15:99+B*35:03:01G     |                      |                  |
| B*15:10:01+B*35:172    | B*15:99+B*35:02:01      |                      |                  |
| B*15:10:01+B*35:190    | B*15:37+B*35:93         |                      |                  |
| B*15:10:01+B*37:04:01  | B*15:37+B*37:01:01G     |                      |                  |
| B*15:10:01+B*39:01:01G | B*15:133+B*39:70        |                      |                  |
| B*15:10:01+B*39:01:14  | B*15:10:02+B*39:01:01G  |                      |                  |
| B*15:10:01+B*39:02:01  | B*15:253+B*39:70        |                      |                  |
| B*15:10:01+B*39:03     | B*15:133+B*39:14        | B*15:229+B*39:29     |                  |
| B*15:10:01+B*39:11     | B*15:99+B*39:05:01      |                      |                  |
| B*15:10:01+B*39:13:02  | B*15:10:02+B*39:13:01   |                      |                  |
| B*15:10:01+B*39:32     | B*15:37+B*39:74         |                      |                  |
| B*15:10:01+B*39:48     | B*15:37+B*39:01:01G     |                      |                  |
| B*15:10:01+B*40:02:04  | B*15:10:02+B*40:02:01G  |                      |                  |
| B*15:10:01+B*40:03     | B*15:18:01G+B*40:18     |                      |                  |
| B*15:10:01+B*40:10:02  | B*15:10:02+B*40:10:01   |                      |                  |
| B*15:10:01+B*40:36     | B*15:133+B*40:01:01G    | B*15:229+B*40:33     |                  |
| B*15:10:01+B*40:38     | B*15:18:01G+B*40:01:01G | B*15:72+B*40:87:02   | B*15:238+B*40:63 |

|                         |                         |                       |                    |                 |
|-------------------------|-------------------------|-----------------------|--------------------|-----------------|
| B*15:10:01+B*40:52      | B*15:18:01G+B*40:33     |                       |                    |                 |
| B*15:10:01+B*40:86      | B*15:133+B*40:06:01G    | B*15:229+B*40:44      |                    |                 |
| B*15:10:01+B*40:105     | B*15:18:01G+B*40:02:01G | B*15:52+B*40:05       | B*15:72+B*40:35    |                 |
| B*15:10:01+B*40:113     | B*15:37+B*40:01:01G     |                       |                    |                 |
| B*15:10:01+B*40:128     | B*15:99+B*40:01:01G     |                       |                    |                 |
| B*15:10:01+B*40:159     | B*15:18:01G+B*40:44     |                       |                    |                 |
| B*15:10:01+B*40:161     | B*15:99+B*40:148        |                       |                    |                 |
| B*15:10:01+B*40:174     | B*15:37+B*40:05         |                       |                    |                 |
| B*15:10:01+B*40:198     | B*15:99+B*40:183        |                       |                    |                 |
| B*15:10:01+B*42:06      | B*15:133+B*42:01:01     | B*15:229+B*42:16      |                    |                 |
| B*15:10:01+B*44:17      | B*15:18:01G+B*44:123    |                       |                    |                 |
| B*15:10:01+B*44:28:01   | B*15:99+B*44:03:02      |                       |                    |                 |
| B*15:10:01+B*44:28:02   | B*15:99+B*44:03:01G     |                       |                    |                 |
| B*15:10:01+B*44:43:01   | B*15:18:01G+B*44:107    |                       |                    |                 |
| B*15:10:01+B*44:76      | B*15:99+B*44:79         |                       |                    |                 |
| B*15:10:01+B*44:117     | B*15:133+B*44:05:01     |                       |                    |                 |
| B*15:10:01+B*45:05      | B*15:90+B*45:01:01G     |                       |                    |                 |
| B*15:10:01+B*48:07      | B*15:133+B*48:01:01G    |                       |                    |                 |
| B*15:10:01+B*49:09      | B*15:37+B*49:01:01      |                       |                    |                 |
| B*15:10:01+B*51:01:01G  | B*15:37+B*51:02:01      |                       |                    |                 |
| B*15:10:01+B*51:01:02   | B*15:37+B*51:02:02      |                       |                    |                 |
| B*15:10:01+B*51:01:04   | B*15:37+B*51:02:04      |                       |                    |                 |
| B*15:10:01+B*51:01:31   | B*15:37+B*51:02:03      |                       |                    |                 |
| B*15:10:01+B*51:06:01   | B*15:37+B*51:59         |                       |                    |                 |
| B*15:10:01+B*51:13:01   | B*15:133+B*51:01:04     |                       |                    |                 |
| B*15:10:01+B*51:16      | B*15:37+B*51:34         |                       |                    |                 |
| B*15:10:01+B*51:29      | B*15:99+B*51:01:01G     |                       |                    |                 |
| B*15:10:01+B*51:37      | B*15:18:01G+B*51:90     |                       |                    |                 |
| B*15:10:01+B*51:63      | B*15:18:01G+B*51:01:01G | B*15:18:02+B*51:01:16 | B*15:23+B*78:02:02 | B*15:29+B*51:22 |
| B*15:10:01+B*51:82      | B*15:99+B*51:16         |                       |                    |                 |
| B*15:10:01+B*51:97      | B*15:18:01G+B*51:08     | B*15:51+B*51:01:01G   |                    |                 |
| B*15:10:01+B*52:01:01G  | B*15:37+B*52:11         |                       |                    |                 |
| B*15:10:01+B*52:14      | B*15:133+B*52:01:05     |                       |                    |                 |
| B*15:10:01+B*52:24      | B*15:99+B*52:01:01G     |                       |                    |                 |
| B*15:10:01+B*53:01:01   | B*15:23+B*35:34         |                       |                    |                 |
| B*15:10:01+B*53:02      | B*15:37+B*53:01:01      |                       |                    |                 |
| B*15:10:01+B*53:11      | B*15:99+B*53:13         |                       |                    |                 |
| B*15:10:01+B*53:12      | B*15:115+B*35:34        |                       |                    |                 |
| B*15:10:01+B*53:16      | B*15:99+B*53:05         |                       |                    |                 |
| B*15:10:01+B*53:24      | B*15:99+B*53:01:01      |                       |                    |                 |
| B*15:10:01+B*54:10      | B*15:99+B*54:01:01G     |                       |                    |                 |
| B*15:10:01+B*55:09      | B*15:99+B*55:24         |                       |                    |                 |
| B*15:10:01+B*55:32      | B*15:93+B*56:15         |                       |                    |                 |
| B*15:10:01+B*55:37      | B*15:99+B*55:02:01G     |                       |                    |                 |
| B*15:10:01+B*55:52      | B*15:99+B*55:01:01G     |                       |                    |                 |
| B*15:10:01+B*56:22      | B*15:133+B*56:15        |                       |                    |                 |
| B*15:10:01+B*56:31      | B*15:37+B*56:18         |                       |                    |                 |
| B*15:10:01+B*56:34      | B*15:37+B*56:01:01G     |                       |                    |                 |
| B*15:10:01+B*57:01:01G  | B*15:10:02+B*57:01:09   |                       |                    |                 |
| B*15:10:01+B*57:02:01   | B*15:99+B*57:03:01      |                       |                    |                 |
| B*15:10:01+B*57:19      | B*15:99+B*57:01:01G     |                       |                    |                 |
| B*15:10:01+B*58:09      | B*15:37+B*58:01:01G     |                       |                    |                 |
| B*15:10:01+B*58:22      | B*15:99+B*58:01:01G     |                       |                    |                 |
| B*15:10:02+B*39:48      | B*15:37+B*39:01:14      |                       |                    |                 |
| B*15:10:02+B*40:105     | B*15:18:01G+B*40:02:04  |                       |                    |                 |
| B*15:11:01G+B*15:18:02  | B*15:11:03+B*15:18:01G  |                       |                    |                 |
| B*15:11:01G+B*15:27:01  | B*15:11:03+B*15:27:02   |                       |                    |                 |
| B*15:11:01G+B*15:36     | B*15:89+B*15:152        |                       |                    |                 |
| B*15:11:01G+B*15:101    | B*15:76+B*15:152        |                       |                    |                 |
| B*15:11:01G+B*15:197    | B*15:18:01G+B*15:215    |                       |                    |                 |
| B*15:11:01G+B*18:01:06  | B*15:11:03+B*18:01:01G  |                       |                    |                 |
| B*15:11:01G+B*18:12     | B*15:152+B*18:01:01G    |                       |                    |                 |
| B*15:11:01G+B*18:44:02  | B*15:11:03+B*18:44:01   |                       |                    |                 |
| B*15:11:01G+B*35:01:01G | B*15:11:03+B*35:01:04   |                       |                    |                 |
| B*15:11:01G+B*35:08:01  | B*15:11:03+B*35:08:03   |                       |                    |                 |
| B*15:11:01G+B*35:10     | B*15:152+B*35:01:01G    |                       |                    |                 |
| B*15:11:01G+B*35:12:02  | B*15:11:03+B*35:12:01   |                       |                    |                 |
| B*15:11:01G+B*35:13     | B*15:152+B*35:03:01G    |                       |                    |                 |
| B*15:11:01G+B*35:16     | B*15:152+B*35:17        |                       |                    |                 |
| B*15:11:01G+B*35:28     | B*15:152+B*35:20:01     |                       |                    |                 |
| B*15:11:01G+B*35:47     | B*15:143+B*35:46        |                       |                    |                 |
| B*15:11:01G+B*35:68:01  | B*15:11:03+B*35:68:02   |                       |                    |                 |
| B*15:11:01G+B*35:69     | B*15:152+B*35:29:01     |                       |                    |                 |
| B*15:11:01G+B*35:80     | B*15:152+B*35:08:01     |                       |                    |                 |
| B*15:11:01G+B*35:117    | B*15:215+B*35:43:01G    |                       |                    |                 |
| B*15:11:01G+B*37:30N    | B*15:209N+B*37:01:01G   |                       |                    |                 |
| B*15:11:01G+B*38:04     | B*15:152+B*38:02:03     |                       |                    |                 |
| B*15:11:01G+B*39:01:01G | B*15:11:04+B*39:01:14   |                       |                    |                 |
| B*15:11:01G+B*39:02:01  | B*15:152+B*39:39:01     |                       |                    |                 |
| B*15:11:01G+B*39:06:02  | B*15:11:03+B*39:06:01   |                       |                    |                 |
| B*15:11:01G+B*39:13:01  | B*15:11:04+B*39:13:02   |                       |                    |                 |
| B*15:11:01G+B*39:22     | B*15:152+B*39:01:01G    |                       |                    |                 |
| B*15:11:01G+B*40:01:01G | B*15:15+B*40:61         | B*15:152+B*40:25      |                    |                 |
| B*15:11:01G+B*40:01:04  | B*15:11:03+B*40:01:01G  |                       |                    |                 |
| B*15:11:01G+B*40:02:01G | B*15:11:04+B*40:02:04   |                       |                    |                 |
| B*15:11:01G+B*40:02:09  | B*15:11:03+B*40:02:01G  |                       |                    |                 |
| B*15:11:01G+B*40:10:01  | B*15:11:04+B*40:10:02   |                       |                    |                 |
| B*15:11:01G+B*40:11:02  | B*15:11:03+B*40:11:01   |                       |                    |                 |
| B*15:11:01G+B*40:66     | B*15:148+B*40:01:01G    |                       |                    |                 |
| B*15:11:01G+B*40:124:01 | B*15:11:03+B*40:124:02  |                       |                    |                 |
| B*15:11:01G+B*44:02:01G | B*15:152+B*44:12        |                       |                    |                 |
| B*15:11:01G+B*44:02:07  | B*15:11:03+B*44:02:01G  |                       |                    |                 |
| B*15:11:01G+B*44:03:02  | B*15:11:03+B*44:03:01G  |                       |                    |                 |
| B*15:11:01G+B*44:28:01  | B*15:11:03+B*44:28:02   |                       |                    |                 |
| B*15:11:01G+B*44:37:02  | B*15:11:03+B*44:37:01   |                       |                    |                 |
| B*15:11:01G+B*44:41:02  | B*15:11:03+B*44:41:01   |                       |                    |                 |
| B*15:11:01G+B*44:64:01  | B*15:11:03+B*44:64:02   |                       |                    |                 |
| B*15:11:01G+B*48:03:02  | B*15:11:03+B*48:03:01   |                       |                    |                 |
| B*15:11:01G+B*50:01:01  | B*15:152+B*50:15        |                       |                    |                 |
| B*15:11:01G+B*51:01:01G | B*15:11:03+B*51:01:16   |                       |                    |                 |
| B*15:11:01G+B*51:06:02  | B*15:11:03+B*51:06:01   |                       |                    |                 |
| B*15:11:01G+B*51:112    | B*15:143+B*51:104       |                       |                    |                 |
| B*15:11:01G+B*52:01:01G | B*15:152+B*51:07:02     |                       |                    |                 |
| B*15:11:01G+B*52:01:02  | B*15:152+B*51:07:01     |                       |                    |                 |
| B*15:11:01G+B*52:06:01  | B*15:152+B*51:01:33     |                       |                    |                 |

|                         |                        |                     |
|-------------------------|------------------------|---------------------|
| B*15:11:01G+B*52:06:02  | B*15:152+B*51:01:01G   |                     |
| B*15:11:01G+B*55:02:01G | B*15:11:03+B*55:02:04  |                     |
| B*15:11:01G+B*55:40     | B*15:152+B*55:01:01G   |                     |
| B*15:11:01G+B*55:47     | B*15:15+B*55:02:01G    |                     |
| B*15:11:01G+B*57:01:09  | B*15:11:04+B*57:01:01G |                     |
| B*15:11:03+B*15:197     | B*15:18:02+B*15:215    |                     |
| B*15:11:03+B*18:12      | B*15:152+B*18:01:06    |                     |
| B*15:11:03+B*40:66      | B*15:148+B*40:01:04    |                     |
| B*15:13:01+B*15:27:03   | B*15:13:02+B*15:27:01  |                     |
| B*15:13:01+B*15:38:02   | B*15:13:02+B*15:38:01  |                     |
| B*15:13:01+B*15:39:02   | B*15:13:02+B*15:39:01  |                     |
| B*15:13:01+B*15:50      | B*15:24+B*15:121       |                     |
| B*15:13:01+B*15:66      | B*15:21+B*15:24        |                     |
| B*15:13:01+B*15:92      | B*15:24+B*15:213       |                     |
| B*15:13:01+B*15:93      | B*15:23+B*15:121       |                     |
| B*15:13:01+B*15:200     | B*15:23+B*15:88        |                     |
| B*15:13:01+B*18:01:01G  | B*15:13:02+B*18:01:10  |                     |
| B*15:13:01+B*35:09:03   | B*15:13:02+B*35:09:02  |                     |
| B*15:13:01+B*35:10      | B*15:25:01G+B*53:01:01 |                     |
| B*15:13:01+B*35:13      | B*15:25:01G+B*53:04    |                     |
| B*15:13:01+B*35:14:01   | B*15:13:02+B*35:14:02  | B*15:144+B*53:08:01 |
| B*15:13:01+B*35:14:02   | B*15:144+B*53:08:02    |                     |
| B*15:13:01+B*35:60      | B*15:121+B*51:15       |                     |
| B*15:13:01+B*35:62      | B*15:144+B*53:01:01    |                     |
| B*15:13:01+B*35:68:02   | B*15:31+B*53:08:01     |                     |
| B*15:13:01+B*35:69      | B*15:25:01G+B*53:23    |                     |
| B*15:13:01+B*35:78      | B*15:139+B*53:01:01    |                     |
| B*15:13:01+B*35:80      | B*15:25:01G+B*53:24    |                     |
| B*15:13:01+B*35:93      | B*15:121+B*53:01:01    |                     |
| B*15:13:01+B*35:163     | B*15:144+B*53:04       |                     |
| B*15:13:01+B*35:175     | B*15:213+B*53:01:01    |                     |
| B*15:13:01+B*35:190     | B*15:121+B*53:02       |                     |
| B*15:13:01+B*37:10      | B*15:89+B*37:34        |                     |
| B*15:13:01+B*38:01:01   | B*15:13:02+B*38:01:03  |                     |
| B*15:13:01+B*38:02:01G  | B*15:89+B*38:01:01     |                     |
| B*15:13:01+B*39:22      | B*15:25:01G+B*38:14    |                     |
| B*15:13:01+B*40:14:01   | B*15:13:02+B*40:14:02  |                     |
| B*15:13:01+B*40:47      | B*15:89+B*40:117       |                     |
| B*15:13:01+B*40:157     | B*15:89+B*40:19        |                     |
| B*15:13:01+B*44:02:01G  | B*15:13:02+B*44:02:09  | B*15:89+B*44:95     |
| B*15:13:01+B*44:03:01G  | B*15:89+B*44:50        |                     |
| B*15:13:01+B*44:05:01   | B*15:89+B*44:25        |                     |
| B*15:13:01+B*46:01:03   | B*15:13:02+B*46:01:01G |                     |
| B*15:13:01+B*46:13:01   | B*15:13:02+B*46:13:03  |                     |
| B*15:13:01+B*46:21:02   | B*15:13:02+B*46:21:01  |                     |
| B*15:13:01+B*49:02      | B*15:89+B*49:01:01     |                     |
| B*15:13:01+B*51:01:21   | B*15:13:02+B*51:01:25  |                     |
| B*15:13:01+B*51:02:01   | B*15:13:02+B*51:02:05  |                     |
| B*15:13:01+B*51:24:04   | B*15:13:02+B*51:24:03  |                     |
| B*15:13:01+B*51:54      | B*15:89+B*51:05        |                     |
| B*15:13:01+B*51:61:02   | B*15:13:02+B*51:61:01  |                     |
| B*15:13:01+B*51:78:01   | B*15:89+B*51:01:01G    |                     |
| B*15:13:01+B*51:78:02   | B*15:89+B*51:01:02     |                     |
| B*15:13:01+B*52:01:01G  | B*15:13:02+B*52:01:07  |                     |
| B*15:13:01+B*52:10:01   | B*15:13:02+B*52:10:02  |                     |
| B*15:13:01+B*52:20      | B*15:36+B*51:07:02     | B*15:89+B*52:01:01G |
| B*15:13:01+B*53:01:01   | B*15:13:02+B*53:01:03  |                     |
| B*15:13:01+B*53:08:01   | B*15:13:02+B*53:08:02  |                     |
| B*15:13:01+B*53:11      | B*15:89+B*53:24        |                     |
| B*15:13:01+B*53:12      | B*15:89+B*53:05        |                     |
| B*15:13:01+B*53:13      | B*15:89+B*53:01:01     |                     |
| B*15:13:01+B*56:01:01G  | B*15:13:02+B*56:01:03  |                     |
| B*15:13:01+B*58:01:01G  | B*15:13:02+B*58:01:05  |                     |
| B*15:14+B*15:23         | B*15:24+B*15:161       |                     |
| B*15:14+B*15:61         | B*15:70+B*15:131       |                     |
| B*15:14+B*15:62         | B*15:85+B*15:131       |                     |
| B*15:14+B*15:64         | B*15:15+B*15:131       |                     |
| B*15:14+B*15:72         | B*15:78:01+B*15:161    |                     |
| B*15:14+B*15:80         | B*15:154+B*15:161      |                     |
| B*15:14+B*15:93         | B*15:50+B*15:161       |                     |
| B*15:14+B*15:98         | B*15:131+B*15:163      |                     |
| B*15:14+B*15:108        | B*15:161+B*15:249      |                     |
| B*15:14+B*15:156        | B*15:128+B*15:131      |                     |
| B*15:14+B*15:176        | B*15:145+B*15:161      |                     |
| B*15:14+B*15:210        | B*15:131+B*15:225      |                     |
| B*15:14+B*15:229        | B*15:58+B*15:161       |                     |
| B*15:14+B*15:235        | B*15:91+B*15:249       |                     |
| B*15:14+B*15:238        | B*15:117+B*15:161      |                     |
| B*15:14+B*35:04:01      | B*15:30+B*35:71        |                     |
| B*15:14+B*35:06         | B*15:58+B*35:71        |                     |
| B*15:14+B*35:09:03      | B*15:150+B*35:71       |                     |
| B*15:14+B*35:15         | B*15:117+B*35:71       |                     |
| B*15:14+B*35:23         | B*15:27:02+B*35:71     |                     |
| B*15:14+B*35:24:01      | B*15:38:01+B*35:71     |                     |
| B*15:14+B*35:27         | B*15:135+B*35:71       |                     |
| B*15:14+B*35:29:01      | B*15:70+B*35:71        |                     |
| B*15:14+B*35:34         | B*15:63+B*35:71        |                     |
| B*15:14+B*35:50         | B*15:71+B*35:71        |                     |
| B*15:14+B*35:54         | B*15:125+B*35:71       |                     |
| B*15:14+B*35:90         | B*15:183+B*35:71       |                     |
| B*15:14+B*35:91         | B*15:192+B*35:71       |                     |
| B*15:14+B*35:93         | B*15:50+B*35:71        |                     |
| B*15:14+B*35:103        | B*15:163+B*35:71       |                     |
| B*15:14+B*35:124        | B*15:251+B*35:71       |                     |
| B*15:14+B*35:142        | B*15:251+B*35:45       |                     |
| B*15:14+B*35:174        | B*15:78:01+B*35:45     |                     |
| B*15:14+B*35:175        | B*15:92+B*35:71        |                     |
| B*15:14+B*35:180        | B*15:105+B*35:71       |                     |
| B*15:14+B*35:186        | B*35:28+B*46:17        |                     |
| B*15:14+B*40:07         | B*15:56+B*40:132       |                     |
| B*15:14+B*40:25         | B*15:15+B*40:132       |                     |
| B*15:14+B*40:43         | B*15:70+B*40:132       |                     |
| B*15:14+B*40:47         | B*15:225+B*44:31       |                     |
| B*15:14+B*40:61         | B*15:152+B*40:132      |                     |
| B*15:14+B*40:67         | B*15:145+B*40:132      |                     |

|                        |                        |                     |
|------------------------|------------------------|---------------------|
| B*15:14+B*40:69        | B*15:28+B*40:132       |                     |
| B*15:14+B*40:79        | B*15:159+B*40:132      |                     |
| B*15:14+B*40:100       | B*15:27:01+B*40:132    |                     |
| B*15:14+B*40:113       | B*15:38:01+B*40:132    |                     |
| B*15:14+B*40:117       | B*15:24+B*40:132       |                     |
| B*15:14+B*40:160       | B*15:154+B*40:132      |                     |
| B*15:14+B*40:166       | B*15:76+B*40:132       |                     |
| B*15:14+B*40:171       | B*15:193+B*40:132      |                     |
| B*15:14+B*40:172       | B*15:128+B*40:132      |                     |
| B*15:14+B*40:186       | B*15:82+B*40:132       |                     |
| B*15:14+B*40:188       | B*15:43+B*40:132       |                     |
| B*15:14+B*44:64:02     | B*15:117+B*44:03:01G   |                     |
| B*15:14+B*44:132       | B*15:50+B*44:02:01G    |                     |
| B*15:14+B*45:08        | B*15:50+B*45:01:01G    |                     |
| B*15:14+B*45:10        | B*15:117+B*45:01:01G   |                     |
| B*15:14+B*46:05        | B*15:125+B*46:17       |                     |
| B*15:14+B*46:08        | B*15:39:01+B*46:17     |                     |
| B*15:14+B*46:10        | B*15:183+B*46:17       |                     |
| B*15:14+B*46:14        | B*15:225+B*46:17       |                     |
| B*15:14+B*46:19        | B*15:136+B*46:17       |                     |
| B*15:14+B*46:29        | B*15:50+B*46:17        |                     |
| B*15:14+B*46:30        | B*15:117+B*46:17       |                     |
| B*15:14+B*46:33        | B*15:20+B*46:17        |                     |
| B*15:14+B*49:07        | B*15:117+B*49:20       |                     |
| B*15:14+B*49:09        | B*15:38:01+B*49:20     |                     |
| B*15:14+B*49:12        | B*15:192+B*49:20       |                     |
| B*15:14+B*50:15        | B*15:15+B*50:02        |                     |
| B*15:14+B*51:01:01G    | B*15:38:01+B*51:23     |                     |
| B*15:14+B*51:07:02     | B*15:15+B*52:15        |                     |
| B*15:14+B*51:09:01     | B*15:38:01+B*51:108    |                     |
| B*15:14+B*51:34        | B*15:117+B*51:23       |                     |
| B*15:14+B*52:08        | B*15:117+B*52:15       |                     |
| B*15:14+B*52:27        | B*15:251+B*52:15       |                     |
| B*15:14+B*52:28        | B*15:145+B*52:15       |                     |
| B*15:14+B*52:29        | B*15:105+B*52:15       |                     |
| B*15:14+B*53:01:01     | B*15:24+B*35:71        |                     |
| B*15:14+B*53:03        | B*15:43+B*35:71        |                     |
| B*15:14+B*53:05        | B*15:87+B*35:71        |                     |
| B*15:14+B*53:16        | B*15:87+B*35:45        |                     |
| B*15:14+B*53:24        | B*15:24+B*35:45        |                     |
| B*15:14+B*57:39        | B*15:225+B*57:07       |                     |
| B*15:14+B*57:46        | B*15:105+B*57:07       |                     |
| B*15:15+B*15:61        | B*15:64+B*15:70        |                     |
| B*15:15+B*15:62        | B*15:54+B*15:194       | B*15:64+B*15:85     |
| B*15:15+B*15:98        | B*15:64+B*15:163       |                     |
| B*15:15+B*15:156       | B*15:64+B*15:128       |                     |
| B*15:15+B*15:210       | B*15:64+B*15:225       |                     |
| B*15:15+B*18:20        | B*15:31+B*18:19        |                     |
| B*15:15+B*35:11:02     | B*15:194+B*35:43:01G   |                     |
| B*15:15+B*35:76        | B*15:76+B*35:20:01     |                     |
| B*15:15+B*35:186       | B*35:20:01+B*46:01:01G |                     |
| B*15:15+B*40:43        | B*15:70+B*40:25        |                     |
| B*15:15+B*40:67        | B*15:145+B*40:25       |                     |
| B*15:15+B*40:69        | B*15:28+B*40:25        |                     |
| B*15:15+B*40:79        | B*15:159+B*40:25       |                     |
| B*15:15+B*40:100       | B*15:27:01+B*40:25     |                     |
| B*15:15+B*40:113       | B*15:38:01+B*40:25     |                     |
| B*15:15+B*40:117       | B*15:24+B*40:25        |                     |
| B*15:15+B*40:160       | B*15:154+B*40:25       |                     |
| B*15:15+B*40:166       | B*15:76+B*40:25        |                     |
| B*15:15+B*40:171       | B*15:193+B*40:25       |                     |
| B*15:15+B*40:172       | B*15:128+B*40:25       |                     |
| B*15:15+B*40:186       | B*15:82+B*40:25        |                     |
| B*15:15+B*40:188       | B*15:43+B*40:25        |                     |
| B*15:15+B*44:21        | B*15:117+B*44:12       |                     |
| B*15:15+B*44:22        | B*15:125+B*44:12       |                     |
| B*15:15+B*44:49        | B*15:142+B*44:12       |                     |
| B*15:15+B*44:53        | B*15:78:01+B*44:12     |                     |
| B*15:15+B*44:55        | B*15:225+B*44:12       |                     |
| B*15:15+B*44:71        | B*15:231+B*44:12       |                     |
| B*15:15+B*44:88        | B*15:232+B*44:12       |                     |
| B*15:15+B*44:89        | B*15:249+B*44:12       |                     |
| B*15:15+B*44:90        | B*15:76+B*44:09        |                     |
| B*15:15+B*44:102       | B*15:105+B*44:12       |                     |
| B*15:15+B*45:06        | B*15:76+B*45:01:01G    |                     |
| B*15:15+B*49:01:01     | B*15:24+B*50:15        |                     |
| B*15:15+B*52:08        | B*15:117+B*51:07:02    |                     |
| B*15:15+B*52:27        | B*15:251+B*51:07:02    |                     |
| B*15:15+B*52:28        | B*15:145+B*51:07:02    |                     |
| B*15:15+B*52:29        | B*15:105+B*51:07:02    |                     |
| B*15:15+B*53:17:02     | B*15:24+B*35:20:01     |                     |
| B*15:15+B*55:41        | B*15:31+B*55:21        |                     |
| B*15:16:01+B*15:52     | B*15:222+B*15:238      |                     |
| B*15:16:01+B*15:91     | B*15:131+B*15:222      |                     |
| B*15:16:01+B*15:237    | B*15:65+B*15:222       |                     |
| B*15:16:01+B*18:01:01G | B*15:222+B*18:15       |                     |
| B*15:16:01+B*18:13     | B*15:222+B*18:30       |                     |
| B*15:16:01+B*27:05:02G | B*15:222+B*27:10       |                     |
| B*15:16:01+B*27:08     | B*15:222+B*27:40       |                     |
| B*15:16:01+B*27:61     | B*15:222+B*27:04:01G   |                     |
| B*15:16:01+B*35:01:01G | B*15:16:03+B*35:01:17  | B*15:222+B*35:11:01 |
| B*15:16:01+B*35:01:13  | B*15:16:02+B*35:01:01G |                     |
| B*15:16:01+B*35:03:01G | B*15:16:03+B*35:03:07  | B*15:222+B*35:16:7  |
| B*15:16:01+B*35:04:01  | B*15:16:03+B*35:04:03  |                     |
| B*15:16:01+B*35:05:01  | B*15:222+B*35:58       |                     |
| B*15:16:01+B*35:24:01  | B*15:222+B*35:21       |                     |
| B*15:16:01+B*35:32:01  | B*15:16:03+B*35:32:02  |                     |
| B*15:16:01+B*35:62     | B*15:222+B*35:14:01    |                     |
| B*15:16:01+B*35:110    | B*15:67+B*35:01:01G    |                     |
| B*15:16:01+B*35:190    | B*15:222+B*35:188      |                     |
| B*15:16:01+B*35:202    | B*15:95+B*35:01:01G    |                     |
| B*15:16:01+B*37:01:01G | B*15:222+B*37:13       |                     |
| B*15:16:01+B*38:01:01  | B*15:222+B*38:32       |                     |
| B*15:16:01+B*38:36     | B*15:222+B*38:10       |                     |
| B*15:16:01+B*39:01:01G | B*15:222+B*39:35       |                     |

|                         |                        |                      |                      |
|-------------------------|------------------------|----------------------|----------------------|
| B*15:16:01+B*40:01:01G  | B*15:222+B*40:183      |                      |                      |
| B*15:16:01+B*40:01:17   | B*15:16:03+B*40:01:01G |                      |                      |
| B*15:16:01+B*40:02:08   | B*15:16:03+B*40:02:01G |                      |                      |
| B*15:16:01+B*40:06:01G  | B*15:222+B*40:148      |                      |                      |
| B*15:16:01+B*40:128     | B*15:222+B*40:198      |                      |                      |
| B*15:16:01+B*44:02:16   | B*15:16:02+B*44:02:01G |                      |                      |
| B*15:16:01+B*44:03:01G  | B*15:222+B*44:79       |                      |                      |
| B*15:16:01+B*44:28:02   | B*15:222+B*44:76       |                      |                      |
| B*15:16:01+B*46:01:07   | B*15:16:03+B*46:01:01G |                      |                      |
| B*15:16:01+B*46:09      | B*15:222+B*46:01:01G   |                      |                      |
| B*15:16:01+B*46:13:03   | B*15:222+B*46:08       |                      |                      |
| B*15:16:01+B*48:01:01G  | B*15:222+B*48:15       |                      |                      |
| B*15:16:01+B*48:02:01   | B*15:222+B*48:25       |                      |                      |
| B*15:16:01+B*49:11      | B*15:222+B*49:01:01    |                      |                      |
| B*15:16:01+B*51:09:01   | B*15:222+B*51:01:01G   |                      |                      |
| B*15:16:01+B*51:09:02   | B*15:222+B*51:01:02    |                      |                      |
| B*15:16:01+B*51:31      | B*15:222+B*51:16       |                      |                      |
| B*15:16:01+B*51:40      | B*15:222+B*51:02:05    |                      |                      |
| B*15:16:01+B*51:108     | B*15:222+B*51:23       |                      |                      |
| B*15:16:01+B*52:10:01   | B*15:222+B*52:01:01G   |                      |                      |
| B*15:16:01+B*52:10:02   | B*15:222+B*52:01:07    |                      |                      |
| B*15:16:01+B*53:01:01   | B*15:222+B*53:08:01    |                      |                      |
| B*15:16:01+B*53:01:03   | B*15:222+B*53:08:02    |                      |                      |
| B*15:16:01+B*54:10      | B*15:222+B*54:20       |                      |                      |
| B*15:16:01+B*55:02:01G  | B*15:222+B*55:01:01G   |                      |                      |
| B*15:16:01+B*55:22      | B*15:222+B*55:24       |                      |                      |
| B*15:16:01+B*55:37      | B*15:222+B*55:52       |                      |                      |
| B*15:16:01+B*56:01:01G  | B*15:222+B*56:25       |                      |                      |
| B*15:16:01+B*56:18      | B*15:222+B*56:32       |                      |                      |
| B*15:16:01+B*57:01:01G  | B*15:222+B*57:22       |                      |                      |
| B*15:16:01+B*57:03:01   | B*15:222+B*57:57       |                      |                      |
| B*15:16:01+B*58:01:01G  | B*15:222+B*58:19       |                      |                      |
| B*15:16:01+B*58:02      | B*15:222+B*58:06       |                      |                      |
| B*15:16:01+B*58:04      | B*15:95+B*58:01:01G    |                      |                      |
| B*15:16:02+B*35:110     | B*15:67+B*35:01:13     |                      |                      |
| B*15:16:02+B*35:202     | B*15:95+B*35:01:13     |                      |                      |
| B*15:16:03+B*46:09      | B*15:222+B*46:01:07    |                      |                      |
| B*15:17:01G+B*15:138    | B*15:40+B*15:230       |                      |                      |
| B*15:17:01G+B*15:241    | B*15:117+B*15:230      |                      |                      |
| B*15:17:01G+B*27:79     | B*15:196+B*27:04:01G   |                      |                      |
| B*15:17:01G+B*39:60     | B*15:162+B*39:35       |                      |                      |
| B*15:17:01G+B*40:63     | B*15:230+B*40:92       |                      |                      |
| B*15:17:01G+B*40:132    | B*15:230+B*40:178      |                      |                      |
| B*15:17:01G+B*42:05:01  | B*15:230+B*42:08       |                      |                      |
| B*15:17:01G+B*48:01:01G | B*15:230+B*48:04       |                      |                      |
| B*15:17:01G+B*48:10     | B*15:230+B*48:13       |                      |                      |
| B*15:17:01G+B*51:115    | B*15:162+B*51:01:01G   |                      |                      |
| B*15:18:01G+B*15:27:01  | B*15:18:02+B*15:27:02  |                      |                      |
| B*15:18:01G+B*15:40     | B*15:39:01+B*15:238    |                      |                      |
| B*15:18:01G+B*15:44     | B*15:21+B*15:93        |                      |                      |
| B*15:18:01G+B*15:56     | B*15:29+B*15:66        |                      |                      |
| B*15:18:01G+B*15:65     | B*15:39:01+B*15:221    |                      |                      |
| B*15:18:01G+B*15:73     | B*15:18:03+B*15:58     |                      |                      |
| B*15:18:01G+B*15:77     | B*15:80+B*15:233       |                      |                      |
| B*15:18:01G+B*15:91     | B*15:123:01G+B*15:161  |                      |                      |
| B*15:18:01G+B*15:114    | B*15:52+B*15:153       |                      |                      |
| B*15:18:01G+B*15:179    | B*15:39:02+B*15:51     |                      |                      |
| B*15:18:01G+B*15:204    | B*15:21+B*15:210       |                      |                      |
| B*15:18:01G+B*15:235    | B*15:108+B*15:123:01G  |                      |                      |
| B*15:18:01G+B*18:01:01G | B*15:64+B*18:33        | B*15:93+B*18:36      |                      |
| B*15:18:01G+B*18:01:06  | B*15:18:02+B*18:01:01G |                      |                      |
| B*15:18:01G+B*18:07:01  | B*15:29+B*18:33        |                      |                      |
| B*15:18:01G+B*18:09     | B*15:115+B*18:49       |                      |                      |
| B*15:18:01G+B*18:10     | B*15:238+B*18:58       |                      |                      |
| B*15:18:01G+B*18:11     | B*15:93+B*18:58        |                      |                      |
| B*15:18:01G+B*18:13     | B*15:221+B*18:01:01G   |                      |                      |
| B*15:18:01G+B*18:30     | B*15:221+B*18:15       |                      |                      |
| B*15:18:01G+B*18:31     | B*15:176+B*18:01:01G   |                      |                      |
| B*15:18:01G+B*18:40     | B*15:72+B*18:01:01G    |                      |                      |
| B*15:18:01G+B*18:44:02  | B*15:18:02+B*18:44:01  |                      |                      |
| B*15:18:01G+B*18:50     | B*15:238+B*18:36       |                      |                      |
| B*15:18:01G+B*18:61     | B*15:72+B*18:26        |                      |                      |
| B*15:18:01G+B*27:02:01  | B*15:23+B*27:08        |                      |                      |
| B*15:18:01G+B*27:04:01G | B*15:238+B*27:63       |                      |                      |
| B*15:18:01G+B*27:05:02G | B*15:238+B*27:38       |                      |                      |
| B*15:18:01G+B*27:05:03  | B*15:18:04+B*27:05:02G |                      |                      |
| B*15:18:01G+B*27:15     | B*15:93+B*27:63        |                      |                      |
| B*15:18:01G+B*27:19     | B*15:80+B*27:70        |                      |                      |
| B*15:18:01G+B*27:29     | B*15:123:01G+B*27:92   |                      |                      |
| B*15:18:01G+B*27:45     | B*15:221+B*27:05:02G   |                      |                      |
| B*15:18:01G+B*27:50     | B*15:161+B*27:05:03    |                      |                      |
| B*15:18:01G+B*27:61     | B*15:52+B*27:63        |                      |                      |
| B*15:18:01G+B*27:71     | B*15:93+B*27:38        |                      |                      |
| B*15:18:01G+B*35:01:01G | B*15:18:02+B*35:01:04  | B*15:29+B*35:82      | B*15:80+B*35:68:01   |
| B*15:18:01G+B*35:01:04  | B*15:80+B*35:68:02     |                      |                      |
| B*15:18:01G+B*35:03:01G | B*15:29+B*35:85        | B*15:133+B*35:01:01G |                      |
| B*15:18:01G+B*35:03:07  | B*15:133+B*35:01:17    |                      |                      |
| B*15:18:01G+B*35:06     | B*15:229+B*35:01:01G   |                      |                      |
| B*15:18:01G+B*35:08:01  | B*15:18:02+B*35:08:03  | B*15:221+B*35:01:01G |                      |
| B*15:18:01G+B*35:08:03  | B*15:221+B*35:01:04    |                      |                      |
| B*15:18:01G+B*35:09:01  | B*15:72+B*35:04:01     |                      |                      |
| B*15:18:01G+B*35:12:02  | B*15:18:02+B*35:12:01  |                      |                      |
| B*15:18:01G+B*35:13     | B*15:133+B*35:10       |                      |                      |
| B*15:18:01G+B*35:15     | B*15:52+B*35:11:01     | B*15:238+B*35:01:01G |                      |
| B*15:18:01G+B*35:18     | B*15:221+B*35:09:02    |                      |                      |
| B*15:18:01G+B*35:20:01  | B*15:64+B*35:82        |                      |                      |
| B*15:18:01G+B*35:30     | B*15:80+B*35:05:01     |                      |                      |
| B*15:18:01G+B*35:33     | B*15:52+B*35:167       | B*15:133+B*35:15     | B*15:238+B*35:03:01G |
| B*15:18:01G+B*35:35     | B*15:108+B*35:93       | B*15:186+B*35:11:01  |                      |
| B*15:18:01G+B*35:38     | B*15:51+B*35:167       | B*15:133+B*35:115    |                      |
| B*15:18:01G+B*35:43:01G | B*15:29+B*35:135       |                      |                      |
| B*15:18:01G+B*35:45     | B*15:161+B*35:08:01    | B*15:221+B*35:71     |                      |
| B*15:18:01G+B*35:56     | B*15:133+B*35:27       |                      |                      |
| B*15:18:01G+B*35:62     | B*35:25+B*35:135       |                      |                      |
| B*15:18:01G+B*35:68:01  | B*15:18:02+B*35:68:02  |                      |                      |

|                         |                        |                      |                  |
|-------------------------|------------------------|----------------------|------------------|
| B*15:18:01G+B*35:71     | B*15:161+B*35:01:01G   |                      |                  |
| B*15:18:01G+B*35:80     | B*15:221+B*35:10       |                      |                  |
| B*15:18:01G+B*35:85     | B*15:133+B*35:82       |                      |                  |
| B*15:18:01G+B*35:86     | B*15:238+B*35:43:01G   |                      |                  |
| B*15:18:01G+B*35:93     | B*15:93+B*35:01:01G    |                      |                  |
| B*15:18:01G+B*35:96     | B*15:133+B*35:188      |                      |                  |
| B*15:18:01G+B*35:105    | B*15:221+B*35:159      |                      |                  |
| B*15:18:01G+B*35:109    | B*15:133+B*35:24:01    |                      |                  |
| B*15:18:01G+B*35:115    | B*15:51+B*35:11:01     |                      |                  |
| B*15:18:01G+B*35:117    | B*15:197+B*35:43:01G   |                      |                  |
| B*15:18:01G+B*35:136    | B*15:133+B*35:29:01    |                      |                  |
| B*15:18:01G+B*35:142    | B*15:221+B*35:124      |                      |                  |
| B*15:18:01G+B*35:150    | B*15:133+B*35:90       |                      |                  |
| B*15:18:01G+B*35:151    | B*15:133+B*35:68:02    |                      |                  |
| B*15:18:01G+B*35:156    | B*15:133+B*35:08:01    | B*15:221+B*35:03:01G |                  |
| B*15:18:01G+B*35:157    | B*15:93+B*35:81        |                      |                  |
| B*15:18:01G+B*35:163    | B*15:133+B*35:62       |                      |                  |
| B*15:18:01G+B*35:167    | B*15:133+B*35:11:01    |                      |                  |
| B*15:18:01G+B*35:169    | B*15:161+B*35:38       |                      |                  |
| B*15:18:01G+B*35:172    | B*15:221+B*35:02:01    |                      |                  |
| B*15:18:01G+B*35:174    | B*15:72+B*35:08:01     |                      |                  |
| B*15:18:01G+B*35:188    | B*15:93+B*35:21        |                      |                  |
| B*15:18:01G+B*35:190    | B*15:93+B*35:24:01     |                      |                  |
| B*15:18:01G+B*35:195    | B*15:133+B*35:101:02   |                      |                  |
| B*15:18:01G+B*35:205    | B*15:133+B*35:64       |                      |                  |
| B*15:18:01G+B*37:34     | B*15:23+B*37:11        |                      |                  |
| B*15:18:01G+B*38:01:01  | B*15:23+B*39:05:01     | B*15:108+B*38:36     |                  |
| B*15:18:01G+B*38:03     | B*15:115+B*39:02:01    |                      |                  |
| B*15:18:01G+B*38:14     | B*15:23+B*39:01:01G    |                      |                  |
| B*15:18:01G+B*38:19     | B*15:23+B*39:37        |                      |                  |
| B*15:18:01G+B*38:20     | B*15:80+B*38:01:01     |                      |                  |
| B*15:18:01G+B*38:26     | B*15:23+B*67:01:01     |                      |                  |
| B*15:18:01G+B*38:32     | B*15:108+B*38:10       |                      |                  |
| B*15:18:01G+B*39:01:01G | B*15:93+B*39:74        | B*15:108+B*39:30     |                  |
| B*15:18:01G+B*39:01:13  | B*15:18:04+B*39:01:01G |                      |                  |
| B*15:18:01G+B*39:05:01  | B*15:229+B*39:07       |                      |                  |
| B*15:18:01G+B*39:06:02  | B*15:18:02+B*39:06:01  | B*15:108+B*39:34     |                  |
| B*15:18:01G+B*39:11     | B*15:221+B*39:05:01    |                      |                  |
| B*15:18:01G+B*39:39:01  | B*15:64+B*39:01:01G    |                      |                  |
| B*15:18:01G+B*39:42     | B*15:80+B*39:01:01G    |                      |                  |
| B*15:18:01G+B*39:47     | B*15:238+B*39:74       |                      |                  |
| B*15:18:01G+B*39:48     | B*15:93+B*39:32        |                      |                  |
| B*15:18:01G+B*39:55     | B*15:133+B*39:07       |                      |                  |
| B*15:18:01G+B*39:58     | B*15:29+B*39:01:01G    |                      |                  |
| B*15:18:01G+B*39:68     | B*15:72+B*39:01:01G    |                      |                  |
| B*15:18:01G+B*40:01:04  | B*15:18:02+B*40:01:01G |                      |                  |
| B*15:18:01G+B*40:01:14  | B*15:72+B*40:87:01     |                      |                  |
| B*15:18:01G+B*40:02:09  | B*15:18:02+B*40:02:01G |                      |                  |
| B*15:18:01G+B*40:06:01G | B*15:64+B*40:75        |                      |                  |
| B*15:18:01G+B*40:11:02  | B*15:18:02+B*40:11:01  |                      |                  |
| B*15:18:01G+B*40:14:01  | B*15:72+B*40:121       |                      |                  |
| B*15:18:01G+B*40:19     | B*15:23+B*40:02:01G    |                      |                  |
| B*15:18:01G+B*40:36     | B*15:133+B*40:38       | B*15:229+B*40:52     |                  |
| B*15:18:01G+B*40:48     | B*15:18:03+B*40:36     |                      |                  |
| B*15:18:01G+B*40:64     | B*15:80+B*40:11:02     |                      |                  |
| B*15:18:01G+B*40:67     | B*15:176+B*40:01:01G   |                      |                  |
| B*15:18:01G+B*40:86     | B*15:229+B*40:159      |                      |                  |
| B*15:18:01G+B*40:113    | B*15:37+B*40:38        |                      |                  |
| B*15:18:01G+B*40:117    | B*15:23+B*40:01:01G    |                      |                  |
| B*15:18:01G+B*40:124:01 | B*15:18:02+B*40:124:02 |                      |                  |
| B*15:18:01G+B*40:128    | B*15:99+B*40:38        | B*15:221+B*40:01:01G |                  |
| B*15:18:01G+B*40:132    | B*15:161+B*40:01:01G   |                      |                  |
| B*15:18:01G+B*40:157    | B*15:115+B*40:37       |                      |                  |
| B*15:18:01G+B*40:160    | B*15:80+B*40:01:01G    |                      |                  |
| B*15:18:01G+B*40:161    | B*15:221+B*40:148      |                      |                  |
| B*15:18:01G+B*40:162    | B*15:29+B*40:75        |                      |                  |
| B*15:18:01G+B*40:198    | B*15:221+B*40:183      |                      |                  |
| B*15:18:01G+B*40:199    | B*15:93+B*40:63        |                      |                  |
| B*15:18:01G+B*40:201    | B*15:115+B*40:02:01G   |                      |                  |
| B*15:18:01G+B*42:01:01  | B*15:72+B*42:10        |                      |                  |
| B*15:18:01G+B*42:01:02  | B*15:18:04+B*42:01:01  |                      |                  |
| B*15:18:01G+B*42:02     | B*15:72+B*42:17        |                      |                  |
| B*15:18:01G+B*44:02:01G | B*15:51+B*44:79        | B*15:80+B*44:41:01   | B*15:161+B*44:91 |
| B*15:18:01G+B*44:02:07  | B*15:18:02+B*44:02:01G | B*15:80+B*44:41:02   |                  |
| B*15:18:01G+B*44:03:01G | B*15:80+B*44:65        | B*15:161+B*44:37:01  |                  |
| B*15:18:01G+B*44:03:02  | B*15:18:02+B*44:03:01G | B*15:161+B*44:37:02  |                  |
| B*15:18:01G+B*44:04     | B*15:93+B*44:28:02     |                      |                  |
| B*15:18:01G+B*44:05:01  | B*15:115+B*44:75       | B*15:161+B*44:42     |                  |
| B*15:18:01G+B*44:15     | B*15:115+B*45:01:01G   |                      |                  |
| B*15:18:01G+B*44:16     | B*15:238+B*44:91       |                      |                  |
| B*15:18:01G+B*44:18     | B*15:23+B*45:01:01G    | B*15:51+B*49:20      |                  |
| B*15:18:01G+B*44:21     | B*15:161+B*44:16       | B*15:238+B*44:02:01G |                  |
| B*15:18:01G+B*44:28:01  | B*15:18:02+B*44:28:02  | B*15:221+B*44:03:02  |                  |
| B*15:18:01G+B*44:28:02  | B*15:221+B*44:03:01G   |                      |                  |
| B*15:18:01G+B*44:29     | B*15:108+B*44:03:01G   |                      |                  |
| B*15:18:01G+B*44:37:02  | B*15:18:02+B*44:37:01  |                      |                  |
| B*15:18:01G+B*44:41:02  | B*15:18:02+B*44:41:01  |                      |                  |
| B*15:18:01G+B*44:50     | B*15:23+B*44:46        |                      |                  |
| B*15:18:01G+B*44:53     | B*15:72+B*44:02:01G    |                      |                  |
| B*15:18:01G+B*44:64:01  | B*15:18:02+B*44:64:02  | B*15:238+B*44:37:02  |                  |
| B*15:18:01G+B*44:64:02  | B*15:238+B*44:37:01    |                      |                  |
| B*15:18:01G+B*44:76     | B*15:221+B*44:79       |                      |                  |
| B*15:18:01G+B*44:89     | B*15:108+B*44:02:01G   |                      |                  |
| B*15:18:01G+B*44:95     | B*15:23+B*44:09        |                      |                  |
| B*15:18:01G+B*44:109    | B*15:115+B*44:46       |                      |                  |
| B*15:18:01G+B*44:110    | B*15:80+B*44:54        |                      |                  |
| B*15:18:01G+B*44:124    | B*15:161+B*44:64:01    | B*15:238+B*44:03:02  |                  |
| B*15:18:01G+B*44:132    | B*15:93+B*44:91        |                      |                  |
| B*15:18:01G+B*45:01:01G | B*15:18:03+B*45:02     | B*15:51+B*50:02      | B*15:161+B*45:04 |
| B*15:18:01G+B*45:04     | B*15:51+B*50:01:01     |                      |                  |
| B*15:18:01G+B*45:08     | B*15:93+B*45:04        |                      |                  |
| B*15:18:01G+B*45:10     | B*15:238+B*45:04       |                      |                  |
| B*15:18:01G+B*46:17     | B*15:161+B*46:01:01G   |                      |                  |
| B*15:18:01G+B*46:18     | B*15:93+B*46:11        |                      |                  |
| B*15:18:01G+B*46:19     | B*15:108+B*46:13:03    |                      |                  |

|                         |                       |                      |                     |
|-------------------------|-----------------------|----------------------|---------------------|
| B*15:18:01G+B*46:21:01  | B*15:93+B*46:13:03    |                      |                     |
| B*15:18:01G+B*46:21:02  | B*15:93+B*46:13:01    |                      |                     |
| B*15:18:01G+B*46:29     | B*15:93+B*46:01:01G   |                      |                     |
| B*15:18:01G+B*46:30     | B*15:238+B*46:01:01G  |                      |                     |
| B*15:18:01G+B*47:06     | B*15:176+B*47:01:01G  |                      |                     |
| B*15:18:01G+B*48:03:02  | B*15:18:02+B*48:03:01 |                      |                     |
| B*15:18:01G+B*49:01:01  | B*15:23+B*50:01:01    |                      |                     |
| B*15:18:01G+B*49:07     | B*15:238+B*49:01:01   |                      |                     |
| B*15:18:01G+B*49:10     | B*15:23+B*50:13       |                      |                     |
| B*15:18:01G+B*49:18     | B*15:23+B*50:14       |                      |                     |
| B*15:18:01G+B*49:20     | B*15:23+B*50:02       | B*15:161+B*49:01:01  |                     |
| B*15:18:01G+B*50:01:01  | B*15:18:03+B*50:09    |                      |                     |
| B*15:18:01G+B*50:02     | B*15:161+B*50:01:01   |                      |                     |
| B*15:18:01G+B*51:01:02  | B*15:23+B*78:02:01    |                      |                     |
| B*15:18:01G+B*51:04     | B*15:80+B*51:06:02    |                      |                     |
| B*15:18:01G+B*51:06:02  | B*15:18:02+B*51:06:01 |                      |                     |
| B*15:18:01G+B*51:07:01  | B*15:64+B*51:22       |                      |                     |
| B*15:18:01G+B*51:13:02  | B*15:133+B*51:63      | B*15:229+B*51:37     |                     |
| B*15:18:01G+B*51:16     | B*15:238+B*51:01:01G  |                      |                     |
| B*15:18:01G+B*51:19     | B*15:108+B*51:09:01   |                      |                     |
| B*15:18:01G+B*51:21     | B*15:93+B*51:01:01G   |                      |                     |
| B*15:18:01G+B*51:23     | B*15:161+B*51:02:01   |                      |                     |
| B*15:18:01G+B*51:24:01  | B*15:72+B*51:01:04    |                      |                     |
| B*15:18:01G+B*51:24:03  | B*15:72+B*51:01:25    |                      |                     |
| B*15:18:01G+B*51:24:04  | B*15:72+B*51:01:21    |                      |                     |
| B*15:18:01G+B*51:29     | B*15:99+B*51:63       | B*15:221+B*51:01:01G |                     |
| B*15:18:01G+B*51:31     | B*15:52+B*51:01:01G   | B*15:238+B*51:09:01  |                     |
| B*15:18:01G+B*51:34     | B*15:238+B*51:02:01   |                      |                     |
| B*15:18:01G+B*51:49     | B*15:153+B*51:01:01G  |                      |                     |
| B*15:18:01G+B*51:82     | B*15:221+B*51:16      | B*15:238+B*51:29     |                     |
| B*15:18:01G+B*51:97     | B*15:51+B*51:63       |                      |                     |
| B*15:18:01G+B*51:101    | B*15:108+B*51:21      |                      |                     |
| B*15:18:01G+B*51:106    | B*15:18:03+B*51:13:02 |                      |                     |
| B*15:18:01G+B*52:01:01G | B*15:23+B*78:05       |                      |                     |
| B*15:18:01G+B*52:08     | B*15:238+B*52:01:01G  |                      |                     |
| B*15:18:01G+B*52:15     | B*15:161+B*52:01:01G  |                      |                     |
| B*15:18:01G+B*52:19     | B*15:51+B*52:01:01G   |                      |                     |
| B*15:18:01G+B*52:20     | B*15:115+B*78:06      |                      |                     |
| B*15:18:01G+B*52:21     | B*15:54+B*51:22       |                      |                     |
| B*15:18:01G+B*52:24     | B*15:221+B*52:01:01G  |                      |                     |
| B*15:18:01G+B*52:25     | B*15:18:03+B*52:14    |                      |                     |
| B*15:18:01G+B*52:28     | B*15:176+B*52:01:01G  |                      |                     |
| B*15:18:01G+B*53:01:01  | B*15:23+B*35:01:01G   |                      |                     |
| B*15:18:01G+B*53:01:02  | B*15:23+B*35:01:16    |                      |                     |
| B*15:18:01G+B*53:02     | B*15:23+B*35:24:01    |                      |                     |
| B*15:18:01G+B*53:04     | B*15:23+B*35:03:01G   | B*15:133+B*53:01:01  |                     |
| B*15:18:01G+B*53:08:01  | B*15:23+B*35:11:01    |                      |                     |
| B*15:18:01G+B*53:08:02  | B*15:23+B*35:11:02    |                      |                     |
| B*15:18:01G+B*53:11     | B*15:221+B*53:13      |                      |                     |
| B*15:18:01G+B*53:12     | B*15:115+B*35:01:01G  |                      |                     |
| B*15:18:01G+B*53:13     | B*15:115+B*35:27      |                      |                     |
| B*15:18:01G+B*53:14     | B*15:23+B*35:05:01    |                      |                     |
| B*15:18:01G+B*53:16     | B*15:221+B*53:05      |                      |                     |
| B*15:18:01G+B*53:17:02  | B*15:23+B*35:28       |                      |                     |
| B*15:18:01G+B*53:19     | B*15:23+B*35:02:01    |                      |                     |
| B*15:18:01G+B*53:21     | B*15:23+B*35:197      |                      |                     |
| B*15:18:01G+B*53:23     | B*15:23+B*35:29:01    |                      |                     |
| B*15:18:01G+B*53:24     | B*15:23+B*35:08:01    | B*15:221+B*53:01:01  |                     |
| B*15:18:01G+B*53:26     | B*15:23+B*35:108:01   |                      |                     |
| B*15:18:01G+B*54:01:01G | B*15:93+B*54:03       |                      |                     |
| B*15:18:01G+B*54:10     | B*15:221+B*54:01:01G  |                      |                     |
| B*15:18:01G+B*54:12     | B*15:23+B*54:01:01G   |                      |                     |
| B*15:18:01G+B*54:26     | B*15:238+B*54:03      |                      |                     |
| B*15:18:01G+B*55:01:01G | B*15:93+B*56:25       |                      |                     |
| B*15:18:01G+B*55:02:01G | B*15:18:02+B*55:02:04 | B*15:18:03+B*55:13   | B*15:93+B*56:01:01G |
| B*15:18:01G+B*55:09     | B*15:221+B*55:24      |                      |                     |
| B*15:18:01G+B*55:13     | B*15:93+B*56:22       | B*15:133+B*55:32     | B*15:229+B*55:23    |
| B*15:18:01G+B*55:22     | B*15:52+B*56:25       | B*15:238+B*56:01:01G |                     |
| B*15:18:01G+B*55:24     | B*15:238+B*56:25      |                      |                     |
| B*15:18:01G+B*55:37     | B*15:221+B*55:02:01G  |                      |                     |
| B*15:18:01G+B*55:52     | B*15:221+B*55:01:01G  |                      |                     |
| B*15:18:01G+B*56:01:01G | B*15:18:03+B*56:22    |                      |                     |
| B*15:18:01G+B*56:10     | B*15:93+B*56:02       |                      |                     |
| B*15:18:01G+B*56:11     | B*15:133+B*56:09      |                      |                     |
| B*15:18:01G+B*56:13     | B*15:51+B*56:25       |                      |                     |
| B*15:18:01G+B*56:20:01  | B*15:72+B*56:01:01G   |                      |                     |
| B*15:18:01G+B*56:21     | B*15:23+B*56:05:02    |                      |                     |
| B*15:18:01G+B*57:02:01  | B*15:23+B*57:12       | B*15:221+B*57:03:01  |                     |
| B*15:18:01G+B*57:07     | B*15:161+B*57:03:01   |                      |                     |
| B*15:18:01G+B*57:19     | B*15:221+B*57:01:01G  |                      |                     |
| B*15:18:01G+B*57:24     | B*15:51+B*57:22       |                      |                     |
| B*15:18:01G+B*57:25     | B*15:52+B*57:22       | B*15:238+B*57:01:01G |                     |
| B*15:18:01G+B*57:26     | B*15:93+B*57:01:01G   |                      |                     |
| B*15:18:01G+B*57:31     | B*15:72+B*57:01:01G   |                      |                     |
| B*15:18:01G+B*58:07     | B*15:161+B*58:02      |                      |                     |
| B*15:18:01G+B*58:22     | B*15:221+B*58:01:01G  |                      |                     |
| B*15:18:01G+B*58:34     | B*15:133+B*58:01:01G  |                      |                     |
| B*15:18:01G+B*58:35     | B*15:93+B*58:01:01G   |                      |                     |
| B*15:18:01G+B*58:37     | B*15:52+B*58:19       | B*15:238+B*58:01:01G |                     |
| B*15:18:01G+B*59:01:01G | B*15:18:03+B*59:03    | B*15:93+B*59:04      |                     |
| B*15:18:01G+B*78:01:01  | B*15:29+B*78:03       |                      |                     |
| B*15:18:01G+B*78:07     | B*15:93+B*78:01:01    |                      |                     |
| B*15:18:02+B*18:13      | B*15:221+B*18:01:06   |                      |                     |
| B*15:18:02+B*18:31      | B*15:176+B*18:01:06   |                      |                     |
| B*15:18:02+B*18:40      | B*15:72+B*16:01:06    |                      |                     |
| B*15:18:02+B*35:151     | B*15:133+B*35:68:01   |                      |                     |
| B*15:18:02+B*40:19      | B*15:23+B*40:02:09    |                      |                     |
| B*15:18:02+B*40:67      | B*15:176+B*40:01:04   |                      |                     |
| B*15:18:02+B*40:117     | B*15:23+B*40:01:04    |                      |                     |
| B*15:18:02+B*40:128     | B*15:221+B*40:01:04   |                      |                     |
| B*15:18:02+B*40:132     | B*15:161+B*40:01:04   |                      |                     |
| B*15:18:02+B*40:160     | B*15:80+B*40:01:04    |                      |                     |
| B*15:18:02+B*40:201     | B*15:115+B*40:02:09   |                      |                     |
| B*15:18:02+B*44:04      | B*15:93+B*44:28:01    |                      |                     |
| B*15:18:02+B*44:21      | B*15:238+B*44:02:07   |                      |                     |

|                       |                        |                     |                     |
|-----------------------|------------------------|---------------------|---------------------|
| B*15:18:02+B*44:29    | B*15:108+B*44:03:02    |                     |                     |
| B*15:18:02+B*44:53    | B*15:72+B*44:02:07     |                     |                     |
| B*15:18:02+B*44:89    | B*15:108+B*44:02:07    |                     |                     |
| B*15:18:04+B*27:45    | B*15:221+B*27:05:03    |                     |                     |
| B*15:18:04+B*38:14    | B*15:23+B*39:01:13     |                     |                     |
| B*15:18:04+B*39:39:01 | B*15:64+B*39:01:13     |                     |                     |
| B*15:18:04+B*39:42    | B*15:80+B*39:01:13     |                     |                     |
| B*15:18:04+B*39:58    | B*15:29+B*39:01:13     |                     |                     |
| B*15:18:04+B*39:68    | B*15:72+B*39:01:13     |                     |                     |
| B*15:20+B*15:29       | B*15:39:01+B*35:25     |                     |                     |
| B*15:20+B*35:11:02    | B*15:194+B*35:10       |                     |                     |
| B*15:20+B*35:14:02    | B*15:85+B*35:01:01G    |                     |                     |
| B*15:20+B*35:99       | B*15:39:01+B*35:08:01  | B*15:65+B*35:01:01G | B*15:237+B*35:11:01 |
| B*15:20+B*35:118      | B*15:78:02+B*35:01:01G | B*15:107+B*35:14:01 |                     |
| B*15:20+B*35:185      | B*15:135+B*35:42:02    |                     |                     |
| B*15:20+B*35:186      | B*35:28+B*46:33        |                     |                     |
| B*15:20+B*39:18       | B*15:85+B*39:01:01G    |                     |                     |
| B*15:20+B*40:01:01G   | B*35:63+B*40:21        |                     |                     |
| B*15:20+B*46:05       | B*15:125+B*46:33       |                     |                     |
| B*15:20+B*46:08       | B*15:39:01+B*46:33     |                     |                     |
| B*15:20+B*46:10       | B*15:183+B*46:33       |                     |                     |
| B*15:20+B*46:14       | B*15:225+B*46:33       |                     |                     |
| B*15:20+B*46:19       | B*15:136+B*46:33       |                     |                     |
| B*15:20+B*46:29       | B*15:50+B*46:33        | B*15:85+B*46:21:02  |                     |
| B*15:20+B*46:30       | B*15:117+B*46:33       |                     |                     |
| B*15:20+B*48:03:01    | B*40:21+B*48:02:01     |                     |                     |
| B*15:20+B*51:01:01G   | B*35:01:01G+B*52:02    | B*35:28+B*51:104    |                     |
| B*15:20+B*51:01:03    | B*35:01:19+B*52:02     |                     |                     |
| B*15:20+B*51:01:16    | B*35:01:04+B*52:02     |                     |                     |
| B*15:20+B*51:01:33    | B*35:01:08+B*52:02     |                     |                     |
| B*15:20+B*51:07:01    | B*35:20:01+B*52:02     |                     |                     |
| B*15:20+B*51:16       | B*35:15+B*52:02        |                     |                     |
| B*15:20+B*51:21       | B*35:93+B*52:02        |                     |                     |
| B*15:20+B*51:22       | B*35:82+B*52:02        |                     |                     |
| B*15:20+B*51:24:03    | B*35:64+B*52:02        |                     |                     |
| B*15:20+B*51:29       | B*35:08:01+B*52:02     |                     |                     |
| B*15:20+B*51:35       | B*35:116+B*52:02       |                     |                     |
| B*15:20+B*51:53       | B*35:180+B*52:02       |                     |                     |
| B*15:20+B*51:57       | B*35:197+B*52:02       |                     |                     |
| B*15:20+B*51:61:01    | B*15:85+B*51:09:01     |                     |                     |
| B*15:20+B*51:61:02    | B*35:62+B*52:02        |                     |                     |
| B*15:20+B*51:74       | B*35:46+B*52:01:02     |                     |                     |
| B*15:20+B*51:76       | B*35:101:02+B*52:02    |                     |                     |
| B*15:20+B*51:101      | B*35:35+B*52:02        |                     |                     |
| B*15:20+B*51:112      | B*35:19+B*52:02        |                     |                     |
| B*15:20+B*51:130      | B*35:91+B*52:02        |                     |                     |
| B*15:20+B*52:01:02    | B*35:28+B*52:02        |                     |                     |
| B*15:20+B*52:06:02    | B*35:10+B*52:02        |                     |                     |
| B*15:20+B*55:01:01G   | B*15:42+B*56:09        |                     |                     |
| B*15:20+B*57:51       | B*35:63+B*57:01:01G    |                     |                     |
| B*15:20+B*58:01:01G   | B*35:28+B*58:36        |                     |                     |
| B*15:20+B*58:08:02    | B*58:36+B*78:05        |                     |                     |
| B*15:21+B*15:92       | B*15:66+B*15:213       |                     |                     |
| B*15:21+B*15:131      | B*15:25:01G+B*15:161   |                     |                     |
| B*15:21+B*15:239      | B*15:25:01G+B*35:135   |                     |                     |
| B*15:21+B*15:253      | B*15:25:01G+B*15:133   |                     |                     |
| B*15:21+B*18:09       | B*15:89+B*18:33        |                     |                     |
| B*15:21+B*18:11       | B*15:44+B*18:58        |                     |                     |
| B*15:21+B*18:12       | B*15:25:01G+B*18:33    |                     |                     |
| B*15:21+B*27:15       | B*15:44+B*27:63        |                     |                     |
| B*15:21+B*27:71       | B*15:44+B*27:38        |                     |                     |
| B*15:21+B*35:28       | B*15:25:01G+B*35:82    |                     |                     |
| B*15:21+B*35:93       | B*15:44+B*35:01:01G    |                     |                     |
| B*15:21+B*35:157      | B*15:44+B*35:81        |                     |                     |
| B*15:21+B*35:188      | B*15:44+B*35:21        |                     |                     |
| B*15:21+B*35:190      | B*15:44+B*35:24:01     |                     |                     |
| B*15:21+B*39:01:01G   | B*15:44+B*39:74        |                     |                     |
| B*15:21+B*39:02:02    | B*15:25:01G+B*39:01:09 |                     |                     |
| B*15:21+B*39:08       | B*15:25:01G+B*39:11    |                     |                     |
| B*15:21+B*39:48       | B*15:44+B*39:32        |                     |                     |
| B*15:21+B*40:96       | B*15:89+B*40:75        |                     |                     |
| B*15:21+B*40:199      | B*15:44+B*40:63        |                     |                     |
| B*15:21+B*44:04       | B*15:44+B*44:28:02     |                     |                     |
| B*15:21+B*44:132      | B*15:44+B*44:91        |                     |                     |
| B*15:21+B*45:08       | B*15:44+B*45:04        |                     |                     |
| B*15:21+B*46:18       | B*15:44+B*46:11        |                     |                     |
| B*15:21+B*46:21:01    | B*15:44+B*46:13:03     |                     |                     |
| B*15:21+B*46:21:02    | B*15:44+B*46:13:01     |                     |                     |
| B*15:21+B*46:29       | B*15:44+B*46:01:01G    |                     |                     |
| B*15:21+B*51:21       | B*15:44+B*51:01:01G    |                     |                     |
| B*15:21+B*52:01:02    | B*15:25:01G+B*51:22    |                     |                     |
| B*15:21+B*53:09       | B*15:89+B*35:82        |                     |                     |
| B*15:21+B*54:01:01G   | B*15:44+B*54:03        |                     |                     |
| B*15:21+B*55:01:01G   | B*15:44+B*56:25        |                     |                     |
| B*15:21+B*55:02:01G   | B*15:44+B*56:01:01G    |                     |                     |
| B*15:21+B*55:13       | B*15:44+B*56:22        |                     |                     |
| B*15:21+B*56:10       | B*15:44+B*56:02        |                     |                     |
| B*15:21+B*57:26       | B*15:44+B*57:01:01G    |                     |                     |
| B*15:21+B*58:35       | B*15:44+B*58:01:01G    |                     |                     |
| B*15:21+B*59:01:01G   | B*15:44+B*59:04        |                     |                     |
| B*15:21+B*78:07       | B*15:44+B*78:01:01     |                     |                     |
| B*15:23+B*15:50       | B*15:24+B*15:93        |                     |                     |
| B*15:23+B*15:58       | B*15:24+B*15:229       |                     |                     |
| B*15:23+B*15:78:01    | B*15:24+B*15:72        |                     |                     |
| B*15:23+B*15:117      | B*15:24+B*15:238       |                     |                     |
| B*15:23+B*15:145      | B*15:24+B*15:176       |                     |                     |
| B*15:23+B*15:154      | B*15:24+B*15:80        |                     |                     |
| B*15:23+B*15:249      | B*15:24+B*15:108       |                     |                     |
| B*15:23+B*35:03:02    | B*15:133+B*53:01:03    |                     |                     |
| B*15:23+B*35:06       | B*15:229+B*53:01:01    |                     |                     |
| B*15:23+B*35:15       | B*15:52+B*53:08:01     | B*15:238+B*53:01:01 |                     |
| B*15:23+B*35:30       | B*15:80+B*53:14        |                     |                     |
| B*15:23+B*35:33       | B*15:238+B*53:04       |                     |                     |
| B*15:23+B*35:35       | B*15:186+B*53:08:01    |                     |                     |
| B*15:23+B*35:45       | B*15:161+B*53:24       |                     |                     |



|                     |                        |                       |
|---------------------|------------------------|-----------------------|
| B*15:23+B*35:60     | B*15:93+B*51:15        |                       |
| B*15:23+B*35:71     | B*15:161+B*53:01:01    |                       |
| B*15:23+B*35:93     | B*15:93+B*53:01:01     |                       |
| B*15:23+B*35:109    | B*15:133+B*53:02       |                       |
| B*15:23+B*35:115    | B*15:51+B*53:08:01     |                       |
| B*15:23+B*35:136    | B*15:133+B*53:23       |                       |
| B*15:23+B*35:156    | B*15:133+B*53:24       | B*15:221+B*53:04      |
| B*15:23+B*35:167    | B*15:133+B*53:08:01    |                       |
| B*15:23+B*35:169    | B*15:133+B*53:22       |                       |
| B*15:23+B*35:172    | B*15:221+B*53:19       |                       |
| B*15:23+B*35:174    | B*15:72+B*53:24        |                       |
| B*15:23+B*35:190    | B*15:93+B*53:02        |                       |
| B*15:23+B*39:11     | B*15:221+B*38:01:01    |                       |
| B*15:23+B*39:39:01  | B*15:64+B*38:14        |                       |
| B*15:23+B*39:42     | B*15:80+B*38:14        |                       |
| B*15:23+B*39:58     | B*15:29+B*38:14        |                       |
| B*15:23+B*39:68     | B*15:72+B*38:14        |                       |
| B*15:23+B*40:67     | B*15:176+B*40:117      |                       |
| B*15:23+B*40:128    | B*15:221+B*40:117      |                       |
| B*15:23+B*40:132    | B*15:161+B*40:117      |                       |
| B*15:23+B*40:160    | B*15:80+B*40:117       |                       |
| B*15:23+B*40:201    | B*15:115+B*40:19       |                       |
| B*15:23+B*44:15     | B*15:115+B*44:18       |                       |
| B*15:23+B*44:109    | B*15:115+B*44:50       |                       |
| B*15:23+B*45:04     | B*15:51+B*49:01:01     |                       |
| B*15:23+B*45:10     | B*15:51+B*49:07        |                       |
| B*15:23+B*53:12     | B*15:115+B*53:01:01    |                       |
| B*15:23+B*54:10     | B*15:221+B*54:12       |                       |
| B*15:24+B*18:01:01G | B*15:87+B*18:49        | B*15:135+B*18:67      |
| B*15:24+B*18:06     | B*15:57+B*18:67        |                       |
| B*15:24+B*27:05:02G | B*15:43+B*27:02:01     |                       |
| B*15:24+B*27:19     | B*15:43+B*27:30        |                       |
| B*15:24+B*27:28     | B*15:43+B*27:62        |                       |
| B*15:24+B*27:42     | B*15:135+B*27:53       |                       |
| B*15:24+B*27:89     | B*15:135+B*27:02:01    |                       |
| B*15:24+B*35:04:01  | B*15:30+B*53:01:01     |                       |
| B*15:24+B*35:06     | B*15:58+B*53:01:01     |                       |
| B*15:24+B*35:09:02  | B*15:150+B*53:01:03    |                       |
| B*15:24+B*35:09:03  | B*15:150+B*53:01:01    |                       |
| B*15:24+B*35:10     | B*15:56+B*53:17:02     |                       |
| B*15:24+B*35:15     | B*15:117+B*53:01:01    |                       |
| B*15:24+B*35:21     | B*15:38:01+B*53:08:01  | B*15:38:02+B*53:08:02 |
| B*15:24+B*35:23     | B*15:27:02+B*53:01:01  |                       |
| B*15:24+B*35:27     | B*15:135+B*53:01:01    |                       |
| B*15:24+B*35:30     | B*15:154+B*53:14       |                       |
| B*15:24+B*35:33     | B*15:117+B*53:04       |                       |
| B*15:24+B*35:34     | B*15:63+B*53:01:01     |                       |
| B*15:24+B*35:50     | B*15:71+B*53:01:01     | B*15:225+B*53:21      |
| B*15:24+B*35:54     | B*15:125+B*53:01:01    |                       |
| B*15:24+B*35:56     | B*15:135+B*53:04       |                       |
| B*15:24+B*35:60     | B*15:50+B*51:15        |                       |
| B*15:24+B*35:64     | B*15:78:02+B*53:01:03  |                       |
| B*15:24+B*35:69     | B*15:236+B*53:17:02    |                       |
| B*15:24+B*35:76     | B*15:76+B*53:17:02     |                       |
| B*15:24+B*35:81     | B*15:38:01+B*53:19     |                       |
| B*15:24+B*35:90     | B*15:183+B*53:01:01    |                       |
| B*15:24+B*35:91     | B*15:192+B*53:01:01    |                       |
| B*15:24+B*35:93     | B*15:50+B*53:01:01     |                       |
| B*15:24+B*35:103    | B*15:163+B*53:01:01    |                       |
| B*15:24+B*35:109    | B*15:38:01+B*53:04     |                       |
| B*15:24+B*35:124    | B*15:251+B*53:01:01    |                       |
| B*15:24+B*35:136    | B*15:70+B*53:04        |                       |
| B*15:24+B*35:142    | B*15:251+B*53:24       |                       |
| B*15:24+B*35:150    | B*15:183+B*53:04       |                       |
| B*15:24+B*35:174    | B*15:78:01+B*53:24     |                       |
| B*15:24+B*35:175    | B*15:92+B*53:01:01     |                       |
| B*15:24+B*35:180    | B*15:105+B*53:01:01    |                       |
| B*15:24+B*35:184    | B*15:183+B*53:19       |                       |
| B*15:24+B*35:186    | B*46:01:01G+B*53:17:02 |                       |
| B*15:24+B*35:190    | B*15:50+B*53:02        |                       |
| B*15:24+B*37:01:01G | B*15:43+B*37:34        |                       |
| B*15:24+B*38:17     | B*15:43+B*38:01:01     |                       |
| B*15:24+B*39:01:05  | B*15:70+B*38:01:03     |                       |
| B*15:24+B*39:04     | B*15:70+B*38:33        |                       |
| B*15:24+B*39:09     | B*15:32+B*38:14        |                       |
| B*15:24+B*39:28     | B*15:35+B*38:14        |                       |
| B*15:24+B*39:30     | B*15:70+B*38:36        |                       |
| B*15:24+B*39:31     | B*15:225+B*38:14       |                       |
| B*15:24+B*39:35     | B*15:70+B*38:32        |                       |
| B*15:24+B*39:38Q    | B*15:245Q+B*38:14      |                       |
| B*15:24+B*39:42     | B*15:70+B*38:20        | B*15:154+B*38:14      |
| B*15:24+B*39:48     | B*15:38:01+B*38:14     |                       |
| B*15:24+B*39:53     | B*15:193+B*38:14       |                       |
| B*15:24+B*39:54     | B*15:244+B*38:14       |                       |
| B*15:24+B*39:68     | B*15:78:01+B*38:14     |                       |
| B*15:24+B*40:06:01G | B*15:135+B*40:109      |                       |
| B*15:24+B*40:07     | B*15:56+B*40:117       |                       |
| B*15:24+B*40:37     | B*15:135+B*40:19       |                       |
| B*15:24+B*40:43     | B*15:70+B*40:117       |                       |
| B*15:24+B*40:50     | B*15:70+B*40:19        |                       |
| B*15:24+B*40:61     | B*15:152+B*40:117      |                       |
| B*15:24+B*40:67     | B*15:145+B*40:117      |                       |
| B*15:24+B*40:69     | B*15:28+B*40:117       |                       |
| B*15:24+B*40:79     | B*15:159+B*40:117      |                       |
| B*15:24+B*40:89     | B*15:128+B*40:19       |                       |
| B*15:24+B*40:100    | B*15:27:01+B*40:117    |                       |
| B*15:24+B*40:113    | B*15:38:01+B*40:117    |                       |
| B*15:24+B*40:143    | B*15:27:02+B*40:19     |                       |
| B*15:24+B*40:160    | B*15:154+B*40:117      |                       |
| B*15:24+B*40:166    | B*15:76+B*40:117       |                       |
| B*15:24+B*40:169    | B*15:167+B*40:19       |                       |
| B*15:24+B*40:171    | B*15:193+B*40:117      |                       |
| B*15:24+B*40:172    | B*15:128+B*40:117      |                       |
| B*15:24+B*40:173    | B*15:184+B*40:19       |                       |
| B*15:24+B*40:186    | B*15:82+B*40:117       |                       |

|                         |                        |                       |                  |
|-------------------------|------------------------|-----------------------|------------------|
| B*15:24+B*40:188        | B*15:43+B*40:117       |                       |                  |
| B*15:24+B*40:200        | B*15:97+B*40:19        |                       |                  |
| B*15:24+B*40:201        | B*15:87+B*40:157       |                       |                  |
| B*15:24+B*42:01:01      | B*15:87+B*42:15        |                       |                  |
| B*15:24+B*44:75         | B*15:135+B*44:25       |                       |                  |
| B*15:24+B*44:90         | B*15:101+B*44:95       |                       |                  |
| B*15:24+B*44:109        | B*15:87+B*44:03:01G    |                       |                  |
| B*15:24+B*44:131        | B*15:71+B*44:95        |                       |                  |
| B*15:24+B*45:06         | B*15:101+B*44:18       |                       |                  |
| B*15:24+B*45:11         | B*15:105+B*44:18       |                       |                  |
| B*15:24+B*48:01:01G     | B*15:135+B*48:18       |                       |                  |
| B*15:24+B*52:09         | B*15:87+B*52:01:02     |                       |                  |
| B*15:24+B*53:03         | B*15:43+B*53:01:01     |                       |                  |
| B*15:24+B*53:05         | B*15:87+B*53:01:01     |                       |                  |
| B*15:24+B*53:12         | B*15:87+B*53:13        |                       |                  |
| B*15:24+B*53:16         | B*15:87+B*53:24        |                       |                  |
| B*15:24+B*54:02         | B*15:71+B*54:12        |                       |                  |
| B*15:24+B*54:13         | B*15:217+B*54:12       |                       |                  |
| B*15:24+B*54:21         | B*15:251+B*54:12       |                       |                  |
| B*15:24+B*55:02:01G     | B*15:87+B*55:12        |                       |                  |
| B*15:24+B*56:06         | B*15:76+B*52:01:02     | B*15:101+B*51:07:01   |                  |
| B*15:24+B*67:03         | B*15:78:02+B*38:26     |                       |                  |
| B*15:24+B*78:01:01      | B*15:70+B*51:01:01G    | B*15:236+B*51:07:01   |                  |
| B*15:24+B*78:01:02      | B*15:70+B*51:01:34     |                       |                  |
| B*15:24+B*78:03         | B*15:70+B*51:22        |                       |                  |
| B*15:24+B*78:06         | B*15:135+B*52:01:01G   |                       |                  |
| B*15:24+B*78:07         | B*15:70+B*51:21        |                       |                  |
| B*15:25:01G+B*15:186    | B*15:44+B*15:235       |                       |                  |
| B*15:25:01G+B*15:212    | B*15:53+B*15:204       |                       |                  |
| B*15:25:01G+B*15:252    | B*15:121+B*15:243      |                       |                  |
| B*15:25:01G+B*18:09     | B*15:36+B*18:01:01G    | B*15:89+B*18:12       |                  |
| B*15:25:01G+B*18:28     | B*15:250+B*18:01:01G   |                       |                  |
| B*15:25:01G+B*18:44:01  | B*15:25:02+B*18:44:02  |                       |                  |
| B*15:25:01G+B*18:68     | B*15:204+B*18:25       |                       |                  |
| B*15:25:01G+B*27:01     | B*15:36+B*27:44        |                       |                  |
| B*15:25:01G+B*27:05:02G | B*15:204+B*27:37       |                       |                  |
| B*15:25:01G+B*35:12:01  | B*15:25:02+B*35:12:02  |                       |                  |
| B*15:25:01G+B*35:50     | B*15:204+B*35:197      |                       |                  |
| B*15:25:01G+B*35:62     | B*15:144+B*35:10       |                       |                  |
| B*15:25:01G+B*35:68:02  | B*15:25:02+B*35:68:01  |                       |                  |
| B*15:25:01G+B*35:78     | B*15:139+B*35:10       |                       |                  |
| B*15:25:01G+B*35:93     | B*15:121+B*35:10       |                       |                  |
| B*15:25:01G+B*35:163    | B*15:144+B*35:13       |                       |                  |
| B*15:25:01G+B*35:175    | B*15:213+B*35:10       |                       |                  |
| B*15:25:01G+B*37:10     | B*15:36+B*37:11        |                       |                  |
| B*15:25:01G+B*38:02:01G | B*15:36+B*39:05:01     |                       |                  |
| B*15:25:01G+B*38:29     | B*15:36+B*39:55        |                       |                  |
| B*15:25:01G+B*39:06:01  | B*15:25:02+B*39:06:02  |                       |                  |
| B*15:25:01G+B*39:31     | B*15:204+B*39:01:01G   |                       |                  |
| B*15:25:01G+B*40:01:01G | B*15:25:02+B*40:01:04  | B*15:204+B*40:49      |                  |
| B*15:25:01G+B*40:02:01G | B*15:25:02+B*40:02:09  | B*15:204+B*40:40      |                  |
| B*15:25:01G+B*40:10:02  | B*15:106+B*40:21       |                       |                  |
| B*15:25:01G+B*40:11:01  | B*15:25:02+B*40:11:02  |                       |                  |
| B*15:25:01G+B*40:47     | B*15:36+B*40:01:01G    |                       |                  |
| B*15:25:01G+B*40:74     | B*15:204+B*40:210      |                       |                  |
| B*15:25:01G+B*40:96     | B*15:36+B*40:06:01G    |                       |                  |
| B*15:25:01G+B*40:124:02 | B*15:25:02+B*40:124:01 |                       |                  |
| B*15:25:01G+B*40:157    | B*15:36+B*40:02:01G    |                       |                  |
| B*15:25:01G+B*42:02     | B*15:204+B*42:01:01    |                       |                  |
| B*15:25:01G+B*42:17     | B*15:204+B*42:10       |                       |                  |
| B*15:25:01G+B*44:02:01G | B*15:25:02+B*44:02:07  | B*15:36+B*44:09       | B*15:106+B*44:08 |
| B*15:25:01G+B*44:03:01G | B*15:25:02+B*44:03:02  | B*15:36+B*44:46       | B*15:106+B*44:57 |
| B*15:25:01G+B*44:28:02  | B*15:25:02+B*44:28:01  |                       |                  |
| B*15:25:01G+B*44:37:01  | B*15:25:02+B*44:37:02  |                       |                  |
| B*15:25:01G+B*44:41:01  | B*15:25:02+B*44:41:02  |                       |                  |
| B*15:25:01G+B*44:55     | B*15:204+B*44:02:01G   |                       |                  |
| B*15:25:01G+B*44:64:02  | B*15:25:02+B*44:64:01  |                       |                  |
| B*15:25:01G+B*46:14     | B*15:204+B*46:01:01G   |                       |                  |
| B*15:25:01G+B*48:03:01  | B*15:25:02+B*48:03:02  |                       |                  |
| B*15:25:01G+B*49:01:01  | B*15:204+B*49:10       |                       |                  |
| B*15:25:01G+B*49:02     | B*15:36+B*50:01:01     |                       |                  |
| B*15:25:01G+B*50:01:01  | B*15:204+B*50:13       |                       |                  |
| B*15:25:01G+B*51:06:01  | B*15:25:02+B*51:06:02  |                       |                  |
| B*15:25:01G+B*51:21     | B*15:121+B*52:06:02    |                       |                  |
| B*15:25:01G+B*51:61:02  | B*15:144+B*52:06:02    |                       |                  |
| B*15:25:01G+B*51:78:01  | B*15:36+B*78:02:02     |                       |                  |
| B*15:25:01G+B*51:78:02  | B*15:36+B*78:02:01     |                       |                  |
| B*15:25:01G+B*52:20     | B*15:36+B*78:05        |                       |                  |
| B*15:25:01G+B*53:09     | B*15:36+B*35:20:01     | B*15:89+B*35:28       |                  |
| B*15:25:01G+B*53:11     | B*15:36+B*35:08:01     | B*15:89+B*35:80       |                  |
| B*15:25:01G+B*53:13     | B*15:36+B*35:01:01G    | B*15:89+B*35:10       |                  |
| B*15:25:01G+B*55:02:04  | B*15:25:02+B*55:02:01G |                       |                  |
| B*15:25:01G+B*55:16     | B*15:204+B*55:02:01G   |                       |                  |
| B*15:25:01G+B*55:21     | B*15:144+B*55:40       |                       |                  |
| B*15:25:01G+B*56:07     | B*15:36+B*56:01:01G    |                       |                  |
| B*15:25:01G+B*57:39     | B*15:204+B*57:03:01    |                       |                  |
| B*15:25:01G+B*57:45     | B*15:106+B*57:01:01G   |                       |                  |
| B*15:25:02+B*15:54      | B*15:154+B*15:156      |                       |                  |
| B*15:25:02+B*44:135     | B*15:39:01+B*44:110    |                       |                  |
| B*15:25:02+B*53:11      | B*15:36+B*35:08:03     |                       |                  |
| B*15:25:02+B*53:13      | B*15:36+B*35:01:04     |                       |                  |
| B*15:25:02+B*55:16      | B*15:204+B*55:02:04    |                       |                  |
| B*15:27:01+B*15:38:02   | B*15:27:03+B*15:38:01  |                       |                  |
| B*15:27:01+B*15:39:02   | B*15:27:03+B*15:39:01  |                       |                  |
| B*15:27:01+B*15:40      | B*15:117+B*15:195      |                       |                  |
| B*15:27:01+B*15:138     | B*15:195+B*15:241      |                       |                  |
| B*15:27:01+B*18:01:01G  | B*15:27:02+B*18:01:06  | B*15:27:03+B*18:01:10 |                  |
| B*15:27:01+B*18:13      | B*15:84+B*18:19        |                       |                  |
| B*15:27:01+B*18:15      | B*15:195+B*18:19       |                       |                  |
| B*15:27:01+B*18:44:01   | B*15:27:02+B*18:44:02  |                       |                  |
| B*15:27:01+B*27:63      | B*15:195+B*27:25       |                       |                  |
| B*15:27:01+B*35:03:01G  | B*15:27:03+B*35:03:02  | B*15:195+B*35:163     |                  |
| B*15:27:01+B*35:08:01   | B*15:84+B*35:14:01     |                       |                  |
| B*15:27:01+B*35:08:03   | B*15:27:02+B*35:08:01  |                       |                  |
| B*15:27:01+B*35:09:03   | B*15:27:03+B*35:09:02  |                       |                  |

|                        |                        |                       |
|------------------------|------------------------|-----------------------|
| B*15:27:01+B*35:11:01  | B*15:27:03+B*35:11:02  | B*15:195+B*35:14:01   |
| B*15:27:01+B*35:11:02  | B*15:195+B*35:14:02    |                       |
| B*15:27:01+B*35:12:01  | B*15:27:02+B*35:12:02  |                       |
| B*15:27:01+B*35:14:01  | B*15:27:03+B*35:14:02  |                       |
| B*15:27:01+B*35:48     | B*15:32+B*35:23        |                       |
| B*15:27:01+B*35:68:02  | B*15:27:02+B*35:68:01  |                       |
| B*15:27:01+B*35:103    | B*15:109+B*35:01:01G   |                       |
| B*15:27:01+B*38:01:01  | B*15:27:03+B*38:01:03  |                       |
| B*15:27:01+B*39:01:01G | B*15:27:03+B*39:01:05  |                       |
| B*15:27:01+B*39:06:01  | B*15:27:02+B*39:06:02  |                       |
| B*15:27:01+B*40:07     | B*15:56+B*40:100       |                       |
| B*15:27:01+B*40:11:01  | B*15:27:02+B*40:11:02  |                       |
| B*15:27:01+B*40:14:01  | B*15:27:03+B*40:14:02  |                       |
| B*15:27:01+B*40:43     | B*15:70+B*40:100       |                       |
| B*15:27:01+B*40:61     | B*15:152+B*40:100      |                       |
| B*15:27:01+B*40:67     | B*15:145+B*40:100      |                       |
| B*15:27:01+B*40:69     | B*15:28+B*40:100       |                       |
| B*15:27:01+B*40:79     | B*15:159+B*40:100      |                       |
| B*15:27:01+B*40:113    | B*15:38:01+B*40:100    |                       |
| B*15:27:01+B*40:124:02 | B*15:27:02+B*40:124:01 |                       |
| B*15:27:01+B*40:160    | B*15:154+B*40:100      |                       |
| B*15:27:01+B*40:166    | B*15:76+B*40:100       |                       |
| B*15:27:01+B*40:171    | B*15:193+B*40:100      |                       |
| B*15:27:01+B*40:172    | B*15:128+B*40:100      |                       |
| B*15:27:01+B*40:186    | B*15:82+B*40:100       |                       |
| B*15:27:01+B*40:188    | B*15:43+B*40:100       |                       |
| B*15:27:01+B*44:02:01G | B*15:27:02+B*44:02:07  | B*15:27:03+B*44:02:09 |
| B*15:27:01+B*44:03:01G | B*15:27:02+B*44:03:02  |                       |
| B*15:27:01+B*44:28:02  | B*15:27:02+B*44:28:01  | B*15:84+B*44:146      |
| B*15:27:01+B*44:37:01  | B*15:27:02+B*44:37:02  |                       |
| B*15:27:01+B*44:41:01  | B*15:27:02+B*44:41:02  |                       |
| B*15:27:01+B*44:64:02  | B*15:27:02+B*44:64:01  |                       |
| B*15:27:01+B*44:79     | B*15:195+B*44:146      |                       |
| B*15:27:01+B*46:01:03  | B*15:27:03+B*46:01:01G |                       |
| B*15:27:01+B*46:08     | B*15:195+B*46:01:01G   |                       |
| B*15:27:01+B*46:13:01  | B*15:27:03+B*46:13:03  |                       |
| B*15:27:01+B*46:13:03  | B*15:195+B*46:09       |                       |
| B*15:27:01+B*46:21:02  | B*15:27:03+B*46:21:01  |                       |
| B*15:27:01+B*47:05     | B*15:129+B*47:01:01G   |                       |
| B*15:27:01+B*48:01:01G | B*15:195+B*48:19       |                       |
| B*15:27:01+B*48:03:01  | B*15:27:02+B*48:03:02  |                       |
| B*15:27:01+B*51:01:01G | B*15:195+B*51:61:02    |                       |
| B*15:27:01+B*51:01:16  | B*15:27:02+B*51:01:01G |                       |
| B*15:27:01+B*51:01:21  | B*15:27:03+B*51:01:25  |                       |
| B*15:27:01+B*51:02:01  | B*15:27:03+B*51:02:05  |                       |
| B*15:27:01+B*51:06:01  | B*15:27:02+B*51:06:02  |                       |
| B*15:27:01+B*51:24:04  | B*15:27:03+B*51:24:03  |                       |
| B*15:27:01+B*51:61:02  | B*15:27:03+B*51:61:01  |                       |
| B*15:27:01+B*52:01:01G | B*15:27:03+B*52:01:07  |                       |
| B*15:27:01+B*52:01:02  | B*15:195+B*52:21       |                       |
| B*15:27:01+B*52:10:01  | B*15:27:03+B*52:10:02  |                       |
| B*15:27:01+B*53:01:01  | B*15:27:03+B*53:01:03  |                       |
| B*15:27:01+B*53:08:01  | B*15:27:03+B*53:08:02  |                       |
| B*15:27:01+B*55:01:01G | B*15:195+B*55:21       |                       |
| B*15:27:01+B*55:02:04  | B*15:27:02+B*55:02:01G |                       |
| B*15:27:01+B*55:37     | B*15:84+B*55:21        |                       |
| B*15:27:01+B*56:01:01G | B*15:27:03+B*56:01:03  |                       |
| B*15:27:01+B*58:01:01G | B*15:27:03+B*58:01:05  |                       |
| B*15:27:02+B*35:04:01  | B*15:30+B*35:23        |                       |
| B*15:27:02+B*35:06     | B*15:58+B*35:23        |                       |
| B*15:27:02+B*35:09:03  | B*15:150+B*35:23       |                       |
| B*15:27:02+B*35:15     | B*15:117+B*35:23       |                       |
| B*15:27:02+B*35:24:01  | B*15:38:01+B*35:23     |                       |
| B*15:27:02+B*35:27     | B*15:135+B*35:23       |                       |
| B*15:27:02+B*35:29:01  | B*15:70+B*35:23        |                       |
| B*15:27:02+B*35:34     | B*15:63+B*35:23        |                       |
| B*15:27:02+B*35:50     | B*15:71+B*35:23        |                       |
| B*15:27:02+B*35:54     | B*15:125+B*35:23       |                       |
| B*15:27:02+B*35:90     | B*15:183+B*35:23       |                       |
| B*15:27:02+B*35:91     | B*15:192+B*35:23       |                       |
| B*15:27:02+B*35:93     | B*15:50+B*35:23        |                       |
| B*15:27:02+B*35:103    | B*15:109+B*35:01:04    | B*15:163+B*35:23      |
| B*15:27:02+B*35:124    | B*15:251+B*35:23       |                       |
| B*15:27:02+B*35:175    | B*15:92+B*35:23        |                       |
| B*15:27:02+B*35:180    | B*15:105+B*35:23       |                       |
| B*15:27:02+B*40:37     | B*15:135+B*40:143      |                       |
| B*15:27:02+B*40:50     | B*15:70+B*40:143       |                       |
| B*15:27:02+B*40:89     | B*15:128+B*40:143      |                       |
| B*15:27:02+B*40:125    | B*15:34+B*40:100       |                       |
| B*15:27:02+B*40:169    | B*15:167+B*40:143      |                       |
| B*15:27:02+B*40:173    | B*15:184+B*40:143      |                       |
| B*15:27:02+B*40:200    | B*15:97+B*40:143       |                       |
| B*15:27:02+B*53:03     | B*15:43+B*35:23        |                       |
| B*15:27:02+B*53:05     | B*15:87+B*35:23        |                       |
| B*15:27:03+B*40:113    | B*15:38:02+B*40:100    |                       |
| B*15:27:03+B*46:08     | B*15:195+B*46:01:03    |                       |
| B*15:28+B*40:07        | B*15:56+B*40:69        |                       |
| B*15:28+B*40:43        | B*15:70+B*40:69        |                       |
| B*15:28+B*40:61        | B*15:152+B*40:69       |                       |
| B*15:28+B*40:67        | B*15:145+B*40:69       |                       |
| B*15:28+B*40:79        | B*15:159+B*40:69       |                       |
| B*15:28+B*40:113       | B*15:38:01+B*40:69     |                       |
| B*15:28+B*40:160       | B*15:154+B*40:69       |                       |
| B*15:28+B*40:166       | B*15:76+B*40:69        |                       |
| B*15:28+B*40:171       | B*15:193+B*40:69       |                       |
| B*15:28+B*40:172       | B*15:128+B*40:69       |                       |
| B*15:28+B*40:186       | B*15:82+B*40:69        |                       |
| B*15:28+B*40:188       | B*15:43+B*40:69        |                       |
| B*15:29+B*18:01:01G    | B*15:64+B*18:07:01     |                       |
| B*15:29+B*18:01:12     | B*15:64+B*18:07:02     |                       |
| B*15:29+B*35:08:01     | B*35:25+B*35:99        |                       |
| B*15:29+B*35:20:01     | B*15:64+B*35:01:01G    |                       |
| B*15:29+B*35:62        | B*35:25+B*35:43:01G    |                       |
| B*15:29+B*35:72        | B*15:64+B*35:05:01     |                       |
| B*15:29+B*35:95        | B*15:64+B*35:02:01     |                       |

|                     |                         |                      |
|---------------------|-------------------------|----------------------|
| B*15:29+B*37:01:01G | B*15:64+B*37:21         |                      |
| B*15:29+B*39:39:01  | B*15:64+B*39:58         |                      |
| B*15:29+B*39:42     | B*15:80+B*39:58         |                      |
| B*15:29+B*39:68     | B*15:72+B*39:58         |                      |
| B*15:29+B*40:06:01G | B*15:64+B*40:162        |                      |
| B*15:29+B*40:19     | B*15:64+B*40:13         |                      |
| B*15:29+B*40:25     | B*15:64+B*40:106        |                      |
| B*15:29+B*40:43     | B*15:61+B*40:106        |                      |
| B*15:29+B*40:50     | B*15:61+B*40:08         |                      |
| B*15:29+B*40:89     | B*15:156+B*40:08        |                      |
| B*15:29+B*40:132    | B*15:131+B*40:106       |                      |
| B*15:29+B*40:172    | B*15:156+B*40:106       |                      |
| B*15:29+B*46:33     | B*35:25+B*46:08         |                      |
| B*15:29+B*48:19     | B*15:54+B*48:06         |                      |
| B*15:29+B*51:07:01  | B*15:64+B*51:01:01G     |                      |
| B*15:29+B*51:07:02  | B*15:64+B*51:01:02      |                      |
| B*15:29+B*52:03     | B*15:123:01G+B*51:02:01 |                      |
| B*15:29+B*52:15     | B*15:131+B*51:01:02     |                      |
| B*15:29+B*53:09     | B*15:64+B*53:13         |                      |
| B*15:30+B*15:141    | B*15:35+B*15:150        |                      |
| B*15:30+B*18:02     | B*15:129+B*18:26        |                      |
| B*15:30+B*18:03     | B*15:70+B*18:26         |                      |
| B*15:30+B*18:07:01  | B*15:56+B*18:26         |                      |
| B*15:30+B*18:08     | B*15:110+B*18:26        |                      |
| B*15:30+B*18:18     | B*15:32+B*18:26         |                      |
| B*15:30+B*18:20     | B*15:128+B*18:26        |                      |
| B*15:30+B*18:31     | B*15:145+B*18:26        |                      |
| B*15:30+B*18:32     | B*15:192+B*18:26        |                      |
| B*15:30+B*18:33     | B*15:66+B*18:26         |                      |
| B*15:30+B*18:49     | B*15:135+B*18:26        |                      |
| B*15:30+B*18:54     | B*15:43+B*18:26         |                      |
| B*15:30+B*18:67     | B*15:87+B*18:26         |                      |
| B*15:30+B*18:69     | B*15:165+B*18:26        |                      |
| B*15:30+B*18:71     | B*15:122+B*18:26        |                      |
| B*15:30+B*35:03:01G | B*15:58+B*35:34         | B*15:63+B*35:06      |
| B*15:30+B*35:06     | B*15:58+B*35:04:01      |                      |
| B*15:30+B*35:09:03  | B*15:150+B*35:04:01     |                      |
| B*15:30+B*35:14:02  | B*15:85+B*35:44         |                      |
| B*15:30+B*35:15     | B*15:117+B*35:04:01     |                      |
| B*15:30+B*35:24:01  | B*15:38:01+B*35:04:01   |                      |
| B*15:30+B*35:27     | B*15:135+B*35:04:01     |                      |
| B*15:30+B*35:29:01  | B*15:70+B*35:04:01      |                      |
| B*15:30+B*35:34     | B*15:63+B*35:04:01      |                      |
| B*15:30+B*35:39     | B*15:63+B*35:12:01      |                      |
| B*15:30+B*35:50     | B*15:71+B*35:04:01      |                      |
| B*15:30+B*35:54     | B*15:125+B*35:04:01     |                      |
| B*15:30+B*35:59     | B*15:58+B*35:12:01      |                      |
| B*15:30+B*35:86     | B*15:117+B*35:44        |                      |
| B*15:30+B*35:90     | B*15:183+B*35:04:01     |                      |
| B*15:30+B*35:91     | B*15:192+B*35:04:01     |                      |
| B*15:30+B*35:93     | B*15:50+B*35:04:01      |                      |
| B*15:30+B*35:99     | B*15:65+B*35:44         |                      |
| B*15:30+B*35:103    | B*15:163+B*35:04:01     |                      |
| B*15:30+B*35:118    | B*15:78:02+B*35:44      | B*15:150+B*35:43:01G |
| B*15:30+B*35:124    | B*15:251+B*35:04:01     |                      |
| B*15:30+B*35:175    | B*15:92+B*35:04:01      |                      |
| B*15:30+B*35:180    | B*15:105+B*35:04:01     |                      |
| B*15:30+B*35:199    | B*15:63+B*35:22         |                      |
| B*15:30+B*35:205    | B*15:150+B*35:03:02     |                      |
| B*15:30+B*38:29     | B*15:63+B*38:02:01G     |                      |
| B*15:30+B*39:01:01G | B*15:58+B*39:70         |                      |
| B*15:30+B*39:03     | B*15:58+B*39:14         |                      |
| B*15:30+B*39:15     | B*15:63+B*39:01:01G     |                      |
| B*15:30+B*39:29     | B*15:45+B*39:70         | B*15:63+B*39:14      |
| B*15:30+B*39:49     | B*15:63+B*39:13:01      |                      |
| B*15:30+B*39:55     | B*15:63+B*39:05:01      |                      |
| B*15:30+B*40:01:01G | B*15:150+B*40:87:01     |                      |
| B*15:30+B*40:09     | B*15:63+B*40:89         |                      |
| B*15:30+B*40:18     | B*15:45+B*40:11:01      | B*15:63+B*40:02:01G  |
| B*15:30+B*40:31     | B*15:45+B*40:01:01G     | B*15:63+B*40:80      |
| B*15:30+B*40:32     | B*15:63+B*40:16         |                      |
| B*15:30+B*40:33     | B*15:63+B*40:01:01G     |                      |
| B*15:30+B*40:36     | B*15:58+B*40:01:01G     |                      |
| B*15:30+B*40:42     | B*15:63+B*40:172        |                      |
| B*15:30+B*40:44     | B*15:63+B*40:06:01G     |                      |
| B*15:30+B*40:48     | B*15:73+B*40:01:01G     |                      |
| B*15:30+B*40:59     | B*15:85+B*40:01:01G     |                      |
| B*15:30+B*40:86     | B*15:58+B*40:06:01G     |                      |
| B*15:30+B*41:21     | B*15:63+B*41:01         |                      |
| B*15:30+B*42:06     | B*15:58+B*42:01:01      |                      |
| B*15:30+B*42:16     | B*15:63+B*42:01:01      |                      |
| B*15:30+B*44:03:01G | B*15:233+B*44:77        |                      |
| B*15:30+B*44:51     | B*15:63+B*44:14         |                      |
| B*15:30+B*44:107    | B*15:63+B*44:77         |                      |
| B*15:30+B*44:117    | B*15:58+B*44:05:01      |                      |
| B*15:30+B*44:144    | B*15:128+B*44:77        |                      |
| B*15:30+B*46:06     | B*40:21+B*46:01:01G     |                      |
| B*15:30+B*48:07     | B*15:58+B*48:01:01G     |                      |
| B*15:30+B*51:01:01G | B*35:44+B*52:02         |                      |
| B*15:30+B*51:13:01  | B*15:58+B*51:01:04      |                      |
| B*15:30+B*51:13:02  | B*15:58+B*51:01:01G     |                      |
| B*15:30+B*51:19     | B*15:48+B*51:61:01      |                      |
| B*15:30+B*51:24:04  | B*15:150+B*51:01:01G    |                      |
| B*15:30+B*51:90     | B*15:63+B*51:01:01G     |                      |
| B*15:30+B*51:92     | B*15:63+B*51:13:01      |                      |
| B*15:30+B*51:106    | B*15:73+B*51:01:01G     |                      |
| B*15:30+B*51:135    | B*15:63+B*51:06:01      |                      |
| B*15:30+B*52:12     | B*15:63+B*52:01:01G     |                      |
| B*15:30+B*52:14     | B*15:58+B*52:01:05      |                      |
| B*15:30+B*52:25     | B*15:73+B*52:01:05      |                      |
| B*15:30+B*52:26     | B*15:233+B*52:01:01G    |                      |
| B*15:30+B*53:03     | B*15:43+B*35:04:01      |                      |
| B*15:30+B*53:05     | B*15:87+B*35:04:01      |                      |
| B*15:30+B*54:01:01G | B*15:73+B*54:04         |                      |
| B*15:30+B*54:16     | B*15:63+B*54:01:01G     |                      |

|                     |                       |                     |
|---------------------|-----------------------|---------------------|
| B*15:30+B*55:01:01G | B*15:73+B*55:28       |                     |
| B*15:30+B*55:23     | B*15:50+B*56:15       | B*15:63+B*55:32     |
| B*15:30+B*55:38     | B*15:73+B*55:17       |                     |
| B*15:30+B*55:46     | B*15:63+B*55:02:01G   |                     |
| B*15:30+B*56:01:01G | B*15:73+B*56:15       |                     |
| B*15:30+B*56:20:02  | B*15:150+B*56:01:03   |                     |
| B*15:30+B*56:22     | B*15:58+B*56:15       |                     |
| B*15:30+B*57:04     | B*15:233+B*57:02:01   |                     |
| B*15:30+B*57:14     | B*15:38:02+B*57:03:01 |                     |
| B*15:30+B*57:25     | B*15:117+B*57:03:01   |                     |
| B*15:30+B*57:26     | B*15:50+B*57:03:01    |                     |
| B*15:30+B*57:31     | B*15:78:01+B*57:03:01 |                     |
| B*15:30+B*57:41     | B*15:128+B*57:03:01   |                     |
| B*15:30+B*57:45     | B*15:46+B*57:03:01    |                     |
| B*15:30+B*57:49     | B*15:142+B*57:03:01   |                     |
| B*15:30+B*57:51     | B*15:53+B*57:39       | B*15:212+B*57:03:01 |
| B*15:30+B*57:58     | B*15:251+B*57:03:01   |                     |
| B*15:30+B*67:03     | B*15:150+B*67:01:01   |                     |
| B*15:31+B*15:45     | B*15:55+B*15:63       |                     |
| B*15:31+B*18:14     | B*15:55+B*18:01:01G   |                     |
| B*15:31+B*27:32     | B*15:55+B*27:70       |                     |
| B*15:31+B*35:05:01  | B*15:55+B*35:68:02    |                     |
| B*15:31+B*35:14:01  | B*15:144+B*35:68:02   |                     |
| B*15:31+B*35:30     | B*15:55+B*35:01:04    |                     |
| B*15:31+B*35:51     | B*15:55+B*35:32:02    |                     |
| B*15:31+B*38:19     | B*15:55+B*38:01:01    |                     |
| B*15:31+B*39:03     | B*15:55+B*39:01:01G   |                     |
| B*15:31+B*39:14     | B*15:55+B*39:70       |                     |
| B*15:31+B*39:37     | B*15:55+B*39:05:01    |                     |
| B*15:31+B*40:02:01G | B*15:55+B*40:11:01    |                     |
| B*15:31+B*40:02:09  | B*15:55+B*40:11:02    |                     |
| B*15:31+B*40:03     | B*15:55+B*40:20       |                     |
| B*15:31+B*40:31     | B*15:55+B*40:33       |                     |
| B*15:31+B*40:45     | B*15:55+B*40:114      |                     |
| B*15:31+B*40:80     | B*15:55+B*40:01:01G   |                     |
| B*15:31+B*41:02:01  | B*15:55+B*41:03:02    |                     |
| B*15:31+B*44:54     | B*15:55+B*44:65       |                     |
| B*15:31+B*44:106    | B*15:55+B*44:41:01    |                     |
| B*15:31+B*44:110    | B*15:55+B*44:03:01G   |                     |
| B*15:31+B*46:12     | B*15:55+B*46:01:01G   |                     |
| B*15:31+B*48:01:01G | B*15:55+B*48:03:01    |                     |
| B*15:31+B*51:64     | B*15:55+B*51:06:01    |                     |
| B*15:31+B*55:40     | B*15:39:01+B*55:41    |                     |
| B*15:31+B*58:18     | B*15:55+B*58:16       |                     |
| B*15:32+B*18:02     | B*15:129+B*18:18      |                     |
| B*15:32+B*18:03     | B*15:70+B*18:18       |                     |
| B*15:32+B*18:07:01  | B*15:56+B*18:18       |                     |
| B*15:32+B*18:08     | B*15:110+B*18:18      |                     |
| B*15:32+B*18:20     | B*15:128+B*18:18      |                     |
| B*15:32+B*18:31     | B*15:145+B*18:18      |                     |
| B*15:32+B*18:32     | B*15:192+B*18:18      |                     |
| B*15:32+B*18:33     | B*15:66+B*18:18       |                     |
| B*15:32+B*18:40     | B*15:78:01+B*18:18    |                     |
| B*15:32+B*18:49     | B*15:135+B*18:18      |                     |
| B*15:32+B*18:54     | B*15:43+B*18:18       |                     |
| B*15:32+B*18:67     | B*15:87+B*18:18       |                     |
| B*15:32+B*18:69     | B*15:165+B*18:18      |                     |
| B*15:32+B*18:71     | B*15:122+B*18:18      |                     |
| B*15:32+B*39:28     | B*15:35+B*39:09       |                     |
| B*15:32+B*39:31     | B*15:225+B*39:09      |                     |
| B*15:32+B*39:38Q    | B*15:245Q+B*39:09     |                     |
| B*15:32+B*39:42     | B*15:154+B*39:09      |                     |
| B*15:32+B*39:48     | B*15:38:01+B*39:09    |                     |
| B*15:32+B*39:53     | B*15:193+B*39:09      |                     |
| B*15:32+B*39:54     | B*15:244+B*39:09      |                     |
| B*15:32+B*39:68     | B*15:78:01+B*39:09    |                     |
| B*15:33+B*15:99     | B*15:221+B*15:248     |                     |
| B*15:33+B*27:46     | B*15:248+B*27:78      |                     |
| B*15:33+B*35:34     | B*15:248+B*35:01:01G  |                     |
| B*15:33+B*35:199    | B*15:248+B*35:51      |                     |
| B*15:33+B*40:01:01G | B*15:248+B*40:38      |                     |
| B*15:33+B*40:02:01G | B*15:248+B*40:105     |                     |
| B*15:33+B*40:18     | B*15:248+B*40:03      |                     |
| B*15:33+B*40:33     | B*15:248+B*40:52      |                     |
| B*15:33+B*40:44     | B*15:248+B*40:159     |                     |
| B*15:33+B*44:107    | B*15:248+B*44:43:01   |                     |
| B*15:33+B*44:123    | B*15:248+B*44:17      |                     |
| B*15:33+B*49:01:01  | B*15:78:02+B*49:22    |                     |
| B*15:33+B*51:01:01G | B*15:78:02+B*51:126   | B*15:248+B*51:63    |
| B*15:33+B*51:08     | B*15:248+B*51:97      |                     |
| B*15:33+B*51:90     | B*15:248+B*51:37      |                     |
| B*15:33+B*57:01:01G | B*15:78:02+B*57:54    |                     |
| B*15:33+B*57:03:01  | B*15:150+B*57:54      |                     |
| B*15:34+B*35:125    | B*15:251+B*35:30      |                     |
| B*15:34+B*40:75     | B*15:66+B*40:70       |                     |
| B*15:34+B*40:109    | B*15:87+B*40:70       |                     |
| B*15:34+B*40:162    | B*15:56+B*40:70       |                     |
| B*15:34+B*40:190    | B*15:159+B*40:70      |                     |
| B*15:34+B*41:14     | B*15:159+B*41:07      |                     |
| B*15:35+B*35:09:03  | B*15:141+B*35:04:01   |                     |
| B*15:35+B*35:118    | B*15:141+B*35:43:01G  |                     |
| B*15:35+B*35:205    | B*15:141+B*35:03:02   |                     |
| B*15:35+B*39:31     | B*15:225+B*39:28      |                     |
| B*15:35+B*39:38Q    | B*15:245Q+B*39:28     |                     |
| B*15:35+B*39:42     | B*15:154+B*39:28      |                     |
| B*15:35+B*39:48     | B*15:38:01+B*39:28    |                     |
| B*15:35+B*39:53     | B*15:193+B*39:28      |                     |
| B*15:35+B*39:54     | B*15:244+B*39:28      |                     |
| B*15:35+B*39:68     | B*15:78:01+B*39:28    |                     |
| B*15:35+B*40:01:01G | B*15:141+B*40:87:01   |                     |
| B*15:35+B*51:24:04  | B*15:141+B*51:01:01G  |                     |
| B*15:35+B*55:11     | B*15:118+B*55:01:01G  |                     |
| B*15:35+B*56:20:02  | B*15:141+B*56:01:03   |                     |
| B*15:35+B*67:03     | B*15:141+B*67:01:01   |                     |
| B*15:36+B*15:76     | B*15:89+B*15:101      |                     |

|                         |                        |                     |
|-------------------------|------------------------|---------------------|
| B*15:36+B*18:28         | B*15:250+B*18:09       |                     |
| B*15:36+B*35:03:01G     | B*15:89+B*35:13        |                     |
| B*15:36+B*35:17         | B*15:89+B*35:16        |                     |
| B*15:36+B*35:29:01      | B*15:89+B*35:69        |                     |
| B*15:36+B*38:02:03      | B*15:89+B*38:04        |                     |
| B*15:36+B*39:01:01G     | B*15:89+B*39:22        |                     |
| B*15:36+B*39:39:01      | B*15:89+B*39:02:01     |                     |
| B*15:36+B*40:53         | B*15:204+B*40:110      |                     |
| B*15:36+B*40:106        | B*15:89+B*40:07        |                     |
| B*15:36+B*40:132        | B*15:204+B*44:31       |                     |
| B*15:36+B*44:12         | B*15:89+B*44:02:01G    |                     |
| B*15:36+B*51:01:01G     | B*15:89+B*52:06:02     |                     |
| B*15:36+B*51:01:33      | B*15:89+B*52:06:01     |                     |
| B*15:36+B*51:07:01      | B*15:89+B*52:01:02     |                     |
| B*15:36+B*55:01:01G     | B*15:89+B*55:40        |                     |
| B*15:36+B*55:47         | B*15:89+B*55:34        |                     |
| B*15:37+B*15:237        | B*15:99+B*15:185       |                     |
| B*15:37+B*35:08:01      | B*15:99+B*35:24:01     |                     |
| B*15:37+B*35:156        | B*15:99+B*35:109       |                     |
| B*15:37+B*35:172        | B*15:99+B*35:81        |                     |
| B*15:37+B*40:36         | B*15:133+B*40:113      |                     |
| B*15:37+B*40:105        | B*15:52+B*40:174       |                     |
| B*15:37+B*40:128        | B*15:99+B*40:113       |                     |
| B*15:37+B*51:05         | B*15:99+B*51:09:02     |                     |
| B*15:37+B*53:24         | B*15:99+B*53:02        |                     |
| B*15:37+B*58:22         | B*15:99+B*58:09        |                     |
| B*15:38:01+B*15:39:02   | B*15:38:02+B*15:39:01  |                     |
| B*15:38:01+B*15:107     | B*15:78:02+B*15:185    |                     |
| B*15:38:01+B*15:123:01G | B*15:54+B*15:185       |                     |
| B*15:38:01+B*15:136     | B*15:185+B*15:249      |                     |
| B*15:38:01+B*18:01:01G  | B*15:38:02+B*18:01:10  | B*15:185+B*18:19    |
| B*15:38:01+B*35:06      | B*15:58+B*35:24:01     |                     |
| B*15:38:01+B*35:09:03   | B*15:38:02+B*35:09:02  | B*15:150+B*35:24:01 |
| B*15:38:01+B*35:14:01   | B*15:38:02+B*35:14:02  |                     |
| B*15:38:01+B*35:15      | B*15:117+B*35:24:01    |                     |
| B*15:38:01+B*35:27      | B*15:135+B*35:24:01    |                     |
| B*15:38:01+B*35:29:01   | B*15:70+B*35:24:01     |                     |
| B*15:38:01+B*35:33      | B*15:117+B*35:109      |                     |
| B*15:38:01+B*35:34      | B*15:63+B*35:24:01     |                     |
| B*15:38:01+B*35:35      | B*15:249+B*35:190      |                     |
| B*15:38:01+B*35:50      | B*15:71+B*35:24:01     |                     |
| B*15:38:01+B*35:54      | B*15:125+B*35:24:01    |                     |
| B*15:38:01+B*35:56      | B*15:135+B*35:109      |                     |
| B*15:38:01+B*35:90      | B*15:183+B*35:24:01    |                     |
| B*15:38:01+B*35:91      | B*15:192+B*35:24:01    |                     |
| B*15:38:01+B*35:103     | B*15:163+B*35:24:01    |                     |
| B*15:38:01+B*35:124     | B*15:251+B*35:24:01    |                     |
| B*15:38:01+B*35:136     | B*15:70+B*35:109       |                     |
| B*15:38:01+B*35:150     | B*15:183+B*35:109      |                     |
| B*15:38:01+B*35:175     | B*15:92+B*35:24:01     |                     |
| B*15:38:01+B*35:180     | B*15:105+B*35:24:01    |                     |
| B*15:38:01+B*35:184     | B*15:183+B*35:81       |                     |
| B*15:38:01+B*37:21      | B*15:56+B*37:04:01     |                     |
| B*15:38:01+B*38:01:01   | B*15:38:02+B*38:01:03  |                     |
| B*15:38:01+B*39:01:05   | B*15:185+B*39:18       |                     |
| B*15:38:01+B*39:30      | B*15:58+B*39:43        | B*15:185+B*39:36    |
| B*15:38:01+B*39:31      | B*15:225+B*39:48       |                     |
| B*15:38:01+B*39:38Q     | B*15:245Q+B*39:48      |                     |
| B*15:38:01+B*39:42      | B*15:154+B*39:48       |                     |
| B*15:38:01+B*39:47      | B*15:117+B*39:32       |                     |
| B*15:38:01+B*39:53      | B*15:193+B*39:48       |                     |
| B*15:38:01+B*39:54      | B*15:244+B*39:48       |                     |
| B*15:38:01+B*39:68      | B*15:78:01+B*39:48     |                     |
| B*15:38:01+B*40:07      | B*15:56+B*40:113       |                     |
| B*15:38:01+B*40:14:01   | B*15:38:02+B*40:14:02  |                     |
| B*15:38:01+B*40:43      | B*15:70+B*40:113       |                     |
| B*15:38:01+B*40:61      | B*15:152+B*40:113      |                     |
| B*15:38:01+B*40:67      | B*15:145+B*40:113      |                     |
| B*15:38:01+B*40:79      | B*15:159+B*40:113      |                     |
| B*15:38:01+B*40:160     | B*15:154+B*40:113      |                     |
| B*15:38:01+B*40:166     | B*15:76+B*40:113       |                     |
| B*15:38:01+B*40:171     | B*15:193+B*40:113      |                     |
| B*15:38:01+B*40:172     | B*15:128+B*40:113      |                     |
| B*15:38:01+B*40:186     | B*15:82+B*40:113       |                     |
| B*15:38:01+B*40:188     | B*15:43+B*40:113       |                     |
| B*15:38:01+B*44:02:01G  | B*15:38:02+B*44:02:09  |                     |
| B*15:38:01+B*44:03:01G  | B*15:185+B*44:146      |                     |
| B*15:38:01+B*46:01:03   | B*15:38:02+B*46:01:01G |                     |
| B*15:38:01+B*46:13:01   | B*15:38:02+B*46:13:03  | B*15:185+B*46:01:03 |
| B*15:38:01+B*46:13:03   | B*15:185+B*46:01:01G   |                     |
| B*15:38:01+B*46:21:01   | B*15:185+B*46:29       |                     |
| B*15:38:01+B*46:21:02   | B*15:38:02+B*46:21:01  |                     |
| B*15:38:01+B*49:07      | B*15:117+B*49:09       |                     |
| B*15:38:01+B*49:12      | B*15:192+B*49:09       |                     |
| B*15:38:01+B*51:01:21   | B*15:38:02+B*51:01:25  |                     |
| B*15:38:01+B*51:02:05   | B*15:39:01+B*51:61:01  |                     |
| B*15:38:01+B*51:09:01   | B*15:185+B*51:61:02    |                     |
| B*15:38:01+B*51:24:04   | B*15:38:02+B*51:24:03  |                     |
| B*15:38:01+B*51:36      | B*15:199+B*51:61:02    |                     |
| B*15:38:01+B*51:61:02   | B*15:38:02+B*51:61:01  |                     |
| B*15:38:01+B*52:01:01G  | B*15:38:02+B*52:01:07  |                     |
| B*15:38:01+B*52:10:01   | B*15:38:02+B*52:10:02  |                     |
| B*15:38:01+B*53:03      | B*15:43+B*35:24:01     |                     |
| B*15:38:01+B*53:05      | B*15:87+B*35:24:01     |                     |
| B*15:38:01+B*53:23      | B*15:70+B*53:02        |                     |
| B*15:38:01+B*55:02:01G  | B*15:50+B*56:34        | B*15:185+B*55:21    |
| B*15:38:01+B*55:22      | B*15:117+B*56:34       |                     |
| B*15:38:01+B*56:16      | B*15:251+B*56:34       |                     |
| B*15:38:01+B*56:20:01   | B*15:78:01+B*56:34     |                     |
| B*15:38:01+B*56:35      | B*15:71+B*56:34        |                     |
| B*15:38:01+B*56:36      | B*15:183+B*56:34       |                     |
| B*15:38:01+B*58:12      | B*15:251+B*58:09       |                     |
| B*15:38:01+B*58:15      | B*15:164+B*58:09       |                     |
| B*15:38:01+B*58:35      | B*15:50+B*58:09        |                     |
| B*15:38:01+B*58:37      | B*15:117+B*58:09       |                     |

|                        |                        |                     |
|------------------------|------------------------|---------------------|
| B*15:38:02+B*35:64     | B*15:78:02+B*35:24:01  |                     |
| B*15:38:02+B*35:205    | B*15:78:02+B*35:109    |                     |
| B*15:38:02+B*51:02:01  | B*15:39:02+B*51:61:02  |                     |
| B*15:38:02+B*56:20:02  | B*15:78:02+B*56:34     |                     |
| B*15:38:02+B*57:25     | B*15:117+B*57:14       |                     |
| B*15:38:02+B*57:26     | B*15:50+B*57:14        |                     |
| B*15:38:02+B*57:31     | B*15:78:01+B*57:14     |                     |
| B*15:38:02+B*57:41     | B*15:128+B*57:14       |                     |
| B*15:38:02+B*57:45     | B*15:46+B*57:14        |                     |
| B*15:38:02+B*57:49     | B*15:142+B*57:14       |                     |
| B*15:38:02+B*57:51     | B*15:212+B*57:14       |                     |
| B*15:38:02+B*57:58     | B*15:251+B*57:14       |                     |
| B*15:39:01+B*15:84     | B*15:195+B*15:237      |                     |
| B*15:39:01+B*15:109    | B*15:163+B*15:195      |                     |
| B*15:39:01+B*15:186    | B*15:93+B*15:136       |                     |
| B*15:39:01+B*18:10     | B*15:40+B*18:58        |                     |
| B*15:39:01+B*18:30     | B*15:65+B*18:15        |                     |
| B*15:39:01+B*18:50     | B*15:40+B*18:36        |                     |
| B*15:39:01+B*27:04:01G | B*15:40+B*27:63        |                     |
| B*15:39:01+B*27:45     | B*15:65+B*27:05:02G    | B*15:237+B*27:10    |
| B*15:39:01+B*35:08:03  | B*15:65+B*35:01:04     |                     |
| B*15:39:01+B*35:09:03  | B*15:39:02+B*35:09:02  |                     |
| B*15:39:01+B*35:11:01  | B*15:39:02+B*35:11:02  |                     |
| B*15:39:01+B*35:15     | B*15:40+B*35:01:01G    |                     |
| B*15:39:01+B*35:18     | B*15:65+B*35:09:02     |                     |
| B*15:39:01+B*35:23     | B*15:195+B*35:01:04    |                     |
| B*15:39:01+B*35:33     | B*15:40+B*35:03:01G    |                     |
| B*15:39:01+B*35:45     | B*15:65+B*35:71        |                     |
| B*15:39:01+B*35:64     | B*15:107+B*35:11:02    |                     |
| B*15:39:01+B*35:80     | B*15:65+B*35:10        |                     |
| B*15:39:01+B*35:86     | B*15:40+B*35:43:01G    |                     |
| B*15:39:01+B*35:105    | B*15:65+B*35:159       |                     |
| B*15:39:01+B*35:109    | B*15:185+B*35:167      |                     |
| B*15:39:01+B*35:115    | B*15:179+B*35:11:02    |                     |
| B*15:39:01+B*35:142    | B*15:65+B*35:124       |                     |
| B*15:39:01+B*35:156    | B*15:65+B*35:03:01G    | B*15:237+B*35:167   |
| B*15:39:01+B*35:172    | B*15:65+B*35:02:01     |                     |
| B*15:39:01+B*35:186    | B*35:28+B*46:08        |                     |
| B*15:39:01+B*37:04:01  | B*15:185+B*37:13       |                     |
| B*15:39:01+B*39:06:02  | B*15:155+B*39:35       |                     |
| B*15:39:01+B*39:11     | B*15:65+B*39:05:01     |                     |
| B*15:39:01+B*39:47     | B*15:40+B*39:74        |                     |
| B*15:39:01+B*39:48     | B*15:185+B*39:35       |                     |
| B*15:39:01+B*40:14:01  | B*15:39:02+B*40:14:02  |                     |
| B*15:39:01+B*40:100    | B*15:195+B*40:01:01G   |                     |
| B*15:39:01+B*40:113    | B*15:185+B*40:183      |                     |
| B*15:39:01+B*40:161    | B*15:65+B*40:148       |                     |
| B*15:39:01+B*40:198    | B*15:65+B*40:183       |                     |
| B*15:39:01+B*44:02:01G | B*15:39:02+B*44:02:09  |                     |
| B*15:39:01+B*44:16     | B*15:40+B*44:91        |                     |
| B*15:39:01+B*44:21     | B*15:40+B*44:02:01G    |                     |
| B*15:39:01+B*44:28:01  | B*15:65+B*44:03:02     |                     |
| B*15:39:01+B*44:29     | B*15:136+B*44:79       |                     |
| B*15:39:01+B*44:64:01  | B*15:40+B*44:37:02     |                     |
| B*15:39:01+B*44:64:02  | B*15:40+B*44:37:01     |                     |
| B*15:39:01+B*44:76     | B*15:65+B*44:79        |                     |
| B*15:39:01+B*44:124    | B*15:40+B*44:03:02     |                     |
| B*15:39:01+B*44:132    | B*15:199+B*44:37:01    |                     |
| B*15:39:01+B*45:10     | B*15:40+B*45:04        |                     |
| B*15:39:01+B*46:01:03  | B*15:39:02+B*46:01:01G |                     |
| B*15:39:01+B*46:05     | B*15:125+B*46:08       |                     |
| B*15:39:01+B*46:10     | B*15:183+B*46:08       |                     |
| B*15:39:01+B*46:14     | B*15:225+B*46:08       |                     |
| B*15:39:01+B*46:18     | B*15:42+B*46:13:03     |                     |
| B*15:39:01+B*46:19     | B*15:136+B*46:08       |                     |
| B*15:39:01+B*46:21:02  | B*15:39:02+B*46:21:01  |                     |
| B*15:39:01+B*46:29     | B*15:50+B*46:08        |                     |
| B*15:39:01+B*46:30     | B*15:40+B*46:01:01G    | B*15:117+B*46:08    |
| B*15:39:01+B*49:07     | B*15:40+B*49:01:01     |                     |
| B*15:39:01+B*51:01:21  | B*15:39:02+B*51:01:25  |                     |
| B*15:39:01+B*51:02:01  | B*15:39:02+B*51:02:05  |                     |
| B*15:39:01+B*51:05     | B*15:237+B*51:02:02    |                     |
| B*15:39:01+B*51:16     | B*15:40+B*51:01:01G    |                     |
| B*15:39:01+B*51:19     | B*15:136+B*51:01:01G   |                     |
| B*15:39:01+B*51:24:04  | B*15:39:02+B*51:24:03  |                     |
| B*15:39:01+B*51:29     | B*15:65+B*51:01:01G    | B*35:99+B*52:02     |
| B*15:39:01+B*51:34     | B*15:40+B*51:02:01     |                     |
| B*15:39:01+B*51:36     | B*15:199+B*51:02:01    |                     |
| B*15:39:01+B*51:82     | B*15:40+B*51:29        | B*15:65+B*51:16     |
| B*15:39:01+B*52:01:01G | B*15:39:02+B*52:01:07  |                     |
| B*15:39:01+B*52:08     | B*15:40+B*52:01:01G    |                     |
| B*15:39:01+B*52:19     | B*15:179+B*52:01:07    |                     |
| B*15:39:01+B*52:24     | B*15:65+B*52:01:01G    |                     |
| B*15:39:01+B*53:02     | B*15:185+B*53:08:01    |                     |
| B*15:39:01+B*53:08:01  | B*15:39:02+B*53:08:02  |                     |
| B*15:39:01+B*53:11     | B*15:65+B*53:13        |                     |
| B*15:39:01+B*53:16     | B*15:65+B*53:05        |                     |
| B*15:39:01+B*53:24     | B*15:65+B*53:01:01     | B*15:237+B*53:08:01 |
| B*15:39:01+B*54:26     | B*15:40+B*54:03        |                     |
| B*15:39:01+B*55:09     | B*15:65+B*55:24        |                     |
| B*15:39:01+B*55:24     | B*15:40+B*56:25        |                     |
| B*15:39:01+B*55:52     | B*15:65+B*55:01:01G    |                     |
| B*15:39:01+B*55:56     | B*15:199+B*56:25       |                     |
| B*15:39:01+B*56:31     | B*15:185+B*56:32       |                     |
| B*15:39:01+B*56:34     | B*15:185+B*56:25       |                     |
| B*15:39:01+B*57:02:01  | B*15:65+B*57:03:01     | B*15:237+B*57:57    |
| B*15:39:01+B*57:19     | B*15:65+B*57:01:01G    | B*15:237+B*57:22    |
| B*15:39:01+B*57:25     | B*15:40+B*57:01:01G    |                     |
| B*15:39:01+B*58:09     | B*15:185+B*58:19       |                     |
| B*15:39:01+B*58:22     | B*15:65+B*58:01:01G    | B*15:237+B*58:19    |
| B*15:39:01+B*58:37     | B*15:40+B*58:01:01G    |                     |
| B*15:39:02+B*35:18     | B*15:65+B*35:09:03     |                     |
| B*15:39:02+B*35:38     | B*15:179+B*35:167      |                     |
| B*15:39:02+B*35:60     | B*15:42+B*35:32:02     |                     |
| B*15:39:02+B*35:64     | B*15:107+B*35:11:01    |                     |

|                        |                      |                      |
|------------------------|----------------------|----------------------|
| B*15:39:02+B*35:114    | B*15:107+B*35:58     |                      |
| B*15:39:02+B*35:115    | B*15:179+B*35:11:01  |                      |
| B*15:39:02+B*35:205    | B*15:107+B*35:167    |                      |
| B*15:39:02+B*44:02:01G | B*15:179+B*44:79     |                      |
| B*15:39:02+B*44:18     | B*15:179+B*49:20     |                      |
| B*15:39:02+B*45:01:01G | B*15:179+B*50:02     |                      |
| B*15:39:02+B*45:04     | B*15:179+B*50:01:01  |                      |
| B*15:39:02+B*46:18     | B*15:42+B*46:13:01   |                      |
| B*15:39:02+B*46:30     | B*15:40+B*46:01:03   |                      |
| B*15:39:02+B*48:19     | B*15:116+B*48:12     |                      |
| B*15:39:02+B*51:08     | B*15:179+B*51:01:01G |                      |
| B*15:39:02+B*51:19     | B*15:48+B*51:37      |                      |
| B*15:39:02+B*51:97     | B*15:179+B*51:63     |                      |
| B*15:39:02+B*52:19     | B*15:179+B*52:01:01G |                      |
| B*15:39:02+B*56:13     | B*15:179+B*56:25     |                      |
| B*15:39:02+B*56:20:02  | B*15:107+B*56:25     |                      |
| B*15:39:02+B*57:24     | B*15:179+B*57:22     |                      |
| B*15:40+B*15:221       | B*15:65+B*15:238     |                      |
| B*15:40+B*15:241       | B*15:117+B*15:138    |                      |
| B*15:40+B*18:19        | B*15:117+B*18:15     |                      |
| B*15:40+B*35:08:01     | B*15:65+B*35:15      |                      |
| B*15:40+B*35:14:01     | B*15:117+B*35:11:01  |                      |
| B*15:40+B*35:14:02     | B*15:117+B*35:11:02  |                      |
| B*15:40+B*35:156       | B*15:65+B*35:33      |                      |
| B*15:40+B*40:132       | B*15:138+B*40:178    |                      |
| B*15:40+B*41:08        | B*15:199+B*40:14:03  |                      |
| B*15:40+B*42:05:01     | B*15:138+B*42:08     |                      |
| B*15:40+B*44:28:01     | B*15:65+B*44:124     |                      |
| B*15:40+B*44:132       | B*15:199+B*44:64:02  |                      |
| B*15:40+B*44:146       | B*15:117+B*44:79     |                      |
| B*15:40+B*48:01:01G    | B*15:138+B*48:04     |                      |
| B*15:40+B*48:10        | B*15:138+B*48:13     |                      |
| B*15:40+B*48:19        | B*15:117+B*48:01:01G | B*15:241+B*48:04     |
| B*15:40+B*51:19        | B*15:136+B*51:16     |                      |
| B*15:40+B*51:36        | B*15:199+B*51:34     |                      |
| B*15:40+B*52:21        | B*15:117+B*52:01:02  |                      |
| B*15:40+B*52:24        | B*15:65+B*52:08      |                      |
| B*15:40+B*55:21        | B*15:50+B*55:24      | B*15:117+B*55:01:01G |
| B*15:40+B*55:56        | B*15:199+B*55:24     |                      |
| B*15:40+B*56:34        | B*15:185+B*55:24     |                      |
| B*15:40+B*57:19        | B*15:65+B*57:25      |                      |
| B*15:40+B*58:22        | B*15:65+B*58:37      |                      |
| B*15:42+B*40:11:02     | B*15:86+B*40:148     |                      |
| B*15:42+B*40:166       | B*40:183+B*55:35     |                      |
| B*15:42+B*51:09:01     | B*35:60+B*52:02      |                      |
| B*15:42+B*55:08        | B*15:188+B*56:25     |                      |
| B*15:42+B*56:04        | B*15:224+B*56:25     |                      |
| B*15:42+B*81:01:01G    | B*48:15+B*55:35      |                      |
| B*15:43+B*18:02        | B*15:129+B*18:54     |                      |
| B*15:43+B*18:03        | B*15:70+B*18:54      |                      |
| B*15:43+B*18:07:01     | B*15:56+B*18:54      |                      |
| B*15:43+B*18:08        | B*15:110+B*18:54     |                      |
| B*15:43+B*18:20        | B*15:128+B*18:54     |                      |
| B*15:43+B*18:31        | B*15:145+B*18:54     |                      |
| B*15:43+B*18:32        | B*15:192+B*18:54     |                      |
| B*15:43+B*18:33        | B*15:66+B*18:54      |                      |
| B*15:43+B*18:40        | B*15:78:01+B*18:54   |                      |
| B*15:43+B*18:49        | B*15:135+B*18:54     |                      |
| B*15:43+B*18:67        | B*15:87+B*18:54      |                      |
| B*15:43+B*18:69        | B*15:165+B*18:54     |                      |
| B*15:43+B*18:71        | B*15:122+B*18:54     |                      |
| B*15:43+B*27:89        | B*15:135+B*27:05:02G |                      |
| B*15:43+B*35:06        | B*15:58+B*53:03      |                      |
| B*15:43+B*35:09:03     | B*15:150+B*53:03     |                      |
| B*15:43+B*35:15        | B*15:117+B*53:03     |                      |
| B*15:43+B*35:27        | B*15:135+B*53:03     |                      |
| B*15:43+B*35:29:01     | B*15:70+B*53:03      |                      |
| B*15:43+B*35:34        | B*15:63+B*53:03      |                      |
| B*15:43+B*35:50        | B*15:71+B*53:03      |                      |
| B*15:43+B*35:54        | B*15:125+B*53:03     |                      |
| B*15:43+B*35:90        | B*15:183+B*53:03     |                      |
| B*15:43+B*35:91        | B*15:192+B*53:03     |                      |
| B*15:43+B*35:93        | B*15:50+B*53:03      |                      |
| B*15:43+B*35:103       | B*15:163+B*53:03     |                      |
| B*15:43+B*35:124       | B*15:251+B*53:03     |                      |
| B*15:43+B*35:175       | B*15:92+B*53:03      |                      |
| B*15:43+B*35:180       | B*15:105+B*53:03     |                      |
| B*15:43+B*39:01:01G    | B*15:70+B*38:17      |                      |
| B*15:43+B*40:07        | B*15:56+B*40:188     |                      |
| B*15:43+B*40:43        | B*15:70+B*40:188     |                      |
| B*15:43+B*40:61        | B*15:152+B*40:188    |                      |
| B*15:43+B*40:67        | B*15:145+B*40:188    |                      |
| B*15:43+B*40:79        | B*15:159+B*40:188    |                      |
| B*15:43+B*40:160       | B*15:154+B*40:188    |                      |
| B*15:43+B*40:166       | B*15:76+B*40:188     |                      |
| B*15:43+B*40:171       | B*15:193+B*40:188    |                      |
| B*15:43+B*40:172       | B*15:128+B*40:188    |                      |
| B*15:43+B*40:186       | B*15:82+B*40:188     |                      |
| B*15:43+B*53:05        | B*15:87+B*53:03      |                      |
| B*15:44+B*15:210       | B*15:93+B*15:204     |                      |
| B*15:44+B*18:01:01G    | B*15:121+B*18:33     |                      |
| B*15:44+B*35:20:01     | B*15:121+B*35:82     |                      |
| B*15:44+B*39:02:01     | B*15:121+B*39:22     |                      |
| B*15:44+B*39:39:01     | B*15:121+B*39:01:01G |                      |
| B*15:44+B*40:06:01G    | B*15:121+B*40:75     |                      |
| B*15:44+B*51:07:01     | B*15:121+B*51:22     |                      |
| B*15:45+B*18:01:01G    | B*15:63+B*18:14      |                      |
| B*15:45+B*27:70        | B*15:63+B*27:32      |                      |
| B*15:45+B*35:01:04     | B*15:63+B*35:30      |                      |
| B*15:45+B*35:41        | B*15:126+B*35:34     |                      |
| B*15:45+B*35:68:02     | B*15:63+B*35:05:01   |                      |
| B*15:45+B*38:01:01     | B*15:63+B*38:19      |                      |
| B*15:45+B*39:01:01G    | B*15:58+B*39:29      | B*15:63+B*39:03      |
| B*15:45+B*39:05:01     | B*15:63+B*39:37      |                      |
| B*15:45+B*40:11:02     | B*15:63+B*40:02:09   |                      |



|                        |                        |                     |
|------------------------|------------------------|---------------------|
| B*15:45+B*40:33        | B*15:63+B*40:31        |                     |
| B*15:45+B*40:36        | B*15:58+B*40:31        |                     |
| B*15:45+B*40:48        | B*15:73+B*40:31        |                     |
| B*15:45+B*40:59        | B*15:85+B*40:31        |                     |
| B*15:45+B*40:114       | B*15:63+B*40:45        |                     |
| B*15:45+B*41:03:02     | B*15:63+B*41:02:01     |                     |
| B*15:45+B*44:03:01G    | B*15:63+B*44:110       |                     |
| B*15:45+B*44:41:01     | B*15:63+B*44:106       |                     |
| B*15:45+B*44:65        | B*15:63+B*44:54        |                     |
| B*15:45+B*46:01:01G    | B*15:63+B*46:12        |                     |
| B*15:45+B*48:03:01     | B*15:63+B*48:01:01G    |                     |
| B*15:45+B*51:06:01     | B*15:63+B*51:64        |                     |
| B*15:45+B*58:16        | B*15:63+B*58:18        |                     |
| B*15:46+B*15:204       | B*15:106+B*15:225      |                     |
| B*15:46+B*18:01:12     | B*15:239+B*18:48       |                     |
| B*15:46+B*35:01:01G    | B*15:239+B*35:47       |                     |
| B*15:46+B*35:02:01     | B*15:239+B*35:154      |                     |
| B*15:46+B*35:25        | B*15:54+B*35:47        |                     |
| B*15:46+B*40:01:01G    | B*15:212+B*40:10:02    |                     |
| B*15:46+B*40:49        | B*15:53+B*40:10:02     |                     |
| B*15:46+B*48:01:01G    | B*15:68+B*40:10:02     |                     |
| B*15:46+B*57:25        | B*15:117+B*57:45       |                     |
| B*15:46+B*57:26        | B*15:50+B*57:45        |                     |
| B*15:46+B*57:31        | B*15:78:01+B*57:45     |                     |
| B*15:46+B*57:41        | B*15:128+B*57:45       |                     |
| B*15:46+B*57:49        | B*15:142+B*57:45       |                     |
| B*15:46+B*57:51        | B*15:212+B*57:45       |                     |
| B*15:46+B*57:58        | B*15:251+B*57:45       |                     |
| B*15:47:01+B*15:78:02  | B*15:47:02+B*15:78:01  |                     |
| B*15:47:01+B*35:03:11  | B*15:47:02+B*35:03:01G |                     |
| B*15:47:01+B*35:09:03  | B*15:47:02+B*35:09:01  |                     |
| B*15:47:01+B*39:05:01  | B*15:238+B*39:08       |                     |
| B*15:47:01+B*40:01:01G | B*15:47:02+B*40:01:14  |                     |
| B*15:47:01+B*40:14:03  | B*15:47:02+B*40:14:02  |                     |
| B*15:47:01+B*40:87:02  | B*15:47:02+B*40:87:01  |                     |
| B*15:47:01+B*51:01:09  | B*15:47:02+B*51:01:02  |                     |
| B*15:47:01+B*51:01:21  | B*15:47:02+B*51:01:01G |                     |
| B*15:47:01+B*51:09:01  | B*15:123:01G+B*51:82   |                     |
| B*15:47:01+B*51:19     | B*15:235+B*51:82       |                     |
| B*15:47:01+B*51:61:02  | B*15:54+B*51:82        |                     |
| B*15:47:01+B*51:77     | B*15:132+B*51:82       |                     |
| B*15:47:01+B*51:101    | B*15:69+B*51:82        |                     |
| B*15:47:01+B*56:01:01G | B*15:123:01G+B*55:09   |                     |
| B*15:47:01+B*57:01:07  | B*15:47:02+B*57:01:01G |                     |
| B*15:47:02+B*57:31     | B*15:123:01G+B*57:13   |                     |
| B*15:48+B*18:01:10     | B*15:136+B*18:26       |                     |
| B*15:48+B*35:14:02     | B*15:249+B*35:04:01    |                     |
| B*15:48+B*35:64        | B*15:136+B*35:09:03    |                     |
| B*15:50+B*15:72        | B*15:78:01+B*15:93     |                     |
| B*15:50+B*15:80        | B*15:93+B*15:154       |                     |
| B*15:50+B*15:108       | B*15:93+B*15:249       |                     |
| B*15:50+B*15:176       | B*15:93+B*15:145       |                     |
| B*15:50+B*15:213       | B*15:92+B*15:121       |                     |
| B*15:50+B*15:229       | B*15:58+B*15:93        |                     |
| B*15:50+B*15:238       | B*15:93+B*15:117       |                     |
| B*15:50+B*18:10        | B*15:117+B*18:11       |                     |
| B*15:50+B*18:50        | B*15:117+B*18:01:01G   |                     |
| B*15:50+B*27:04:01G    | B*15:117+B*27:15       |                     |
| B*15:50+B*27:05:02G    | B*15:117+B*27:71       |                     |
| B*15:50+B*35:06        | B*15:58+B*35:93        |                     |
| B*15:50+B*35:09:03     | B*15:150+B*35:93       | B*15:188+B*35:14:02 |
| B*15:50+B*35:15        | B*15:117+B*35:93       |                     |
| B*15:50+B*35:27        | B*15:135+B*35:93       |                     |
| B*15:50+B*35:29:01     | B*15:70+B*35:93        |                     |
| B*15:50+B*35:34        | B*15:63+B*35:93        |                     |
| B*15:50+B*35:38        | B*15:199+B*35:163      |                     |
| B*15:50+B*35:50        | B*15:71+B*35:93        |                     |
| B*15:50+B*35:54        | B*15:125+B*35:93       |                     |
| B*15:50+B*35:90        | B*15:183+B*35:93       |                     |
| B*15:50+B*35:91        | B*15:192+B*35:93       |                     |
| B*15:50+B*35:103       | B*15:163+B*35:93       |                     |
| B*15:50+B*35:115       | B*15:199+B*35:62       |                     |
| B*15:50+B*35:124       | B*15:251+B*35:93       |                     |
| B*15:50+B*35:175       | B*15:92+B*35:93        |                     |
| B*15:50+B*35:180       | B*15:105+B*35:93       |                     |
| B*15:50+B*35:186       | B*35:28+B*46:29        |                     |
| B*15:50+B*39:47        | B*15:117+B*39:01:01G   |                     |
| B*15:50+B*39:50        | B*15:117+B*39:06:02    |                     |
| B*15:50+B*40:01:01G    | B*15:117+B*40:199      |                     |
| B*15:50+B*40:02:01G    | B*15:117+B*40:39       |                     |
| B*15:50+B*40:113       | B*15:241+B*40:163      |                     |
| B*15:50+B*41:19        | B*15:117+B*41:02:01    |                     |
| B*15:50+B*44:16        | B*15:117+B*44:132      |                     |
| B*15:50+B*45:10        | B*15:117+B*45:08       |                     |
| B*15:50+B*46:05        | B*15:125+B*46:29       |                     |
| B*15:50+B*46:10        | B*15:183+B*46:29       |                     |
| B*15:50+B*46:14        | B*15:225+B*46:29       |                     |
| B*15:50+B*46:19        | B*15:136+B*46:29       | B*15:249+B*46:21:01 |
| B*15:50+B*46:30        | B*15:117+B*46:29       |                     |
| B*15:50+B*47:01:01G    | B*15:117+B*47:08       |                     |
| B*15:50+B*51:16        | B*15:117+B*51:21       |                     |
| B*15:50+B*51:24:04     | B*15:78:02+B*51:21     |                     |
| B*15:50+B*51:27N       | B*15:181N+B*51:21      |                     |
| B*15:50+B*51:41N       | B*15:94N+B*51:21       |                     |
| B*15:50+B*51:43        | B*15:217+B*51:21       |                     |
| B*15:50+B*51:53        | B*15:105+B*51:21       |                     |
| B*15:50+B*51:66        | B*15:113+B*51:21       |                     |
| B*15:50+B*51:68        | B*15:142+B*51:21       |                     |
| B*15:50+B*51:95        | B*15:193+B*51:21       |                     |
| B*15:50+B*51:124       | B*15:110+B*51:21       |                     |
| B*15:50+B*51:127       | B*15:178+B*51:21       |                     |
| B*15:50+B*51:130       | B*15:192+B*51:21       |                     |
| B*15:50+B*53:05        | B*15:87+B*35:93        |                     |
| B*15:50+B*54:26        | B*15:117+B*54:01:01G   |                     |
| B*15:50+B*55:08        | B*15:150+B*56:18       |                     |

|                     |                        |                      |
|---------------------|------------------------|----------------------|
| B*15:50+B*55:09     | B*15:117+B*55:52       |                      |
| B*15:50+B*55:22     | B*15:117+B*55:02:01G   |                      |
| B*15:50+B*55:56     | B*15:199+B*55:21       |                      |
| B*15:50+B*56:04     | B*15:73+B*56:18        |                      |
| B*15:50+B*56:09     | B*15:85+B*56:18        |                      |
| B*15:50+B*56:16     | B*15:54+B*55:35        | B*15:251+B*55:02:01G |
| B*15:50+B*56:17     | B*15:70+B*56:23        |                      |
| B*15:50+B*56:20:01  | B*15:78:01+B*55:02:01G |                      |
| B*15:50+B*56:35     | B*15:71+B*55:02:01G    |                      |
| B*15:50+B*56:36     | B*15:183+B*55:02:01G   |                      |
| B*15:50+B*57:25     | B*15:117+B*57:26       |                      |
| B*15:50+B*57:31     | B*15:78:01+B*57:26     |                      |
| B*15:50+B*57:41     | B*15:128+B*57:26       |                      |
| B*15:50+B*57:49     | B*15:142+B*57:26       |                      |
| B*15:50+B*57:51     | B*15:212+B*57:26       |                      |
| B*15:50+B*57:58     | B*15:251+B*57:26       |                      |
| B*15:50+B*58:12     | B*15:251+B*58:35       |                      |
| B*15:50+B*58:15     | B*15:164+B*58:35       |                      |
| B*15:50+B*58:37     | B*15:117+B*58:35       |                      |
| B*15:51+B*35:15     | B*15:52+B*35:115       |                      |
| B*15:51+B*35:33     | B*15:52+B*35:38        |                      |
| B*15:51+B*35:35     | B*15:186+B*35:115      |                      |
| B*15:51+B*38:01:01  | B*15:186+B*38:30       |                      |
| B*15:51+B*38:10     | B*15:93+B*38:30        |                      |
| B*15:51+B*44:64:02  | B*15:52+B*44:91        |                      |
| B*15:51+B*44:76     | B*15:221+B*44:02:01G   |                      |
| B*15:51+B*44:124    | B*15:52+B*44:02:07     |                      |
| B*15:51+B*51:13:02  | B*15:133+B*51:97       |                      |
| B*15:51+B*51:16     | B*15:238+B*51:08       |                      |
| B*15:51+B*51:21     | B*15:93+B*51:08        |                      |
| B*15:51+B*51:29     | B*15:99+B*51:97        | B*15:221+B*51:08     |
| B*15:51+B*51:31     | B*15:52+B*51:08        |                      |
| B*15:51+B*51:49     | B*15:153+B*51:08       |                      |
| B*15:51+B*52:08     | B*15:238+B*52:19       |                      |
| B*15:51+B*52:15     | B*15:161+B*52:19       |                      |
| B*15:51+B*52:24     | B*15:221+B*52:19       |                      |
| B*15:51+B*52:28     | B*15:176+B*52:19       |                      |
| B*15:51+B*55:01:01G | B*15:93+B*56:13        |                      |
| B*15:51+B*55:22     | B*15:52+B*56:13        |                      |
| B*15:51+B*55:24     | B*15:238+B*56:13       |                      |
| B*15:51+B*57:25     | B*15:52+B*57:24        |                      |
| B*15:52+B*15:65     | B*15:237+B*15:238      |                      |
| B*15:52+B*15:116    | B*15:78:02+B*15:124    |                      |
| B*15:52+B*15:131    | B*15:91+B*15:238       |                      |
| B*15:52+B*18:15     | B*15:93+B*18:50        | B*15:238+B*18:01:01G |
| B*15:52+B*18:30     | B*15:238+B*18:13       |                      |
| B*15:52+B*27:04:01G | B*15:238+B*27:61       |                      |
| B*15:52+B*27:10     | B*15:238+B*27:05:02G   |                      |
| B*15:52+B*27:15     | B*15:93+B*27:61        |                      |
| B*15:52+B*27:40     | B*15:238+B*27:08       |                      |
| B*15:52+B*35:14:01  | B*15:238+B*35:62       |                      |
| B*15:52+B*35:21     | B*15:238+B*35:24:01    |                      |
| B*15:52+B*35:35     | B*15:186+B*35:15       |                      |
| B*15:52+B*35:58     | B*15:238+B*35:05:01    |                      |
| B*15:52+B*35:188    | B*15:238+B*35:190      |                      |
| B*15:52+B*37:13     | B*15:238+B*37:01:01G   |                      |
| B*15:52+B*38:10     | B*15:238+B*38:36       |                      |
| B*15:52+B*38:32     | B*15:238+B*38:01:01    |                      |
| B*15:52+B*39:35     | B*15:93+B*39:47        | B*15:238+B*39:01:01G |
| B*15:52+B*40:01:01G | B*15:124+B*40:14:03    |                      |
| B*15:52+B*40:01:14  | B*15:124+B*40:14:02    |                      |
| B*15:52+B*40:148    | B*15:238+B*40:06:01G   |                      |
| B*15:52+B*40:183    | B*15:238+B*40:01:01G   |                      |
| B*15:52+B*40:198    | B*15:238+B*40:128      |                      |
| B*15:52+B*44:76     | B*15:238+B*44:28:02    |                      |
| B*15:52+B*44:79     | B*15:161+B*44:64:02    | B*15:238+B*44:03:01G |
| B*15:52+B*46:01:01G | B*15:238+B*46:09       |                      |
| B*15:52+B*46:08     | B*15:238+B*46:13:03    |                      |
| B*15:52+B*48:01:01G | B*15:124+B*48:10       |                      |
| B*15:52+B*48:04     | B*15:124+B*48:13       |                      |
| B*15:52+B*48:15     | B*15:238+B*48:01:01G   |                      |
| B*15:52+B*48:25     | B*15:238+B*48:02:01    |                      |
| B*15:52+B*49:01:01  | B*15:238+B*49:11       |                      |
| B*15:52+B*51:01:02  | B*15:238+B*51:09:02    |                      |
| B*15:52+B*51:02:05  | B*15:238+B*51:40       |                      |
| B*15:52+B*51:16     | B*15:238+B*51:31       |                      |
| B*15:52+B*51:21     | B*15:93+B*51:31        |                      |
| B*15:52+B*51:23     | B*15:238+B*51:108      |                      |
| B*15:52+B*51:29     | B*15:221+B*51:31       |                      |
| B*15:52+B*51:49     | B*15:114+B*51:01:01G   | B*15:153+B*51:31     |
| B*15:52+B*51:101    | B*15:186+B*51:16       |                      |
| B*15:52+B*52:01:01G | B*15:238+B*52:10:01    |                      |
| B*15:52+B*52:01:07  | B*15:238+B*52:10:02    |                      |
| B*15:52+B*53:08:02  | B*15:238+B*53:01:03    |                      |
| B*15:52+B*54:20     | B*15:238+B*54:10       |                      |
| B*15:52+B*55:01:01G | B*15:93+B*55:22        | B*15:238+B*55:02:01G |
| B*15:52+B*55:24     | B*15:238+B*55:22       |                      |
| B*15:52+B*55:52     | B*15:238+B*55:37       |                      |
| B*15:52+B*56:32     | B*15:238+B*56:18       |                      |
| B*15:52+B*57:57     | B*15:238+B*57:03:01    |                      |
| B*15:52+B*58:06     | B*15:238+B*58:02       |                      |
| B*15:53+B*18:01:01G | B*15:212+B*18:43       |                      |
| B*15:53+B*18:68     | B*15:212+B*18:25       |                      |
| B*15:53+B*27:05:02G | B*15:212+B*27:37       |                      |
| B*15:53+B*35:50     | B*15:212+B*35:197      |                      |
| B*15:53+B*35:88     | B*35:43:01G+B*40:129   |                      |
| B*15:53+B*39:31     | B*15:212+B*39:01:01G   |                      |
| B*15:53+B*40:01:01G | B*15:212+B*40:49       |                      |
| B*15:53+B*40:02:01G | B*15:212+B*40:40       |                      |
| B*15:53+B*40:74     | B*15:212+B*40:210      |                      |
| B*15:53+B*42:02     | B*15:212+B*42:01:01    |                      |
| B*15:53+B*42:17     | B*15:212+B*42:10       |                      |
| B*15:53+B*44:55     | B*15:212+B*44:02:01G   |                      |
| B*15:53+B*44:83     | B*15:239+B*44:02:01G   |                      |
| B*15:53+B*46:14     | B*15:212+B*46:01:01G   |                      |

|                     |                         |                      |
|---------------------|-------------------------|----------------------|
| B*15:53+B*48:01:01G | B*15:68+B*40:49         |                      |
| B*15:53+B*49:01:01  | B*15:212+B*49:10        |                      |
| B*15:53+B*50:01:01  | B*15:212+B*50:13        |                      |
| B*15:53+B*55:16     | B*15:212+B*55:02:01G    |                      |
| B*15:54+B*15:107    | B*15:78:02+B*15:123:01G |                      |
| B*15:54+B*18:01:01G | B*15:123:01G+B*18:19    |                      |
| B*15:54+B*35:29:01  | B*15:61+B*35:62         |                      |
| B*15:54+B*35:35     | B*15:69+B*35:62         |                      |
| B*15:54+B*35:71     | B*15:91+B*35:14:01      | B*15:131+B*35:62     |
| B*15:54+B*35:103    | B*15:98+B*35:62         |                      |
| B*15:54+B*35:136    | B*15:61+B*35:163        |                      |
| B*15:54+B*35:167    | B*15:253+B*35:14:01     |                      |
| B*15:54+B*39:01:01G | B*15:235+B*39:36        |                      |
| B*15:54+B*39:01:05  | B*15:123:01G+B*39:18    |                      |
| B*15:54+B*39:30     | B*15:123:01G+B*39:36    |                      |
| B*15:54+B*40:02:04  | B*15:212+B*48:13        |                      |
| B*15:54+B*40:184    | B*15:212+B*39:13:01     |                      |
| B*15:54+B*44:03:01G | B*15:123:01G+B*44:146   |                      |
| B*15:54+B*44:29     | B*15:235+B*44:146       |                      |
| B*15:54+B*46:13:01  | B*15:123:01G+B*46:01:03 |                      |
| B*15:54+B*46:19     | B*15:235+B*46:01:01G    |                      |
| B*15:54+B*46:21:01  | B*15:123:01G+B*46:29    |                      |
| B*15:54+B*51:07:01  | B*15:64+B*52:21         |                      |
| B*15:54+B*51:09:01  | B*15:123:01G+B*51:61:02 |                      |
| B*15:54+B*51:19     | B*15:235+B*51:61:02     |                      |
| B*15:54+B*51:77     | B*15:132+B*51:61:02     |                      |
| B*15:54+B*51:101    | B*15:69+B*51:61:02      |                      |
| B*15:54+B*55:02:01G | B*15:123:01G+B*55:21    |                      |
| B*15:55+B*35:14:01  | B*15:144+B*35:05:01     |                      |
| B*15:55+B*58:14     | B*35:72+B*57:41         |                      |
| B*15:56+B*18:02     | B*15:129+B*18:07:01     |                      |
| B*15:56+B*18:03     | B*15:70+B*18:07:01      | B*15:236+B*18:01:01G |
| B*15:56+B*18:08     | B*15:110+B*18:07:01     |                      |
| B*15:56+B*18:20     | B*15:128+B*18:07:01     |                      |
| B*15:56+B*18:31     | B*15:145+B*18:07:01     |                      |
| B*15:56+B*18:32     | B*15:192+B*18:07:01     |                      |
| B*15:56+B*18:33     | B*15:66+B*18:07:01      |                      |
| B*15:56+B*18:40     | B*15:78:01+B*18:07:01   |                      |
| B*15:56+B*18:49     | B*15:135+B*18:07:01     |                      |
| B*15:56+B*18:67     | B*15:87+B*18:07:01      |                      |
| B*15:56+B*18:69     | B*15:165+B*18:07:01     |                      |
| B*15:56+B*18:71     | B*15:122+B*18:07:01     |                      |
| B*15:56+B*27:08     | B*15:236+B*27:44        |                      |
| B*15:56+B*35:29:02  | B*15:236+B*35:01:15     |                      |
| B*15:56+B*35:69     | B*15:236+B*35:10        |                      |
| B*15:56+B*35:76     | B*15:76+B*35:10         | B*15:101+B*35:01:01G |
| B*15:56+B*35:82     | B*15:66+B*35:01:01G     |                      |
| B*15:56+B*35:85     | B*15:66+B*35:03:01G     |                      |
| B*15:56+B*35:135    | B*15:66+B*35:43:01G     |                      |
| B*15:56+B*35:136    | B*15:236+B*35:03:01G    |                      |
| B*15:56+B*35:186    | B*35:10+B*46:01:01G     |                      |
| B*15:56+B*38:14     | B*15:236+B*38:01:01     |                      |
| B*15:56+B*39:02:02  | B*15:236+B*39:13:01     |                      |
| B*15:56+B*39:03     | B*15:236+B*39:37        |                      |
| B*15:56+B*39:15     | B*15:236+B*39:55        |                      |
| B*15:56+B*40:43     | B*15:70+B*40:07         | B*15:236+B*40:01:01G |
| B*15:56+B*40:50     | B*15:236+B*40:02:01G    |                      |
| B*15:56+B*40:61     | B*15:152+B*40:07        |                      |
| B*15:56+B*40:67     | B*15:145+B*40:07        |                      |
| B*15:56+B*40:75     | B*15:66+B*40:162        |                      |
| B*15:56+B*40:79     | B*15:159+B*40:07        |                      |
| B*15:56+B*40:109    | B*15:87+B*40:162        |                      |
| B*15:56+B*40:160    | B*15:154+B*40:07        |                      |
| B*15:56+B*40:166    | B*15:76+B*40:07         | B*15:101+B*40:106    |
| B*15:56+B*40:171    | B*15:193+B*40:07        |                      |
| B*15:56+B*40:172    | B*15:128+B*40:07        |                      |
| B*15:56+B*40:186    | B*15:82+B*40:07         |                      |
| B*15:56+B*40:190    | B*15:159+B*40:162       |                      |
| B*15:56+B*46:01:01G | B*15:152+B*46:16        |                      |
| B*15:56+B*51:20     | B*15:236+B*51:08        |                      |
| B*15:56+B*51:22     | B*15:66+B*51:01:01G     |                      |
| B*15:56+B*53:23     | B*15:236+B*53:01:01     |                      |
| B*15:56+B*54:01:01G | B*15:152+B*54:24        |                      |
| B*15:56+B*56:06     | B*15:101+B*78:02:02     |                      |
| B*15:56+B*78:01:01  | B*15:236+B*78:02:02     |                      |
| B*15:56+B*78:03     | B*15:66+B*78:01:01      |                      |
| B*15:56+B*81:01:01G | B*15:101+B*48:06        | B*15:152+B*81:05     |
| B*15:57+B*18:01:01G | B*15:135+B*18:06        |                      |
| B*15:57+B*35:03:01G | B*15:135+B*35:74        |                      |
| B*15:57+B*39:01:01G | B*15:135+B*39:27        |                      |
| B*15:57+B*40:01:01G | B*15:135+B*40:73        |                      |
| B*15:57+B*55:01:01G | B*15:135+B*55:03        |                      |
| B*15:57+B*55:04     | B*15:135+B*55:49        |                      |
| B*15:58+B*15:72     | B*15:78:01+B*15:229     |                      |
| B*15:58+B*15:80     | B*15:154+B*15:229       |                      |
| B*15:58+B*15:108    | B*15:229+B*15:249       |                      |
| B*15:58+B*15:176    | B*15:145+B*15:229       |                      |
| B*15:58+B*15:238    | B*15:117+B*15:229       |                      |
| B*15:58+B*35:09:03  | B*15:150+B*35:06        |                      |
| B*15:58+B*35:15     | B*15:117+B*35:06        |                      |
| B*15:58+B*35:27     | B*15:135+B*35:06        |                      |
| B*15:58+B*35:29:01  | B*15:70+B*35:06         |                      |
| B*15:58+B*35:39     | B*15:63+B*35:59         |                      |
| B*15:58+B*35:50     | B*15:71+B*35:06         |                      |
| B*15:58+B*35:54     | B*15:125+B*35:06        |                      |
| B*15:58+B*35:90     | B*15:183+B*35:06        |                      |
| B*15:58+B*35:91     | B*15:192+B*35:06        |                      |
| B*15:58+B*35:103    | B*15:163+B*35:06        |                      |
| B*15:58+B*35:124    | B*15:251+B*35:06        |                      |
| B*15:58+B*35:175    | B*15:92+B*35:06         |                      |
| B*15:58+B*35:180    | B*15:105+B*35:06        |                      |
| B*15:58+B*40:33     | B*15:63+B*40:36         |                      |
| B*15:58+B*40:44     | B*15:63+B*40:86         |                      |
| B*15:58+B*40:48     | B*15:73+B*40:36         |                      |
| B*15:58+B*40:59     | B*15:85+B*40:36         |                      |

|                     |                         |                   |
|---------------------|-------------------------|-------------------|
| B*15:58+B*42:09     | B*15:225+B*42:06        |                   |
| B*15:58+B*42:16     | B*15:63+B*42:06         |                   |
| B*15:58+B*45:01:01G | B*15:73+B*45:02         |                   |
| B*15:58+B*50:01:01  | B*15:73+B*50:09         |                   |
| B*15:58+B*51:24:04  | B*15:150+B*51:13:02     |                   |
| B*15:58+B*51:90     | B*15:63+B*51:13:02      |                   |
| B*15:58+B*51:106    | B*15:73+B*51:13:02      |                   |
| B*15:58+B*52:25     | B*15:73+B*52:14         |                   |
| B*15:58+B*53:05     | B*15:87+B*35:06         |                   |
| B*15:58+B*55:02:01G | B*15:73+B*55:13         |                   |
| B*15:58+B*56:01:01G | B*15:73+B*56:22         |                   |
| B*15:58+B*59:01:01G | B*15:73+B*59:03         |                   |
| B*15:60+B*55:36     | B*15:244+B*55:45        |                   |
| B*15:60+B*55:54     | B*15:105+B*55:45        |                   |
| B*15:61+B*15:85     | B*15:62+B*15:70         |                   |
| B*15:61+B*15:128    | B*15:70+B*15:156        |                   |
| B*15:61+B*15:163    | B*15:70+B*15:98         |                   |
| B*15:61+B*15:225    | B*15:70+B*15:210        |                   |
| B*15:61+B*18:20     | B*15:156+B*18:03        |                   |
| B*15:61+B*18:63     | B*15:173+B*18:03        |                   |
| B*15:61+B*35:13     | B*15:253+B*35:69        |                   |
| B*15:61+B*35:35     | B*15:69+B*35:29:01      |                   |
| B*15:61+B*35:71     | B*15:131+B*35:29:01     |                   |
| B*15:61+B*35:103    | B*15:98+B*35:29:01      |                   |
| B*15:61+B*39:11     | B*15:221+B*39:02:01     |                   |
| B*15:61+B*40:25     | B*15:64+B*40:43         |                   |
| B*15:61+B*40:89     | B*15:156+B*40:50        |                   |
| B*15:61+B*40:132    | B*15:131+B*40:43        |                   |
| B*15:61+B*40:172    | B*15:156+B*40:43        |                   |
| B*15:61+B*53:04     | B*15:253+B*53:23        |                   |
| B*15:62+B*15:128    | B*15:85+B*15:156        |                   |
| B*15:62+B*15:163    | B*15:85+B*15:98         |                   |
| B*15:62+B*15:225    | B*15:85+B*15:210        |                   |
| B*15:62+B*51:09:02  | B*35:25+B*52:01:07      |                   |
| B*15:63+B*35:09:03  | B*15:150+B*35:34        |                   |
| B*15:63+B*35:15     | B*15:117+B*35:34        |                   |
| B*15:63+B*35:27     | B*15:135+B*35:34        |                   |
| B*15:63+B*35:29:01  | B*15:70+B*35:34         |                   |
| B*15:63+B*35:50     | B*15:71+B*35:34         |                   |
| B*15:63+B*35:54     | B*15:125+B*35:34        |                   |
| B*15:63+B*35:90     | B*15:183+B*35:34        |                   |
| B*15:63+B*35:91     | B*15:192+B*35:34        |                   |
| B*15:63+B*35:103    | B*15:163+B*35:34        |                   |
| B*15:63+B*35:124    | B*15:251+B*35:34        |                   |
| B*15:63+B*35:175    | B*15:92+B*35:34         |                   |
| B*15:63+B*35:180    | B*15:105+B*35:34        |                   |
| B*15:63+B*40:48     | B*15:73+B*40:33         |                   |
| B*15:63+B*40:59     | B*15:85+B*40:33         |                   |
| B*15:63+B*42:09     | B*15:225+B*42:16        |                   |
| B*15:63+B*44:02:01G | B*15:233+B*44:123       |                   |
| B*15:63+B*44:03:01G | B*15:233+B*44:107       |                   |
| B*15:63+B*44:144    | B*15:128+B*44:107       |                   |
| B*15:63+B*51:24:04  | B*15:150+B*51:90        |                   |
| B*15:63+B*51:106    | B*15:73+B*51:90         |                   |
| B*15:63+B*52:26     | B*15:233+B*52:12        |                   |
| B*15:63+B*53:05     | B*15:87+B*35:34         |                   |
| B*15:64+B*35:85     | B*15:133+B*35:20:01     |                   |
| B*15:64+B*39:42     | B*15:80+B*39:39:01      |                   |
| B*15:64+B*39:68     | B*15:72+B*39:39:01      |                   |
| B*15:64+B*40:132    | B*15:131+B*40:25        |                   |
| B*15:64+B*40:172    | B*15:156+B*40:25        |                   |
| B*15:64+B*44:55     | B*15:210+B*44:12        |                   |
| B*15:64+B*50:02     | B*15:131+B*50:15        |                   |
| B*15:64+B*50:11     | B*15:173+B*50:15        |                   |
| B*15:64+B*52:10:01  | B*15:123:01G+B*51:07:02 |                   |
| B*15:64+B*52:15     | B*15:131+B*51:07:02     |                   |
| B*15:65+B*15:91     | B*15:131+B*15:237       |                   |
| B*15:65+B*18:13     | B*15:237+B*18:30        |                   |
| B*15:65+B*27:08     | B*15:237+B*27:40        |                   |
| B*15:65+B*27:61     | B*15:237+B*27:04:01G    |                   |
| B*15:65+B*35:05:01  | B*15:237+B*35:58        |                   |
| B*15:65+B*35:14:02  | B*15:85+B*35:99         |                   |
| B*15:65+B*35:23     | B*15:195+B*35:08:03     |                   |
| B*15:65+B*35:24:01  | B*15:237+B*35:21        |                   |
| B*15:65+B*35:86     | B*15:117+B*35:99        |                   |
| B*15:65+B*35:118    | B*15:78:02+B*35:99      |                   |
| B*15:65+B*35:190    | B*15:237+B*35:188       |                   |
| B*15:65+B*37:01:01G | B*15:237+B*37:13        |                   |
| B*15:65+B*38:01:01  | B*15:237+B*38:32        |                   |
| B*15:65+B*38:36     | B*15:237+B*38:10        |                   |
| B*15:65+B*39:01:01G | B*15:237+B*39:35        |                   |
| B*15:65+B*40:100    | B*15:84+B*40:183        | B*15:195+B*40:128 |
| B*15:65+B*40:113    | B*15:185+B*40:198       |                   |
| B*15:65+B*40:128    | B*15:237+B*40:198       |                   |
| B*15:65+B*44:28:02  | B*15:237+B*44:76        |                   |
| B*15:65+B*44:29     | B*15:136+B*44:76        |                   |
| B*15:65+B*46:09     | B*15:237+B*46:01:01G    |                   |
| B*15:65+B*46:13:03  | B*15:237+B*46:08        |                   |
| B*15:65+B*48:01:01G | B*15:237+B*48:15        |                   |
| B*15:65+B*48:02:01  | B*15:237+B*48:25        |                   |
| B*15:65+B*49:11     | B*15:237+B*49:01:01     |                   |
| B*15:65+B*51:09:02  | B*15:237+B*51:01:02     |                   |
| B*15:65+B*51:19     | B*15:136+B*51:29        |                   |
| B*15:65+B*51:40     | B*15:237+B*51:02:05     |                   |
| B*15:65+B*51:108    | B*15:237+B*51:23        |                   |
| B*15:65+B*52:10:02  | B*15:237+B*52:01:07     |                   |
| B*15:65+B*53:01:03  | B*15:237+B*53:08:02     |                   |
| B*15:65+B*54:10     | B*15:237+B*54:20        |                   |
| B*15:65+B*55:37     | B*15:237+B*55:52        |                   |
| B*15:65+B*56:01:01G | B*15:237+B*56:25        |                   |
| B*15:65+B*56:18     | B*15:237+B*56:32        |                   |
| B*15:65+B*58:02     | B*15:237+B*58:06        |                   |
| B*15:66+B*18:02     | B*15:129+B*18:33        |                   |
| B*15:66+B*18:03     | B*15:70+B*18:33         |                   |
| B*15:66+B*18:08     | B*15:110+B*18:33        |                   |

|                     |                       |                     |
|---------------------|-----------------------|---------------------|
| B*15:66+B*18:20     | B*15:128+B*18:33      |                     |
| B*15:66+B*18:31     | B*15:145+B*18:33      |                     |
| B*15:66+B*18:32     | B*15:192+B*18:33      |                     |
| B*15:66+B*18:40     | B*15:78:01+B*18:33    |                     |
| B*15:66+B*18:49     | B*15:135+B*18:33      |                     |
| B*15:66+B*18:67     | B*15:87+B*18:33       |                     |
| B*15:66+B*18:69     | B*15:165+B*18:33      |                     |
| B*15:66+B*18:71     | B*15:122+B*18:33      |                     |
| B*15:66+B*35:29:01  | B*15:236+B*35:82      |                     |
| B*15:66+B*35:76     | B*15:101+B*35:82      |                     |
| B*15:66+B*35:136    | B*15:236+B*35:85      |                     |
| B*15:66+B*38:26     | B*15:101+B*38:01:01   |                     |
| B*15:66+B*39:10:01  | B*15:152+B*39:01:09   |                     |
| B*15:66+B*40:109    | B*15:87+B*40:75       |                     |
| B*15:66+B*40:190    | B*15:159+B*40:75      |                     |
| B*15:66+B*67:01:01  | B*15:101+B*39:05:01   |                     |
| B*15:67+B*35:202    | B*15:95+B*35:110      |                     |
| B*15:68+B*40:01:01G | B*15:212+B*48:01:01G  |                     |
| B*15:68+B*40:14:03  | B*15:212+B*48:10      |                     |
| B*15:68+B*40:36     | B*15:212+B*48:07      |                     |
| B*15:68+B*40:106    | B*15:212+B*48:06      |                     |
| B*15:68+B*40:121    | B*15:212+B*48:12      |                     |
| B*15:68+B*40:183    | B*15:212+B*48:15      |                     |
| B*15:68+B*41:03:02  | B*15:212+B*42:11      |                     |
| B*15:68+B*46:06     | B*46:12+B*48:23       |                     |
| B*15:68+B*46:33     | B*46:12+B*48:02:01    |                     |
| B*15:69+B*18:36     | B*15:235+B*18:15      |                     |
| B*15:69+B*35:03:01G | B*15:253+B*35:35      |                     |
| B*15:69+B*35:24:01  | B*15:235+B*35:188     |                     |
| B*15:69+B*35:71     | B*15:131+B*35:35      |                     |
| B*15:69+B*35:103    | B*15:98+B*35:35       |                     |
| B*15:69+B*35:109    | B*15:235+B*35:96      |                     |
| B*15:69+B*39:30     | B*15:93+B*39:02:01    |                     |
| B*15:69+B*39:74     | B*15:108+B*39:02:01   | B*15:235+B*39:35    |
| B*15:69+B*46:09     | B*15:235+B*46:29      |                     |
| B*15:69+B*51:09:01  | B*15:123:01G+B*51:101 | B*15:235+B*51:21    |
| B*15:69+B*51:19     | B*15:235+B*51:101     |                     |
| B*15:69+B*51:77     | B*15:132+B*51:101     |                     |
| B*15:69+B*56:01:01G | B*15:235+B*55:01:01G  |                     |
| B*15:69+B*56:13     | B*15:235+B*55:56      |                     |
| B*15:69+B*56:15     | B*15:235+B*55:28      |                     |
| B*15:69+B*56:27     | B*15:235+B*55:38      |                     |
| B*15:70+B*18:02     | B*15:129+B*18:03      |                     |
| B*15:70+B*18:07:02  | B*15:236+B*18:01:12   |                     |
| B*15:70+B*18:08     | B*15:110+B*18:03      |                     |
| B*15:70+B*18:20     | B*15:128+B*18:03      |                     |
| B*15:70+B*18:31     | B*15:145+B*18:03      |                     |
| B*15:70+B*18:32     | B*15:192+B*18:03      |                     |
| B*15:70+B*18:40     | B*15:78:01+B*18:03    |                     |
| B*15:70+B*18:49     | B*15:135+B*18:03      |                     |
| B*15:70+B*18:67     | B*15:87+B*18:03       |                     |
| B*15:70+B*18:69     | B*15:165+B*18:03      |                     |
| B*15:70+B*18:71     | B*15:122+B*18:03      |                     |
| B*15:70+B*35:02:01  | B*15:236+B*35:95      |                     |
| B*15:70+B*35:05:01  | B*15:236+B*35:72      |                     |
| B*15:70+B*35:09:03  | B*15:150+B*35:29:01   |                     |
| B*15:70+B*35:15     | B*15:117+B*35:29:01   |                     |
| B*15:70+B*35:27     | B*15:135+B*35:29:01   |                     |
| B*15:70+B*35:33     | B*15:117+B*35:136     |                     |
| B*15:70+B*35:50     | B*15:71+B*35:29:01    |                     |
| B*15:70+B*35:54     | B*15:125+B*35:29:01   |                     |
| B*15:70+B*35:56     | B*15:135+B*35:136     |                     |
| B*15:70+B*35:90     | B*15:183+B*35:29:01   |                     |
| B*15:70+B*35:91     | B*15:192+B*35:29:01   |                     |
| B*15:70+B*35:103    | B*15:163+B*35:29:01   |                     |
| B*15:70+B*35:124    | B*15:251+B*35:29:01   |                     |
| B*15:70+B*35:150    | B*15:183+B*35:136     |                     |
| B*15:70+B*35:175    | B*15:92+B*35:29:01    |                     |
| B*15:70+B*35:180    | B*15:105+B*35:29:01   |                     |
| B*15:70+B*37:21     | B*15:236+B*37:01:01G  |                     |
| B*15:70+B*39:01:01G | B*15:189+B*39:02:02   |                     |
| B*15:70+B*39:20     | B*15:135+B*39:10:01   |                     |
| B*15:70+B*39:44     | B*15:189+B*39:23      |                     |
| B*15:70+B*39:58     | B*15:236+B*39:39:01   |                     |
| B*15:70+B*40:13     | B*15:236+B*40:19      |                     |
| B*15:70+B*40:37     | B*15:135+B*40:50      |                     |
| B*15:70+B*40:61     | B*15:152+B*40:43      |                     |
| B*15:70+B*40:67     | B*15:145+B*40:43      |                     |
| B*15:70+B*40:79     | B*15:159+B*40:43      |                     |
| B*15:70+B*40:89     | B*15:128+B*40:50      |                     |
| B*15:70+B*40:160    | B*15:154+B*40:43      |                     |
| B*15:70+B*40:162    | B*15:236+B*40:06:01G  |                     |
| B*15:70+B*40:166    | B*15:76+B*40:43       |                     |
| B*15:70+B*40:169    | B*15:167+B*40:50      |                     |
| B*15:70+B*40:171    | B*15:193+B*40:43      |                     |
| B*15:70+B*40:172    | B*15:128+B*40:43      |                     |
| B*15:70+B*40:173    | B*15:184+B*40:50      |                     |
| B*15:70+B*40:186    | B*15:82+B*40:43       |                     |
| B*15:70+B*40:200    | B*15:97+B*40:50       |                     |
| B*15:70+B*51:01:02  | B*15:236+B*51:07:02   |                     |
| B*15:70+B*52:06:02  | B*15:236+B*52:01:02   |                     |
| B*15:70+B*53:05     | B*15:87+B*35:29:01    |                     |
| B*15:70+B*53:13     | B*15:236+B*53:09      |                     |
| B*15:70+B*67:01:01  | B*15:76+B*39:02:01    | B*15:101+B*39:39:01 |
| B*15:70+B*67:01:02  | B*15:76+B*39:02:02    |                     |
| B*15:71+B*18:68     | B*15:225+B*18:01:01G  |                     |
| B*15:71+B*35:09:03  | B*15:150+B*35:50      |                     |
| B*15:71+B*35:15     | B*15:117+B*35:50      |                     |
| B*15:71+B*35:27     | B*15:135+B*35:50      |                     |
| B*15:71+B*35:54     | B*15:125+B*35:50      |                     |
| B*15:71+B*35:90     | B*15:183+B*35:50      |                     |
| B*15:71+B*35:91     | B*15:192+B*35:50      |                     |
| B*15:71+B*35:103    | B*15:163+B*35:50      |                     |
| B*15:71+B*35:124    | B*15:251+B*35:50      |                     |
| B*15:71+B*35:175    | B*15:92+B*35:50       |                     |

|                       |                        |                  |
|-----------------------|------------------------|------------------|
| B*15:71+B*35:180      | B*15:105+B*35:50       |                  |
| B*15:71+B*35:190      | B*15:85+B*18:29        |                  |
| B*15:71+B*38:33       | B*15:225+B*38:01:01    |                  |
| B*15:71+B*40:01:01G   | B*15:225+B*40:74       |                  |
| B*15:71+B*40:32       | B*15:225+B*40:98       |                  |
| B*15:71+B*40:53       | B*15:225+B*40:06:01G   |                  |
| B*15:71+B*44:29       | B*15:249+B*44:103      |                  |
| B*15:71+B*44:90       | B*15:101+B*44:131      |                  |
| B*15:71+B*44:105      | B*15:125+B*44:103      |                  |
| B*15:71+B*51:01:01G   | B*15:225+B*51:57       |                  |
| B*15:71+B*53:05       | B*15:87+B*35:50        |                  |
| B*15:71+B*54:13       | B*15:217+B*54:02       |                  |
| B*15:71+B*54:21       | B*15:251+B*54:02       |                  |
| B*15:71+B*55:22       | B*15:117+B*56:35       |                  |
| B*15:71+B*56:16       | B*15:251+B*56:35       |                  |
| B*15:71+B*56:20:01    | B*15:78:01+B*56:35     |                  |
| B*15:71+B*56:36       | B*15:183+B*56:35       |                  |
| B*15:71+B*57:01:01G   | B*15:225+B*57:10       |                  |
| B*15:72+B*15:117      | B*15:78:01+B*15:238    |                  |
| B*15:72+B*15:145      | B*15:78:01+B*15:176    |                  |
| B*15:72+B*15:154      | B*15:78:01+B*15:80     |                  |
| B*15:72+B*15:249      | B*15:78:01+B*15:108    |                  |
| B*15:72+B*18:13       | B*15:221+B*18:40       |                  |
| B*15:72+B*18:31       | B*15:176+B*18:40       |                  |
| B*15:72+B*35:45       | B*15:161+B*35:174      |                  |
| B*15:72+B*35:156      | B*15:133+B*35:174      |                  |
| B*15:72+B*39:42       | B*15:80+B*39:68        |                  |
| B*15:72+B*44:21       | B*15:238+B*44:53       |                  |
| B*15:72+B*44:89       | B*15:108+B*44:53       |                  |
| B*15:72+B*55:02:01G   | B*15:93+B*56:20:01     |                  |
| B*15:72+B*55:22       | B*15:238+B*56:20:01    |                  |
| B*15:72+B*57:19       | B*15:221+B*57:31       |                  |
| B*15:72+B*57:25       | B*15:238+B*57:31       |                  |
| B*15:72+B*57:26       | B*15:93+B*57:31        |                  |
| B*15:73+B*15:188      | B*15:150+B*15:224      |                  |
| B*15:73+B*35:93       | B*15:224+B*35:14:02    |                  |
| B*15:73+B*40:59       | B*15:85+B*40:48        |                  |
| B*15:73+B*46:21:02    | B*15:224+B*46:01:01G   |                  |
| B*15:73+B*51:24:04    | B*15:150+B*51:106      |                  |
| B*15:73+B*53:06       | B*15:85+B*51:62        |                  |
| B*15:73+B*54:09       | B*15:224+B*54:06       |                  |
| B*15:73+B*54:11       | B*15:150+B*54:22       |                  |
| B*15:73+B*55:08       | B*15:150+B*56:04       |                  |
| B*15:73+B*56:09       | B*15:85+B*56:04        |                  |
| B*15:76+B*18:12       | B*15:101+B*18:01:01G   |                  |
| B*15:76+B*27:05:02G   | B*27:67+B*56:03        |                  |
| B*15:76+B*35:13       | B*15:101+B*35:03:01G   |                  |
| B*15:76+B*35:16       | B*15:101+B*35:17       |                  |
| B*15:76+B*35:60       | B*35:43:01G+B*55:35    |                  |
| B*15:76+B*35:69       | B*15:101+B*35:29:01    | B*15:236+B*35:76 |
| B*15:76+B*35:80       | B*15:101+B*35:08:01    |                  |
| B*15:76+B*35:186      | B*35:76+B*46:01:01G    |                  |
| B*15:76+B*38:04       | B*15:101+B*38:02:03    |                  |
| B*15:76+B*39:01:01G   | B*15:189+B*67:01:02    |                  |
| B*15:76+B*39:22       | B*15:101+B*39:01:01G   |                  |
| B*15:76+B*40:61       | B*15:152+B*40:166      |                  |
| B*15:76+B*40:67       | B*15:145+B*40:166      |                  |
| B*15:76+B*40:79       | B*15:159+B*40:166      |                  |
| B*15:76+B*40:160      | B*15:154+B*40:166      |                  |
| B*15:76+B*40:171      | B*15:193+B*40:166      |                  |
| B*15:76+B*40:172      | B*15:128+B*40:166      |                  |
| B*15:76+B*40:186      | B*15:82+B*40:166       |                  |
| B*15:76+B*44:02:01G   | B*15:101+B*44:12       |                  |
| B*15:76+B*46:18       | B*46:01:01G+B*55:35    |                  |
| B*15:76+B*48:18       | B*15:87+B*81:01:01G    |                  |
| B*15:76+B*50:01:01    | B*15:101+B*50:15       |                  |
| B*15:76+B*52:01:01G   | B*15:101+B*51:07:02    |                  |
| B*15:76+B*52:06:01    | B*15:101+B*51:01:33    |                  |
| B*15:76+B*52:06:02    | B*15:101+B*51:01:01G   |                  |
| B*15:76+B*52:09       | B*15:87+B*56:06        |                  |
| B*15:76+B*54:01:01G   | B*54:06+B*55:35        |                  |
| B*15:76+B*55:34       | B*15:101+B*55:47       |                  |
| B*15:76+B*55:40       | B*15:101+B*55:01:01G   |                  |
| B*15:77+B*27:70       | B*15:233+B*27:19       |                  |
| B*15:77+B*35:05:01    | B*15:233+B*35:30       |                  |
| B*15:77+B*35:68:01    | B*15:233+B*35:01:01G   |                  |
| B*15:77+B*35:68:02    | B*15:233+B*35:01:04    |                  |
| B*15:77+B*38:01:01    | B*15:233+B*38:20       |                  |
| B*15:77+B*39:01:01G   | B*15:233+B*39:42       |                  |
| B*15:77+B*40:01:01G   | B*15:233+B*40:160      |                  |
| B*15:77+B*40:11:02    | B*15:233+B*40:64       |                  |
| B*15:77+B*44:17       | B*15:154+B*44:02:01G   |                  |
| B*15:77+B*44:41:01    | B*15:233+B*44:02:01G   |                  |
| B*15:77+B*44:41:02    | B*15:233+B*44:02:07    |                  |
| B*15:77+B*44:43:01    | B*15:154+B*44:03:01G   |                  |
| B*15:77+B*44:54       | B*15:233+B*44:110      |                  |
| B*15:77+B*44:65       | B*15:233+B*44:03:01G   |                  |
| B*15:77+B*51:06:02    | B*15:233+B*51:04       |                  |
| B*15:77+B*57:19       | B*15:154+B*57:04       |                  |
| B*15:78:01+B*18:02    | B*15:129+B*18:40       |                  |
| B*15:78:01+B*18:08    | B*15:110+B*18:40       |                  |
| B*15:78:01+B*18:20    | B*15:128+B*18:40       |                  |
| B*15:78:01+B*18:31    | B*15:145+B*18:40       |                  |
| B*15:78:01+B*18:32    | B*15:192+B*18:40       |                  |
| B*15:78:01+B*18:49    | B*15:135+B*18:40       |                  |
| B*15:78:01+B*18:67    | B*15:87+B*18:40        |                  |
| B*15:78:01+B*18:69    | B*15:165+B*18:40       |                  |
| B*15:78:01+B*18:71    | B*15:122+B*18:40       |                  |
| B*15:78:01+B*35:03:11 | B*15:78:02+B*35:03:01G |                  |
| B*15:78:01+B*35:09:03 | B*15:78:02+B*35:09:01  |                  |
| B*15:78:01+B*35:142   | B*15:251+B*35:174      |                  |
| B*15:78:01+B*39:31    | B*15:225+B*39:68       |                  |
| B*15:78:01+B*39:38Q   | B*15:245Q+B*39:68      |                  |
| B*15:78:01+B*39:42    | B*15:154+B*39:68       |                  |
| B*15:78:01+B*39:53    | B*15:193+B*39:68       |                  |

|                        |                        |                     |
|------------------------|------------------------|---------------------|
| B*15:78:01+B*39:54     | B*15:244+B*39:68       |                     |
| B*15:78:01+B*40:01:01G | B*15:78:02+B*40:01:14  | B*15:116+B*40:14:02 |
| B*15:78:01+B*40:14:03  | B*15:78:02+B*40:14:02  |                     |
| B*15:78:01+B*44:21     | B*15:117+B*44:53       |                     |
| B*15:78:01+B*44:22     | B*15:125+B*44:53       |                     |
| B*15:78:01+B*44:49     | B*15:142+B*44:53       |                     |
| B*15:78:01+B*44:55     | B*15:225+B*44:53       |                     |
| B*15:78:01+B*44:71     | B*15:231+B*44:53       |                     |
| B*15:78:01+B*44:88     | B*15:232+B*44:53       |                     |
| B*15:78:01+B*44:89     | B*15:249+B*44:53       |                     |
| B*15:78:01+B*44:102    | B*15:105+B*44:53       |                     |
| B*15:78:01+B*51:01:09  | B*15:78:02+B*51:01:02  |                     |
| B*15:78:01+B*53:16     | B*15:87+B*35:174       |                     |
| B*15:78:01+B*55:22     | B*15:117+B*56:20:01    |                     |
| B*15:78:01+B*56:16     | B*15:251+B*56:20:01    |                     |
| B*15:78:01+B*56:36     | B*15:183+B*56:20:01    |                     |
| B*15:78:01+B*57:01:07  | B*15:78:02+B*57:01:01G |                     |
| B*15:78:01+B*57:25     | B*15:117+B*57:31       |                     |
| B*15:78:01+B*57:41     | B*15:128+B*57:31       |                     |
| B*15:78:01+B*57:49     | B*15:142+B*57:31       |                     |
| B*15:78:01+B*57:51     | B*15:212+B*57:31       |                     |
| B*15:78:01+B*57:58     | B*15:251+B*57:31       |                     |
| B*15:78:02+B*15:136    | B*15:107+B*15:249      |                     |
| B*15:78:02+B*18:01:01G | B*15:107+B*18:19       |                     |
| B*15:78:02+B*18:26     | B*15:150+B*18:01:01G   |                     |
| B*15:78:02+B*18:61     | B*15:150+B*18:40       |                     |
| B*15:78:02+B*27:27     | B*15:150+B*27:41       |                     |
| B*15:78:02+B*35:02:01  | B*15:150+B*35:146      |                     |
| B*15:78:02+B*35:04:03  | B*15:150+B*35:01:17    |                     |
| B*15:78:02+B*35:09:02  | B*15:150+B*35:64       |                     |
| B*15:78:02+B*35:14:02  | B*15:85+B*35:118       |                     |
| B*15:78:02+B*35:22     | B*15:150+B*35:51       |                     |
| B*15:78:02+B*35:86     | B*15:117+B*35:118      |                     |
| B*15:78:02+B*39:01:05  | B*15:107+B*39:18       |                     |
| B*15:78:02+B*39:28     | B*15:141+B*39:01:01G   |                     |
| B*15:78:02+B*39:30     | B*15:107+B*39:36       |                     |
| B*15:78:02+B*40:01:01G | B*15:116+B*40:14:03    | B*15:150+B*40:52    |
| B*15:78:02+B*40:02:01G | B*15:150+B*40:03       |                     |
| B*15:78:02+B*40:06:01G | B*15:150+B*40:159      |                     |
| B*15:78:02+B*40:11:01  | B*15:150+B*40:20       |                     |
| B*15:78:02+B*42:02     | B*15:150+B*42:09       |                     |
| B*15:78:02+B*44:03:01G | B*15:107+B*44:146      |                     |
| B*15:78:02+B*44:77     | B*15:150+B*44:43:01    |                     |
| B*15:78:02+B*46:13:01  | B*15:107+B*46:01:03    |                     |
| B*15:78:02+B*46:13:03  | B*15:107+B*46:01:01G   |                     |
| B*15:78:02+B*46:21:01  | B*15:107+B*46:29       |                     |
| B*15:78:02+B*48:01:01G | B*15:116+B*48:10       |                     |
| B*15:78:02+B*48:03:01  | B*15:150+B*48:23       |                     |
| B*15:78:02+B*48:04     | B*15:116+B*48:13       |                     |
| B*15:78:02+B*51:09:01  | B*15:107+B*51:61:02    |                     |
| B*15:78:02+B*51:16     | B*15:117+B*51:24:04    |                     |
| B*15:78:02+B*51:27N    | B*15:181N+B*51:24:04   |                     |
| B*15:78:02+B*51:41N    | B*15:94N+B*51:24:04    |                     |
| B*15:78:02+B*51:43     | B*15:217+B*51:24:04    |                     |
| B*15:78:02+B*51:46     | B*15:141+B*51:04       |                     |
| B*15:78:02+B*51:53     | B*15:105+B*51:24:04    |                     |
| B*15:78:02+B*51:66     | B*15:113+B*51:24:04    |                     |
| B*15:78:02+B*51:68     | B*15:142+B*51:24:04    |                     |
| B*15:78:02+B*51:95     | B*15:193+B*51:24:04    |                     |
| B*15:78:02+B*51:124    | B*15:110+B*51:24:04    |                     |
| B*15:78:02+B*51:127    | B*15:178+B*51:24:04    |                     |
| B*15:78:02+B*51:130    | B*15:192+B*51:24:04    |                     |
| B*15:78:02+B*54:04     | B*15:150+B*54:14       |                     |
| B*15:78:02+B*55:02:01G | B*15:107+B*55:21       |                     |
| B*15:78:02+B*57:02:01  | B*15:150+B*57:19       |                     |
| B*15:78:02+B*57:03:01  | B*15:150+B*57:01:01G   |                     |
| B*15:78:02+B*57:57     | B*15:150+B*57:22       |                     |
| B*15:80+B*15:117       | B*15:154+B*15:238      |                     |
| B*15:80+B*15:145       | B*15:154+B*15:176      |                     |
| B*15:80+B*15:249       | B*15:108+B*15:154      |                     |
| B*15:80+B*35:151       | B*15:133+B*35:01:04    |                     |
| B*15:80+B*40:67        | B*15:176+B*40:160      |                     |
| B*15:80+B*40:128       | B*15:221+B*40:160      |                     |
| B*15:80+B*40:132       | B*15:161+B*40:160      |                     |
| B*15:82+B*40:61        | B*15:152+B*40:186      |                     |
| B*15:82+B*40:67        | B*15:145+B*40:186      |                     |
| B*15:82+B*40:79        | B*15:159+B*40:186      |                     |
| B*15:82+B*40:160       | B*15:154+B*40:186      |                     |
| B*15:82+B*40:171       | B*15:193+B*40:186      |                     |
| B*15:82+B*40:172       | B*15:128+B*40:186      |                     |
| B*15:84+B*15:163       | B*15:109+B*15:237      |                     |
| B*15:84+B*18:15        | B*15:195+B*18:13       |                     |
| B*15:84+B*27:10        | B*15:195+B*27:45       |                     |
| B*15:84+B*35:01:04     | B*15:237+B*35:23       |                     |
| B*15:84+B*35:11:01     | B*15:195+B*35:08:01    |                     |
| B*15:84+B*35:167       | B*15:195+B*35:156      |                     |
| B*15:84+B*40:01:01G    | B*15:237+B*40:100      |                     |
| B*15:84+B*44:79        | B*15:195+B*44:28:02    |                     |
| B*15:84+B*51:02:02     | B*15:195+B*51:05       |                     |
| B*15:84+B*53:08:01     | B*15:195+B*53:24       |                     |
| B*15:84+B*55:01:01G    | B*15:195+B*55:37       |                     |
| B*15:84+B*57:22        | B*15:195+B*57:19       |                     |
| B*15:84+B*57:57        | B*15:195+B*57:02:01    |                     |
| B*15:84+B*58:19        | B*15:195+B*58:22       |                     |
| B*15:85+B*18:01:01G    | B*15:154+B*18:52       |                     |
| B*15:85+B*35:12:01     | B*15:154+B*35:04:01    |                     |
| B*15:85+B*35:39        | B*15:154+B*35:34       |                     |
| B*15:85+B*35:59        | B*15:154+B*35:06       |                     |
| B*15:85+B*35:61        | B*15:154+B*35:08:01    |                     |
| B*15:85+B*35:86        | B*15:117+B*35:14:02    |                     |
| B*15:85+B*51:07:01     | B*15:194+B*52:21       |                     |
| B*15:85+B*55:08        | B*15:150+B*56:09       |                     |
| B*15:86+B*35:12:01     | B*15:224+B*35:04:03    |                     |
| B*15:86+B*35:32:01     | B*15:224+B*35:68:01    |                     |
| B*15:86+B*40:01:01G    | B*15:224+B*40:125      |                     |

|                     |                          |                     |
|---------------------|--------------------------|---------------------|
| B*15:86+B*44:02:01G | B*15:224+B*44:48         |                     |
| B*15:86+B*50:04     | B*15:224+B*50:01:01      |                     |
| B*15:87+B*18:02     | B*15:129+B*18:67         |                     |
| B*15:87+B*18:08     | B*15:110+B*18:67         |                     |
| B*15:87+B*18:20     | B*15:128+B*18:67         |                     |
| B*15:87+B*18:31     | B*15:145+B*18:67         |                     |
| B*15:87+B*18:32     | B*15:192+B*18:67         |                     |
| B*15:87+B*18:69     | B*15:165+B*18:67         |                     |
| B*15:87+B*18:71     | B*15:122+B*18:67         |                     |
| B*15:87+B*35:09:03  | B*15:150+B*53:05         |                     |
| B*15:87+B*35:15     | B*15:117+B*53:05         |                     |
| B*15:87+B*35:54     | B*15:125+B*53:05         |                     |
| B*15:87+B*35:90     | B*15:183+B*53:05         |                     |
| B*15:87+B*35:91     | B*15:192+B*53:05         |                     |
| B*15:87+B*35:103    | B*15:163+B*53:05         |                     |
| B*15:87+B*35:124    | B*15:251+B*53:05         |                     |
| B*15:87+B*35:142    | B*15:251+B*53:16         |                     |
| B*15:87+B*35:175    | B*15:92+B*53:05          |                     |
| B*15:87+B*35:180    | B*15:105+B*53:05         |                     |
| B*15:87+B*40:190    | B*15:159+B*40:109        |                     |
| B*15:88+B*15:93     | B*15:121+B*15:200        |                     |
| B*15:89+B*35:62     | B*15:144+B*53:13         |                     |
| B*15:89+B*35:78     | B*15:139+B*53:13         |                     |
| B*15:89+B*35:93     | B*15:121+B*53:13         |                     |
| B*15:89+B*35:175    | B*15:213+B*53:13         |                     |
| B*15:89+B*55:02:01G | B*15:121+B*56:07         |                     |
| B*15:91+B*15:108    | B*15:161+B*15:235        |                     |
| B*15:91+B*18:15     | B*15:131+B*18:01:01G     |                     |
| B*15:91+B*18:30     | B*15:131+B*18:13         |                     |
| B*15:91+B*27:04:01G | B*15:131+B*27:61         |                     |
| B*15:91+B*27:05:03  | B*15:123:01G+B*27:50     |                     |
| B*15:91+B*27:10     | B*15:131+B*27:05:02G     |                     |
| B*15:91+B*27:40     | B*15:131+B*27:08         |                     |
| B*15:91+B*27:92     | B*15:161+B*27:29         |                     |
| B*15:91+B*35:01:01G | B*15:123:01G+B*35:71     |                     |
| B*15:91+B*35:08:01  | B*15:123:01G+B*35:45     |                     |
| B*15:91+B*35:21     | B*15:131+B*35:24:01      |                     |
| B*15:91+B*35:38     | B*15:123:01G+B*35:169    |                     |
| B*15:91+B*35:58     | B*15:131+B*35:05:01      |                     |
| B*15:91+B*35:167    | B*15:131+B*35:03:01G     | B*15:253+B*35:71    |
| B*15:91+B*35:188    | B*15:131+B*35:190        |                     |
| B*15:91+B*37:13     | B*15:131+B*37:01:01G     |                     |
| B*15:91+B*38:10     | B*15:131+B*38:36         |                     |
| B*15:91+B*38:32     | B*15:131+B*38:01:01      |                     |
| B*15:91+B*39:35     | B*15:131+B*39:01:01G     | B*15:161+B*39:02:01 |
| B*15:91+B*40:01:01G | B*15:123:01G+B*40:132    |                     |
| B*15:91+B*40:148    | B*15:131+B*40:06:01G     |                     |
| B*15:91+B*40:198    | B*15:131+B*40:128        |                     |
| B*15:91+B*44:16     | B*15:123:01G+B*44:21     |                     |
| B*15:91+B*44:37:01  | B*15:123:01G+B*44:03:01G |                     |
| B*15:91+B*44:37:02  | B*15:123:01G+B*44:03:02  |                     |
| B*15:91+B*44:42     | B*15:123:01G+B*44:05:01  |                     |
| B*15:91+B*44:64:01  | B*15:123:01G+B*44:124    |                     |
| B*15:91+B*44:76     | B*15:131+B*44:28:02      |                     |
| B*15:91+B*44:79     | B*15:131+B*44:03:01G     |                     |
| B*15:91+B*44:91     | B*15:123:01G+B*44:02:01G |                     |
| B*15:91+B*45:04     | B*15:123:01G+B*45:01:01G |                     |
| B*15:91+B*46:01:01G | B*15:123:01G+B*46:17     | B*15:131+B*46:09    |
| B*15:91+B*46:08     | B*15:131+B*46:13:03      |                     |
| B*15:91+B*48:15     | B*15:131+B*48:01:01G     |                     |
| B*15:91+B*48:25     | B*15:131+B*48:02:01      |                     |
| B*15:91+B*49:01:01  | B*15:123:01G+B*49:20     | B*15:131+B*49:11    |
| B*15:91+B*50:01:01  | B*15:123:01G+B*50:02     |                     |
| B*15:91+B*51:01:01G | B*15:131+B*51:09:01      |                     |
| B*15:91+B*51:01:02  | B*15:131+B*51:09:02      |                     |
| B*15:91+B*51:02:05  | B*15:131+B*51:40         |                     |
| B*15:91+B*51:16     | B*15:131+B*51:31         |                     |
| B*15:91+B*51:23     | B*15:131+B*51:108        |                     |
| B*15:91+B*52:01:01G | B*15:123:01G+B*52:15     | B*15:131+B*52:10:01 |
| B*15:91+B*52:01:07  | B*15:131+B*52:10:02      |                     |
| B*15:91+B*53:08:01  | B*15:131+B*53:01:01      |                     |
| B*15:91+B*53:08:02  | B*15:131+B*53:01:03      |                     |
| B*15:91+B*54:20     | B*15:131+B*54:10         |                     |
| B*15:91+B*55:01:01G | B*15:131+B*55:02:01G     |                     |
| B*15:91+B*55:24     | B*15:131+B*55:22         |                     |
| B*15:91+B*55:52     | B*15:131+B*55:37         |                     |
| B*15:91+B*56:25     | B*15:131+B*56:01:01G     |                     |
| B*15:91+B*56:32     | B*15:131+B*56:18         |                     |
| B*15:91+B*57:03:01  | B*15:123:01G+B*57:07     |                     |
| B*15:91+B*57:22     | B*15:131+B*57:01:01G     |                     |
| B*15:91+B*58:02     | B*15:123:01G+B*58:07     |                     |
| B*15:91+B*58:19     | B*15:131+B*58:01:01G     |                     |
| B*15:92+B*35:09:03  | B*15:150+B*35:175        |                     |
| B*15:92+B*35:15     | B*15:117+B*35:175        |                     |
| B*15:92+B*35:27     | B*15:135+B*35:175        |                     |
| B*15:92+B*35:54     | B*15:125+B*35:175        |                     |
| B*15:92+B*35:90     | B*15:183+B*35:175        |                     |
| B*15:92+B*35:91     | B*15:192+B*35:175        |                     |
| B*15:92+B*35:103    | B*15:163+B*35:175        |                     |
| B*15:92+B*35:124    | B*15:251+B*35:175        |                     |
| B*15:92+B*35:180    | B*15:105+B*35:175        |                     |
| B*15:93+B*18:10     | B*15:238+B*18:11         |                     |
| B*15:93+B*27:04:01G | B*15:238+B*27:15         |                     |
| B*15:93+B*27:05:02G | B*15:238+B*27:71         |                     |
| B*15:93+B*35:03:01G | B*15:133+B*35:93         |                     |
| B*15:93+B*35:06     | B*15:229+B*35:93         |                     |
| B*15:93+B*35:08:01  | B*15:221+B*35:93         |                     |
| B*15:93+B*35:15     | B*15:238+B*35:93         |                     |
| B*15:93+B*35:71     | B*15:161+B*35:93         |                     |
| B*15:93+B*35:109    | B*15:133+B*35:190        |                     |
| B*15:93+B*38:01:01  | B*15:186+B*38:10         |                     |
| B*15:93+B*39:33     | B*15:221+B*39:34         |                     |
| B*15:93+B*39:50     | B*15:238+B*39:06:02      |                     |
| B*15:93+B*40:01:01G | B*15:238+B*40:199        |                     |
| B*15:93+B*40:01:06  | B*15:252+B*40:52         |                     |



|                      |                      |                  |
|----------------------|----------------------|------------------|
| B*15:93+B*40:02:01G  | B*15:238+B*40:39     |                  |
| B*15:93+B*41:19      | B*15:238+B*41:02:01  |                  |
| B*15:93+B*44:02:01G  | B*15:161+B*44:132    |                  |
| B*15:93+B*44:16      | B*15:238+B*44:132    |                  |
| B*15:93+B*44:29      | B*15:186+B*44:79     |                  |
| B*15:93+B*44:62      | B*15:252+B*44:17     |                  |
| B*15:93+B*45:01:01G  | B*15:161+B*45:08     |                  |
| B*15:93+B*45:10      | B*15:238+B*45:08     |                  |
| B*15:93+B*46:17      | B*15:161+B*46:29     |                  |
| B*15:93+B*46:19      | B*15:108+B*46:21:01  | B*15:186+B*46:08 |
| B*15:93+B*46:30      | B*15:238+B*46:29     |                  |
| B*15:93+B*47:01:01G  | B*15:238+B*47:08     |                  |
| B*15:93+B*51:06:01   | B*15:252+B*51:45     |                  |
| B*15:93+B*51:16      | B*15:238+B*51:21     |                  |
| B*15:93+B*51:19      | B*15:186+B*51:01:01G |                  |
| B*15:93+B*51:29      | B*15:221+B*51:21     |                  |
| B*15:93+B*51:49      | B*15:153+B*51:21     |                  |
| B*15:93+B*51:56:02   | B*15:252+B*53:06     |                  |
| B*15:93+B*53:12      | B*15:115+B*35:93     |                  |
| B*15:93+B*54:26      | B*15:238+B*54:01:01G |                  |
| B*15:93+B*55:09      | B*15:238+B*55:52     |                  |
| B*15:93+B*55:24      | B*15:238+B*55:01:01G |                  |
| B*15:93+B*56:07      | B*15:115+B*55:12     |                  |
| B*15:93+B*57:19      | B*15:221+B*57:26     |                  |
| B*15:93+B*57:25      | B*15:238+B*57:26     |                  |
| B*15:93+B*58:22      | B*15:221+B*58:35     |                  |
| B*15:93+B*58:34      | B*15:133+B*58:35     |                  |
| B*15:93+B*58:37      | B*15:238+B*58:35     |                  |
| B*15:94N+B*51:16     | B*15:117+B*51:41N    |                  |
| B*15:94N+B*51:27N    | B*15:181N+B*51:41N   |                  |
| B*15:94N+B*51:43     | B*15:217+B*51:41N    |                  |
| B*15:94N+B*51:53     | B*15:105+B*51:41N    |                  |
| B*15:94N+B*51:66     | B*15:113+B*51:41N    |                  |
| B*15:94N+B*51:68     | B*15:142+B*51:41N    |                  |
| B*15:94N+B*51:95     | B*15:193+B*51:41N    |                  |
| B*15:94N+B*51:124    | B*15:110+B*51:41N    |                  |
| B*15:94N+B*51:127    | B*15:178+B*51:41N    |                  |
| B*15:94N+B*51:130    | B*15:192+B*51:41N    |                  |
| B*15:97+B*40:37      | B*15:135+B*40:200    |                  |
| B*15:97+B*40:89      | B*15:128+B*40:200    |                  |
| B*15:97+B*40:169     | B*15:167+B*40:200    |                  |
| B*15:97+B*40:173     | B*15:184+B*40:200    |                  |
| B*15:98+B*15:128     | B*15:156+B*15:163    |                  |
| B*15:98+B*15:225     | B*15:163+B*15:210    |                  |
| B*15:98+B*35:03:01G  | B*15:253+B*35:103    |                  |
| B*15:98+B*35:71      | B*15:131+B*35:103    |                  |
| B*15:99+B*27:78      | B*15:221+B*27:46     |                  |
| B*15:99+B*35:51      | B*15:221+B*35:199    |                  |
| B*15:99+B*40:03      | B*15:221+B*40:18     |                  |
| B*15:99+B*40:36      | B*15:133+B*40:128    |                  |
| B*15:99+B*40:52      | B*15:221+B*40:33     |                  |
| B*15:99+B*40:105     | B*15:221+B*40:02:01G |                  |
| B*15:99+B*40:159     | B*15:221+B*40:44     |                  |
| B*15:99+B*44:17      | B*15:221+B*44:123    |                  |
| B*15:99+B*44:43:01   | B*15:221+B*44:107    |                  |
| B*15:99+B*51:13:02   | B*15:133+B*51:29     |                  |
| B*15:99+B*51:37      | B*15:221+B*51:90     |                  |
| B*15:101+B*39:58     | B*15:236+B*67:01:01  |                  |
| B*15:101+B*45:11     | B*15:105+B*45:06     |                  |
| B*15:101+B*78:01:01  | B*15:236+B*56:06     |                  |
| B*15:105+B*35:09:03  | B*15:150+B*35:180    |                  |
| B*15:105+B*35:15     | B*15:117+B*35:180    |                  |
| B*15:105+B*35:27     | B*15:135+B*35:180    |                  |
| B*15:105+B*35:54     | B*15:125+B*35:180    |                  |
| B*15:105+B*35:90     | B*15:183+B*35:180    |                  |
| B*15:105+B*35:91     | B*15:192+B*35:180    |                  |
| B*15:105+B*35:103    | B*15:163+B*35:180    |                  |
| B*15:105+B*35:124    | B*15:251+B*35:180    |                  |
| B*15:105+B*44:21     | B*15:117+B*44:102    |                  |
| B*15:105+B*44:22     | B*15:125+B*44:102    |                  |
| B*15:105+B*44:49     | B*15:142+B*44:102    |                  |
| B*15:105+B*44:55     | B*15:225+B*44:102    |                  |
| B*15:105+B*44:71     | B*15:231+B*44:102    |                  |
| B*15:105+B*44:88     | B*15:232+B*44:102    |                  |
| B*15:105+B*44:89     | B*15:249+B*44:102    |                  |
| B*15:105+B*51:16     | B*15:117+B*51:53     |                  |
| B*15:105+B*51:27N    | B*15:181N+B*51:53    |                  |
| B*15:105+B*51:43     | B*15:217+B*51:53     |                  |
| B*15:105+B*51:66     | B*15:113+B*51:53     |                  |
| B*15:105+B*51:68     | B*15:142+B*51:53     |                  |
| B*15:105+B*51:95     | B*15:193+B*51:53     |                  |
| B*15:105+B*51:124    | B*15:110+B*51:53     |                  |
| B*15:105+B*51:127    | B*15:178+B*51:53     |                  |
| B*15:105+B*51:130    | B*15:192+B*51:53     |                  |
| B*15:105+B*52:08     | B*15:117+B*52:29     |                  |
| B*15:105+B*52:27     | B*15:251+B*52:29     |                  |
| B*15:105+B*52:28     | B*15:145+B*52:29     |                  |
| B*15:105+B*55:36     | B*15:244+B*55:54     |                  |
| B*15:105+B*57:39     | B*15:225+B*57:46     |                  |
| B*15:107+B*35:38     | B*15:179+B*35:205    |                  |
| B*15:107+B*35:115    | B*15:179+B*35:64     |                  |
| B*15:107+B*51:29     | B*15:237+B*51:24:04  |                  |
| B*15:107+B*56:13     | B*15:179+B*56:20:02  |                  |
| B*15:108+B*15:117    | B*15:238+B*15:249    |                  |
| B*15:108+B*15:145    | B*15:176+B*15:249    |                  |
| B*15:108+B*15:237    | B*15:136+B*15:221    |                  |
| B*15:108+B*18:01:10  | B*15:186+B*18:57     |                  |
| B*15:108+B*27:29     | B*15:235+B*27:92     |                  |
| B*15:108+B*35:190    | B*15:186+B*35:21     |                  |
| B*15:108+B*40:39     | B*15:186+B*40:05     |                  |
| B*15:108+B*44:04     | B*15:186+B*44:76     |                  |
| B*15:108+B*44:21     | B*15:238+B*44:89     |                  |
| B*15:108+B*44:28:02  | B*15:221+B*44:29     |                  |
| B*15:108+B*51:31     | B*15:238+B*51:19     |                  |
| B*15:108+B*55:02:01G | B*15:186+B*56:25     |                  |

|                          |                      |
|--------------------------|----------------------|
| B*15:108+B*57:26         | B*15:186+B*57:22     |
| B*15:108+B*58:35         | B*15:186+B*58:19     |
| B*15:109+B*40:01:01G     | B*15:163+B*40:100    |
| B*15:110+B*18:02         | B*15:129+B*18:08     |
| B*15:110+B*18:20         | B*15:128+B*18:08     |
| B*15:110+B*18:31         | B*15:145+B*18:08     |
| B*15:110+B*18:32         | B*15:192+B*18:08     |
| B*15:110+B*18:49         | B*15:135+B*18:08     |
| B*15:110+B*18:69         | B*15:165+B*18:08     |
| B*15:110+B*18:71         | B*15:122+B*18:08     |
| B*15:110+B*51:16         | B*15:117+B*51:124    |
| B*15:110+B*51:27N        | B*15:181N+B*51:124   |
| B*15:110+B*51:43         | B*15:217+B*51:124    |
| B*15:110+B*51:66         | B*15:113+B*51:124    |
| B*15:110+B*51:68         | B*15:142+B*51:124    |
| B*15:110+B*51:95         | B*15:193+B*51:124    |
| B*15:110+B*51:127        | B*15:178+B*51:124    |
| B*15:110+B*51:130        | B*15:192+B*51:124    |
| B*15:113+B*51:16         | B*15:117+B*51:66     |
| B*15:113+B*51:27N        | B*15:181N+B*51:66    |
| B*15:113+B*51:43         | B*15:217+B*51:66     |
| B*15:113+B*51:68         | B*15:142+B*51:66     |
| B*15:113+B*51:95         | B*15:193+B*51:66     |
| B*15:113+B*51:127        | B*15:178+B*51:66     |
| B*15:113+B*51:130        | B*15:192+B*51:66     |
| B*15:114+B*27:63         | B*15:153+B*27:61     |
| B*15:114+B*35:11:01      | B*15:153+B*35:15     |
| B*15:114+B*35:167        | B*15:153+B*35:33     |
| B*15:114+B*40:05         | B*15:153+B*40:02:01G |
| B*15:114+B*56:25         | B*15:153+B*55:22     |
| B*15:114+B*57:22         | B*15:153+B*57:25     |
| B*15:114+B*58:19         | B*15:153+B*58:37     |
| B*15:115+B*35:03:01G     | B*15:133+B*53:12     |
| B*15:115+B*35:06         | B*15:229+B*53:12     |
| B*15:115+B*35:08:01      | B*15:221+B*53:12     |
| B*15:115+B*35:15         | B*15:238+B*53:12     |
| B*15:115+B*35:56         | B*15:133+B*53:13     |
| B*15:115+B*35:71         | B*15:161+B*53:12     |
| B*15:117+B*15:176        | B*15:145+B*15:238    |
| B*15:117+B*35:09:03      | B*15:150+B*35:15     |
| B*15:117+B*35:27         | B*15:135+B*35:15     |
| B*15:117+B*35:54         | B*15:125+B*35:15     |
| B*15:117+B*35:56         | B*15:135+B*35:33     |
| B*15:117+B*35:90         | B*15:183+B*35:15     |
| B*15:117+B*35:91         | B*15:192+B*35:15     |
| B*15:117+B*35:103        | B*15:163+B*35:15     |
| B*15:117+B*35:124        | B*15:251+B*35:15     |
| B*15:117+B*35:150        | B*15:183+B*35:33     |
| B*15:117+B*35:186        | B*35:28+B*46:30      |
| B*15:117+B*40:132        | B*15:241+B*40:178    |
| B*15:117+B*42:05:01      | B*15:241+B*42:08     |
| B*15:117+B*44:22         | B*15:125+B*44:21     |
| B*15:117+B*44:49         | B*15:142+B*44:21     |
| B*15:117+B*44:55         | B*15:225+B*44:21     |
| B*15:117+B*44:71         | B*15:231+B*44:21     |
| B*15:117+B*44:88         | B*15:232+B*44:21     |
| B*15:117+B*44:89         | B*15:249+B*44:21     |
| B*15:117+B*46:05         | B*15:125+B*46:30     |
| B*15:117+B*46:10         | B*15:183+B*46:30     |
| B*15:117+B*46:14         | B*15:225+B*46:30     |
| B*15:117+B*46:19         | B*15:136+B*46:30     |
| B*15:117+B*48:10         | B*15:241+B*48:13     |
| B*15:117+B*49:12         | B*15:192+B*49:07     |
| B*15:117+B*51:19         | B*15:249+B*51:31     |
| B*15:117+B*51:27N        | B*15:181N+B*51:16    |
| B*15:117+B*51:43         | B*15:217+B*51:16     |
| B*15:117+B*51:68         | B*15:142+B*51:16     |
| B*15:117+B*51:95         | B*15:193+B*51:16     |
| B*15:117+B*51:127        | B*15:178+B*51:16     |
| B*15:117+B*51:130        | B*15:192+B*51:16     |
| B*15:117+B*52:27         | B*15:251+B*52:08     |
| B*15:117+B*52:28         | B*15:145+B*52:08     |
| B*15:117+B*56:16         | B*15:251+B*55:22     |
| B*15:117+B*56:36         | B*15:183+B*55:22     |
| B*15:117+B*57:41         | B*15:128+B*57:25     |
| B*15:117+B*57:49         | B*15:142+B*57:25     |
| B*15:117+B*57:51         | B*15:212+B*57:25     |
| B*15:117+B*57:58         | B*15:251+B*57:25     |
| B*15:117+B*58:12         | B*15:251+B*58:37     |
| B*15:117+B*58:15         | B*15:164+B*58:37     |
| B*15:121+B*27:25         | B*15:144+B*27:15     |
| B*15:121+B*35:62         | B*15:144+B*35:93     |
| B*15:121+B*35:78         | B*15:139+B*35:93     |
| B*15:121+B*35:175        | B*15:213+B*35:93     |
| B*15:121+B*46:09         | B*15:144+B*46:21:01  |
| B*15:121+B*51:61:02      | B*15:144+B*51:21     |
| B*15:122+B*18:02         | B*15:129+B*18:71     |
| B*15:122+B*18:20         | B*15:128+B*18:71     |
| B*15:122+B*18:31         | B*15:145+B*18:71     |
| B*15:122+B*18:32         | B*15:192+B*18:71     |
| B*15:122+B*18:49         | B*15:135+B*18:71     |
| B*15:122+B*18:69         | B*15:165+B*18:71     |
| B*15:123:01G+B*35:35     | B*15:235+B*35:93     |
| B*15:123:01G+B*35:96     | B*15:253+B*35:190    |
| B*15:123:01G+B*38:01:01  | B*15:235+B*38:36     |
| B*15:123:01G+B*39:01:01G | B*15:235+B*39:30     |
| B*15:123:01G+B*39:06:02  | B*15:235+B*39:34     |
| B*15:123:01G+B*44:29     | B*15:235+B*44:03:01G |
| B*15:123:01G+B*44:89     | B*15:235+B*44:02:01G |
| B*15:123:01G+B*46:14     | B*15:210+B*46:09     |
| B*15:123:01G+B*46:19     | B*15:235+B*46:13:03  |
| B*15:123:01G+B*51:19     | B*15:235+B*51:09:01  |
| B*15:123:01G+B*51:77     | B*15:132+B*51:09:01  |
| B*15:125+B*35:09:03      | B*15:150+B*35:54     |
| B*15:125+B*35:27         | B*15:135+B*35:54     |

|                      |                      |
|----------------------|----------------------|
| B*15:125+B*35:90     | B*15:183+B*35:54     |
| B*15:125+B*35:91     | B*15:192+B*35:54     |
| B*15:125+B*35:103    | B*15:163+B*35:54     |
| B*15:125+B*35:124    | B*15:251+B*35:54     |
| B*15:125+B*35:186    | B*35:28+B*46:05      |
| B*15:125+B*44:29     | B*15:249+B*44:105    |
| B*15:125+B*44:49     | B*15:142+B*44:22     |
| B*15:125+B*44:55     | B*15:225+B*44:22     |
| B*15:125+B*44:71     | B*15:231+B*44:22     |
| B*15:125+B*44:88     | B*15:232+B*44:22     |
| B*15:125+B*44:89     | B*15:249+B*44:22     |
| B*15:125+B*46:10     | B*15:183+B*46:05     |
| B*15:125+B*46:14     | B*15:225+B*46:05     |
| B*15:125+B*46:19     | B*15:136+B*46:05     |
| B*15:128+B*15:210    | B*15:156+B*15:225    |
| B*15:128+B*18:02     | B*15:129+B*18:20     |
| B*15:128+B*18:31     | B*15:145+B*18:20     |
| B*15:128+B*18:32     | B*15:192+B*18:20     |
| B*15:128+B*18:49     | B*15:135+B*18:20     |
| B*15:128+B*18:69     | B*15:165+B*18:20     |
| B*15:128+B*27:05:02G | B*15:233+B*27:78     |
| B*15:128+B*40:37     | B*15:135+B*40:89     |
| B*15:128+B*40:61     | B*15:152+B*40:172    |
| B*15:128+B*40:67     | B*15:145+B*40:172    |
| B*15:128+B*40:79     | B*15:159+B*40:172    |
| B*15:128+B*40:160    | B*15:154+B*40:172    |
| B*15:128+B*40:169    | B*15:167+B*40:89     |
| B*15:128+B*40:171    | B*15:193+B*40:172    |
| B*15:128+B*40:173    | B*15:184+B*40:89     |
| B*15:128+B*44:03:01G | B*15:233+B*44:144    |
| B*15:128+B*55:12     | B*15:135+B*55:41     |
| B*15:128+B*55:13     | B*15:137+B*56:18     |
| B*15:128+B*55:16     | B*15:225+B*55:41     |
| B*15:128+B*55:43     | B*15:178+B*55:41     |
| B*15:128+B*57:49     | B*15:142+B*57:41     |
| B*15:128+B*57:51     | B*15:212+B*57:41     |
| B*15:128+B*57:58     | B*15:251+B*57:41     |
| B*15:129+B*18:31     | B*15:145+B*18:02     |
| B*15:129+B*18:32     | B*15:192+B*18:02     |
| B*15:129+B*18:49     | B*15:135+B*18:02     |
| B*15:129+B*18:69     | B*15:165+B*18:02     |
| B*15:129+B*27:19     | B*15:154+B*27:05:02G |
| B*15:129+B*27:30     | B*15:154+B*27:02:01  |
| B*15:131+B*15:133    | B*15:161+B*15:253    |
| B*15:131+B*18:33     | B*15:161+B*18:12     |
| B*15:131+B*35:82     | B*15:161+B*35:28     |
| B*15:131+B*35:135    | B*15:161+B*15:239    |
| B*15:131+B*35:156    | B*15:253+B*35:45     |
| B*15:131+B*39:01:09  | B*15:161+B*39:02:02  |
| B*15:131+B*39:11     | B*15:161+B*39:08     |
| B*15:131+B*40:47     | B*15:210+B*44:31     |
| B*15:131+B*40:172    | B*15:156+B*40:132    |
| B*15:131+B*46:14     | B*15:210+B*46:17     |
| B*15:131+B*50:11     | B*15:173+B*50:02     |
| B*15:131+B*51:22     | B*15:161+B*52:01:02  |
| B*15:131+B*57:39     | B*15:210+B*57:07     |
| B*15:132+B*51:19     | B*15:235+B*51:77     |
| B*15:133+B*15:239    | B*15:253+B*35:135    |
| B*15:133+B*18:12     | B*15:253+B*18:33     |
| B*15:133+B*35:06     | B*15:229+B*35:03:01G |
| B*15:133+B*35:22     | B*15:229+B*35:199    |
| B*15:133+B*35:35     | B*15:186+B*35:167    |
| B*15:133+B*35:45     | B*15:161+B*35:156    |
| B*15:133+B*35:71     | B*15:161+B*35:03:01G |
| B*15:133+B*35:80     | B*15:221+B*35:13     |
| B*15:133+B*38:02:01G | B*15:229+B*38:29     |
| B*15:133+B*39:01:01G | B*15:229+B*39:15     |
| B*15:133+B*39:02:01  | B*15:253+B*39:01:01G |
| B*15:133+B*39:02:02  | B*15:253+B*39:01:09  |
| B*15:133+B*39:05:01  | B*15:229+B*39:55     |
| B*15:133+B*39:08     | B*15:253+B*39:11     |
| B*15:133+B*39:13:01  | B*15:229+B*39:49     |
| B*15:133+B*40:02:01G | B*15:229+B*40:18     |
| B*15:133+B*40:16     | B*15:229+B*40:32     |
| B*15:133+B*40:80     | B*15:229+B*40:31     |
| B*15:133+B*40:89     | B*15:229+B*40:09     |
| B*15:133+B*40:105    | B*15:229+B*40:03     |
| B*15:133+B*40:172    | B*15:229+B*40:42     |
| B*15:133+B*41:01     | B*15:229+B*41:21     |
| B*15:133+B*44:14     | B*15:229+B*44:51     |
| B*15:133+B*44:77     | B*15:229+B*44:107    |
| B*15:133+B*51:06:01  | B*15:229+B*51:135    |
| B*15:133+B*51:13:01  | B*15:229+B*51:92     |
| B*15:133+B*51:21     | B*15:252+B*51:92     |
| B*15:133+B*52:01:01G | B*15:229+B*52:12     |
| B*15:133+B*52:01:02  | B*15:253+B*51:22     |
| B*15:133+B*52:06:02  | B*15:243+B*51:92     |
| B*15:133+B*54:01:01G | B*15:229+B*54:16     |
| B*15:133+B*55:02:01G | B*15:229+B*55:46     |
| B*15:133+B*58:22     | B*15:221+B*58:34     |
| B*15:133+B*58:37     | B*15:238+B*58:34     |
| B*15:135+B*18:31     | B*15:145+B*18:49     |
| B*15:135+B*18:32     | B*15:192+B*18:49     |
| B*15:135+B*18:69     | B*15:165+B*18:49     |
| B*15:135+B*35:09:03  | B*15:150+B*35:27     |
| B*15:135+B*35:90     | B*15:183+B*35:27     |
| B*15:135+B*35:91     | B*15:192+B*35:27     |
| B*15:135+B*35:103    | B*15:163+B*35:27     |
| B*15:135+B*35:124    | B*15:251+B*35:27     |
| B*15:135+B*35:150    | B*15:183+B*35:56     |
| B*15:135+B*40:169    | B*15:167+B*40:37     |
| B*15:135+B*40:173    | B*15:184+B*40:37     |
| B*15:135+B*42:02     | B*15:225+B*42:15     |
| B*15:135+B*55:16     | B*15:225+B*55:12     |
| B*15:135+B*55:43     | B*15:178+B*55:12     |

|                      |                      |
|----------------------|----------------------|
| B*15:136+B*18:19     | B*15:249+B*18:01:01G |
| B*15:136+B*35:14:01  | B*15:249+B*35:01:01G |
| B*15:136+B*35:186    | B*35:28+B*46:19      |
| B*15:136+B*35:190    | B*15:185+B*35:35     |
| B*15:136+B*39:18     | B*15:249+B*39:01:05  |
| B*15:136+B*44:28:02  | B*15:237+B*44:29     |
| B*15:136+B*46:01:03  | B*15:249+B*46:13:01  |
| B*15:136+B*46:10     | B*15:183+B*46:19     |
| B*15:136+B*46:14     | B*15:225+B*46:19     |
| B*15:136+B*55:21     | B*15:249+B*55:02:01G |
| B*15:138+B*18:19     | B*15:241+B*18:15     |
| B*15:138+B*27:25     | B*15:241+B*27:63     |
| B*15:138+B*35:14:01  | B*15:241+B*35:11:01  |
| B*15:138+B*35:14:02  | B*15:241+B*35:11:02  |
| B*15:138+B*35:62     | B*15:241+B*35:01:01G |
| B*15:138+B*35:163    | B*15:241+B*35:03:01G |
| B*15:138+B*44:146    | B*15:241+B*44:79     |
| B*15:138+B*46:01:01G | B*15:241+B*46:08     |
| B*15:138+B*46:09     | B*15:241+B*46:13:03  |
| B*15:138+B*48:19     | B*15:241+B*48:01:01G |
| B*15:138+B*51:61:02  | B*15:241+B*51:01:01G |
| B*15:138+B*52:21     | B*15:241+B*52:01:02  |
| B*15:138+B*55:21     | B*15:241+B*55:01:01G |
| B*15:139+B*35:62     | B*15:144+B*35:78     |
| B*15:139+B*35:175    | B*15:213+B*35:78     |
| B*15:142+B*44:55     | B*15:225+B*44:49     |
| B*15:142+B*44:71     | B*15:231+B*44:49     |
| B*15:142+B*44:88     | B*15:232+B*44:49     |
| B*15:142+B*44:89     | B*15:249+B*44:49     |
| B*15:142+B*51:27N    | B*15:181N+B*51:68    |
| B*15:142+B*51:43     | B*15:217+B*51:68     |
| B*15:142+B*51:95     | B*15:193+B*51:68     |
| B*15:142+B*51:127    | B*15:178+B*51:68     |
| B*15:142+B*51:130    | B*15:192+B*51:68     |
| B*15:142+B*57:51     | B*15:212+B*57:49     |
| B*15:142+B*57:58     | B*15:251+B*57:49     |
| B*15:144+B*35:175    | B*15:213+B*35:62     |
| B*15:145+B*18:32     | B*15:192+B*18:31     |
| B*15:145+B*18:69     | B*15:165+B*18:31     |
| B*15:145+B*40:61     | B*15:152+B*40:67     |
| B*15:145+B*40:79     | B*15:159+B*40:67     |
| B*15:145+B*40:160    | B*15:154+B*40:67     |
| B*15:145+B*40:171    | B*15:193+B*40:67     |
| B*15:145+B*52:27     | B*15:251+B*52:28     |
| B*15:150+B*35:90     | B*15:183+B*35:09:03  |
| B*15:150+B*35:91     | B*15:192+B*35:09:03  |
| B*15:150+B*35:103    | B*15:163+B*35:09:03  |
| B*15:150+B*35:124    | B*15:251+B*35:09:03  |
| B*15:150+B*46:21:02  | B*15:188+B*46:01:01G |
| B*15:150+B*54:09     | B*15:188+B*54:06     |
| B*15:152+B*40:79     | B*15:159+B*40:61     |
| B*15:152+B*40:160    | B*15:154+B*40:61     |
| B*15:152+B*40:171    | B*15:193+B*40:61     |
| B*15:153+B*51:16     | B*15:238+B*51:49     |
| B*15:153+B*51:29     | B*15:221+B*51:49     |
| B*15:154+B*39:31     | B*15:225+B*39:42     |
| B*15:154+B*39:38Q    | B*15:245Q+B*39:42    |
| B*15:154+B*39:53     | B*15:193+B*39:42     |
| B*15:154+B*39:54     | B*15:244+B*39:42     |
| B*15:154+B*40:79     | B*15:159+B*40:160    |
| B*15:154+B*40:171    | B*15:193+B*40:160    |
| B*15:154+B*44:82     | B*15:165+B*44:77     |
| B*15:155+B*39:48     | B*15:185+B*39:06:02  |
| B*15:156+B*18:63     | B*15:173+B*18:20     |
| B*15:156+B*55:16     | B*15:210+B*55:41     |
| B*15:159+B*40:171    | B*15:193+B*40:79     |
| B*15:160+B*27:58     | B*15:231+B*27:03     |
| B*15:161+B*35:06     | B*15:229+B*35:71     |
| B*15:161+B*35:15     | B*15:238+B*35:71     |
| B*15:161+B*40:67     | B*15:176+B*40:132    |
| B*15:161+B*40:128    | B*15:221+B*40:132    |
| B*15:161+B*45:10     | B*15:238+B*45:01:01G |
| B*15:161+B*46:30     | B*15:238+B*46:17     |
| B*15:161+B*49:07     | B*15:238+B*49:20     |
| B*15:161+B*51:34     | B*15:238+B*51:23     |
| B*15:161+B*52:08     | B*15:238+B*52:15     |
| B*15:161+B*52:24     | B*15:221+B*52:15     |
| B*15:161+B*52:28     | B*15:176+B*52:15     |
| B*15:161+B*57:02:01  | B*15:221+B*57:07     |
| B*15:163+B*35:90     | B*15:183+B*35:103    |
| B*15:163+B*35:91     | B*15:192+B*35:103    |
| B*15:163+B*35:124    | B*15:251+B*35:103    |
| B*15:164+B*58:12     | B*15:251+B*58:15     |
| B*15:165+B*18:32     | B*15:192+B*18:69     |
| B*15:167+B*40:173    | B*15:184+B*40:169    |
| B*15:176+B*18:13     | B*15:221+B*18:31     |
| B*15:176+B*40:128    | B*15:221+B*40:67     |
| B*15:176+B*52:08     | B*15:238+B*52:28     |
| B*15:176+B*52:24     | B*15:221+B*52:28     |
| B*15:178+B*51:27N    | B*15:181N+B*51:127   |
| B*15:178+B*51:43     | B*15:217+B*51:127    |
| B*15:178+B*51:95     | B*15:193+B*51:127    |
| B*15:178+B*51:130    | B*15:192+B*51:127    |
| B*15:178+B*55:16     | B*15:225+B*55:43     |
| B*15:181N+B*51:43    | B*15:217+B*51:27N    |
| B*15:181N+B*51:95    | B*15:193+B*51:27N    |
| B*15:181N+B*51:130   | B*15:192+B*51:27N    |
| B*15:183+B*35:91     | B*15:192+B*35:90     |
| B*15:183+B*35:124    | B*15:251+B*35:90     |
| B*15:183+B*35:186    | B*35:28+B*46:10      |
| B*15:183+B*38:01:01  | B*15:251+B*38:16     |
| B*15:183+B*40:149    | B*15:251+B*40:74     |
| B*15:183+B*46:14     | B*15:225+B*46:10     |
| B*15:183+B*56:16     | B*15:251+B*56:36     |
| B*15:185+B*35:08:01  | B*15:237+B*35:24:01  |

|                      |                         |                 |                 |                     |
|----------------------|-------------------------|-----------------|-----------------|---------------------|
| B*15:185+B*35:156    | B*15:237+B*35:109       |                 |                 |                     |
| B*15:185+B*35:172    | B*15:237+B*35:81        |                 |                 |                     |
| B*15:185+B*40:128    | B*15:237+B*40:113       |                 |                 |                     |
| B*15:185+B*51:05     | B*15:237+B*51:09:02     |                 |                 |                     |
| B*15:185+B*51:36     | B*15:199+B*51:09:01     |                 |                 |                     |
| B*15:185+B*53:24     | B*15:237+B*53:02        |                 |                 |                     |
| B*15:185+B*55:56     | B*15:199+B*56:34        |                 |                 |                     |
| B*15:185+B*58:22     | B*15:237+B*58:09        |                 |                 |                     |
| B*15:188+B*51:106    | B*15:224+B*51:24:04     |                 |                 |                     |
| B*15:188+B*54:22     | B*15:224+B*54:11        |                 |                 |                     |
| B*15:188+B*56:04     | B*15:224+B*55:08        |                 |                 |                     |
| B*15:191+B*15:239    | B*15:234+B*35:43:01G    |                 |                 |                     |
| B*15:191+B*18:12     | B*15:234+B*18:07:01     |                 |                 |                     |
| B*15:191+B*35:28     | B*15:234+B*35:01:01G    |                 |                 |                     |
| B*15:191+B*39:02:01  | B*15:234+B*39:58        |                 |                 |                     |
| B*15:191+B*40:01:01G | B*15:234+B*40:106       |                 |                 |                     |
| B*15:191+B*40:02:01G | B*15:234+B*40:08        |                 |                 |                     |
| B*15:191+B*40:04     | B*15:234+B*40:68        |                 |                 |                     |
| B*15:191+B*48:01:01G | B*15:234+B*48:06        |                 |                 |                     |
| B*15:191+B*52:01:01G | B*15:234+B*51:01:02     |                 |                 |                     |
| B*15:191+B*52:01:02  | B*15:234+B*51:01:01G    |                 |                 |                     |
| B*15:191+B*52:01:09  | B*15:234+B*51:01:03     |                 |                 |                     |
| B*15:191+B*52:02     | B*15:234+B*51:104       |                 |                 |                     |
| B*15:191+B*52:10:01  | B*15:234+B*51:09:02     |                 |                 |                     |
| B*15:191+B*52:11     | B*15:234+B*51:02:02     |                 |                 |                     |
| B*15:191+B*52:20     | B*15:234+B*51:78:02     |                 |                 |                     |
| B*15:191+B*52:21     | B*15:234+B*51:61:02     |                 |                 |                     |
| B*15:191+B*53:17:02  | B*15:234+B*53:01:01     |                 |                 |                     |
| B*15:191+B*78:05     | B*15:234+B*78:02:01     |                 |                 |                     |
| B*15:192+B*35:124    | B*15:251+B*35:91        |                 |                 |                     |
| B*15:192+B*51:43     | B*15:217+B*51:130       |                 |                 |                     |
| B*15:192+B*51:95     | B*15:193+B*51:130       |                 |                 |                     |
| B*15:193+B*39:31     | B*15:225+B*39:53        |                 |                 |                     |
| B*15:193+B*39:38Q    | B*15:245Q+B*39:53       |                 |                 |                     |
| B*15:193+B*39:54     | B*15:244+B*39:53        |                 |                 |                     |
| B*15:193+B*51:43     | B*15:217+B*51:95        |                 |                 |                     |
| B*15:194+B*18:01:06  | B*15:223+B*18:52        |                 |                 |                     |
| B*15:194+B*35:12:02  | B*15:223+B*35:04:01     |                 |                 |                     |
| B*15:194+B*35:32:02  | B*15:223+B*35:68:02     |                 |                 |                     |
| B*15:194+B*35:51     | B*15:223+B*35:05:01     |                 |                 |                     |
| B*15:194+B*35:61     | B*15:223+B*35:08:03     |                 |                 |                     |
| B*15:194+B*40:18     | B*15:223+B*40:24        |                 |                 |                     |
| B*15:194+B*51:04     | B*15:223+B*51:56:02     |                 |                 |                     |
| B*15:194+B*52:06:02  | B*35:11:02+B*52:02      |                 |                 |                     |
| B*15:197+B*35:86     | B*15:238+B*35:117       |                 |                 |                     |
| B*15:199+B*37:16Q    | B*15:218Q+B*37:13       |                 |                 |                     |
| B*15:202+B*57:16     | B*15:239+B*57:01:01G    |                 |                 |                     |
| B*15:212+B*35:01:01G | B*35:43:01G+B*35:63     |                 |                 |                     |
| B*15:212+B*35:04:01  | B*35:44+B*35:63         |                 |                 |                     |
| B*15:212+B*35:15     | B*35:63+B*35:86         |                 |                 |                     |
| B*15:212+B*35:28     | B*15:239+B*35:63        |                 |                 |                     |
| B*15:212+B*35:82     | B*35:63+B*35:135        |                 |                 |                     |
| B*15:212+B*35:87     | B*35:43:01G+B*41:02:01  |                 |                 |                     |
| B*15:212+B*44:83     | B*15:239+B*44:55        |                 |                 |                     |
| B*15:212+B*46:06     | B*40:52+B*46:01:01G     |                 |                 |                     |
| B*15:212+B*46:33     | B*35:63+B*46:01:01G     |                 |                 |                     |
| B*15:212+B*57:58     | B*15:251+B*57:51        |                 |                 |                     |
| B*15:217+B*54:21     | B*15:251+B*54:13        |                 |                 |                     |
| B*15:221+B*35:06     | B*15:229+B*35:08:01     |                 |                 |                     |
| B*15:221+B*35:15     | B*15:238+B*35:08:01     |                 |                 |                     |
| B*15:221+B*35:33     | B*15:238+B*35:156       |                 |                 |                     |
| B*15:221+B*35:59     | B*15:229+B*35:61        |                 |                 |                     |
| B*15:221+B*44:124    | B*15:238+B*44:28:01     |                 |                 |                     |
| B*15:221+B*52:08     | B*15:238+B*52:24        |                 |                 |                     |
| B*15:221+B*57:25     | B*15:238+B*57:19        |                 |                 |                     |
| B*15:221+B*58:37     | B*15:238+B*58:22        |                 |                 |                     |
| B*15:223+B*58:14     | B*35:20:01+B*57:22      |                 |                 |                     |
| B*15:225+B*35:186    | B*35:28+B*46:14         |                 |                 |                     |
| B*15:225+B*39:38Q    | B*15:245Q+B*39:31       |                 |                 |                     |
| B*15:225+B*39:54     | B*15:244+B*39:31        |                 |                 |                     |
| B*15:225+B*44:71     | B*15:231+B*44:55        |                 |                 |                     |
| B*15:225+B*44:88     | B*15:232+B*44:55        |                 |                 |                     |
| B*15:225+B*44:89     | B*15:249+B*44:55        |                 |                 |                     |
| B*15:229+B*35:15     | B*15:238+B*35:06        |                 |                 |                     |
| B*15:229+B*51:21     | B*15:252+B*51:13:01     |                 |                 |                     |
| B*15:229+B*52:06:02  | B*15:243+B*51:13:01     |                 |                 |                     |
| B*15:231+B*44:88     | B*15:232+B*44:71        |                 |                 |                     |
| B*15:231+B*44:89     | B*15:249+B*44:71        |                 |                 |                     |
| B*15:232+B*44:89     | B*15:249+B*44:88        |                 |                 |                     |
| B*15:236+B*35:186    | B*35:69+B*46:01:01G     |                 |                 |                     |
| B*15:239+B*18:07:01  | B*18:12+B*35:43:01G     |                 |                 |                     |
| B*15:239+B*18:33     | B*18:12+B*35:135        |                 |                 |                     |
| B*15:239+B*35:01:01G | B*35:28+B*35:43:01G     |                 |                 |                     |
| B*15:239+B*35:04:01  | B*35:28+B*35:44         |                 |                 |                     |
| B*15:239+B*35:15     | B*35:28+B*35:86         |                 |                 |                     |
| B*15:239+B*35:82     | B*35:28+B*35:135        |                 |                 |                     |
| B*15:239+B*39:01:01G | B*35:135+B*39:02:01     |                 |                 |                     |
| B*15:239+B*39:01:09  | B*35:135+B*39:02:02     |                 |                 |                     |
| B*15:239+B*39:11     | B*35:135+B*39:08        |                 |                 |                     |
| B*15:239+B*39:58     | B*35:43:01G+B*39:02:01  |                 |                 |                     |
| B*15:239+B*40:08     | B*35:43:01G+B*40:02:01G | B*35:44+B*40:03 |                 |                     |
| B*15:239+B*40:68     | B*35:43:01G+B*40:04     |                 |                 |                     |
| B*15:239+B*40:106    | B*35:43:01G+B*40:01:01G | B*35:44+B*40:52 | B*35:86+B*40:63 | B*35:118+B*40:87:01 |
| B*15:239+B*48:06     | B*35:43:01G+B*48:01:01G |                 |                 |                     |
| B*15:239+B*51:01:01G | B*35:43:01G+B*52:01:02  |                 |                 |                     |
| B*15:239+B*51:01:02  | B*35:43:01G+B*52:01:01G |                 |                 |                     |
| B*15:239+B*51:01:03  | B*35:43:01G+B*52:01:09  |                 |                 |                     |
| B*15:239+B*51:02:02  | B*35:43:01G+B*52:11     |                 |                 |                     |
| B*15:239+B*51:09:02  | B*35:43:01G+B*52:10:01  |                 |                 |                     |
| B*15:239+B*51:16     | B*35:86+B*52:01:02      |                 |                 |                     |
| B*15:239+B*51:22     | B*35:135+B*52:01:02     |                 |                 |                     |
| B*15:239+B*51:24:04  | B*35:118+B*52:01:02     |                 |                 |                     |
| B*15:239+B*51:29     | B*35:99+B*52:21         |                 |                 |                     |
| B*15:239+B*51:61:02  | B*35:43:01G+B*52:21     |                 |                 |                     |
| B*15:239+B*51:78:02  | B*35:43:01G+B*52:20     |                 |                 |                     |

|                         |                        |                       |                       |                    |  |
|-------------------------|------------------------|-----------------------|-----------------------|--------------------|--|
| B*15:239+B*53:01:01     | B*35:43:01G+B*53:17:02 |                       |                       |                    |  |
| B*15:239+B*78:02:01     | B*35:43:01G+B*78:05    |                       |                       |                    |  |
| B*15:243+B*35:93        | B*15:252+B*35:10       |                       |                       |                    |  |
| B*15:243+B*51:21        | B*15:252+B*52:06:02    |                       |                       |                    |  |
| B*15:244+B*39:38Q       | B*15:245Q+B*39:54      |                       |                       |                    |  |
| B*18:01:01G+B*18:07:02  | B*18:01:12+B*18:07:01  |                       |                       |                    |  |
| B*18:01:01G+B*18:10     | B*18:11+B*18:50        |                       |                       |                    |  |
| B*18:01:01G+B*18:25     | B*18:43+B*18:68        |                       |                       |                    |  |
| B*18:01:01G+B*18:30     | B*18:13+B*18:15        |                       |                       |                    |  |
| B*18:01:01G+B*18:44:02  | B*18:01:06+B*18:44:01  |                       |                       |                    |  |
| B*18:01:01G+B*18:58     | B*18:11+B*18:36        |                       |                       |                    |  |
| B*18:01:01G+B*18:61     | B*18:26+B*18:40        |                       |                       |                    |  |
| B*18:01:01G+B*27:01     | B*18:09+B*27:44        |                       |                       |                    |  |
| B*18:01:01G+B*27:02:01  | B*18:10+B*27:62        | B*18:67+B*27:89       |                       |                    |  |
| B*18:01:01G+B*27:04:01G | B*18:15+B*27:61        | B*18:50+B*27:15       |                       |                    |  |
| B*18:01:01G+B*27:05:02G | B*18:02+B*27:70        | B*18:10+B*27:28       | B*18:50+B*27:71       | B*18:54+B*27:08    |  |
| B*18:01:01G+B*27:05:11  | B*18:01:02+B*27:05:02G |                       |                       |                    |  |
| B*18:01:01G+B*27:05:16  | B*18:01:16+B*27:05:02G |                       |                       |                    |  |
| B*18:01:01G+B*27:06     | B*18:02+B*27:21        |                       |                       |                    |  |
| B*18:01:01G+B*27:07:01G | B*18:54+B*27:33        |                       |                       |                    |  |
| B*18:01:01G+B*27:08     | B*18:03+B*27:44        |                       |                       |                    |  |
| B*18:01:01G+B*27:10     | B*18:15+B*27:05:02G    | B*18:54+B*27:40       |                       |                    |  |
| B*18:01:01G+B*27:16     | B*18:54+B*27:12        |                       |                       |                    |  |
| B*18:01:01G+B*27:27     | B*18:26+B*27:41        |                       |                       |                    |  |
| B*18:01:01G+B*27:32     | B*18:14+B*27:70        |                       |                       |                    |  |
| B*18:01:01G+B*27:37     | B*18:43+B*27:05:02G    |                       |                       |                    |  |
| B*18:01:01G+B*27:38     | B*18:36+B*27:71        | B*18:58+B*27:28       |                       |                    |  |
| B*18:01:01G+B*27:40     | B*18:15+B*27:08        |                       |                       |                    |  |
| B*18:01:01G+B*27:45     | B*18:13+B*27:05:02G    |                       |                       |                    |  |
| B*18:01:01G+B*27:47     | B*18:56+B*27:28        |                       |                       |                    |  |
| B*18:01:01G+B*27:53     | B*18:67+B*27:42        |                       |                       |                    |  |
| B*18:01:01G+B*27:63     | B*18:36+B*27:15        |                       |                       |                    |  |
| B*18:01:01G+B*27:71     | B*18:11+B*27:28        |                       |                       |                    |  |
| B*18:01:01G+B*27:89     | B*18:49+B*27:08        |                       |                       |                    |  |
| B*18:01:01G+B*35:01:01G | B*18:01:06+B*35:01:04  | B*18:07:01+B*35:20:01 | B*18:07:02+B*35:20:02 | B*18:11+B*35:24:01 |  |
|                         | B*18:25+B*35:50        | B*18:36+B*35:93       | B*18:58+B*35:190      | B*18:68+B*35:197   |  |
| B*18:01:01G+B*35:01:07  | B*18:01:15+B*35:01:01G |                       |                       |                    |  |
| B*18:01:01G+B*35:02:01  | B*18:01:12+B*35:02:02  | B*18:07:01+B*35:95    | B*18:11+B*35:81       | B*18:26+B*35:146   |  |
|                         | B*18:58+B*35:157       |                       |                       |                    |  |
| B*18:01:01G+B*35:03:01G | B*18:11+B*35:109       | B*18:69+B*35:75       |                       |                    |  |
| B*18:01:01G+B*35:03:02  | B*18:01:10+B*35:03:01G |                       |                       |                    |  |
| B*18:01:01G+B*35:03:08  | B*18:01:08+B*35:03:01G |                       |                       |                    |  |
| B*18:01:01G+B*35:04:01  | B*18:26+B*35:01:01G    | B*18:52+B*35:12:01    |                       |                    |  |
| B*18:01:01G+B*35:04:02  | B*18:26+B*35:01:10     |                       |                       |                    |  |
| B*18:01:01G+B*35:04:03  | B*18:26+B*35:01:17     |                       |                       |                    |  |
| B*18:01:01G+B*35:05:01  | B*18:07:01+B*35:72     | B*18:14+B*35:68:02    |                       |                    |  |
| B*18:01:01G+B*35:06     | B*18:52+B*35:59        |                       |                       |                    |  |
| B*18:01:01G+B*35:08:01  | B*18:01:06+B*35:08:03  | B*18:13+B*35:01:01G   | B*18:52+B*35:61       |                    |  |
| B*18:01:01G+B*35:08:03  | B*18:13+B*35:01:04     |                       |                       |                    |  |
| B*18:01:01G+B*35:09:01  | B*18:40+B*35:04:01     | B*18:61+B*35:01:01G   |                       |                    |  |
| B*18:01:01G+B*35:09:02  | B*18:01:10+B*35:09:03  | B*18:26+B*35:64       |                       |                    |  |
| B*18:01:01G+B*35:10     | B*18:07:01+B*35:28     | B*18:12+B*35:01:01G   |                       |                    |  |
| B*18:01:01G+B*35:11:01  | B*18:11+B*35:21        | B*18:15+B*35:01:01G   | B*18:58+B*35:188      |                    |  |
| B*18:01:01G+B*35:11:02  | B*18:01:10+B*35:11:01  | B*18:57+B*35:93       |                       |                    |  |
| B*18:01:01G+B*35:12:02  | B*18:01:06+B*35:12:01  |                       |                       |                    |  |
| B*18:01:01G+B*35:13     | B*18:12+B*35:03:01G    |                       |                       |                    |  |
| B*18:01:01G+B*35:14:01  | B*18:15+B*35:62        | B*18:19+B*35:01:01G   |                       |                    |  |
| B*18:01:01G+B*35:14:02  | B*18:01:10+B*35:14:01  |                       |                       |                    |  |
| B*18:01:01G+B*35:15     | B*18:10+B*35:190       | B*18:50+B*35:93       |                       |                    |  |
| B*18:01:01G+B*35:16     | B*18:12+B*35:17        |                       |                       |                    |  |
| B*18:01:01G+B*35:18     | B*18:13+B*35:09:02     |                       |                       |                    |  |
| B*18:01:01G+B*35:20:01  | B*18:01:12+B*35:20:02  |                       |                       |                    |  |
| B*18:01:01G+B*35:21     | B*18:15+B*35:24:01     | B*18:36+B*35:188      |                       |                    |  |
| B*18:01:01G+B*35:22     | B*18:26+B*35:51        |                       |                       |                    |  |
| B*18:01:01G+B*35:24:01  | B*18:36+B*35:190       |                       |                       |                    |  |
| B*18:01:01G+B*35:27     | B*18:49+B*35:01:01G    |                       |                       |                    |  |
| B*18:01:01G+B*35:28     | B*18:12+B*35:20:01     |                       |                       |                    |  |
| B*18:01:01G+B*35:29:01  | B*18:03+B*35:01:01G    |                       |                       |                    |  |
| B*18:01:01G+B*35:29:02  | B*18:03+B*35:01:15     |                       |                       |                    |  |
| B*18:01:01G+B*35:30     | B*18:14+B*35:01:04     | B*18:22+B*35:32:02    |                       |                    |  |
| B*18:01:01G+B*35:34     | B*18:52+B*35:39        |                       |                       |                    |  |
| B*18:01:01G+B*35:44     | B*18:26+B*35:43:01G    |                       |                       |                    |  |
| B*18:01:01G+B*35:45     | B*18:13+B*35:71        |                       |                       |                    |  |
| B*18:01:01G+B*35:48     | B*18:18+B*35:01:04     |                       |                       |                    |  |
| B*18:01:01G+B*35:51     | B*18:14+B*35:32:02     |                       |                       |                    |  |
| B*18:01:01G+B*35:56     | B*18:49+B*35:03:01G    |                       |                       |                    |  |
| B*18:01:01G+B*35:58     | B*18:15+B*35:05:01     |                       |                       |                    |  |
| B*18:01:01G+B*35:68:01  | B*18:01:06+B*35:68:02  | B*18:52+B*35:32:02    |                       |                    |  |
| B*18:01:01G+B*35:69     | B*18:03+B*35:10        | B*18:12+B*35:29:01    |                       |                    |  |
| B*18:01:01G+B*35:74     | B*18:06+B*35:03:01G    |                       |                       |                    |  |
| B*18:01:01G+B*35:80     | B*18:12+B*35:08:01     | B*18:13+B*35:10       |                       |                    |  |
| B*18:01:01G+B*35:81     | B*18:36+B*35:157       |                       |                       |                    |  |
| B*18:01:01G+B*35:82     | B*18:33+B*35:20:01     |                       |                       |                    |  |
| B*18:01:01G+B*35:91     | B*18:32+B*35:01:01G    |                       |                       |                    |  |
| B*18:01:01G+B*35:93     | B*18:11+B*35:190       |                       |                       |                    |  |
| B*18:01:01G+B*35:105    | B*18:13+B*35:159       |                       |                       |                    |  |
| B*18:01:01G+B*35:136    | B*18:03+B*35:03:01G    |                       |                       |                    |  |
| B*18:01:01G+B*35:142    | B*18:13+B*35:124       |                       |                       |                    |  |
| B*18:01:01G+B*35:150    | B*18:25+B*35:84        |                       |                       |                    |  |
| B*18:01:01G+B*35:154    | B*18:48+B*35:02:02     |                       |                       |                    |  |
| B*18:01:01G+B*35:156    | B*18:13+B*35:03:01G    |                       |                       |                    |  |
| B*18:01:01G+B*35:167    | B*18:15+B*35:03:01G    | B*18:58+B*35:96       |                       |                    |  |
| B*18:01:01G+B*35:172    | B*18:13+B*35:02:01     |                       |                       |                    |  |
| B*18:01:01G+B*35:174    | B*18:40+B*35:08:01     |                       |                       |                    |  |
| B*18:01:01G+B*35:183    | B*18:64+B*35:02:01     |                       |                       |                    |  |
| B*18:01:01G+B*35:188    | B*18:15+B*35:190       |                       |                       |                    |  |
| B*18:01:01G+B*35:197    | B*18:43+B*35:50        |                       |                       |                    |  |
| B*18:01:01G+B*37:01:01G | B*18:11+B*37:04:01     | B*18:54+B*37:11       |                       |                    |  |
| B*18:01:01G+B*37:10     | B*18:09+B*37:11        |                       |                       |                    |  |
| B*18:01:01G+B*37:13     | B*18:15+B*37:01:01G    |                       |                       |                    |  |
| B*18:01:01G+B*37:21     | B*18:07:01+B*37:01:01G |                       |                       |                    |  |
| B*18:01:01G+B*38:01:03  | B*18:01:10+B*38:01:01  |                       |                       |                    |  |
| B*18:01:01G+B*38:02:01G | B*18:09+B*39:05:01     |                       |                       |                    |  |
| B*18:01:01G+B*38:04     | B*18:12+B*38:02:03     |                       |                       |                    |  |
| B*18:01:01G+B*38:10     | B*18:15+B*38:36        |                       |                       |                    |  |

|                         |                        |                     |                     |                    |
|-------------------------|------------------------|---------------------|---------------------|--------------------|
| B*18:01:01G+B*38:14     | B*18:03+B*38:01:01     |                     |                     |                    |
| B*18:01:01G+B*38:17     | B*18:54+B*39:05:01     |                     |                     |                    |
| B*18:01:01G+B*38:19     | B*18:14+B*38:01:01     |                     |                     |                    |
| B*18:01:01G+B*38:29     | B*18:09+B*39:55        |                     |                     |                    |
| B*18:01:01G+B*38:32     | B*18:15+B*38:01:01     |                     |                     |                    |
| B*18:01:01G+B*38:33     | B*18:68+B*38:01:01     |                     |                     |                    |
| B*18:01:01G+B*39:01:01G | B*18:03+B*39:05:01     | B*18:11+B*39:48     | B*18:33+B*39:39:01  | B*18:43+B*39:31    |
| B*18:01:01G+B*39:01:05  | B*18:01:10+B*39:01:01G |                     |                     |                    |
| B*18:01:01G+B*39:02:01  | B*18:12+B*39:39:01     |                     |                     |                    |
| B*18:01:01G+B*39:02:02  | B*18:03+B*39:13:01     |                     |                     |                    |
| B*18:01:01G+B*39:03     | B*18:03+B*39:37        | B*18:14+B*39:01:01G |                     |                    |
| B*18:01:01G+B*39:04     | B*18:25+B*39:31        | B*18:68+B*39:01:01G |                     |                    |
| B*18:01:01G+B*39:05:02  | B*18:01:15+B*39:05:01  |                     |                     |                    |
| B*18:01:01G+B*39:06:02  | B*18:01:06+B*39:06:01  |                     |                     |                    |
| B*18:01:01G+B*39:09     | B*18:18+B*39:01:01G    |                     |                     |                    |
| B*18:01:01G+B*39:11     | B*18:13+B*39:05:01     |                     |                     |                    |
| B*18:01:01G+B*39:14     | B*18:14+B*39:70        |                     |                     |                    |
| B*18:01:01G+B*39:15     | B*18:03+B*39:55        |                     |                     |                    |
| B*18:01:01G+B*39:18     | B*18:19+B*39:01:05     |                     |                     |                    |
| B*18:01:01G+B*39:22     | B*18:12+B*39:01:01G    | B*18:33+B*39:02:01  |                     |                    |
| B*18:01:01G+B*39:27     | B*18:06+B*39:01:01G    |                     |                     |                    |
| B*18:01:01G+B*39:32     | B*18:36+B*39:48        |                     |                     |                    |
| B*18:01:01G+B*39:35     | B*18:15+B*39:01:01G    |                     |                     |                    |
| B*18:01:01G+B*39:36     | B*18:19+B*39:30        |                     |                     |                    |
| B*18:01:01G+B*39:37     | B*18:14+B*39:05:01     |                     |                     |                    |
| B*18:01:01G+B*39:47     | B*18:10+B*39:48        | B*18:50+B*39:01:01G |                     |                    |
| B*18:01:01G+B*39:50     | B*18:50+B*39:06:02     |                     |                     |                    |
| B*18:01:01G+B*39:58     | B*18:07:01+B*39:39:01  |                     |                     |                    |
| B*18:01:01G+B*39:68     | B*18:40+B*39:01:01G    |                     |                     |                    |
| B*18:01:01G+B*39:74     | B*18:11+B*39:32        | B*18:36+B*39:01:01G | B*18:58+B*39:48     |                    |
| B*18:01:01G+B*40:01:01G | B*18:11+B*40:113       | B*18:12+B*40:25     | B*18:26+B*40:52     | B*18:40+B*40:87:02 |
|                         | B*18:50+B*40:199       | B*18:68+B*40:74     |                     |                    |
| B*18:01:01G+B*40:01:04  | B*18:01:06+B*40:01:01G |                     |                     |                    |
| B*18:01:01G+B*40:01:14  | B*18:40+B*40:87:01     |                     |                     |                    |
| B*18:01:01G+B*40:01:16  | B*18:01:11+B*40:01:01G |                     |                     |                    |
| B*18:01:01G+B*40:01:24  | B*18:35+B*40:163       |                     |                     |                    |
| B*18:01:01G+B*40:02:01G | B*18:14+B*40:11:01     | B*18:26+B*40:03     | B*18:40+B*40:35     | B*18:50+B*40:39    |
| B*18:01:01G+B*40:02:09  | B*18:01:06+B*40:02:01G | B*18:14+B*40:11:02  |                     |                    |
| B*18:01:01G+B*40:03     | B*18:14+B*40:20        |                     |                     |                    |
| B*18:01:01G+B*40:05     | B*18:11+B*40:174       |                     |                     |                    |
| B*18:01:01G+B*40:06:01G | B*18:26+B*40:159       |                     |                     |                    |
| B*18:01:01G+B*40:07     | B*18:07:01+B*40:01:01G | B*18:12+B*40:106    |                     |                    |
| B*18:01:01G+B*40:09     | B*18:20+B*40:18        |                     |                     |                    |
| B*18:01:01G+B*40:11:01  | B*18:26+B*40:20        |                     |                     |                    |
| B*18:01:01G+B*40:11:02  | B*18:01:06+B*40:11:01  |                     |                     |                    |
| B*18:01:01G+B*40:13     | B*18:07:01+B*40:19     |                     |                     |                    |
| B*18:01:01G+B*40:14:01  | B*18:40+B*40:121       |                     |                     |                    |
| B*18:01:01G+B*40:14:02  | B*18:01:10+B*40:14:01  |                     |                     |                    |
| B*18:01:01G+B*40:19     | B*18:67+B*40:37        |                     |                     |                    |
| B*18:01:01G+B*40:23     | B*18:30+B*40:114       |                     |                     |                    |
| B*18:01:01G+B*40:31     | B*18:14+B*40:33        |                     |                     |                    |
| B*18:01:01G+B*40:32     | B*18:68+B*40:98        |                     |                     |                    |
| B*18:01:01G+B*40:37     | B*18:49+B*40:02:01G    |                     |                     |                    |
| B*18:01:01G+B*40:40     | B*18:43+B*40:02:01G    |                     |                     |                    |
| B*18:01:01G+B*40:42     | B*18:20+B*40:33        |                     |                     |                    |
| B*18:01:01G+B*40:43     | B*18:03+B*40:01:01G    |                     |                     |                    |
| B*18:01:01G+B*40:45     | B*18:14+B*40:114       |                     |                     |                    |
| B*18:01:01G+B*40:47     | B*18:09+B*40:01:01G    |                     |                     |                    |
| B*18:01:01G+B*40:49     | B*18:25+B*40:74        | B*18:43+B*40:01:01G | B*18:68+B*40:210    |                    |
| B*18:01:01G+B*40:50     | B*18:03+B*40:02:01G    |                     |                     |                    |
| B*18:01:01G+B*40:53     | B*18:68+B*40:06:01G    |                     |                     |                    |
| B*18:01:01G+B*40:57     | B*18:70+B*40:02:01G    |                     |                     |                    |
| B*18:01:01G+B*40:63     | B*18:36+B*40:199       |                     |                     |                    |
| B*18:01:01G+B*40:67     | B*18:31+B*40:01:01G    |                     |                     |                    |
| B*18:01:01G+B*40:73     | B*18:06+B*40:01:01G    |                     |                     |                    |
| B*18:01:01G+B*40:75     | B*18:33+B*40:06:01G    |                     |                     |                    |
| B*18:01:01G+B*40:80     | B*18:14+B*40:01:01G    |                     |                     |                    |
| B*18:01:01G+B*40:89     | B*18:20+B*40:02:01G    |                     |                     |                    |
| B*18:01:01G+B*40:92     | B*18:58+B*40:163       |                     |                     |                    |
| B*18:01:01G+B*40:96     | B*18:09+B*40:06:01G    |                     |                     |                    |
| B*18:01:01G+B*40:106    | B*18:07:01+B*40:25     |                     |                     |                    |
| B*18:01:01G+B*40:109    | B*18:67+B*40:06:01G    |                     |                     |                    |
| B*18:01:01G+B*40:110    | B*18:25+B*40:96        |                     |                     |                    |
| B*18:01:01G+B*40:111    | B*18:76+B*40:02:01G    |                     |                     |                    |
| B*18:01:01G+B*40:123    | B*18:24+B*40:01:01G    |                     |                     |                    |
| B*18:01:01G+B*40:124:01 | B*18:01:06+B*40:124:02 |                     |                     |                    |
| B*18:01:01G+B*40:128    | B*18:13+B*40:01:01G    |                     |                     |                    |
| B*18:01:01G+B*40:129    | B*18:25+B*40:04        |                     |                     |                    |
| B*18:01:01G+B*40:138    | B*18:64+B*40:01:01G    |                     |                     |                    |
| B*18:01:01G+B*40:148    | B*18:15+B*40:06:01G    |                     |                     |                    |
| B*18:01:01G+B*40:157    | B*18:09+B*40:02:01G    | B*18:49+B*40:201    |                     |                    |
| B*18:01:01G+B*40:161    | B*18:13+B*40:148       | B*18:30+B*40:06:01G |                     |                    |
| B*18:01:01G+B*40:162    | B*18:07:01+B*40:06:01G |                     |                     |                    |
| B*18:01:01G+B*40:172    | B*18:20+B*40:01:01G    |                     |                     |                    |
| B*18:01:01G+B*40:183    | B*18:15+B*40:01:01G    |                     |                     |                    |
| B*18:01:01G+B*40:188    | B*18:54+B*40:01:01G    |                     |                     |                    |
| B*18:01:01G+B*40:197    | B*18:38+B*40:01:01G    |                     |                     |                    |
| B*18:01:01G+B*40:198    | B*18:13+B*40:183       | B*18:15+B*40:128    | B*18:30+B*40:01:01G |                    |
| B*18:01:01G+B*40:210    | B*18:43+B*40:74        |                     |                     |                    |
| B*18:01:01G+B*41:02:01  | B*18:14+B*41:03:02     |                     |                     |                    |
| B*18:01:01G+B*41:19     | B*18:50+B*41:02:01     |                     |                     |                    |
| B*18:01:01G+B*42:01:01  | B*18:40+B*42:10        | B*18:43+B*42:02     |                     |                    |
| B*18:01:01G+B*42:02     | B*18:26+B*42:09        | B*18:40+B*42:17     |                     |                    |
| B*18:01:01G+B*42:10     | B*18:43+B*42:17        |                     |                     |                    |
| B*18:01:01G+B*42:15     | B*18:49+B*42:01:01     |                     |                     |                    |
| B*18:01:01G+B*44:02:01G | B*18:09+B*44:09        | B*18:12+B*44:12     | B*18:20+B*44:51     | B*18:43+B*44:55    |
| B*18:01:01G+B*44:02:07  | B*18:01:06+B*44:02:01G |                     |                     |                    |
| B*18:01:01G+B*44:02:09  | B*18:01:10+B*44:02:01G |                     |                     |                    |
| B*18:01:01G+B*44:02:12  | B*18:01:17+B*44:02:01G |                     |                     |                    |
| B*18:01:01G+B*44:03:01G | B*18:01:09+B*44:03:12  | B*18:09+B*44:46     | B*18:20+B*44:45     | B*18:25+B*44:103   |
|                         | B*18:49+B*44:109       |                     |                     |                    |
| B*18:01:01G+B*44:03:02  | B*18:01:06+B*44:03:01G |                     |                     |                    |
| B*18:01:01G+B*44:05:01  | B*18:20+B*44:123       |                     |                     |                    |
| B*18:01:01G+B*44:09     | B*18:25+B*44:131       |                     |                     |                    |
| B*18:01:01G+B*44:16     | B*18:50+B*44:132       |                     |                     |                    |

|                         |                        |                     |                       |                    |
|-------------------------|------------------------|---------------------|-----------------------|--------------------|
| B*18:01:01G+B*44:25     | B*18:67+B*44:75        |                     |                       |                    |
| B*18:01:01G+B*44:28:01  | B*18:01:06+B*44:28:02  | B*18:13+B*44:03:02  |                       |                    |
| B*18:01:01G+B*44:28:02  | B*18:13+B*44:03:01G    | B*18:36+B*44:04     |                       |                    |
| B*18:01:01G+B*44:37:02  | B*18:01:06+B*44:37:01  |                     |                       |                    |
| B*18:01:01G+B*44:41:02  | B*18:01:06+B*44:41:01  |                     |                       |                    |
| B*18:01:01G+B*44:53     | B*18:40+B*44:02:01G    |                     |                       |                    |
| B*18:01:01G+B*44:54     | B*18:14+B*44:65        | B*18:20+B*44:135    |                       |                    |
| B*18:01:01G+B*44:59     | B*18:05+B*44:02:01G    |                     |                       |                    |
| B*18:01:01G+B*44:64:01  | B*18:01:06+B*44:64:02  |                     |                       |                    |
| B*18:01:01G+B*44:72     | B*18:45+B*44:02:01G    |                     |                       |                    |
| B*18:01:01G+B*44:76     | B*18:13+B*44:79        | B*18:15+B*44:28:02  | B*18:30+B*44:03:01G   |                    |
| B*18:01:01G+B*44:77     | B*18:26+B*44:43:01     |                     |                       |                    |
| B*18:01:01G+B*44:79     | B*18:15+B*44:03:01G    |                     |                       |                    |
| B*18:01:01G+B*44:91     | B*18:36+B*44:132       |                     |                       |                    |
| B*18:01:01G+B*44:106    | B*18:14+B*44:41:01     |                     |                       |                    |
| B*18:01:01G+B*44:108N   | B*18:23N+B*44:03:01G   |                     |                       |                    |
| B*18:01:01G+B*44:110    | B*18:14+B*44:03:01G    |                     |                       |                    |
| B*18:01:01G+B*44:116    | B*18:34+B*44:02:01G    |                     |                       |                    |
| B*18:01:01G+B*44:144    | B*18:20+B*44:43:01     |                     |                       |                    |
| B*18:01:01G+B*44:146    | B*18:19+B*44:03:01G    |                     |                       |                    |
| B*18:01:01G+B*45:04     | B*18:36+B*45:08        |                     |                       |                    |
| B*18:01:01G+B*45:10     | B*18:50+B*45:08        |                     |                       |                    |
| B*18:01:01G+B*46:01:01G | B*18:01:10+B*46:01:03  | B*18:15+B*46:09     | B*18:19+B*46:13:03    | B*18:36+B*46:29    |
|                         | B*18:43+B*46:14        |                     |                       |                    |
| B*18:01:01G+B*46:01:03  | B*18:19+B*46:13:01     |                     |                       |                    |
| B*18:01:01G+B*46:03     | B*18:30+B*46:21:01     |                     |                       |                    |
| B*18:01:01G+B*46:08     | B*18:15+B*46:13:03     | B*18:57+B*46:21:02  |                       |                    |
| B*18:01:01G+B*46:11     | B*18:36+B*46:18        |                     |                       |                    |
| B*18:01:01G+B*46:12     | B*18:14+B*46:01:01G    |                     |                       |                    |
| B*18:01:01G+B*46:13:01  | B*18:36+B*46:21:02     |                     |                       |                    |
| B*18:01:01G+B*46:13:03  | B*18:01:10+B*46:13:01  | B*18:36+B*46:21:01  |                       |                    |
| B*18:01:01G+B*46:21:01  | B*18:01:10+B*46:21:02  |                     |                       |                    |
| B*18:01:01G+B*46:29     | B*18:19+B*46:21:01     |                     |                       |                    |
| B*18:01:01G+B*46:30     | B*18:50+B*46:29        |                     |                       |                    |
| B*18:01:01G+B*47:01:01G | B*18:50+B*47:08        | B*18:54+B*47:02     |                       |                    |
| B*18:01:01G+B*47:06     | B*18:31+B*47:01:01G    |                     |                       |                    |
| B*18:01:01G+B*48:01:01G | B*18:14+B*48:03:01     | B*18:72+B*48:28     |                       |                    |
| B*18:01:01G+B*48:03:01  | B*18:26+B*48:23        |                     |                       |                    |
| B*18:01:01G+B*48:03:02  | B*18:01:06+B*48:03:01  |                     |                       |                    |
| B*18:01:01G+B*48:15     | B*18:15+B*48:01:01G    |                     |                       |                    |
| B*18:01:01G+B*48:18     | B*18:67+B*48:01:01G    |                     |                       |                    |
| B*18:01:01G+B*48:21     | B*18:02+B*48:03:01     |                     |                       |                    |
| B*18:01:01G+B*48:25     | B*18:15+B*48:02:01     |                     |                       |                    |
| B*18:01:01G+B*49:01:01  | B*18:11+B*49:09        | B*18:15+B*49:11     |                       |                    |
| B*18:01:01G+B*49:02     | B*18:09+B*50:01:01     |                     |                       |                    |
| B*18:01:01G+B*49:10     | B*18:43+B*49:01:01     |                     |                       |                    |
| B*18:01:01G+B*49:12     | B*18:32+B*49:01:01     |                     |                       |                    |
| B*18:01:01G+B*50:01:01  | B*18:12+B*50:15        |                     |                       |                    |
| B*18:01:01G+B*50:11     | B*18:63+B*50:01:01     |                     |                       |                    |
| B*18:01:01G+B*50:13     | B*18:43+B*50:01:01     |                     |                       |                    |
| B*18:01:01G+B*51:01:01G | B*18:01:06+B*51:01:16  | B*18:04+B*51:116    | B*18:07:01+B*51:07:01 | B*18:15+B*51:09:01 |
|                         | B*18:26+B*51:37        | B*18:36+B*51:21     | B*18:68+B*51:57       |                    |
| B*18:01:01G+B*51:01:02  | B*18:07:01+B*51:07:02  | B*18:15+B*51:09:02  |                       |                    |
| B*18:01:01G+B*51:01:19  | B*18:01:17+B*51:01:01G |                     |                       |                    |
| B*18:01:01G+B*51:01:25  | B*18:01:10+B*51:01:21  |                     |                       |                    |
| B*18:01:01G+B*51:02:01  | B*18:11+B*51:01:01G    | B*18:58+B*51:21     |                       |                    |
| B*18:01:01G+B*51:02:02  | B*18:11+B*51:01:02     |                     |                       |                    |
| B*18:01:01G+B*51:02:03  | B*18:11+B*51:01:31     |                     |                       |                    |
| B*18:01:01G+B*51:02:04  | B*18:11+B*51:01:04     |                     |                       |                    |
| B*18:01:01G+B*51:02:05  | B*18:01:10+B*51:02:01  | B*18:15+B*51:40     |                       |                    |
| B*18:01:01G+B*51:06:02  | B*18:01:06+B*51:06:01  |                     |                       |                    |
| B*18:01:01G+B*51:16     | B*18:15+B*51:31        | B*18:50+B*51:21     |                       |                    |
| B*18:01:01G+B*51:20     | B*18:03+B*51:08        |                     |                       |                    |
| B*18:01:01G+B*51:22     | B*18:33+B*51:07:01     |                     |                       |                    |
| B*18:01:01G+B*51:23     | B*18:15+B*51:108       |                     |                       |                    |
| B*18:01:01G+B*51:24:01  | B*18:40+B*51:01:04     |                     |                       |                    |
| B*18:01:01G+B*51:24:03  | B*18:01:10+B*51:24:04  | B*18:40+B*51:01:25  |                       |                    |
| B*18:01:01G+B*51:24:04  | B*18:40+B*51:01:21     |                     |                       |                    |
| B*18:01:01G+B*51:29     | B*18:13+B*51:01:01G    | B*18:30+B*51:09:01  |                       |                    |
| B*18:01:01G+B*51:34     | B*18:10+B*51:21        | B*18:11+B*51:16     |                       |                    |
| B*18:01:01G+B*51:59     | B*18:11+B*51:06:01     |                     |                       |                    |
| B*18:01:01G+B*51:61:01  | B*18:01:10+B*51:61:02  |                     |                       |                    |
| B*18:01:01G+B*51:61:02  | B*18:19+B*51:09:01     |                     |                       |                    |
| B*18:01:01G+B*51:64     | B*18:14+B*51:06:01     |                     |                       |                    |
| B*18:01:01G+B*51:69     | B*18:65+B*51:01:01G    |                     |                       |                    |
| B*18:01:01G+B*51:78:01  | B*18:09+B*78:02:02     |                     |                       |                    |
| B*18:01:01G+B*51:78:02  | B*18:09+B*78:02:01     |                     |                       |                    |
| B*18:01:01G+B*51:82     | B*18:13+B*51:16        | B*18:30+B*51:31     |                       |                    |
| B*18:01:01G+B*51:124    | B*18:08+B*51:01:01G    |                     |                       |                    |
| B*18:01:01G+B*51:130    | B*18:32+B*51:01:01G    |                     |                       |                    |
| B*18:01:01G+B*52:01:01G | B*18:12+B*51:07:02     | B*18:15+B*52:10:01  | B*18:67+B*78:06       |                    |
| B*18:01:01G+B*52:01:02  | B*18:12+B*51:07:01     | B*18:49+B*52:09     |                       |                    |
| B*18:01:01G+B*52:01:07  | B*18:01:10+B*52:01:01G | B*18:15+B*52:10:02  |                       |                    |
| B*18:01:01G+B*52:01:11  | B*18:01:14+B*52:01:01G |                     |                       |                    |
| B*18:01:01G+B*52:06:01  | B*18:12+B*51:01:33     |                     |                       |                    |
| B*18:01:01G+B*52:06:02  | B*18:07:01+B*52:01:02  | B*18:12+B*51:01:01G |                       |                    |
| B*18:01:01G+B*52:10:02  | B*18:01:10+B*52:10:01  |                     |                       |                    |
| B*18:01:01G+B*52:11     | B*18:11+B*52:01:01G    |                     |                       |                    |
| B*18:01:01G+B*52:20     | B*18:09+B*78:05        |                     |                       |                    |
| B*18:01:01G+B*52:24     | B*18:13+B*52:01:01G    | B*18:30+B*52:10:01  |                       |                    |
| B*18:01:01G+B*52:28     | B*18:31+B*52:01:01G    |                     |                       |                    |
| B*18:01:01G+B*52:30     | B*18:65+B*52:01:01G    |                     |                       |                    |
| B*18:01:01G+B*53:01:01  | B*18:11+B*53:02        | B*18:49+B*53:05     | B*18:67+B*35:27       | B*18:68+B*53:21    |
| B*18:01:01G+B*53:01:03  | B*18:01:10+B*53:01:01  |                     |                       |                    |
| B*18:01:01G+B*53:01:07  | B*18:01:14+B*53:01:01  |                     |                       |                    |
| B*18:01:01G+B*53:03     | B*18:54+B*35:01:01G    |                     |                       |                    |
| B*18:01:01G+B*53:04     | B*18:67+B*35:56        |                     |                       |                    |
| B*18:01:01G+B*53:05     | B*18:67+B*35:01:01G    |                     |                       |                    |
| B*18:01:01G+B*53:08:01  | B*18:15+B*53:01:01     |                     |                       |                    |
| B*18:01:01G+B*53:08:02  | B*18:01:10+B*53:08:01  | B*18:15+B*53:01:03  |                       |                    |
| B*18:01:01G+B*53:09     | B*18:09+B*35:20:01     |                     |                       |                    |
| B*18:01:01G+B*53:11     | B*18:09+B*35:08:01     | B*18:13+B*53:13     |                       |                    |
| B*18:01:01G+B*53:13     | B*18:07:01+B*53:09     | B*18:09+B*35:01:01G | B*18:49+B*53:12       |                    |
| B*18:01:01G+B*53:16     | B*18:13+B*53:05        | B*18:67+B*35:08:01  |                       |                    |
| B*18:01:01G+B*53:23     | B*18:03+B*53:01:01     |                     |                       |                    |



|                         |                        |                     |                     |
|-------------------------|------------------------|---------------------|---------------------|
| B*18:01:01G+B*53:24     | B*18:13+B*53:01:01     | B*18:49+B*53:16     |                     |
| B*18:01:01G+B*54:01:01G | B*18:25+B*54:02        |                     |                     |
| B*18:01:01G+B*54:03     | B*18:36+B*54:01:01G    |                     |                     |
| B*18:01:01G+B*54:04     | B*18:26+B*54:14        |                     |                     |
| B*18:01:01G+B*54:10     | B*18:13+B*54:01:01G    |                     |                     |
| B*18:01:01G+B*54:20     | B*18:15+B*54:10        | B*18:30+B*54:01:01G |                     |
| B*18:01:01G+B*54:26     | B*18:50+B*54:01:01G    |                     |                     |
| B*18:01:01G+B*54:27     | B*18:75+B*54:01:01G    |                     |                     |
| B*18:01:01G+B*55:01:01G | B*18:03+B*55:31        | B*18:15+B*55:02:01G |                     |
| B*18:01:01G+B*55:01:08  | B*18:01:02+B*55:01:01G |                     |                     |
| B*18:01:01G+B*55:02:01G | B*18:01:06+B*55:02:04  | B*18:43+B*55:16     |                     |
| B*18:01:01G+B*55:03     | B*18:06+B*55:01:01G    |                     |                     |
| B*18:01:01G+B*55:09     | B*18:13+B*55:24        | B*18:30+B*55:22     | B*18:50+B*55:52     |
| B*18:01:01G+B*55:12     | B*18:49+B*55:02:01G    |                     |                     |
| B*18:01:01G+B*55:15     | B*18:42+B*55:01:01G    |                     |                     |
| B*18:01:01G+B*55:21     | B*18:19+B*55:02:01G    |                     |                     |
| B*18:01:01G+B*55:22     | B*18:50+B*55:02:01G    |                     |                     |
| B*18:01:01G+B*55:24     | B*18:15+B*55:22        | B*18:50+B*55:01:01G |                     |
| B*18:01:01G+B*55:34     | B*18:12+B*55:47        |                     |                     |
| B*18:01:01G+B*55:37     | B*18:13+B*55:02:01G    |                     |                     |
| B*18:01:01G+B*55:40     | B*18:12+B*55:01:01G    |                     |                     |
| B*18:01:01G+B*55:41     | B*18:20+B*55:02:01G    |                     |                     |
| B*18:01:01G+B*55:49     | B*18:06+B*55:04        |                     |                     |
| B*18:01:01G+B*55:52     | B*18:13+B*55:01:01G    | B*18:15+B*55:37     | B*18:30+B*55:02:01G |
| B*18:01:01G+B*56:01:01G | B*18:11+B*56:34        | B*18:25+B*56:35     | B*18:36+B*55:02:01G |
| B*18:01:01G+B*56:01:03  | B*18:01:10+B*56:01:01G |                     |                     |
| B*18:01:01G+B*56:02     | B*18:36+B*56:10        |                     |                     |
| B*18:01:01G+B*56:07     | B*18:09+B*56:01:01G    |                     |                     |
| B*18:01:01G+B*56:18     | B*18:11+B*56:31        |                     |                     |
| B*18:01:01G+B*56:20:01  | B*18:40+B*56:01:01G    |                     |                     |
| B*18:01:01G+B*56:22     | B*18:36+B*55:13        |                     |                     |
| B*18:01:01G+B*56:25     | B*18:15+B*56:01:01G    | B*18:36+B*55:01:01G |                     |
| B*18:01:01G+B*56:32     | B*18:15+B*56:18        |                     |                     |
| B*18:01:01G+B*57:01:01G | B*18:36+B*57:26        | B*18:68+B*57:10     |                     |
| B*18:01:01G+B*57:02:01  | B*18:13+B*57:03:01     | B*18:26+B*57:19     |                     |
| B*18:01:01G+B*57:03:01  | B*18:26+B*57:01:01G    | B*18:43+B*57:39     |                     |
| B*18:01:01G+B*57:19     | B*18:13+B*57:01:01G    |                     |                     |
| B*18:01:01G+B*57:22     | B*18:15+B*57:01:01G    |                     |                     |
| B*18:01:01G+B*57:23     | B*18:24+B*57:01:01G    |                     |                     |
| B*18:01:01G+B*57:25     | B*18:50+B*57:26        |                     |                     |
| B*18:01:01G+B*57:31     | B*18:40+B*57:01:01G    |                     |                     |
| B*18:01:01G+B*57:41     | B*18:20+B*57:01:01G    |                     |                     |
| B*18:01:01G+B*57:42     | B*18:46+B*57:02:01     |                     |                     |
| B*18:01:01G+B*57:57     | B*18:15+B*57:03:01     | B*18:26+B*57:22     |                     |
| B*18:01:01G+B*58:01:01G | B*18:11+B*58:09        | B*18:36+B*58:35     | B*18:69+B*58:26     |
| B*18:01:01G+B*58:01:05  | B*18:01:10+B*58:01:01G |                     |                     |
| B*18:01:01G+B*58:02     | B*18:44:02+B*58:16     |                     |                     |
| B*18:01:01G+B*58:06     | B*18:15+B*58:02        |                     |                     |
| B*18:01:01G+B*58:18     | B*18:14+B*58:16        |                     |                     |
| B*18:01:01G+B*58:19     | B*18:15+B*58:01:01G    |                     |                     |
| B*18:01:01G+B*58:21     | B*18:51+B*58:01:01G    |                     |                     |
| B*18:01:01G+B*58:22     | B*18:13+B*58:01:01G    |                     |                     |
| B*18:01:01G+B*58:37     | B*18:50+B*58:35        |                     |                     |
| B*18:01:01G+B*59:04     | B*18:36+B*59:01:01G    |                     |                     |
| B*18:01:01G+B*78:01:01  | B*18:03+B*78:02:02     | B*18:36+B*78:07     |                     |
| B*18:01:01G+B*78:06     | B*18:49+B*78:05        |                     |                     |
| B*18:01:02+B*27:05:16   | B*18:01:16+B*27:05:11  |                     |                     |
| B*18:01:02+B*27:10      | B*18:15+B*27:05:11     |                     |                     |
| B*18:01:02+B*27:37      | B*18:43+B*27:05:11     |                     |                     |
| B*18:01:02+B*27:45      | B*18:13+B*27:05:11     |                     |                     |
| B*18:01:02+B*55:03      | B*18:06+B*55:01:08     |                     |                     |
| B*18:01:02+B*55:15      | B*18:42+B*55:01:08     |                     |                     |
| B*18:01:02+B*55:24      | B*18:50+B*55:01:08     |                     |                     |
| B*18:01:02+B*55:40      | B*18:12+B*55:01:08     |                     |                     |
| B*18:01:02+B*55:52      | B*18:13+B*55:01:08     |                     |                     |
| B*18:01:02+B*56:25      | B*18:36+B*55:01:08     |                     |                     |
| B*18:01:06+B*35:04:01   | B*18:52+B*35:12:02     |                     |                     |
| B*18:01:06+B*35:05:01   | B*18:14+B*35:68:01     | B*18:52+B*35:51     |                     |
| B*18:01:06+B*35:30      | B*18:14+B*35:01:01G    |                     |                     |
| B*18:01:06+B*35:48      | B*18:18+B*35:01:01G    |                     |                     |
| B*18:01:06+B*40:01:16   | B*18:01:11+B*40:01:04  |                     |                     |
| B*18:01:06+B*40:07      | B*18:07:01+B*40:01:04  |                     |                     |
| B*18:01:06+B*40:24      | B*18:52+B*40:18        |                     |                     |
| B*18:01:06+B*40:37      | B*18:49+B*40:02:09     |                     |                     |
| B*18:01:06+B*40:40      | B*18:43+B*40:02:09     |                     |                     |
| B*18:01:06+B*40:43      | B*18:03+B*40:01:04     |                     |                     |
| B*18:01:06+B*40:47      | B*18:09+B*40:01:04     |                     |                     |
| B*18:01:06+B*40:49      | B*18:43+B*40:01:04     |                     |                     |
| B*18:01:06+B*40:50      | B*18:03+B*40:02:09     |                     |                     |
| B*18:01:06+B*40:57      | B*18:70+B*40:02:09     |                     |                     |
| B*18:01:06+B*40:67      | B*18:31+B*40:01:04     |                     |                     |
| B*18:01:06+B*40:73      | B*18:06+B*40:01:04     |                     |                     |
| B*18:01:06+B*40:80      | B*18:14+B*40:01:04     |                     |                     |
| B*18:01:06+B*40:89      | B*18:20+B*40:02:09     |                     |                     |
| B*18:01:06+B*40:111     | B*18:76+B*40:02:09     |                     |                     |
| B*18:01:06+B*40:123     | B*18:24+B*40:01:04     |                     |                     |
| B*18:01:06+B*40:128     | B*18:13+B*40:01:04     |                     |                     |
| B*18:01:06+B*40:138     | B*18:64+B*40:01:04     |                     |                     |
| B*18:01:06+B*40:157     | B*18:09+B*40:02:09     |                     |                     |
| B*18:01:06+B*40:172     | B*18:20+B*40:01:04     |                     |                     |
| B*18:01:06+B*40:183     | B*18:15+B*40:01:04     |                     |                     |
| B*18:01:06+B*40:188     | B*18:54+B*40:01:04     |                     |                     |
| B*18:01:06+B*40:197     | B*18:38+B*40:01:04     |                     |                     |
| B*18:01:06+B*40:198     | B*18:30+B*40:01:04     |                     |                     |
| B*18:01:06+B*44:02:09   | B*18:01:10+B*44:02:07  |                     |                     |
| B*18:01:06+B*44:02:12   | B*18:01:17+B*44:02:07  |                     |                     |
| B*18:01:06+B*44:53      | B*18:40+B*44:02:07     |                     |                     |
| B*18:01:06+B*44:59      | B*18:05+B*44:02:07     |                     |                     |
| B*18:01:06+B*44:72      | B*18:45+B*44:02:07     |                     |                     |
| B*18:01:06+B*44:76      | B*18:15+B*44:28:01     | B*18:30+B*44:03:02  |                     |
| B*18:01:06+B*44:79      | B*18:15+B*44:03:02     |                     |                     |
| B*18:01:06+B*44:106     | B*18:14+B*44:41:02     |                     |                     |
| B*18:01:06+B*44:108N    | B*18:23N+B*44:03:02    |                     |                     |
| B*18:01:06+B*44:110     | B*18:14+B*44:03:02     |                     |                     |
| B*18:01:06+B*44:116     | B*18:34+B*44:02:07     |                     |                     |

|                        |                        |                     |
|------------------------|------------------------|---------------------|
| B*18:01:06+B*44:146    | B*18:19+B*44:03:02     |                     |
| B*18:01:06+B*48:01:01G | B*18:14+B*48:03:02     |                     |
| B*18:01:06+B*48:21     | B*18:02+B*48:03:02     |                     |
| B*18:01:06+B*51:56:02  | B*18:52+B*51:04        |                     |
| B*18:01:06+B*51:59     | B*18:11+B*51:06:02     |                     |
| B*18:01:06+B*51:64     | B*18:14+B*51:06:02     |                     |
| B*18:01:08+B*35:03:02  | B*18:01:10+B*35:03:08  |                     |
| B*18:01:08+B*35:13     | B*18:12+B*35:03:08     |                     |
| B*18:01:08+B*35:56     | B*18:49+B*35:03:08     |                     |
| B*18:01:08+B*35:74     | B*18:06+B*35:03:08     |                     |
| B*18:01:08+B*35:136    | B*18:03+B*35:03:08     |                     |
| B*18:01:08+B*35:156    | B*18:13+B*35:03:08     |                     |
| B*18:01:08+B*35:167    | B*18:15+B*35:03:08     |                     |
| B*18:01:09+B*27:05:02G | B*18:37+B*27:52        |                     |
| B*18:01:09+B*35:01:01G | B*18:01:12+B*35:01:19  |                     |
| B*18:01:09+B*35:01:08  | B*18:01:12+B*35:01:15  |                     |
| B*18:01:09+B*35:47     | B*18:48+B*35:01:19     |                     |
| B*18:01:09+B*35:49     | B*18:37+B*35:01:19     |                     |
| B*18:01:09+B*37:28     | B*18:37+B*37:01:01G    |                     |
| B*18:01:09+B*40:01:01G | B*18:01:12+B*40:01:03  |                     |
| B*18:01:09+B*40:07     | B*18:07:02+B*40:01:03  |                     |
| B*18:01:09+B*51:01:01G | B*18:01:12+B*51:01:03  |                     |
| B*18:01:09+B*52:01:02  | B*18:01:12+B*52:01:09  |                     |
| B*18:01:09+B*52:06:02  | B*18:07:02+B*52:01:09  |                     |
| B*18:01:10+B*35:13     | B*18:12+B*35:03:02     |                     |
| B*18:01:10+B*35:21     | B*18:57+B*35:190       |                     |
| B*18:01:10+B*35:56     | B*18:49+B*35:03:02     |                     |
| B*18:01:10+B*35:74     | B*18:06+B*35:03:02     |                     |
| B*18:01:10+B*35:136    | B*18:03+B*35:03:02     |                     |
| B*18:01:10+B*35:156    | B*18:13+B*35:03:02     |                     |
| B*18:01:10+B*35:167    | B*18:15+B*35:03:02     |                     |
| B*18:01:10+B*38:14     | B*18:03+B*38:01:03     |                     |
| B*18:01:10+B*38:19     | B*18:14+B*38:01:03     |                     |
| B*18:01:10+B*38:32     | B*18:15+B*38:01:03     |                     |
| B*18:01:10+B*38:33     | B*18:68+B*38:01:03     |                     |
| B*18:01:10+B*39:03     | B*18:14+B*39:01:05     |                     |
| B*18:01:10+B*39:04     | B*18:68+B*39:01:05     |                     |
| B*18:01:10+B*39:09     | B*18:18+B*39:01:05     |                     |
| B*18:01:10+B*39:22     | B*18:12+B*39:01:05     |                     |
| B*18:01:10+B*39:27     | B*18:06+B*39:01:05     |                     |
| B*18:01:10+B*39:35     | B*18:15+B*39:01:05     |                     |
| B*18:01:10+B*39:47     | B*18:50+B*39:01:05     |                     |
| B*18:01:10+B*39:68     | B*18:40+B*39:01:05     |                     |
| B*18:01:10+B*39:74     | B*18:36+B*39:01:05     |                     |
| B*18:01:10+B*40:05     | B*18:57+B*40:39        |                     |
| B*18:01:10+B*44:02:12  | B*18:01:17+B*44:02:09  |                     |
| B*18:01:10+B*44:53     | B*18:40+B*44:02:09     |                     |
| B*18:01:10+B*44:59     | B*18:05+B*44:02:09     |                     |
| B*18:01:10+B*44:72     | B*18:45+B*44:02:09     |                     |
| B*18:01:10+B*44:76     | B*18:57+B*44:04        |                     |
| B*18:01:10+B*44:116    | B*18:34+B*44:02:09     |                     |
| B*18:01:10+B*46:08     | B*18:57+B*46:21:01     |                     |
| B*18:01:10+B*52:01:11  | B*18:01:14+B*52:01:07  |                     |
| B*18:01:10+B*52:11     | B*18:11+B*52:01:07     |                     |
| B*18:01:10+B*52:24     | B*18:13+B*52:01:07     | B*18:30+B*52:10:02  |
| B*18:01:10+B*52:28     | B*18:31+B*52:01:07     |                     |
| B*18:01:10+B*52:30     | B*18:65+B*52:01:07     |                     |
| B*18:01:10+B*53:01:07  | B*18:01:14+B*53:01:03  |                     |
| B*18:01:10+B*53:23     | B*18:03+B*53:01:03     |                     |
| B*18:01:10+B*53:24     | B*18:13+B*53:01:03     |                     |
| B*18:01:10+B*56:07     | B*18:09+B*56:01:03     |                     |
| B*18:01:10+B*56:20:01  | B*18:40+B*56:01:03     |                     |
| B*18:01:10+B*56:25     | B*18:15+B*56:01:03     | B*18:57+B*55:02:01G |
| B*18:01:10+B*57:22     | B*18:57+B*57:26        |                     |
| B*18:01:10+B*58:19     | B*18:15+B*58:01:05     | B*18:57+B*58:35     |
| B*18:01:10+B*58:21     | B*18:51+B*58:01:05     |                     |
| B*18:01:10+B*58:22     | B*18:13+B*58:01:05     |                     |
| B*18:01:11+B*40:07     | B*18:07:01+B*40:01:16  |                     |
| B*18:01:11+B*40:43     | B*18:03+B*40:01:16     |                     |
| B*18:01:11+B*40:47     | B*18:09+B*40:01:16     |                     |
| B*18:01:11+B*40:49     | B*18:43+B*40:01:16     |                     |
| B*18:01:11+B*40:67     | B*18:31+B*40:01:16     |                     |
| B*18:01:11+B*40:73     | B*18:06+B*40:01:16     |                     |
| B*18:01:11+B*40:80     | B*18:14+B*40:01:16     |                     |
| B*18:01:11+B*40:123    | B*18:24+B*40:01:16     |                     |
| B*18:01:11+B*40:128    | B*18:13+B*40:01:16     |                     |
| B*18:01:11+B*40:138    | B*18:64+B*40:01:16     |                     |
| B*18:01:11+B*40:172    | B*18:20+B*40:01:16     |                     |
| B*18:01:11+B*40:183    | B*18:15+B*40:01:16     |                     |
| B*18:01:11+B*40:188    | B*18:54+B*40:01:16     |                     |
| B*18:01:11+B*40:197    | B*18:38+B*40:01:16     |                     |
| B*18:01:11+B*40:198    | B*18:30+B*40:01:16     |                     |
| B*18:01:12+B*35:01:01G | B*18:07:02+B*35:20:01  |                     |
| B*18:01:12+B*35:02:01  | B*18:07:02+B*35:95     |                     |
| B*18:01:12+B*35:05:01  | B*18:07:02+B*35:72     |                     |
| B*18:01:12+B*35:10     | B*18:07:02+B*35:28     |                     |
| B*18:01:12+B*35:47     | B*18:48+B*35:01:01G    |                     |
| B*18:01:12+B*35:49     | B*18:37+B*35:01:01G    |                     |
| B*18:01:12+B*35:154    | B*18:48+B*35:02:01     |                     |
| B*18:01:12+B*35:198    | B*18:37+B*35:136       |                     |
| B*18:01:12+B*37:21     | B*18:07:02+B*37:01:01G |                     |
| B*18:01:12+B*39:01:09  | B*18:37+B*39:19:01     |                     |
| B*18:01:12+B*39:58     | B*18:07:02+B*39:39:01  |                     |
| B*18:01:12+B*40:07     | B*18:07:02+B*40:01:01G |                     |
| B*18:01:12+B*40:13     | B*18:07:02+B*40:19     |                     |
| B*18:01:12+B*40:106    | B*18:07:02+B*40:25     |                     |
| B*18:01:12+B*40:162    | B*18:07:02+B*40:06:01G |                     |
| B*18:01:12+B*51:01:01G | B*18:07:02+B*51:07:01  |                     |
| B*18:01:12+B*51:01:02  | B*18:07:02+B*51:07:02  |                     |
| B*18:01:12+B*52:06:02  | B*18:07:02+B*52:01:02  |                     |
| B*18:01:12+B*52:16     | B*18:37+B*52:27        |                     |
| B*18:01:12+B*53:13     | B*18:07:02+B*53:09     |                     |
| B*18:01:14+B*52:11     | B*18:11+B*52:01:11     |                     |
| B*18:01:14+B*52:24     | B*18:13+B*52:01:11     |                     |
| B*18:01:14+B*52:28     | B*18:31+B*52:01:11     |                     |

|                        |                     |
|------------------------|---------------------|
| B*18:01:14+B*52:30     | B*18:65+B*52:01:11  |
| B*18:01:14+B*53:08:01  | B*18:15+B*53:01:07  |
| B*18:01:14+B*53:23     | B*18:03+B*53:01:07  |
| B*18:01:14+B*53:24     | B*18:13+B*53:01:07  |
| B*18:01:15+B*35:04:01  | B*18:26+B*35:01:07  |
| B*18:01:15+B*35:08:01  | B*18:13+B*35:01:07  |
| B*18:01:15+B*35:09:01  | B*18:61+B*35:01:07  |
| B*18:01:15+B*35:10     | B*18:12+B*35:01:07  |
| B*18:01:15+B*35:11:01  | B*18:15+B*35:01:07  |
| B*18:01:15+B*35:14:01  | B*18:19+B*35:01:07  |
| B*18:01:15+B*35:27     | B*18:49+B*35:01:07  |
| B*18:01:15+B*35:29:01  | B*18:03+B*35:01:07  |
| B*18:01:15+B*35:91     | B*18:32+B*35:01:07  |
| B*18:01:15+B*38:02:01G | B*18:09+B*39:05:02  |
| B*18:01:15+B*38:17     | B*18:54+B*39:05:02  |
| B*18:01:15+B*39:01:01G | B*18:03+B*39:05:02  |
| B*18:01:15+B*39:11     | B*18:13+B*39:05:02  |
| B*18:01:15+B*39:37     | B*18:14+B*39:05:02  |
| B*18:01:15+B*53:03     | B*18:54+B*35:01:07  |
| B*18:01:15+B*53:05     | B*18:67+B*35:01:07  |
| B*18:01:15+B*53:13     | B*18:09+B*35:01:07  |
| B*18:01:16+B*27:10     | B*18:15+B*27:05:16  |
| B*18:01:16+B*27:37     | B*18:43+B*27:05:16  |
| B*18:01:16+B*27:45     | B*18:13+B*27:05:16  |
| B*18:01:17+B*44:53     | B*18:40+B*44:02:12  |
| B*18:01:17+B*44:59     | B*18:05+B*44:02:12  |
| B*18:01:17+B*44:72     | B*18:45+B*44:02:12  |
| B*18:01:17+B*44:116    | B*18:34+B*44:02:12  |
| B*18:01:17+B*51:02:01  | B*18:11+B*51:01:19  |
| B*18:01:17+B*51:29     | B*18:13+B*51:01:19  |
| B*18:01:17+B*51:69     | B*18:65+B*51:01:19  |
| B*18:01:17+B*51:124    | B*18:08+B*51:01:19  |
| B*18:01:17+B*51:130    | B*18:32+B*51:01:19  |
| B*18:01:17+B*52:06:02  | B*18:12+B*51:01:19  |
| B*18:02+B*27:32        | B*18:14+B*27:05:02G |
| B*18:02+B*48:01:01G    | B*18:14+B*48:21     |
| B*18:03+B*27:01        | B*18:09+B*27:08     |
| B*18:03+B*35:04:01     | B*18:26+B*35:29:01  |
| B*18:03+B*35:08:01     | B*18:13+B*35:29:01  |
| B*18:03+B*35:09:01     | B*18:61+B*35:29:01  |
| B*18:03+B*35:11:01     | B*18:15+B*35:29:01  |
| B*18:03+B*35:13        | B*18:12+B*35:136    |
| B*18:03+B*35:14:01     | B*18:19+B*35:29:01  |
| B*18:03+B*35:27        | B*18:49+B*35:29:01  |
| B*18:03+B*35:56        | B*18:49+B*35:136    |
| B*18:03+B*35:74        | B*18:06+B*35:136    |
| B*18:03+B*35:80        | B*18:13+B*35:69     |
| B*18:03+B*35:91        | B*18:32+B*35:29:01  |
| B*18:03+B*35:156       | B*18:13+B*35:136    |
| B*18:03+B*35:167       | B*18:15+B*35:136    |
| B*18:03+B*38:02:01G    | B*18:09+B*39:01:01G |
| B*18:03+B*38:02:03     | B*18:09+B*39:01:09  |
| B*18:03+B*38:17        | B*18:54+B*39:01:01G |
| B*18:03+B*38:19        | B*18:14+B*38:14     |
| B*18:03+B*38:23        | B*18:09+B*39:73     |
| B*18:03+B*38:29        | B*18:09+B*39:15     |
| B*18:03+B*38:32        | B*18:15+B*38:14     |
| B*18:03+B*38:33        | B*18:68+B*38:14     |
| B*18:03+B*39:08        | B*18:13+B*39:02:01  |
| B*18:03+B*39:11        | B*18:13+B*39:01:01G |
| B*18:03+B*39:20        | B*18:49+B*39:10:01  |
| B*18:03+B*40:07        | B*18:07:01+B*40:43  |
| B*18:03+B*40:37        | B*18:49+B*40:50     |
| B*18:03+B*40:40        | B*18:43+B*40:50     |
| B*18:03+B*40:47        | B*18:09+B*40:43     |
| B*18:03+B*40:49        | B*18:43+B*40:43     |
| B*18:03+B*40:57        | B*18:70+B*40:50     |
| B*18:03+B*40:67        | B*18:31+B*40:43     |
| B*18:03+B*40:73        | B*18:06+B*40:43     |
| B*18:03+B*40:80        | B*18:14+B*40:43     |
| B*18:03+B*40:89        | B*18:20+B*40:50     |
| B*18:03+B*40:111       | B*18:76+B*40:50     |
| B*18:03+B*40:123       | B*18:24+B*40:43     |
| B*18:03+B*40:128       | B*18:13+B*40:43     |
| B*18:03+B*40:138       | B*18:64+B*40:43     |
| B*18:03+B*40:157       | B*18:09+B*40:50     |
| B*18:03+B*40:172       | B*18:20+B*40:43     |
| B*18:03+B*40:183       | B*18:15+B*40:43     |
| B*18:03+B*40:188       | B*18:54+B*40:43     |
| B*18:03+B*40:197       | B*18:38+B*40:43     |
| B*18:03+B*40:198       | B*18:30+B*40:43     |
| B*18:03+B*51:78:01     | B*18:09+B*78:01:01  |
| B*18:03+B*53:03        | B*18:54+B*35:29:01  |
| B*18:03+B*53:05        | B*18:67+B*35:29:01  |
| B*18:03+B*53:08:01     | B*18:15+B*53:23     |
| B*18:03+B*53:13        | B*18:09+B*35:29:01  |
| B*18:03+B*53:24        | B*18:13+B*53:23     |
| B*18:04+B*35:124       | B*18:25+B*35:42:02  |
| B*18:04+B*39:10:01     | B*18:43+B*39:63     |
| B*18:04+B*52:27        | B*18:25+B*52:01:02  |
| B*18:05+B*44:53        | B*18:40+B*44:59     |
| B*18:05+B*44:72        | B*18:45+B*44:59     |
| B*18:05+B*44:116       | B*18:34+B*44:59     |
| B*18:06+B*35:13        | B*18:12+B*35:74     |
| B*18:06+B*35:56        | B*18:49+B*35:74     |
| B*18:06+B*35:156       | B*18:13+B*35:74     |
| B*18:06+B*35:167       | B*18:15+B*35:74     |
| B*18:06+B*39:03        | B*18:14+B*39:27     |
| B*18:06+B*39:04        | B*18:68+B*39:27     |
| B*18:06+B*39:09        | B*18:18+B*39:27     |
| B*18:06+B*39:22        | B*18:12+B*39:27     |
| B*18:06+B*39:35        | B*18:15+B*39:27     |
| B*18:06+B*39:47        | B*18:50+B*39:27     |
| B*18:06+B*39:68        | B*18:40+B*39:27     |
| B*18:06+B*39:74        | B*18:36+B*39:27     |

|                        |                       |
|------------------------|-----------------------|
| B*18:06+B*40:07        | B*18:07:01+B*40:73    |
| B*18:06+B*40:47        | B*18:09+B*40:73       |
| B*18:06+B*40:49        | B*18:43+B*40:73       |
| B*18:06+B*40:67        | B*18:31+B*40:73       |
| B*18:06+B*40:80        | B*18:14+B*40:73       |
| B*18:06+B*40:123       | B*18:24+B*40:73       |
| B*18:06+B*40:128       | B*18:13+B*40:73       |
| B*18:06+B*40:138       | B*18:64+B*40:73       |
| B*18:06+B*40:172       | B*18:20+B*40:73       |
| B*18:06+B*40:183       | B*18:15+B*40:73       |
| B*18:06+B*40:188       | B*18:54+B*40:73       |
| B*18:06+B*40:197       | B*18:38+B*40:73       |
| B*18:06+B*40:198       | B*18:30+B*40:73       |
| B*18:06+B*55:15        | B*18:42+B*55:03       |
| B*18:06+B*55:24        | B*18:50+B*55:03       |
| B*18:06+B*55:40        | B*18:12+B*55:03       |
| B*18:06+B*55:52        | B*18:13+B*55:03       |
| B*18:06+B*56:25        | B*18:36+B*55:03       |
| B*18:07:01+B*35:02:01  | B*18:07:02+B*35:02:02 |
| B*18:07:01+B*35:82     | B*18:33+B*35:01:01G   |
| B*18:07:01+B*35:85     | B*18:33+B*35:03:01G   |
| B*18:07:01+B*35:135    | B*18:33+B*35:43:01G   |
| B*18:07:01+B*37:13     | B*18:15+B*37:21       |
| B*18:07:01+B*39:01:01G | B*18:33+B*39:58       |
| B*18:07:01+B*39:02:01  | B*18:12+B*39:58       |
| B*18:07:01+B*40:02:01G | B*18:12+B*40:08       |
| B*18:07:01+B*40:04     | B*18:12+B*40:68       |
| B*18:07:01+B*40:47     | B*18:09+B*40:07       |
| B*18:07:01+B*40:49     | B*18:43+B*40:07       |
| B*18:07:01+B*40:53     | B*18:68+B*40:162      |
| B*18:07:01+B*40:67     | B*18:31+B*40:07       |
| B*18:07:01+B*40:75     | B*18:33+B*40:162      |
| B*18:07:01+B*40:80     | B*18:14+B*40:07       |
| B*18:07:01+B*40:96     | B*18:09+B*40:162      |
| B*18:07:01+B*40:109    | B*18:67+B*40:162      |
| B*18:07:01+B*40:123    | B*18:24+B*40:07       |
| B*18:07:01+B*40:128    | B*18:13+B*40:07       |
| B*18:07:01+B*40:138    | B*18:64+B*40:07       |
| B*18:07:01+B*40:148    | B*18:15+B*40:162      |
| B*18:07:01+B*40:161    | B*18:30+B*40:162      |
| B*18:07:01+B*40:172    | B*18:20+B*40:07       |
| B*18:07:01+B*40:183    | B*18:15+B*40:07       |
| B*18:07:01+B*40:188    | B*18:54+B*40:07       |
| B*18:07:01+B*40:197    | B*18:38+B*40:07       |
| B*18:07:01+B*40:198    | B*18:30+B*40:07       |
| B*18:07:01+B*48:01:01G | B*18:12+B*48:06       |
| B*18:07:01+B*51:22     | B*18:33+B*51:01:01G   |
| B*18:07:01+B*52:01:01G | B*18:12+B*51:01:02    |
| B*18:07:01+B*52:01:09  | B*18:12+B*51:01:03    |
| B*18:07:01+B*52:02     | B*18:12+B*51:104      |
| B*18:07:01+B*52:10:01  | B*18:12+B*51:09:02    |
| B*18:07:01+B*52:11     | B*18:12+B*51:02:02    |
| B*18:07:01+B*52:20     | B*18:12+B*51:78:02    |
| B*18:07:01+B*52:21     | B*18:12+B*51:61:02    |
| B*18:07:01+B*53:17:02  | B*18:12+B*53:01:01    |
| B*18:07:01+B*78:03     | B*18:33+B*78:01:01    |
| B*18:07:01+B*78:05     | B*18:12+B*78:02:01    |
| B*18:08+B*51:02:01     | B*18:11+B*51:124      |
| B*18:08+B*51:29        | B*18:13+B*51:124      |
| B*18:08+B*51:69        | B*18:65+B*51:124      |
| B*18:08+B*51:130       | B*18:32+B*51:124      |
| B*18:08+B*52:06:02     | B*18:12+B*51:124      |
| B*18:09+B*35:04:01     | B*18:26+B*53:13       |
| B*18:09+B*35:09:01     | B*18:61+B*53:13       |
| B*18:09+B*35:10        | B*18:12+B*53:13       |
| B*18:09+B*35:11:01     | B*18:15+B*53:13       |
| B*18:09+B*35:14:01     | B*18:19+B*53:13       |
| B*18:09+B*35:27        | B*18:49+B*53:13       |
| B*18:09+B*35:28        | B*18:12+B*53:09       |
| B*18:09+B*35:80        | B*18:12+B*53:11       |
| B*18:09+B*35:82        | B*18:33+B*53:09       |
| B*18:09+B*35:91        | B*18:32+B*53:13       |
| B*18:09+B*35:174       | B*18:40+B*53:11       |
| B*18:09+B*37:01:01G    | B*18:54+B*37:10       |
| B*18:09+B*38:17        | B*18:54+B*38:02:01G   |
| B*18:09+B*39:02:01     | B*18:49+B*38:03       |
| B*18:09+B*39:11        | B*18:13+B*38:02:01G   |
| B*18:09+B*39:37        | B*18:14+B*38:02:01G   |
| B*18:09+B*40:37        | B*18:49+B*40:157      |
| B*18:09+B*40:40        | B*18:43+B*40:157      |
| B*18:09+B*40:49        | B*18:43+B*40:47       |
| B*18:09+B*40:53        | B*18:68+B*40:96       |
| B*18:09+B*40:57        | B*18:70+B*40:157      |
| B*18:09+B*40:67        | B*18:31+B*40:47       |
| B*18:09+B*40:75        | B*18:33+B*40:96       |
| B*18:09+B*40:80        | B*18:14+B*40:47       |
| B*18:09+B*40:89        | B*18:20+B*40:157      |
| B*18:09+B*40:109       | B*18:67+B*40:96       |
| B*18:09+B*40:111       | B*18:76+B*40:157      |
| B*18:09+B*40:123       | B*18:24+B*40:47       |
| B*18:09+B*40:128       | B*18:13+B*40:47       |
| B*18:09+B*40:138       | B*18:64+B*40:47       |
| B*18:09+B*40:148       | B*18:15+B*40:96       |
| B*18:09+B*40:161       | B*18:30+B*40:96       |
| B*18:09+B*40:172       | B*18:20+B*40:47       |
| B*18:09+B*40:183       | B*18:15+B*40:47       |
| B*18:09+B*40:188       | B*18:54+B*40:47       |
| B*18:09+B*40:197       | B*18:38+B*40:47       |
| B*18:09+B*40:198       | B*18:30+B*40:47       |
| B*18:09+B*44:75        | B*18:49+B*44:05:01    |
| B*18:09+B*45:01:01G    | B*18:49+B*44:15       |
| B*18:09+B*47:05        | B*18:54+B*47:04       |
| B*18:09+B*50:11        | B*18:63+B*49:02       |
| B*18:09+B*50:13        | B*18:43+B*49:02       |
| B*18:09+B*53:03        | B*18:54+B*53:13       |

|                     |                     |                     |  |
|---------------------|---------------------|---------------------|--|
| B*18:09+B*53:05     | B*18:67+B*53:13     |                     |  |
| B*18:09+B*53:16     | B*18:67+B*53:11     |                     |  |
| B*18:09+B*56:20:01  | B*18:40+B*56:07     |                     |  |
| B*18:09+B*56:25     | B*18:15+B*56:07     |                     |  |
| B*18:09+B*78:06     | B*18:49+B*52:20     |                     |  |
| B*18:10+B*18:36     | B*18:50+B*18:58     |                     |  |
| B*18:10+B*27:15     | B*18:11+B*27:04:01G |                     |  |
| B*18:10+B*27:38     | B*18:58+B*27:05:02G |                     |  |
| B*18:10+B*27:47     | B*18:56+B*27:05:02G |                     |  |
| B*18:10+B*27:63     | B*18:58+B*27:04:01G |                     |  |
| B*18:10+B*27:71     | B*18:11+B*27:05:02G |                     |  |
| B*18:10+B*35:01:01G | B*18:58+B*35:15     |                     |  |
| B*18:10+B*35:03:01G | B*18:58+B*35:33     |                     |  |
| B*18:10+B*35:21     | B*18:50+B*35:11:01  |                     |  |
| B*18:10+B*35:24:01  | B*18:36+B*35:15     | B*18:50+B*35:01:01G |  |
| B*18:10+B*35:43:01G | B*18:58+B*35:86     |                     |  |
| B*18:10+B*35:81     | B*18:50+B*35:02:01  |                     |  |
| B*18:10+B*35:93     | B*18:11+B*35:15     |                     |  |
| B*18:10+B*35:96     | B*18:15+B*35:33     |                     |  |
| B*18:10+B*35:109    | B*18:36+B*35:33     | B*18:50+B*35:03:01G |  |
| B*18:10+B*35:169    | B*18:56+B*35:33     |                     |  |
| B*18:10+B*35:188    | B*18:15+B*35:15     |                     |  |
| B*18:10+B*37:04:01  | B*18:50+B*37:01:01G |                     |  |
| B*18:10+B*39:01:01G | B*18:11+B*39:47     |                     |  |
| B*18:10+B*39:06:02  | B*18:11+B*39:50     |                     |  |
| B*18:10+B*39:32     | B*18:36+B*39:47     | B*18:50+B*39:74     |  |
| B*18:10+B*39:74     | B*18:58+B*39:47     |                     |  |
| B*18:10+B*40:01:01G | B*18:35+B*40:130    |                     |  |
| B*18:10+B*40:39     | B*18:11+B*40:02:01G |                     |  |
| B*18:10+B*40:63     | B*18:58+B*40:01:01G |                     |  |
| B*18:10+B*40:113    | B*18:50+B*40:01:01G |                     |  |
| B*18:10+B*40:174    | B*18:50+B*40:05     |                     |  |
| B*18:10+B*40:199    | B*18:11+B*40:01:01G |                     |  |
| B*18:10+B*41:02:01  | B*18:11+B*41:19     |                     |  |
| B*18:10+B*42:05:02  | B*18:35+B*42:08     |                     |  |
| B*18:10+B*44:02:01G | B*18:56+B*44:64:02  | B*18:58+B*44:21     |  |
| B*18:10+B*44:02:07  | B*18:56+B*44:64:01  |                     |  |
| B*18:10+B*44:03:02  | B*18:58+B*44:124    |                     |  |
| B*18:10+B*44:37:01  | B*18:58+B*44:64:02  |                     |  |
| B*18:10+B*44:37:02  | B*18:58+B*44:64:01  |                     |  |
| B*18:10+B*44:91     | B*18:58+B*44:16     |                     |  |
| B*18:10+B*44:132    | B*18:11+B*44:16     |                     |  |
| B*18:10+B*45:04     | B*18:58+B*45:10     |                     |  |
| B*18:10+B*45:08     | B*18:11+B*45:10     |                     |  |
| B*18:10+B*46:01:01G | B*18:58+B*46:30     |                     |  |
| B*18:10+B*46:29     | B*18:11+B*46:30     |                     |  |
| B*18:10+B*47:08     | B*18:11+B*47:01:01G |                     |  |
| B*18:10+B*49:01:01  | B*18:58+B*49:07     |                     |  |
| B*18:10+B*49:09     | B*18:36+B*49:07     | B*18:50+B*49:01:01  |  |
| B*18:10+B*51:01:01G | B*18:36+B*51:34     | B*18:50+B*51:02:01  |  |
| B*18:10+B*51:01:02  | B*18:50+B*51:02:02  | B*18:58+B*51:16     |  |
| B*18:10+B*51:01:04  | B*18:50+B*51:02:04  |                     |  |
| B*18:10+B*51:01:31  | B*18:50+B*51:02:03  |                     |  |
| B*18:10+B*51:02:01  | B*18:58+B*51:34     |                     |  |
| B*18:10+B*51:06:01  | B*18:50+B*51:59     |                     |  |
| B*18:10+B*51:09:01  | B*18:58+B*51:31     |                     |  |
| B*18:10+B*51:16     | B*18:50+B*51:34     |                     |  |
| B*18:10+B*51:29     | B*18:58+B*51:82     |                     |  |
| B*18:10+B*52:01:01G | B*18:50+B*52:11     | B*18:58+B*52:08     |  |
| B*18:10+B*53:02     | B*18:50+B*53:01:01  |                     |  |
| B*18:10+B*54:01:01G | B*18:11+B*54:26     |                     |  |
| B*18:10+B*54:03     | B*18:58+B*54:26     |                     |  |
| B*18:10+B*55:01:01G | B*18:11+B*55:24     |                     |  |
| B*18:10+B*55:02:01G | B*18:11+B*55:22     |                     |  |
| B*18:10+B*55:52     | B*18:11+B*55:09     |                     |  |
| B*18:10+B*56:01:01G | B*18:58+B*55:22     |                     |  |
| B*18:10+B*56:25     | B*18:58+B*55:24     |                     |  |
| B*18:10+B*56:31     | B*18:50+B*56:18     |                     |  |
| B*18:10+B*56:34     | B*18:36+B*55:22     | B*18:50+B*56:01:01G |  |
| B*18:10+B*57:01:01G | B*18:58+B*57:25     |                     |  |
| B*18:10+B*57:26     | B*18:11+B*57:25     |                     |  |
| B*18:10+B*58:01:01G | B*18:58+B*58:37     |                     |  |
| B*18:10+B*58:09     | B*18:36+B*58:37     | B*18:50+B*58:01:01G |  |
| B*18:10+B*58:35     | B*18:11+B*58:37     |                     |  |
| B*18:11+B*27:38     | B*18:58+B*27:71     |                     |  |
| B*18:11+B*27:47     | B*18:56+B*27:71     |                     |  |
| B*18:11+B*27:63     | B*18:58+B*27:15     |                     |  |
| B*18:11+B*35:01:01G | B*18:58+B*35:93     |                     |  |
| B*18:11+B*35:188    | B*18:15+B*35:93     |                     |  |
| B*18:11+B*39:74     | B*18:58+B*39:01:01G |                     |  |
| B*18:11+B*40:63     | B*18:58+B*40:199    |                     |  |
| B*18:11+B*44:28:02  | B*18:58+B*44:04     |                     |  |
| B*18:11+B*44:91     | B*18:58+B*44:132    |                     |  |
| B*18:11+B*45:04     | B*18:58+B*45:08     |                     |  |
| B*18:11+B*46:01:01G | B*18:58+B*46:29     |                     |  |
| B*18:11+B*46:11     | B*18:58+B*46:18     |                     |  |
| B*18:11+B*46:13:01  | B*18:58+B*46:21:02  |                     |  |
| B*18:11+B*46:13:03  | B*18:58+B*46:21:01  |                     |  |
| B*18:11+B*51:24:01  | B*18:40+B*51:02:04  |                     |  |
| B*18:11+B*51:29     | B*18:13+B*51:02:01  |                     |  |
| B*18:11+B*51:61:01  | B*18:19+B*51:40     |                     |  |
| B*18:11+B*51:64     | B*18:14+B*51:59     |                     |  |
| B*18:11+B*51:69     | B*18:65+B*51:02:01  |                     |  |
| B*18:11+B*51:82     | B*18:13+B*51:34     |                     |  |
| B*18:11+B*51:130    | B*18:32+B*51:02:01  |                     |  |
| B*18:11+B*52:01:02  | B*18:15+B*52:03     |                     |  |
| B*18:11+B*52:06:02  | B*18:12+B*51:02:01  |                     |  |
| B*18:11+B*52:21     | B*18:19+B*52:03     |                     |  |
| B*18:11+B*52:24     | B*18:13+B*52:11     |                     |  |
| B*18:11+B*52:28     | B*18:31+B*52:11     |                     |  |
| B*18:11+B*52:30     | B*18:65+B*52:11     |                     |  |
| B*18:11+B*54:03     | B*18:58+B*54:01:01G |                     |  |
| B*18:11+B*56:01:01G | B*18:58+B*55:02:01G |                     |  |
| B*18:11+B*56:02     | B*18:58+B*56:10     |                     |  |
| B*18:11+B*56:22     | B*18:58+B*55:13     |                     |  |

|                     |                     |                     |
|---------------------|---------------------|---------------------|
| B*18:11+B*56:25     | B*18:58+B*55:01:01G |                     |
| B*18:11+B*57:01:01G | B*18:58+B*57:26     |                     |
| B*18:11+B*58:01:01G | B*18:58+B*58:35     |                     |
| B*18:11+B*59:04     | B*18:58+B*59:01:01G |                     |
| B*18:11+B*78:01:01  | B*18:58+B*78:07     |                     |
| B*18:11+B*78:02:01  | B*18:15+B*78:04     |                     |
| B*18:12+B*35:04:01  | B*18:26+B*35:10     |                     |
| B*18:12+B*35:09:01  | B*18:61+B*35:10     |                     |
| B*18:12+B*35:11:01  | B*18:15+B*35:10     |                     |
| B*18:12+B*35:14:01  | B*18:19+B*35:10     |                     |
| B*18:12+B*35:27     | B*18:49+B*35:10     |                     |
| B*18:12+B*35:56     | B*18:49+B*35:13     |                     |
| B*18:12+B*35:82     | B*18:33+B*35:28     |                     |
| B*18:12+B*35:91     | B*18:32+B*35:10     |                     |
| B*18:12+B*35:156    | B*18:13+B*35:13     |                     |
| B*18:12+B*35:167    | B*18:15+B*35:13     |                     |
| B*18:12+B*35:174    | B*18:40+B*35:80     |                     |
| B*18:12+B*39:01:09  | B*18:33+B*39:02:02  |                     |
| B*18:12+B*39:03     | B*18:14+B*39:22     |                     |
| B*18:12+B*39:04     | B*18:68+B*39:22     |                     |
| B*18:12+B*39:09     | B*18:18+B*39:22     |                     |
| B*18:12+B*39:11     | B*18:33+B*39:08     |                     |
| B*18:12+B*39:35     | B*18:15+B*39:22     |                     |
| B*18:12+B*39:47     | B*18:50+B*39:22     |                     |
| B*18:12+B*39:68     | B*18:40+B*39:22     |                     |
| B*18:12+B*39:74     | B*18:36+B*39:22     |                     |
| B*18:12+B*51:22     | B*18:33+B*52:01:02  |                     |
| B*18:12+B*51:29     | B*18:13+B*52:06:02  |                     |
| B*18:12+B*51:69     | B*18:65+B*52:06:02  |                     |
| B*18:12+B*51:130    | B*18:32+B*52:06:02  |                     |
| B*18:12+B*53:03     | B*18:54+B*35:10     |                     |
| B*18:12+B*53:05     | B*18:67+B*35:10     |                     |
| B*18:12+B*53:16     | B*18:67+B*35:80     |                     |
| B*18:12+B*55:15     | B*18:42+B*55:40     |                     |
| B*18:12+B*55:24     | B*18:50+B*55:40     |                     |
| B*18:12+B*55:52     | B*18:13+B*55:40     |                     |
| B*18:12+B*56:25     | B*18:36+B*55:40     |                     |
| B*18:13+B*27:04:01G | B*18:30+B*27:61     |                     |
| B*18:13+B*27:10     | B*18:15+B*27:45     | B*18:30+B*27:05:02G |
| B*18:13+B*27:37     | B*18:43+B*27:45     |                     |
| B*18:13+B*27:40     | B*18:30+B*27:08     |                     |
| B*18:13+B*35:04:01  | B*18:26+B*35:08:01  |                     |
| B*18:13+B*35:09:01  | B*18:26+B*35:174    | B*18:61+B*35:08:01  |
| B*18:13+B*35:11:01  | B*18:15+B*35:08:01  | B*18:30+B*35:01:01G |
| B*18:13+B*35:12:01  | B*18:26+B*35:61     |                     |
| B*18:13+B*35:14:01  | B*18:19+B*35:08:01  | B*18:30+B*35:62     |
| B*18:13+B*35:21     | B*18:30+B*35:24:01  |                     |
| B*18:13+B*35:27     | B*18:49+B*35:08:01  |                     |
| B*18:13+B*35:30     | B*18:14+B*35:08:03  |                     |
| B*18:13+B*35:48     | B*18:18+B*35:08:03  |                     |
| B*18:13+B*35:56     | B*18:49+B*35:156    |                     |
| B*18:13+B*35:58     | B*18:30+B*35:05:01  |                     |
| B*18:13+B*35:91     | B*18:32+B*35:08:01  |                     |
| B*18:13+B*35:167    | B*18:15+B*35:156    | B*18:30+B*35:03:01G |
| B*18:13+B*35:183    | B*18:64+B*35:172    |                     |
| B*18:13+B*35:188    | B*18:30+B*35:190    |                     |
| B*18:13+B*37:13     | B*18:30+B*37:01:01G |                     |
| B*18:13+B*38:10     | B*18:30+B*38:36     |                     |
| B*18:13+B*38:17     | B*18:54+B*39:11     |                     |
| B*18:13+B*38:32     | B*18:30+B*38:01:01  |                     |
| B*18:13+B*39:35     | B*18:30+B*39:01:01G |                     |
| B*18:13+B*39:37     | B*18:14+B*39:11     |                     |
| B*18:13+B*40:49     | B*18:43+B*40:128    |                     |
| B*18:13+B*40:67     | B*18:31+B*40:128    |                     |
| B*18:13+B*40:80     | B*18:14+B*40:128    |                     |
| B*18:13+B*40:123    | B*18:24+B*40:128    |                     |
| B*18:13+B*40:138    | B*18:64+B*40:128    |                     |
| B*18:13+B*40:172    | B*18:20+B*40:128    |                     |
| B*18:13+B*40:188    | B*18:54+B*40:128    |                     |
| B*18:13+B*40:197    | B*18:38+B*40:128    |                     |
| B*18:13+B*40:198    | B*18:30+B*40:128    |                     |
| B*18:13+B*44:76     | B*18:30+B*44:28:02  |                     |
| B*18:13+B*44:108N   | B*18:23N+B*44:28:02 |                     |
| B*18:13+B*44:110    | B*18:14+B*44:28:02  |                     |
| B*18:13+B*44:146    | B*18:19+B*44:28:02  |                     |
| B*18:13+B*46:01:01G | B*18:30+B*46:09     |                     |
| B*18:13+B*46:08     | B*18:30+B*46:13:03  | B*18:36+B*46:03     |
| B*18:13+B*48:15     | B*18:30+B*48:01:01G |                     |
| B*18:13+B*48:25     | B*18:30+B*48:02:01  |                     |
| B*18:13+B*49:01:01  | B*18:30+B*49:11     |                     |
| B*18:13+B*51:01:02  | B*18:30+B*51:09:02  |                     |
| B*18:13+B*51:02:02  | B*18:15+B*51:05     |                     |
| B*18:13+B*51:02:05  | B*18:30+B*51:40     |                     |
| B*18:13+B*51:23     | B*18:30+B*51:108    |                     |
| B*18:13+B*51:69     | B*18:65+B*51:29     |                     |
| B*18:13+B*51:130    | B*18:32+B*51:29     |                     |
| B*18:13+B*52:28     | B*18:31+B*52:24     |                     |
| B*18:13+B*52:30     | B*18:65+B*52:24     |                     |
| B*18:13+B*53:03     | B*18:54+B*35:08:01  |                     |
| B*18:13+B*53:08:01  | B*18:15+B*53:24     | B*18:30+B*53:01:01  |
| B*18:13+B*53:08:02  | B*18:30+B*53:01:03  |                     |
| B*18:13+B*54:03     | B*18:36+B*54:10     |                     |
| B*18:13+B*54:20     | B*18:30+B*54:10     |                     |
| B*18:13+B*54:26     | B*18:50+B*54:10     |                     |
| B*18:13+B*54:27     | B*18:75+B*54:10     |                     |
| B*18:13+B*55:12     | B*18:49+B*55:37     |                     |
| B*18:13+B*55:15     | B*18:42+B*55:52     |                     |
| B*18:13+B*55:21     | B*18:19+B*55:37     |                     |
| B*18:13+B*55:22     | B*18:50+B*55:37     |                     |
| B*18:13+B*55:41     | B*18:20+B*55:37     |                     |
| B*18:13+B*55:52     | B*18:30+B*55:37     |                     |
| B*18:13+B*56:01:01G | B*18:36+B*55:37     |                     |
| B*18:13+B*56:25     | B*18:30+B*56:01:01G | B*18:36+B*55:52     |
| B*18:13+B*56:32     | B*18:30+B*56:18     |                     |
| B*18:13+B*57:22     | B*18:15+B*57:19     | B*18:30+B*57:01:01G |

|                     |                     |                     |
|---------------------|---------------------|---------------------|
| B*18:13+B*57:23     | B*18:24+B*57:19     |                     |
| B*18:13+B*57:31     | B*18:40+B*57:19     |                     |
| B*18:13+B*57:41     | B*18:20+B*57:19     |                     |
| B*18:13+B*57:57     | B*18:15+B*57:02:01  | B*18:30+B*57:03:01  |
| B*18:13+B*58:06     | B*18:30+B*58:02     |                     |
| B*18:13+B*58:19     | B*18:15+B*58:22     | B*18:30+B*58:01:01G |
| B*18:13+B*58:21     | B*18:51+B*58:22     |                     |
| B*18:14+B*35:30     | B*18:22+B*35:51     |                     |
| B*18:14+B*35:48     | B*18:18+B*35:30     |                     |
| B*18:14+B*38:17     | B*18:54+B*39:37     |                     |
| B*18:14+B*38:32     | B*18:15+B*38:19     |                     |
| B*18:14+B*38:33     | B*18:68+B*38:19     |                     |
| B*18:14+B*39:04     | B*18:68+B*39:03     |                     |
| B*18:14+B*39:09     | B*18:18+B*39:03     |                     |
| B*18:14+B*39:35     | B*18:15+B*39:03     |                     |
| B*18:14+B*39:47     | B*18:50+B*39:03     |                     |
| B*18:14+B*39:68     | B*18:40+B*39:03     |                     |
| B*18:14+B*39:74     | B*18:36+B*39:03     |                     |
| B*18:14+B*40:23     | B*18:30+B*40:45     |                     |
| B*18:14+B*40:42     | B*18:20+B*40:31     |                     |
| B*18:14+B*40:49     | B*18:43+B*40:80     |                     |
| B*18:14+B*40:67     | B*18:31+B*40:80     |                     |
| B*18:14+B*40:123    | B*18:24+B*40:80     |                     |
| B*18:14+B*40:138    | B*18:64+B*40:80     |                     |
| B*18:14+B*40:172    | B*18:20+B*40:80     |                     |
| B*18:14+B*40:183    | B*18:15+B*40:80     |                     |
| B*18:14+B*40:188    | B*18:54+B*40:80     |                     |
| B*18:14+B*40:197    | B*18:38+B*40:80     |                     |
| B*18:14+B*40:198    | B*18:30+B*40:80     |                     |
| B*18:14+B*44:76     | B*18:30+B*44:110    |                     |
| B*18:14+B*44:79     | B*18:15+B*44:110    |                     |
| B*18:14+B*44:108N   | B*18:23N+B*44:110   |                     |
| B*18:14+B*44:146    | B*18:19+B*44:110    |                     |
| B*18:14+B*51:56:02  | B*18:22+B*51:06:02  |                     |
| B*18:14+B*55:08     | B*18:36+B*55:04     |                     |
| B*18:14+B*58:02     | B*18:44:02+B*58:18  |                     |
| B*18:15+B*27:25     | B*18:19+B*27:63     |                     |
| B*18:15+B*27:29     | B*18:54+B*27:18     |                     |
| B*18:15+B*27:37     | B*18:43+B*27:10     |                     |
| B*18:15+B*27:89     | B*18:49+B*27:40     |                     |
| B*18:15+B*35:04:01  | B*18:26+B*35:11:01  |                     |
| B*18:15+B*35:08:03  | B*18:30+B*35:01:04  |                     |
| B*18:15+B*35:09:01  | B*18:61+B*35:11:01  |                     |
| B*18:15+B*35:14:01  | B*18:19+B*35:11:01  |                     |
| B*18:15+B*35:14:02  | B*18:19+B*35:11:02  |                     |
| B*18:15+B*35:18     | B*18:30+B*35:09:02  |                     |
| B*18:15+B*35:27     | B*18:49+B*35:11:01  |                     |
| B*18:15+B*35:45     | B*18:30+B*35:71     |                     |
| B*18:15+B*35:56     | B*18:49+B*35:167    |                     |
| B*18:15+B*35:80     | B*18:30+B*35:10     |                     |
| B*18:15+B*35:91     | B*18:32+B*35:11:01  |                     |
| B*18:15+B*35:105    | B*18:30+B*35:159    |                     |
| B*18:15+B*35:109    | B*18:36+B*35:96     |                     |
| B*18:15+B*35:142    | B*18:30+B*35:124    |                     |
| B*18:15+B*35:163    | B*18:19+B*35:03:01G |                     |
| B*18:15+B*35:169    | B*18:56+B*35:96     |                     |
| B*18:15+B*35:172    | B*18:30+B*35:02:01  |                     |
| B*18:15+B*38:33     | B*18:68+B*38:32     |                     |
| B*18:15+B*39:04     | B*18:68+B*39:35     |                     |
| B*18:15+B*39:09     | B*18:18+B*39:35     |                     |
| B*18:15+B*39:11     | B*18:30+B*39:05:01  |                     |
| B*18:15+B*39:47     | B*18:50+B*39:35     |                     |
| B*18:15+B*39:68     | B*18:40+B*39:35     |                     |
| B*18:15+B*39:74     | B*18:36+B*39:35     |                     |
| B*18:15+B*40:49     | B*18:43+B*40:183    |                     |
| B*18:15+B*40:53     | B*18:68+B*40:148    |                     |
| B*18:15+B*40:67     | B*18:31+B*40:183    |                     |
| B*18:15+B*40:75     | B*18:33+B*40:148    |                     |
| B*18:15+B*40:109    | B*18:67+B*40:148    |                     |
| B*18:15+B*40:114    | B*18:35+B*40:51     |                     |
| B*18:15+B*40:123    | B*18:24+B*40:183    |                     |
| B*18:15+B*40:138    | B*18:64+B*40:183    |                     |
| B*18:15+B*40:161    | B*18:30+B*40:148    |                     |
| B*18:15+B*40:172    | B*18:20+B*40:183    |                     |
| B*18:15+B*40:188    | B*18:54+B*40:183    |                     |
| B*18:15+B*40:197    | B*18:38+B*40:183    |                     |
| B*18:15+B*40:198    | B*18:30+B*40:183    |                     |
| B*18:15+B*44:76     | B*18:30+B*44:79     |                     |
| B*18:15+B*44:108N   | B*18:23N+B*44:79    |                     |
| B*18:15+B*44:146    | B*18:19+B*44:79     |                     |
| B*18:15+B*46:01:01G | B*18:19+B*46:08     |                     |
| B*18:15+B*48:18     | B*18:67+B*48:15     |                     |
| B*18:15+B*48:19     | B*18:19+B*48:01:01G |                     |
| B*18:15+B*51:19     | B*18:36+B*51:101    |                     |
| B*18:15+B*51:29     | B*18:30+B*51:01:01G |                     |
| B*18:15+B*51:61:02  | B*18:19+B*51:01:01G |                     |
| B*18:15+B*51:82     | B*18:30+B*51:16     |                     |
| B*18:15+B*52:21     | B*18:19+B*52:01:02  |                     |
| B*18:15+B*52:24     | B*18:30+B*52:01:01G |                     |
| B*18:15+B*53:03     | B*18:54+B*35:11:01  |                     |
| B*18:15+B*53:05     | B*18:67+B*35:11:01  |                     |
| B*18:15+B*53:11     | B*18:30+B*53:13     |                     |
| B*18:15+B*53:16     | B*18:30+B*53:05     |                     |
| B*18:15+B*55:09     | B*18:30+B*55:24     |                     |
| B*18:15+B*55:12     | B*18:49+B*55:01:01G |                     |
| B*18:15+B*55:21     | B*18:19+B*55:01:01G |                     |
| B*18:15+B*55:41     | B*18:20+B*55:01:01G |                     |
| B*18:15+B*55:52     | B*18:30+B*55:01:01G |                     |
| B*18:15+B*56:13     | B*18:36+B*55:56     |                     |
| B*18:15+B*56:15     | B*18:36+B*55:28     |                     |
| B*18:15+B*56:20:01  | B*18:40+B*56:25     |                     |
| B*18:15+B*56:27     | B*18:36+B*55:38     |                     |
| B*18:15+B*57:23     | B*18:24+B*57:22     |                     |
| B*18:15+B*57:31     | B*18:40+B*57:22     |                     |
| B*18:15+B*57:41     | B*18:20+B*57:22     |                     |

|                     |                     |                     |
|---------------------|---------------------|---------------------|
| B*18:15+B*58:21     | B*18:51+B*58:19     |                     |
| B*18:18+B*39:04     | B*18:68+B*39:09     |                     |
| B*18:18+B*39:47     | B*18:50+B*39:09     |                     |
| B*18:18+B*39:68     | B*18:40+B*39:09     |                     |
| B*18:18+B*39:74     | B*18:36+B*39:09     |                     |
| B*18:19+B*35:04:01  | B*18:26+B*35:14:01  |                     |
| B*18:19+B*35:09:01  | B*18:61+B*35:14:01  |                     |
| B*18:19+B*35:27     | B*18:49+B*35:14:01  |                     |
| B*18:19+B*35:91     | B*18:32+B*35:14:01  |                     |
| B*18:19+B*35:99     | B*18:30+B*35:43:01G |                     |
| B*18:19+B*35:156    | B*18:30+B*35:163    |                     |
| B*18:19+B*44:76     | B*18:30+B*44:146    |                     |
| B*18:19+B*44:108N   | B*18:23N+B*44:146   |                     |
| B*18:19+B*46:03     | B*18:30+B*46:29     |                     |
| B*18:19+B*51:29     | B*18:30+B*51:61:02  |                     |
| B*18:19+B*53:03     | B*18:54+B*35:14:01  |                     |
| B*18:19+B*53:05     | B*18:67+B*35:14:01  |                     |
| B*18:19+B*55:12     | B*18:49+B*55:21     |                     |
| B*18:19+B*55:22     | B*18:50+B*55:21     |                     |
| B*18:19+B*55:41     | B*18:20+B*55:21     |                     |
| B*18:19+B*55:52     | B*18:30+B*55:21     |                     |
| B*18:19+B*56:01:01G | B*18:36+B*55:21     |                     |
| B*18:20+B*40:37     | B*18:49+B*40:89     |                     |
| B*18:20+B*40:40     | B*18:43+B*40:89     |                     |
| B*18:20+B*40:49     | B*18:43+B*40:172    |                     |
| B*18:20+B*40:57     | B*18:70+B*40:89     |                     |
| B*18:20+B*40:67     | B*18:31+B*40:172    |                     |
| B*18:20+B*40:111    | B*18:76+B*40:89     |                     |
| B*18:20+B*40:123    | B*18:24+B*40:172    |                     |
| B*18:20+B*40:138    | B*18:64+B*40:172    |                     |
| B*18:20+B*40:188    | B*18:54+B*40:172    |                     |
| B*18:20+B*40:197    | B*18:38+B*40:172    |                     |
| B*18:20+B*40:198    | B*18:30+B*40:172    |                     |
| B*18:20+B*44:77     | B*18:26+B*44:144    |                     |
| B*18:20+B*55:12     | B*18:49+B*55:41     |                     |
| B*18:20+B*55:22     | B*18:50+B*55:41     |                     |
| B*18:20+B*55:52     | B*18:30+B*55:41     |                     |
| B*18:20+B*56:01:01G | B*18:36+B*55:41     |                     |
| B*18:20+B*57:03:01  | B*18:26+B*57:41     |                     |
| B*18:20+B*57:23     | B*18:24+B*57:41     |                     |
| B*18:20+B*57:31     | B*18:40+B*57:41     |                     |
| B*18:21+B*57:14     | B*18:36+B*57:13     |                     |
| B*18:22+B*35:68:01  | B*18:52+B*35:30     |                     |
| B*18:23N+B*44:76    | B*18:30+B*44:108N   |                     |
| B*18:24+B*40:49     | B*18:43+B*40:123    |                     |
| B*18:24+B*40:67     | B*18:31+B*40:123    |                     |
| B*18:24+B*40:138    | B*18:64+B*40:123    |                     |
| B*18:24+B*40:188    | B*18:54+B*40:123    |                     |
| B*18:24+B*40:197    | B*18:38+B*40:123    |                     |
| B*18:24+B*40:198    | B*18:30+B*40:123    |                     |
| B*18:24+B*57:03:01  | B*18:26+B*57:23     |                     |
| B*18:24+B*57:31     | B*18:40+B*57:23     |                     |
| B*18:25+B*27:05:02G | B*18:68+B*27:37     |                     |
| B*18:25+B*35:197    | B*18:43+B*35:01:01G |                     |
| B*18:25+B*38:01:01  | B*18:43+B*38:33     |                     |
| B*18:25+B*39:01:01G | B*18:43+B*39:04     |                     |
| B*18:25+B*40:01:01G | B*18:68+B*40:49     |                     |
| B*18:25+B*40:02:01G | B*18:68+B*40:40     |                     |
| B*18:25+B*40:06:01G | B*18:43+B*40:53     |                     |
| B*18:25+B*40:98     | B*18:43+B*40:32     |                     |
| B*18:25+B*40:210    | B*18:43+B*40:49     |                     |
| B*18:25+B*42:02     | B*18:68+B*42:01:01  |                     |
| B*18:25+B*42:17     | B*18:68+B*42:10     |                     |
| B*18:25+B*44:55     | B*18:68+B*44:02:01G |                     |
| B*18:25+B*46:14     | B*18:68+B*46:01:01G |                     |
| B*18:25+B*49:01:01  | B*18:68+B*49:10     |                     |
| B*18:25+B*50:01:01  | B*18:68+B*50:13     |                     |
| B*18:25+B*51:57     | B*18:43+B*51:01:01G |                     |
| B*18:25+B*53:21     | B*18:43+B*53:01:01  |                     |
| B*18:25+B*55:16     | B*18:68+B*55:02:01G |                     |
| B*18:25+B*57:10     | B*18:43+B*57:01:01G |                     |
| B*18:25+B*57:39     | B*18:68+B*57:03:01  |                     |
| B*18:26+B*35:09:01  | B*18:61+B*35:04:01  |                     |
| B*18:26+B*35:27     | B*18:49+B*35:04:01  |                     |
| B*18:26+B*35:91     | B*18:32+B*35:04:01  |                     |
| B*18:26+B*39:68     | B*18:61+B*39:01:01G |                     |
| B*18:26+B*40:01:01G | B*18:61+B*40:87:02  |                     |
| B*18:26+B*40:01:14  | B*18:61+B*40:87:01  |                     |
| B*18:26+B*40:02:01G | B*18:61+B*40:35     |                     |
| B*18:26+B*40:14:01  | B*18:61+B*40:121    |                     |
| B*18:26+B*40:59     | B*18:52+B*40:160    |                     |
| B*18:26+B*42:01:01  | B*18:61+B*42:10     |                     |
| B*18:26+B*42:02     | B*18:61+B*42:17     |                     |
| B*18:26+B*44:53     | B*18:61+B*44:02:01G |                     |
| B*18:26+B*51:24:01  | B*18:61+B*51:01:04  |                     |
| B*18:26+B*51:24:03  | B*18:61+B*51:01:25  |                     |
| B*18:26+B*51:24:04  | B*18:61+B*51:01:21  |                     |
| B*18:26+B*53:03     | B*18:54+B*35:04:01  |                     |
| B*18:26+B*53:05     | B*18:67+B*35:04:01  |                     |
| B*18:26+B*56:20:01  | B*18:61+B*56:01:01G |                     |
| B*18:26+B*57:31     | B*18:40+B*57:03:01  | B*18:61+B*57:01:01G |
| B*18:29+B*56:09     | B*35:50+B*56:31     |                     |
| B*18:30+B*40:49     | B*18:43+B*40:198    |                     |
| B*18:30+B*40:53     | B*18:68+B*40:161    |                     |
| B*18:30+B*40:67     | B*18:31+B*40:198    |                     |
| B*18:30+B*40:75     | B*18:33+B*40:161    |                     |
| B*18:30+B*40:109    | B*18:67+B*40:161    |                     |
| B*18:30+B*40:138    | B*18:64+B*40:198    |                     |
| B*18:30+B*40:188    | B*18:54+B*40:198    |                     |
| B*18:30+B*40:197    | B*18:38+B*40:198    |                     |
| B*18:30+B*54:03     | B*18:36+B*54:20     |                     |
| B*18:30+B*54:26     | B*18:50+B*54:20     |                     |
| B*18:30+B*54:27     | B*18:75+B*54:20     |                     |
| B*18:30+B*55:12     | B*18:49+B*55:52     |                     |
| B*18:30+B*56:01:03  | B*18:57+B*55:37     |                     |



|                        |                       |                  |
|------------------------|-----------------------|------------------|
| B*18:31+B*40:49        | B*18:43+B*40:67       |                  |
| B*18:31+B*40:138       | B*18:64+B*40:67       |                  |
| B*18:31+B*40:188       | B*18:54+B*40:67       |                  |
| B*18:31+B*40:197       | B*18:38+B*40:67       |                  |
| B*18:31+B*52:30        | B*18:65+B*52:28       |                  |
| B*18:32+B*35:09:01     | B*18:61+B*35:91       |                  |
| B*18:32+B*35:27        | B*18:49+B*35:91       |                  |
| B*18:32+B*49:10        | B*18:43+B*49:12       |                  |
| B*18:32+B*51:69        | B*18:65+B*51:130      |                  |
| B*18:32+B*53:03        | B*18:54+B*35:91       |                  |
| B*18:32+B*53:05        | B*18:67+B*35:91       |                  |
| B*18:33+B*40:53        | B*18:68+B*40:75       |                  |
| B*18:33+B*40:109       | B*18:67+B*40:75       |                  |
| B*18:34+B*44:53        | B*18:40+B*44:116      |                  |
| B*18:34+B*44:72        | B*18:45+B*44:116      |                  |
| B*18:35+B*40:92        | B*18:58+B*40:01:24    |                  |
| B*18:36+B*27:04:01G    | B*18:50+B*27:63       |                  |
| B*18:36+B*27:05:02G    | B*18:50+B*27:38       |                  |
| B*18:36+B*35:01:01G    | B*18:58+B*35:24:01    |                  |
| B*18:36+B*35:02:01     | B*18:58+B*35:81       |                  |
| B*18:36+B*35:03:01G    | B*18:58+B*35:109      |                  |
| B*18:36+B*35:11:01     | B*18:58+B*35:21       |                  |
| B*18:36+B*35:11:02     | B*18:57+B*35:01:01G   |                  |
| B*18:36+B*35:14:02     | B*18:57+B*35:62       |                  |
| B*18:36+B*35:86        | B*18:50+B*35:43:01G   |                  |
| B*18:36+B*35:169       | B*18:56+B*35:109      |                  |
| B*18:36+B*37:01:01G    | B*18:58+B*37:04:01    |                  |
| B*18:36+B*39:04        | B*18:68+B*39:74       |                  |
| B*18:36+B*39:68        | B*18:40+B*39:74       |                  |
| B*18:36+B*39:74        | B*18:58+B*39:32       |                  |
| B*18:36+B*40:01:01G    | B*18:50+B*40:63       | B*18:58+B*40:113 |
| B*18:36+B*40:05        | B*18:58+B*40:174      |                  |
| B*18:36+B*44:16        | B*18:50+B*44:91       |                  |
| B*18:36+B*44:21        | B*18:50+B*44:02:01G   |                  |
| B*18:36+B*44:64:01     | B*18:50+B*44:37:02    |                  |
| B*18:36+B*44:64:02     | B*18:50+B*44:37:01    |                  |
| B*18:36+B*44:124       | B*18:50+B*44:03:02    |                  |
| B*18:36+B*45:10        | B*18:50+B*45:04       |                  |
| B*18:36+B*46:08        | B*18:57+B*46:13:01    |                  |
| B*18:36+B*46:30        | B*18:50+B*46:01:01G   |                  |
| B*18:36+B*49:01:01     | B*18:58+B*49:09       |                  |
| B*18:36+B*51:02:01     | B*18:58+B*51:01:01G   |                  |
| B*18:36+B*51:02:02     | B*18:58+B*51:01:02    |                  |
| B*18:36+B*51:02:03     | B*18:58+B*51:01:31    |                  |
| B*18:36+B*51:02:04     | B*18:58+B*51:01:04    |                  |
| B*18:36+B*51:16        | B*18:50+B*51:01:01G   |                  |
| B*18:36+B*51:31        | B*18:50+B*51:09:01    |                  |
| B*18:36+B*51:59        | B*18:58+B*51:06:01    |                  |
| B*18:36+B*51:82        | B*18:50+B*51:29       |                  |
| B*18:36+B*52:01:07     | B*18:57+B*52:10:01    |                  |
| B*18:36+B*52:08        | B*18:50+B*52:01:01G   |                  |
| B*18:36+B*52:11        | B*18:58+B*52:01:01G   |                  |
| B*18:36+B*53:01:01     | B*18:58+B*53:02       |                  |
| B*18:36+B*53:08:02     | B*18:57+B*53:01:01    |                  |
| B*18:36+B*53:22        | B*18:56+B*53:02       |                  |
| B*18:36+B*54:26        | B*18:50+B*54:03       |                  |
| B*18:36+B*54:27        | B*18:75+B*54:03       |                  |
| B*18:36+B*55:12        | B*18:49+B*56:01:01G   |                  |
| B*18:36+B*55:15        | B*18:42+B*56:25       |                  |
| B*18:36+B*55:16        | B*18:68+B*56:35       |                  |
| B*18:36+B*55:24        | B*18:50+B*56:25       |                  |
| B*18:36+B*56:01:01G    | B*18:58+B*56:34       |                  |
| B*18:36+B*56:18        | B*18:58+B*56:31       |                  |
| B*18:36+B*57:25        | B*18:50+B*57:01:01G   |                  |
| B*18:36+B*58:01:01G    | B*18:58+B*58:09       |                  |
| B*18:37+B*35:47        | B*18:48+B*35:49       |                  |
| B*18:37+B*40:01:01G    | B*18:48+B*40:46       |                  |
| B*18:37+B*40:06:01G    | B*18:48+B*40:93       |                  |
| B*18:38+B*40:49        | B*18:43+B*40:197      |                  |
| B*18:38+B*40:138       | B*18:64+B*40:197      |                  |
| B*18:38+B*40:188       | B*18:54+B*40:197      |                  |
| B*18:40+B*27:27        | B*18:61+B*27:41       |                  |
| B*18:40+B*35:02:01     | B*18:61+B*35:146      |                  |
| B*18:40+B*35:04:02     | B*18:61+B*35:01:10    |                  |
| B*18:40+B*35:04:03     | B*18:61+B*35:01:17    |                  |
| B*18:40+B*35:09:02     | B*18:61+B*35:64       |                  |
| B*18:40+B*35:22        | B*18:61+B*35:51       |                  |
| B*18:40+B*35:44        | B*18:61+B*35:43:01G   |                  |
| B*18:40+B*39:04        | B*18:68+B*39:68       |                  |
| B*18:40+B*39:47        | B*18:50+B*39:68       |                  |
| B*18:40+B*40:01:01G    | B*18:61+B*40:52       |                  |
| B*18:40+B*40:02:01G    | B*18:61+B*40:03       |                  |
| B*18:40+B*40:06:01G    | B*18:61+B*40:159      |                  |
| B*18:40+B*40:11:01     | B*18:61+B*40:20       |                  |
| B*18:40+B*42:02        | B*18:61+B*42:09       |                  |
| B*18:40+B*44:72        | B*18:45+B*44:53       |                  |
| B*18:40+B*44:77        | B*18:61+B*44:43:01    |                  |
| B*18:40+B*48:03:01     | B*18:61+B*48:23       |                  |
| B*18:40+B*51:01:01G    | B*18:61+B*51:37       |                  |
| B*18:40+B*53:16        | B*18:67+B*35:174      |                  |
| B*18:40+B*54:04        | B*18:61+B*54:14       |                  |
| B*18:40+B*57:02:01     | B*18:61+B*57:19       |                  |
| B*18:40+B*57:57        | B*18:61+B*57:22       |                  |
| B*18:42+B*55:24        | B*18:50+B*55:15       |                  |
| B*18:43+B*40:37        | B*18:49+B*40:40       |                  |
| B*18:43+B*40:57        | B*18:70+B*40:40       |                  |
| B*18:43+B*40:111       | B*18:76+B*40:40       |                  |
| B*18:43+B*40:138       | B*18:64+B*40:49       |                  |
| B*18:43+B*40:188       | B*18:54+B*40:49       |                  |
| B*18:43+B*48:22        | B*18:68+B*48:01:01G   |                  |
| B*18:43+B*50:11        | B*18:63+B*50:13       |                  |
| B*18:44:01+B*35:01:01G | B*18:44:02+B*35:01:04 |                  |
| B*18:44:01+B*35:08:01  | B*18:44:02+B*35:08:03 |                  |
| B*18:44:01+B*35:12:02  | B*18:44:02+B*35:12:01 |                  |
| B*18:44:01+B*35:68:01  | B*18:44:02+B*35:68:02 |                  |

|                        |                        |                    |                 |
|------------------------|------------------------|--------------------|-----------------|
| B*18:44:01+B*39:06:02  | B*18:44:02+B*39:06:01  |                    |                 |
| B*18:44:01+B*40:01:04  | B*18:44:02+B*40:01:01G |                    |                 |
| B*18:44:01+B*40:02:09  | B*18:44:02+B*40:02:01G |                    |                 |
| B*18:44:01+B*40:11:02  | B*18:44:02+B*40:11:01  |                    |                 |
| B*18:44:01+B*40:124:01 | B*18:44:02+B*40:124:02 |                    |                 |
| B*18:44:01+B*44:02:07  | B*18:44:02+B*44:02:01G |                    |                 |
| B*18:44:01+B*44:03:02  | B*18:44:02+B*44:03:01G |                    |                 |
| B*18:44:01+B*44:28:01  | B*18:44:02+B*44:28:02  |                    |                 |
| B*18:44:01+B*44:37:02  | B*18:44:02+B*44:37:01  |                    |                 |
| B*18:44:01+B*44:41:02  | B*18:44:02+B*44:41:01  |                    |                 |
| B*18:44:01+B*44:64:01  | B*18:44:02+B*44:64:02  |                    |                 |
| B*18:44:01+B*48:03:02  | B*18:44:02+B*48:03:01  |                    |                 |
| B*18:44:01+B*51:01:01G | B*18:44:02+B*51:01:16  |                    |                 |
| B*18:44:01+B*51:06:02  | B*18:44:02+B*51:06:01  |                    |                 |
| B*18:44:01+B*55:02:01G | B*18:44:02+B*55:02:04  |                    |                 |
| B*18:49+B*27:05:02G    | B*18:54+B*27:89        |                    |                 |
| B*18:49+B*35:09:01     | B*18:61+B*35:27        |                    |                 |
| B*18:49+B*40:57        | B*18:70+B*40:37        |                    |                 |
| B*18:49+B*40:111       | B*18:76+B*40:37        |                    |                 |
| B*18:49+B*53:03        | B*18:54+B*35:27        |                    |                 |
| B*18:49+B*55:22        | B*18:50+B*55:12        |                    |                 |
| B*18:50+B*35:11:02     | B*18:57+B*35:15        |                    |                 |
| B*18:50+B*39:04        | B*18:68+B*39:47        |                    |                 |
| B*18:50+B*54:27        | B*18:75+B*54:26        |                    |                 |
| B*18:54+B*35:09:01     | B*18:61+B*53:03        |                    |                 |
| B*18:54+B*40:138       | B*18:64+B*40:188       |                    |                 |
| B*18:54+B*53:05        | B*18:67+B*53:03        |                    |                 |
| B*18:56+B*27:38        | B*18:58+B*27:47        |                    |                 |
| B*18:56+B*35:03:01G    | B*18:58+B*35:169       |                    |                 |
| B*18:56+B*44:37:01     | B*18:58+B*44:02:01G    |                    |                 |
| B*18:56+B*44:37:02     | B*18:58+B*44:02:07     |                    |                 |
| B*18:56+B*49:11        | B*18:58+B*44:18        |                    |                 |
| B*18:56+B*53:01:01     | B*18:58+B*53:22        |                    |                 |
| B*18:61+B*53:05        | B*18:67+B*35:09:01     |                    |                 |
| B*18:67+B*40:53        | B*18:68+B*40:109       |                    |                 |
| B*18:70+B*40:111       | B*18:76+B*40:57        |                    |                 |
| B*27:01+B*35:01:01G    | B*27:44+B*53:13        |                    |                 |
| B*27:01+B*35:08:01     | B*27:44+B*53:11        |                    |                 |
| B*27:01+B*35:20:01     | B*27:44+B*53:09        |                    |                 |
| B*27:01+B*35:29:01     | B*27:08+B*53:13        | B*27:89+B*53:12    |                 |
| B*27:01+B*37:11        | B*27:44+B*37:10        |                    |                 |
| B*27:01+B*38:14        | B*27:02:01+B*38:02:01G |                    |                 |
| B*27:01+B*39:01:01G    | B*27:08+B*38:02:01G    |                    |                 |
| B*27:01+B*39:01:09     | B*27:08+B*38:02:03     |                    |                 |
| B*27:01+B*39:05:01     | B*27:44+B*38:02:01G    |                    |                 |
| B*27:01+B*39:15        | B*27:08+B*38:29        |                    |                 |
| B*27:01+B*39:35        | B*27:40+B*38:02:01G    |                    |                 |
| B*27:01+B*39:55        | B*27:44+B*38:29        |                    |                 |
| B*27:01+B*39:73        | B*27:08+B*38:23        |                    |                 |
| B*27:01+B*40:01:01G    | B*27:44+B*40:47        |                    |                 |
| B*27:01+B*40:02:01G    | B*27:44+B*40:157       |                    |                 |
| B*27:01+B*40:06:01G    | B*27:44+B*40:96        |                    |                 |
| B*27:01+B*40:43        | B*27:08+B*40:47        |                    |                 |
| B*27:01+B*40:50        | B*27:08+B*40:157       | B*27:89+B*40:201   |                 |
| B*27:01+B*44:09        | B*27:44+B*44:02:01G    |                    |                 |
| B*27:01+B*44:46        | B*27:44+B*44:03:01G    |                    |                 |
| B*27:01+B*50:01:01     | B*27:44+B*49:02        |                    |                 |
| B*27:01+B*53:23        | B*27:02:01+B*53:13     |                    |                 |
| B*27:01+B*56:01:01G    | B*27:44+B*56:07        |                    |                 |
| B*27:01+B*78:01:01     | B*27:08+B*51:78:01     |                    |                 |
| B*27:01+B*78:02:01     | B*27:44+B*51:78:02     |                    |                 |
| B*27:01+B*78:02:02     | B*27:44+B*51:78:01     |                    |                 |
| B*27:01+B*78:05        | B*27:44+B*52:20        |                    |                 |
| B*27:02:01+B*27:19     | B*27:05:02G+B*27:30    |                    |                 |
| B*27:02:01+B*27:28     | B*27:05:02G+B*27:62    |                    |                 |
| B*27:02:01+B*27:42     | B*27:53+B*27:89        |                    |                 |
| B*27:02:01+B*35:01:01G | B*27:08+B*53:01:01     | B*27:44+B*53:23    | B*27:89+B*53:05 |
| B*27:02:01+B*35:01:16  | B*27:08+B*53:01:02     |                    |                 |
| B*27:02:01+B*35:02:01  | B*27:08+B*53:19        |                    |                 |
| B*27:02:01+B*35:03:01G | B*27:08+B*53:04        |                    |                 |
| B*27:02:01+B*35:03:09  | B*27:02:02+B*35:03:01G |                    |                 |
| B*27:02:01+B*35:05:01  | B*27:08+B*53:14        |                    |                 |
| B*27:02:01+B*35:08:01  | B*27:08+B*53:24        | B*27:89+B*53:16    |                 |
| B*27:02:01+B*35:11:01  | B*27:08+B*53:08:01     | B*27:40+B*53:01:01 |                 |
| B*27:02:01+B*35:11:02  | B*27:08+B*53:08:02     | B*27:40+B*53:01:03 |                 |
| B*27:02:01+B*35:21     | B*27:40+B*53:02        |                    |                 |
| B*27:02:01+B*35:24:01  | B*27:08+B*53:02        |                    |                 |
| B*27:02:01+B*35:27     | B*27:89+B*53:01:01     |                    |                 |
| B*27:02:01+B*35:28     | B*27:08+B*53:17:02     |                    |                 |
| B*27:02:01+B*35:29:01  | B*27:08+B*53:23        |                    |                 |
| B*27:02:01+B*35:56     | B*27:89+B*53:04        |                    |                 |
| B*27:02:01+B*35:58     | B*27:40+B*53:14        |                    |                 |
| B*27:02:01+B*35:108:01 | B*27:08+B*53:26        |                    |                 |
| B*27:02:01+B*35:167    | B*27:40+B*53:04        |                    |                 |
| B*27:02:01+B*35:190    | B*27:62+B*35:15        |                    |                 |
| B*27:02:01+B*35:197    | B*27:08+B*53:21        |                    |                 |
| B*27:02:01+B*35:203    | B*27:42+B*53:01:01     | B*27:53+B*35:27    |                 |
| B*27:02:01+B*37:01:01G | B*27:05:02G+B*37:34    |                    |                 |
| B*27:02:01+B*37:05     | B*27:42+B*37:34        |                    |                 |
| B*27:02:01+B*37:11     | B*27:08+B*37:34        |                    |                 |
| B*27:02:01+B*37:13     | B*27:10+B*37:34        |                    |                 |
| B*27:02:01+B*37:27     | B*27:57+B*37:01:01G    |                    |                 |
| B*27:02:01+B*37:29     | B*27:61+B*37:34        |                    |                 |
| B*27:02:01+B*37:31     | B*27:74+B*37:34        |                    |                 |
| B*27:02:01+B*38:17     | B*27:05:02G+B*38:01:01 |                    |                 |
| B*27:02:01+B*39:01:01G | B*27:08+B*38:14        |                    |                 |
| B*27:02:01+B*39:05:01  | B*27:08+B*38:01:01     | B*27:44+B*38:14    |                 |
| B*27:02:01+B*39:35     | B*27:40+B*38:14        |                    |                 |
| B*27:02:01+B*39:37     | B*27:08+B*38:19        |                    |                 |
| B*27:02:01+B*39:48     | B*27:62+B*39:47        |                    |                 |
| B*27:02:01+B*40:01:01G | B*27:08+B*40:117       |                    |                 |
| B*27:02:01+B*40:02:01G | B*27:08+B*40:19        |                    |                 |
| B*27:02:01+B*40:06:01G | B*27:89+B*40:109       |                    |                 |
| B*27:02:01+B*40:37     | B*27:89+B*40:19        |                    |                 |
| B*27:02:01+B*40:183    | B*27:40+B*40:117       |                    |                 |

|                         |                        |                     |                     |
|-------------------------|------------------------|---------------------|---------------------|
| B*27:02:01+B*40:188     | B*27:05:02G+B*40:117   |                     |                     |
| B*27:02:01+B*41:01      | B*27:83+B*41:09        |                     |                     |
| B*27:02:01+B*42:01:01   | B*27:83+B*42:08        |                     |                     |
| B*27:02:01+B*44:09      | B*27:08+B*44:95        |                     |                     |
| B*27:02:01+B*44:46      | B*27:08+B*44:50        |                     |                     |
| B*27:02:01+B*44:75      | B*27:89+B*44:25        |                     |                     |
| B*27:02:01+B*45:01:01G  | B*27:08+B*44:18        |                     |                     |
| B*27:02:01+B*48:01:01G  | B*27:89+B*48:18        |                     |                     |
| B*27:02:01+B*50:01:01   | B*27:08+B*49:01:01     | B*27:40+B*49:11     |                     |
| B*27:02:01+B*50:02      | B*27:08+B*49:20        |                     |                     |
| B*27:02:01+B*50:13      | B*27:08+B*49:10        |                     |                     |
| B*27:02:01+B*50:14      | B*27:08+B*49:18        |                     |                     |
| B*27:02:01+B*51:21      | B*27:62+B*51:34        |                     |                     |
| B*27:02:01+B*51:116     | B*27:75+B*51:103       |                     |                     |
| B*27:02:01+B*53:03      | B*27:05:02G+B*53:01:01 |                     |                     |
| B*27:02:01+B*53:15      | B*27:83+B*53:01:01     |                     |                     |
| B*27:02:01+B*54:01:01G  | B*27:08+B*54:12        |                     |                     |
| B*27:02:01+B*56:05:02   | B*27:08+B*56:21        |                     |                     |
| B*27:02:01+B*57:12      | B*27:08+B*57:02:01     |                     |                     |
| B*27:02:01+B*67:01:01   | B*27:08+B*38:26        |                     |                     |
| B*27:02:01+B*78:02:01   | B*27:08+B*51:01:02     | B*27:40+B*51:09:02  |                     |
| B*27:02:01+B*78:02:02   | B*27:08+B*51:01:01G    | B*27:40+B*51:09:01  |                     |
| B*27:02:01+B*78:05      | B*27:08+B*52:01:01G    | B*27:40+B*52:10:01  |                     |
| B*27:02:01+B*78:06      | B*27:89+B*52:01:01G    |                     |                     |
| B*27:04:01G+B*27:05:02G | B*27:10+B*27:61        |                     |                     |
| B*27:04:01G+B*27:07:01G | B*27:10+B*27:11        |                     |                     |
| B*27:04:01G+B*27:08     | B*27:40+B*27:61        |                     |                     |
| B*27:04:01G+B*27:26     | B*27:31+B*27:40        |                     |                     |
| B*27:04:01G+B*27:33     | B*27:11+B*27:40        |                     |                     |
| B*27:04:01G+B*27:38     | B*27:05:02G+B*27:63    |                     |                     |
| B*27:04:01G+B*27:42     | B*27:05:02G+B*27:40    | B*27:08+B*27:10     |                     |
| B*27:04:01G+B*27:71     | B*27:05:02G+B*27:15    |                     |                     |
| B*27:04:01G+B*35:01:01G | B*27:61+B*35:11:01     | B*27:63+B*35:15     |                     |
| B*27:04:01G+B*35:01:10  | B*27:04:03+B*35:01:01G |                     |                     |
| B*27:04:01G+B*35:03:01G | B*27:61+B*35:167       | B*27:63+B*35:33     |                     |
| B*27:04:01G+B*35:04:02  | B*27:04:03+B*35:04:01  |                     |                     |
| B*27:04:01G+B*35:05:01  | B*27:61+B*35:58        |                     |                     |
| B*27:04:01G+B*35:24:01  | B*27:61+B*35:21        |                     |                     |
| B*27:04:01G+B*35:43:01G | B*27:63+B*35:86        |                     |                     |
| B*27:04:01G+B*35:62     | B*27:25+B*35:15        | B*27:61+B*35:14:01  |                     |
| B*27:04:01G+B*35:93     | B*27:15+B*35:15        |                     |                     |
| B*27:04:01G+B*35:163    | B*27:25+B*35:33        |                     |                     |
| B*27:04:01G+B*35:190    | B*27:61+B*35:188       |                     |                     |
| B*27:04:01G+B*35:203    | B*27:05:02G+B*35:11:01 | B*27:10+B*35:01:01G | B*27:40+B*53:03     |
| B*27:04:01G+B*37:01:01G | B*27:10+B*37:29        | B*27:61+B*37:13     |                     |
| B*27:04:01G+B*37:05     | B*27:08+B*37:13        | B*27:10+B*37:11     | B*27:40+B*37:01:01G |
| B*27:04:01G+B*37:11     | B*27:40+B*37:29        |                     |                     |
| B*27:04:01G+B*38:01:01  | B*27:61+B*38:32        |                     |                     |
| B*27:04:01G+B*38:36     | B*27:61+B*38:10        |                     |                     |
| B*27:04:01G+B*39:01:01G | B*27:15+B*39:47        | B*27:61+B*39:35     |                     |
| B*27:04:01G+B*39:06:02  | B*27:15+B*39:50        |                     |                     |
| B*27:04:01G+B*39:74     | B*27:63+B*39:47        |                     |                     |
| B*27:04:01G+B*40:01:01G | B*27:61+B*40:183       |                     |                     |
| B*27:04:01G+B*40:01:06  | B*27:04:03+B*40:01:01G |                     |                     |
| B*27:04:01G+B*40:06:01G | B*27:61+B*40:148       |                     |                     |
| B*27:04:01G+B*40:09     | B*27:06+B*40:180       |                     |                     |
| B*27:04:01G+B*40:39     | B*27:15+B*40:02:01G    |                     |                     |
| B*27:04:01G+B*40:42     | B*27:06+B*40:124:02    |                     |                     |
| B*27:04:01G+B*40:63     | B*27:63+B*40:01:01G    |                     |                     |
| B*27:04:01G+B*40:128    | B*27:61+B*40:198       |                     |                     |
| B*27:04:01G+B*40:199    | B*27:15+B*40:01:01G    |                     |                     |
| B*27:04:01G+B*41:02:01  | B*27:15+B*41:19        |                     |                     |
| B*27:04:01G+B*44:02:01G | B*27:63+B*44:21        |                     |                     |
| B*27:04:01G+B*44:03:01G | B*27:61+B*44:79        |                     |                     |
| B*27:04:01G+B*44:03:02  | B*27:63+B*44:124       |                     |                     |
| B*27:04:01G+B*44:28:02  | B*27:61+B*44:76        |                     |                     |
| B*27:04:01G+B*44:37:01  | B*27:63+B*44:64:02     |                     |                     |
| B*27:04:01G+B*44:37:02  | B*27:63+B*44:64:01     |                     |                     |
| B*27:04:01G+B*44:91     | B*27:63+B*44:16        |                     |                     |
| B*27:04:01G+B*44:132    | B*27:15+B*44:16        |                     |                     |
| B*27:04:01G+B*45:04     | B*27:63+B*45:10        |                     |                     |
| B*27:04:01G+B*45:08     | B*27:15+B*45:10        |                     |                     |
| B*27:04:01G+B*46:01:01G | B*27:63+B*46:30        |                     |                     |
| B*27:04:01G+B*46:09     | B*27:61+B*46:01:01G    |                     |                     |
| B*27:04:01G+B*46:13:03  | B*27:61+B*46:08        |                     |                     |
| B*27:04:01G+B*46:29     | B*27:15+B*46:30        |                     |                     |
| B*27:04:01G+B*47:08     | B*27:15+B*47:01:01G    |                     |                     |
| B*27:04:01G+B*48:01:01G | B*27:61+B*48:15        |                     |                     |
| B*27:04:01G+B*48:02:01  | B*27:61+B*48:25        |                     |                     |
| B*27:04:01G+B*49:01:01  | B*27:63+B*49:07        |                     |                     |
| B*27:04:01G+B*49:11     | B*27:61+B*49:01:01     |                     |                     |
| B*27:04:01G+B*51:01:01G | B*27:04:03+B*51:01:04  | B*27:63+B*51:16     |                     |
| B*27:04:01G+B*51:02:01  | B*27:04:03+B*51:02:04  | B*27:63+B*51:34     |                     |
| B*27:04:01G+B*51:09:01  | B*27:61+B*51:01:01G    | B*27:63+B*51:31     |                     |
| B*27:04:01G+B*51:09:02  | B*27:61+B*51:01:02     |                     |                     |
| B*27:04:01G+B*51:13:02  | B*27:04:03+B*51:13:01  |                     |                     |
| B*27:04:01G+B*51:21     | B*27:15+B*51:16        |                     |                     |
| B*27:04:01G+B*51:24:03  | B*27:04:03+B*51:24:02  |                     |                     |
| B*27:04:01G+B*51:29     | B*27:63+B*51:82        |                     |                     |
| B*27:04:01G+B*51:31     | B*27:61+B*51:16        |                     |                     |
| B*27:04:01G+B*51:40     | B*27:61+B*51:02:05     |                     |                     |
| B*27:04:01G+B*51:61:02  | B*27:25+B*51:16        |                     |                     |
| B*27:04:01G+B*51:108    | B*27:61+B*51:23        |                     |                     |
| B*27:04:01G+B*52:01:01G | B*27:04:03+B*52:01:05  | B*27:63+B*52:08     |                     |
| B*27:04:01G+B*52:10:01  | B*27:61+B*52:01:01G    |                     |                     |
| B*27:04:01G+B*52:10:02  | B*27:61+B*52:01:07     |                     |                     |
| B*27:04:01G+B*53:01:01  | B*27:61+B*53:08:01     |                     |                     |
| B*27:04:01G+B*53:01:03  | B*27:61+B*53:08:02     |                     |                     |
| B*27:04:01G+B*54:01:01G | B*27:15+B*54:26        |                     |                     |
| B*27:04:01G+B*54:03     | B*27:63+B*54:26        |                     |                     |
| B*27:04:01G+B*54:10     | B*27:61+B*54:20        |                     |                     |
| B*27:04:01G+B*55:01:01G | B*27:15+B*55:24        |                     |                     |
| B*27:04:01G+B*55:01:04  | B*27:04:03+B*55:01:01G |                     |                     |
| B*27:04:01G+B*55:02:01G | B*27:15+B*55:22        | B*27:61+B*55:01:01G |                     |
| B*27:04:01G+B*55:22     | B*27:61+B*55:24        |                     |                     |

|                         |                        |                     |                  |                    |
|-------------------------|------------------------|---------------------|------------------|--------------------|
| B*27:04:01G+B*55:37     | B*27:61+B*55:52        |                     |                  |                    |
| B*27:04:01G+B*55:52     | B*27:15+B*55:09        |                     |                  |                    |
| B*27:04:01G+B*56:01:01G | B*27:61+B*56:25        | B*27:63+B*55:22     |                  |                    |
| B*27:04:01G+B*56:18     | B*27:61+B*56:32        |                     |                  |                    |
| B*27:04:01G+B*56:25     | B*27:63+B*55:24        |                     |                  |                    |
| B*27:04:01G+B*57:01:01G | B*27:61+B*57:22        | B*27:63+B*57:25     |                  |                    |
| B*27:04:01G+B*57:03:01  | B*27:61+B*57:57        |                     |                  |                    |
| B*27:04:01G+B*57:26     | B*27:15+B*57:25        |                     |                  |                    |
| B*27:04:01G+B*58:01:01G | B*27:61+B*58:19        | B*27:63+B*58:37     |                  |                    |
| B*27:04:01G+B*58:02     | B*27:61+B*58:06        |                     |                  |                    |
| B*27:04:01G+B*58:35     | B*27:15+B*58:37        |                     |                  |                    |
| B*27:04:03+B*35:203     | B*27:10+B*35:01:10     |                     |                  |                    |
| B*27:04:03+B*40:63      | B*27:63+B*40:01:06     |                     |                  |                    |
| B*27:04:03+B*40:199     | B*27:15+B*40:01:06     |                     |                  |                    |
| B*27:04:03+B*55:02:01G  | B*27:61+B*55:01:04     |                     |                  |                    |
| B*27:05:02G+B*27:08     | B*27:42+B*27:61        |                     |                  |                    |
| B*27:05:02G+B*27:11     | B*27:07:01G+B*27:61    |                     |                  |                    |
| B*27:05:02G+B*27:12     | B*27:08+B*27:16        |                     |                  |                    |
| B*27:05:02G+B*27:18     | B*27:29+B*27:40        |                     |                  |                    |
| B*27:05:02G+B*27:21     | B*27:06+B*27:70        |                     |                  |                    |
| B*27:05:02G+B*27:26     | B*27:31+B*27:42        |                     |                  |                    |
| B*27:05:02G+B*27:33     | B*27:07:01G+B*27:08    | B*27:11+B*27:42     |                  |                    |
| B*27:05:02G+B*35:01:01G | B*27:08+B*53:03        | B*27:38+B*35:15     | B*27:61+B*35:203 |                    |
| B*27:05:02G+B*35:01:19  | B*27:52+B*35:49        |                     |                  |                    |
| B*27:05:02G+B*35:03:01G | B*27:38+B*35:33        |                     |                  |                    |
| B*27:05:02G+B*35:08:01  | B*27:45+B*35:01:01G    |                     |                  |                    |
| B*27:05:02G+B*35:08:03  | B*27:45+B*35:01:04     |                     |                  |                    |
| B*27:05:02G+B*35:08:05  | B*27:05:18+B*35:08:02  |                     |                  |                    |
| B*27:05:02G+B*35:14:01  | B*27:10+B*35:62        |                     |                  |                    |
| B*27:05:02G+B*35:18     | B*27:45+B*35:09:02     |                     |                  |                    |
| B*27:05:02G+B*35:21     | B*27:10+B*35:24:01     |                     |                  |                    |
| B*27:05:02G+B*35:27     | B*27:89+B*53:03        |                     |                  |                    |
| B*27:05:02G+B*35:42:02  | B*27:05:18+B*35:01:01G |                     |                  |                    |
| B*27:05:02G+B*35:43:01G | B*27:38+B*35:86        |                     |                  |                    |
| B*27:05:02G+B*35:45     | B*27:45+B*35:71        |                     |                  |                    |
| B*27:05:02G+B*35:58     | B*27:10+B*35:05:01     |                     |                  |                    |
| B*27:05:02G+B*35:80     | B*27:45+B*35:10        |                     |                  |                    |
| B*27:05:02G+B*35:93     | B*27:71+B*35:15        |                     |                  |                    |
| B*27:05:02G+B*35:105    | B*27:45+B*35:159       |                     |                  |                    |
| B*27:05:02G+B*35:129N   | B*27:59N+B*35:02:01    |                     |                  |                    |
| B*27:05:02G+B*35:142    | B*27:45+B*35:124       |                     |                  |                    |
| B*27:05:02G+B*35:156    | B*27:45+B*35:03:01G    |                     |                  |                    |
| B*27:05:02G+B*35:167    | B*27:10+B*35:03:01G    |                     |                  |                    |
| B*27:05:02G+B*35:169    | B*27:47+B*35:33        |                     |                  |                    |
| B*27:05:02G+B*35:172    | B*27:45+B*35:02:01     |                     |                  |                    |
| B*27:05:02G+B*35:188    | B*27:10+B*35:190       |                     |                  |                    |
| B*27:05:02G+B*35:190    | B*27:28+B*35:15        |                     |                  |                    |
| B*27:05:02G+B*35:197    | B*27:37+B*35:50        |                     |                  |                    |
| B*27:05:02G+B*35:203    | B*27:42+B*53:03        |                     |                  |                    |
| B*27:05:02G+B*37:01:01G | B*27:52+B*37:28        |                     |                  |                    |
| B*27:05:02G+B*37:05     | B*27:42+B*37:01:01G    |                     |                  |                    |
| B*27:05:02G+B*37:11     | B*27:08+B*37:01:01G    | B*27:42+B*37:29     | B*27:61+B*37:05  |                    |
| B*27:05:02G+B*37:13     | B*27:10+B*37:01:01G    |                     |                  |                    |
| B*27:05:02G+B*37:29     | B*27:61+B*37:01:01G    |                     |                  |                    |
| B*27:05:02G+B*37:31     | B*27:74+B*37:01:01G    |                     |                  |                    |
| B*27:05:02G+B*38:01:05  | B*27:05:08+B*38:01:01  |                     |                  |                    |
| B*27:05:02G+B*38:10     | B*27:10+B*38:36        |                     |                  |                    |
| B*27:05:02G+B*38:32     | B*27:10+B*38:01:01     |                     |                  |                    |
| B*27:05:02G+B*38:34N    | B*27:59N+B*38:01:01    |                     |                  |                    |
| B*27:05:02G+B*39:01:01G | B*27:37+B*39:31        | B*27:71+B*39:47     |                  |                    |
| B*27:05:02G+B*39:01:13  | B*27:05:03+B*39:01:01G |                     |                  |                    |
| B*27:05:02G+B*39:05:01  | B*27:08+B*38:17        |                     |                  |                    |
| B*27:05:02G+B*39:06:02  | B*27:71+B*39:50        |                     |                  |                    |
| B*27:05:02G+B*39:11     | B*27:45+B*39:05:01     |                     |                  |                    |
| B*27:05:02G+B*39:35     | B*27:10+B*39:01:01G    |                     |                  |                    |
| B*27:05:02G+B*39:48     | B*27:28+B*39:47        |                     |                  |                    |
| B*27:05:02G+B*39:74     | B*27:38+B*39:47        |                     |                  |                    |
| B*27:05:02G+B*40:01:01G | B*27:08+B*40:188       | B*27:27+B*40:124:02 |                  |                    |
| B*27:05:02G+B*40:01:04  | B*27:27+B*40:124:01    |                     |                  |                    |
| B*27:05:02G+B*40:01:10  | B*27:05:06+B*40:01:01G |                     |                  |                    |
| B*27:05:02G+B*40:01:11  | B*27:05:18+B*40:01:01G |                     |                  |                    |
| B*27:05:02G+B*40:02:01G | B*27:27+B*40:180       |                     |                  |                    |
| B*27:05:02G+B*40:02:11  | B*27:05:06+B*40:02:01G |                     |                  |                    |
| B*27:05:02G+B*40:03     | B*27:41+B*40:180       |                     |                  |                    |
| B*27:05:02G+B*40:39     | B*27:71+B*40:02:01G    |                     |                  |                    |
| B*27:05:02G+B*40:40     | B*27:37+B*40:02:01G    |                     |                  |                    |
| B*27:05:02G+B*40:49     | B*27:37+B*40:01:01G    |                     |                  |                    |
| B*27:05:02G+B*40:52     | B*27:41+B*40:124:02    |                     |                  |                    |
| B*27:05:02G+B*40:63     | B*27:38+B*40:01:01G    |                     |                  |                    |
| B*27:05:02G+B*40:65     | B*27:55+B*40:01:01G    |                     |                  |                    |
| B*27:05:02G+B*40:88     | B*27:80+B*40:01:01G    |                     |                  |                    |
| B*27:05:02G+B*40:118N   | B*27:64N+B*40:01:01G   |                     |                  |                    |
| B*27:05:02G+B*40:128    | B*27:45+B*40:01:01G    |                     |                  |                    |
| B*27:05:02G+B*40:148    | B*27:10+B*40:06:01G    |                     |                  |                    |
| B*27:05:02G+B*40:161    | B*27:45+B*40:148       |                     |                  |                    |
| B*27:05:02G+B*40:183    | B*27:10+B*40:01:01G    | B*27:40+B*40:188    |                  |                    |
| B*27:05:02G+B*40:198    | B*27:10+B*40:128       | B*27:45+B*40:183    |                  |                    |
| B*27:05:02G+B*40:199    | B*27:71+B*40:01:01G    |                     |                  |                    |
| B*27:05:02G+B*40:210    | B*27:37+B*40:74        |                     |                  |                    |
| B*27:05:02G+B*41:02:01  | B*27:71+B*41:19        |                     |                  |                    |
| B*27:05:02G+B*42:01:01  | B*27:37+B*42:02        |                     |                  |                    |
| B*27:05:02G+B*42:01:02  | B*27:05:03+B*42:01:01  |                     |                  |                    |
| B*27:05:02G+B*42:10     | B*27:37+B*42:17        |                     |                  |                    |
| B*27:05:02G+B*44:02:01G | B*27:29+B*44:97        | B*27:37+B*44:55     | B*27:38+B*44:21  | B*27:47+B*44:64:02 |
| B*27:05:02G+B*44:02:07  | B*27:47+B*44:64:01     |                     |                  |                    |
| B*27:05:02G+B*44:02:10  | B*27:05:18+B*44:02:01G |                     |                  |                    |
| B*27:05:02G+B*44:03:02  | B*27:38+B*44:124       |                     |                  |                    |
| B*27:05:02G+B*44:03:08  | B*27:05:06+B*44:03:01G |                     |                  |                    |
| B*27:05:02G+B*44:05:01  | B*27:46+B*44:02:01G    |                     |                  |                    |
| B*27:05:02G+B*44:17     | B*27:78+B*44:51        |                     |                  |                    |
| B*27:05:02G+B*44:25     | B*27:46+B*44:95        |                     |                  |                    |
| B*27:05:02G+B*44:28:01  | B*27:45+B*44:03:02     |                     |                  |                    |
| B*27:05:02G+B*44:28:02  | B*27:45+B*44:03:01G    |                     |                  |                    |
| B*27:05:02G+B*44:37:01  | B*27:38+B*44:64:02     |                     |                  |                    |
| B*27:05:02G+B*44:37:02  | B*27:38+B*44:64:01     |                     |                  |                    |

|                         |                        |                     |                 |                 |
|-------------------------|------------------------|---------------------|-----------------|-----------------|
| B*27:05:02G+B*44:42     | B*27:46+B*44:91        |                     |                 |                 |
| B*27:05:02G+B*44:43:01  | B*27:78+B*44:45        |                     |                 |                 |
| B*27:05:02G+B*44:71     | B*27:58+B*44:02:01G    |                     |                 |                 |
| B*27:05:02G+B*44:76     | B*27:10+B*44:28:02     | B*27:45+B*44:79     |                 |                 |
| B*27:05:02G+B*44:79     | B*27:10+B*44:03:01G    |                     |                 |                 |
| B*27:05:02G+B*44:91     | B*27:38+B*44:16        |                     |                 |                 |
| B*27:05:02G+B*44:107    | B*27:46+B*44:45        |                     |                 |                 |
| B*27:05:02G+B*44:123    | B*27:46+B*44:51        |                     |                 |                 |
| B*27:05:02G+B*44:132    | B*27:71+B*44:16        |                     |                 |                 |
| B*27:05:02G+B*44:137    | B*27:39+B*44:02:01G    |                     |                 |                 |
| B*27:05:02G+B*44:139    | B*27:46+B*44:93        |                     |                 |                 |
| B*27:05:02G+B*44:144    | B*27:78+B*44:03:01G    |                     |                 |                 |
| B*27:05:02G+B*45:04     | B*27:38+B*45:10        |                     |                 |                 |
| B*27:05:02G+B*45:08     | B*27:71+B*45:10        |                     |                 |                 |
| B*27:05:02G+B*46:01:01G | B*27:10+B*46:09        | B*27:37+B*46:14     | B*27:38+B*46:30 |                 |
| B*27:05:02G+B*46:01:04  | B*27:05:19+B*46:01:01G |                     |                 |                 |
| B*27:05:02G+B*46:08     | B*27:10+B*46:13:03     |                     |                 |                 |
| B*27:05:02G+B*46:28     | B*27:87+B*46:01:01G    |                     |                 |                 |
| B*27:05:02G+B*46:29     | B*27:71+B*46:30        |                     |                 |                 |
| B*27:05:02G+B*47:02     | B*27:08+B*47:01:01G    |                     |                 |                 |
| B*27:05:02G+B*47:08     | B*27:71+B*47:01:01G    |                     |                 |                 |
| B*27:05:02G+B*48:01:01G | B*27:07:01G+B*48:26    | B*27:32+B*48:21     |                 |                 |
| B*27:05:02G+B*48:03:01  | B*27:70+B*48:21        |                     |                 |                 |
| B*27:05:02G+B*48:15     | B*27:10+B*48:01:01G    |                     |                 |                 |
| B*27:05:02G+B*48:25     | B*27:10+B*48:02:01     |                     |                 |                 |
| B*27:05:02G+B*49:01:01  | B*27:10+B*49:11        | B*27:38+B*49:07     |                 |                 |
| B*27:05:02G+B*49:10     | B*27:37+B*49:01:01     |                     |                 |                 |
| B*27:05:02G+B*50:13     | B*27:37+B*50:01:01     |                     |                 |                 |
| B*27:05:02G+B*51:01:01G | B*27:05:18+B*51:01:02  | B*27:10+B*51:09:01  | B*27:27+B*51:85 | B*27:38+B*51:16 |
| B*27:05:02G+B*51:01:02  | B*27:10+B*51:09:02     |                     |                 |                 |
| B*27:05:02G+B*51:01:21  | B*27:05:18+B*51:01:09  |                     |                 |                 |
| B*27:05:02G+B*51:01:24  | B*27:05:06+B*51:01:01G |                     |                 |                 |
| B*27:05:02G+B*51:01:27  | B*27:05:05+B*51:01:01G |                     |                 |                 |
| B*27:05:02G+B*51:02:01  | B*27:05:18+B*51:02:02  | B*27:38+B*51:34     |                 |                 |
| B*27:05:02G+B*51:02:05  | B*27:10+B*51:40        |                     |                 |                 |
| B*27:05:02G+B*51:07:01  | B*27:05:18+B*51:07:02  |                     |                 |                 |
| B*27:05:02G+B*51:09:01  | B*27:05:18+B*51:09:02  | B*27:38+B*51:31     |                 |                 |
| B*27:05:02G+B*51:16     | B*27:10+B*51:31        |                     |                 |                 |
| B*27:05:02G+B*51:21     | B*27:28+B*51:34        | B*27:71+B*51:16     |                 |                 |
| B*27:05:02G+B*51:23     | B*27:10+B*51:108       |                     |                 |                 |
| B*27:05:02G+B*51:29     | B*27:38+B*51:82        | B*27:45+B*51:01:01G |                 |                 |
| B*27:05:02G+B*51:37     | B*27:41+B*51:85        |                     |                 |                 |
| B*27:05:02G+B*51:58     | B*27:87+B*51:01:01G    |                     |                 |                 |
| B*27:05:02G+B*51:78:01  | B*27:05:18+B*51:78:02  |                     |                 |                 |
| B*27:05:02G+B*51:82     | B*27:45+B*51:16        |                     |                 |                 |
| B*27:05:02G+B*51:84     | B*27:60+B*51:01:01G    |                     |                 |                 |
| B*27:05:02G+B*51:102    | B*27:17+B*51:01:01G    |                     |                 |                 |
| B*27:05:02G+B*51:109    | B*27:55+B*51:01:01G    |                     |                 |                 |
| B*27:05:02G+B*52:01:01G | B*27:10+B*52:10:01     | B*27:38+B*52:08     |                 |                 |
| B*27:05:02G+B*52:01:02  | B*27:05:18+B*52:01:01G |                     |                 |                 |
| B*27:05:02G+B*52:01:07  | B*27:10+B*52:10:02     |                     |                 |                 |
| B*27:05:02G+B*52:24     | B*27:45+B*52:01:01G    |                     |                 |                 |
| B*27:05:02G+B*53:08:01  | B*27:10+B*53:01:01     |                     |                 |                 |
| B*27:05:02G+B*53:08:02  | B*27:10+B*53:01:03     |                     |                 |                 |
| B*27:05:02G+B*53:11     | B*27:45+B*53:13        |                     |                 |                 |
| B*27:05:02G+B*53:15     | B*27:83+B*53:03        |                     |                 |                 |
| B*27:05:02G+B*53:16     | B*27:45+B*53:05        |                     |                 |                 |
| B*27:05:02G+B*53:24     | B*27:45+B*53:01:01     |                     |                 |                 |
| B*27:05:02G+B*54:01:01G | B*27:71+B*54:26        |                     |                 |                 |
| B*27:05:02G+B*54:03     | B*27:38+B*54:26        |                     |                 |                 |
| B*27:05:02G+B*54:10     | B*27:45+B*54:01:01G    |                     |                 |                 |
| B*27:05:02G+B*54:20     | B*27:10+B*54:10        |                     |                 |                 |
| B*27:05:02G+B*55:01:01G | B*27:10+B*55:02:01G    | B*27:71+B*55:24     |                 |                 |
| B*27:05:02G+B*55:01:08  | B*27:05:11+B*55:01:01G |                     |                 |                 |
| B*27:05:02G+B*55:02:01G | B*27:37+B*55:16        | B*27:71+B*55:22     |                 |                 |
| B*27:05:02G+B*55:09     | B*27:45+B*55:24        |                     |                 |                 |
| B*27:05:02G+B*55:24     | B*27:10+B*55:22        |                     |                 |                 |
| B*27:05:02G+B*55:37     | B*27:45+B*55:02:01G    |                     |                 |                 |
| B*27:05:02G+B*55:52     | B*27:10+B*55:37        | B*27:45+B*55:01:01G | B*27:71+B*55:09 |                 |
| B*27:05:02G+B*56:01:01G | B*27:38+B*55:22        |                     |                 |                 |
| B*27:05:02G+B*56:05:01  | B*27:05:18+B*56:05:02  |                     |                 |                 |
| B*27:05:02G+B*56:25     | B*27:10+B*56:01:01G    | B*27:38+B*55:24     |                 |                 |
| B*27:05:02G+B*56:32     | B*27:10+B*56:18        |                     |                 |                 |
| B*27:05:02G+B*57:01:01G | B*27:38+B*57:25        | B*27:41+B*57:32     |                 |                 |
| B*27:05:02G+B*57:01:04  | B*27:05:10+B*57:01:01G |                     |                 |                 |
| B*27:05:02G+B*57:02:01  | B*27:45+B*57:03:01     |                     |                 |                 |
| B*27:05:02G+B*57:03:01  | B*27:27+B*57:32        | B*27:37+B*57:39     |                 |                 |
| B*27:05:02G+B*57:19     | B*27:45+B*57:01:01G    |                     |                 |                 |
| B*27:05:02G+B*57:22     | B*27:10+B*57:01:01G    |                     |                 |                 |
| B*27:05:02G+B*57:26     | B*27:71+B*57:25        |                     |                 |                 |
| B*27:05:02G+B*57:50     | B*27:60+B*57:01:01G    |                     |                 |                 |
| B*27:05:02G+B*57:56     | B*27:51+B*57:01:01G    |                     |                 |                 |
| B*27:05:02G+B*57:57     | B*27:10+B*57:03:01     |                     |                 |                 |
| B*27:05:02G+B*58:01:01G | B*27:38+B*58:37        |                     |                 |                 |
| B*27:05:02G+B*58:01:03  | B*27:05:17+B*58:01:01G |                     |                 |                 |
| B*27:05:02G+B*58:06     | B*27:10+B*58:02        |                     |                 |                 |
| B*27:05:02G+B*58:08:01  | B*27:05:18+B*58:08:02  |                     |                 |                 |
| B*27:05:02G+B*58:19     | B*27:10+B*58:01:01G    |                     |                 |                 |
| B*27:05:02G+B*58:22     | B*27:45+B*58:01:01G    |                     |                 |                 |
| B*27:05:02G+B*58:35     | B*27:71+B*58:37        |                     |                 |                 |
| B*27:05:02G+B*78:02:02  | B*27:05:18+B*78:02:01  |                     |                 |                 |
| B*27:05:03+B*35:45      | B*27:50+B*35:08:01     |                     |                 |                 |
| B*27:05:03+B*35:71      | B*27:50+B*35:01:01G    |                     |                 |                 |
| B*27:05:03+B*35:169     | B*27:50+B*35:38        |                     |                 |                 |
| B*27:05:03+B*39:35      | B*27:10+B*39:01:13     |                     |                 |                 |
| B*27:05:03+B*40:132     | B*27:50+B*40:01:01G    |                     |                 |                 |
| B*27:05:03+B*44:02:01G  | B*27:50+B*44:91        |                     |                 |                 |
| B*27:05:03+B*44:03:01G  | B*27:50+B*44:37:01     |                     |                 |                 |
| B*27:05:03+B*44:03:02   | B*27:50+B*44:37:02     |                     |                 |                 |
| B*27:05:03+B*44:05:01   | B*27:50+B*44:42        |                     |                 |                 |
| B*27:05:03+B*44:21      | B*27:50+B*44:16        |                     |                 |                 |
| B*27:05:03+B*44:124     | B*27:50+B*44:64:01     |                     |                 |                 |
| B*27:05:03+B*45:01:01G  | B*27:50+B*45:04        |                     |                 |                 |
| B*27:05:03+B*46:17      | B*27:50+B*46:01:01G    |                     |                 |                 |
| B*27:05:03+B*49:20      | B*27:50+B*49:01:01     |                     |                 |                 |

|                         |                       |                     |
|-------------------------|-----------------------|---------------------|
| B*27:05:03+B*50:02      | B*27:50+B*50:01:01    |                     |
| B*27:05:03+B*51:23      | B*27:50+B*51:02:01    |                     |
| B*27:05:03+B*52:15      | B*27:50+B*52:01:01G   |                     |
| B*27:05:03+B*57:07      | B*27:50+B*57:03:01    |                     |
| B*27:05:03+B*58:07      | B*27:50+B*58:02       |                     |
| B*27:05:05+B*51:01:24   | B*27:05:06+B*51:01:27 |                     |
| B*27:05:05+B*51:29      | B*27:45+B*51:01:27    |                     |
| B*27:05:05+B*51:58      | B*27:87+B*51:01:27    |                     |
| B*27:05:05+B*51:84      | B*27:60+B*51:01:27    |                     |
| B*27:05:05+B*51:102     | B*27:17+B*51:01:27    |                     |
| B*27:05:05+B*51:109     | B*27:55+B*51:01:27    |                     |
| B*27:05:06+B*40:01:11   | B*27:05:18+B*40:01:10 |                     |
| B*27:05:06+B*40:39      | B*27:71+B*40:02:11    |                     |
| B*27:05:06+B*40:40      | B*27:37+B*40:02:11    |                     |
| B*27:05:06+B*40:49      | B*27:37+B*40:01:10    |                     |
| B*27:05:06+B*40:63      | B*27:38+B*40:01:10    |                     |
| B*27:05:06+B*40:65      | B*27:55+B*40:01:10    |                     |
| B*27:05:06+B*40:88      | B*27:80+B*40:01:10    |                     |
| B*27:05:06+B*40:118N    | B*27:64N+B*40:01:10   |                     |
| B*27:05:06+B*40:128     | B*27:45+B*40:01:10    |                     |
| B*27:05:06+B*40:183     | B*27:10+B*40:01:10    |                     |
| B*27:05:06+B*40:199     | B*27:71+B*40:01:10    |                     |
| B*27:05:06+B*44:28:02   | B*27:45+B*44:03:08    |                     |
| B*27:05:06+B*44:79      | B*27:10+B*44:03:08    |                     |
| B*27:05:06+B*44:144     | B*27:78+B*44:03:08    |                     |
| B*27:05:06+B*51:29      | B*27:45+B*51:01:24    |                     |
| B*27:05:06+B*51:58      | B*27:87+B*51:01:24    |                     |
| B*27:05:06+B*51:84      | B*27:60+B*51:01:24    |                     |
| B*27:05:06+B*51:102     | B*27:17+B*51:01:24    |                     |
| B*27:05:06+B*51:109     | B*27:55+B*51:01:24    |                     |
| B*27:05:08+B*38:32      | B*27:10+B*38:01:05    |                     |
| B*27:05:08+B*38:34N     | B*27:59N+B*38:01:05   |                     |
| B*27:05:10+B*57:19      | B*27:45+B*57:01:04    |                     |
| B*27:05:10+B*57:22      | B*27:10+B*57:01:04    |                     |
| B*27:05:10+B*57:50      | B*27:60+B*57:01:04    |                     |
| B*27:05:10+B*57:56      | B*27:51+B*57:01:04    |                     |
| B*27:05:11+B*55:52      | B*27:45+B*55:01:08    |                     |
| B*27:05:17+B*58:19      | B*27:10+B*58:01:03    |                     |
| B*27:05:17+B*58:22      | B*27:45+B*58:01:03    |                     |
| B*27:05:18+B*35:08:01   | B*27:45+B*35:42:02    |                     |
| B*27:05:18+B*35:11:01   | B*27:10+B*35:42:02    |                     |
| B*27:05:18+B*40:49      | B*27:37+B*40:01:11    |                     |
| B*27:05:18+B*40:63      | B*27:38+B*40:01:11    |                     |
| B*27:05:18+B*40:65      | B*27:55+B*40:01:11    |                     |
| B*27:05:18+B*40:88      | B*27:80+B*40:01:11    |                     |
| B*27:05:18+B*40:118N    | B*27:64N+B*40:01:11   |                     |
| B*27:05:18+B*40:128     | B*27:45+B*40:01:11    |                     |
| B*27:05:18+B*40:183     | B*27:10+B*40:01:11    |                     |
| B*27:05:18+B*40:199     | B*27:71+B*40:01:11    |                     |
| B*27:05:18+B*44:05:01   | B*27:46+B*44:02:10    |                     |
| B*27:05:18+B*44:71      | B*27:58+B*44:02:10    |                     |
| B*27:05:18+B*44:137     | B*27:39+B*44:02:10    |                     |
| B*27:05:18+B*52:11      | B*27:10+B*52:03       |                     |
| B*27:05:18+B*52:24      | B*27:45+B*52:01:02    |                     |
| B*27:05:19+B*46:28      | B*27:87+B*46:01:04    |                     |
| B*27:06+B*35:192        | B*27:91+B*35:08:01    |                     |
| B*27:06+B*41:11         | B*27:91+B*41:02:01    |                     |
| B*27:06+B*48:03:01      | B*27:21+B*48:21       |                     |
| B*27:07:01G+B*27:12     | B*27:16+B*27:33       |                     |
| B*27:07:01G+B*27:40     | B*27:10+B*27:33       |                     |
| B*27:07:01G+B*35:01:01G | B*27:11+B*35:203      | B*27:33+B*53:03     |
| B*27:07:01G+B*35:105    | B*27:43+B*35:08:01    |                     |
| B*27:07:01G+B*35:113    | B*27:43+B*35:17       |                     |
| B*27:07:01G+B*35:159    | B*27:43+B*35:01:01G   |                     |
| B*27:07:01G+B*37:11     | B*27:11+B*37:05       | B*27:33+B*37:01:01G |
| B*27:07:01G+B*37:29     | B*27:11+B*37:01:01G   |                     |
| B*27:07:01G+B*39:05:01  | B*27:33+B*38:17       |                     |
| B*27:07:01G+B*39:62     | B*27:43+B*39:06:02    |                     |
| B*27:07:01G+B*40:01:01G | B*27:33+B*40:188      |                     |
| B*27:07:01G+B*40:202    | B*27:43+B*40:02:01G   |                     |
| B*27:07:01G+B*44:98     | B*27:43+B*44:03:01G   |                     |
| B*27:07:01G+B*46:27     | B*27:43+B*46:01:01G   |                     |
| B*27:07:01G+B*47:02     | B*27:33+B*47:01:01G   |                     |
| B*27:08+B*27:11         | B*27:33+B*27:61       |                     |
| B*27:08+B*27:31         | B*27:26+B*27:61       |                     |
| B*27:08+B*35:01:01G     | B*27:44+B*35:29:01    |                     |
| B*27:08+B*35:01:15      | B*27:44+B*35:29:02    |                     |
| B*27:08+B*35:03:01G     | B*27:44+B*35:136      |                     |
| B*27:08+B*35:10         | B*27:44+B*35:69       |                     |
| B*27:08+B*35:11:01      | B*27:40+B*35:01:01G   |                     |
| B*27:08+B*35:14:01      | B*27:40+B*35:62       |                     |
| B*27:08+B*35:21         | B*27:40+B*35:24:01    |                     |
| B*27:08+B*35:27         | B*27:89+B*35:01:01G   |                     |
| B*27:08+B*35:56         | B*27:89+B*35:03:01G   |                     |
| B*27:08+B*35:58         | B*27:40+B*35:05:01    |                     |
| B*27:08+B*35:167        | B*27:40+B*35:03:01G   |                     |
| B*27:08+B*35:188        | B*27:40+B*35:190      |                     |
| B*27:08+B*35:203        | B*27:42+B*35:01:01G   |                     |
| B*27:08+B*37:05         | B*27:42+B*37:11       |                     |
| B*27:08+B*37:29         | B*27:61+B*37:11       |                     |
| B*27:08+B*37:31         | B*27:74+B*37:11       |                     |
| B*27:08+B*38:10         | B*27:40+B*38:36       |                     |
| B*27:08+B*38:32         | B*27:40+B*38:01:01    |                     |
| B*27:08+B*39:05:01      | B*27:44+B*39:01:01G   |                     |
| B*27:08+B*39:13:01      | B*27:44+B*39:02:02    |                     |
| B*27:08+B*39:35         | B*27:40+B*39:01:01G   |                     |
| B*27:08+B*39:37         | B*27:44+B*39:03       |                     |
| B*27:08+B*39:55         | B*27:44+B*39:15       |                     |
| B*27:08+B*40:01:01G     | B*27:44+B*40:43       |                     |
| B*27:08+B*40:02:01G     | B*27:44+B*40:50       |                     |
| B*27:08+B*40:37         | B*27:89+B*40:02:01G   |                     |
| B*27:08+B*40:148        | B*27:40+B*40:06:01G   |                     |
| B*27:08+B*40:183        | B*27:40+B*40:01:01G   |                     |
| B*27:08+B*40:198        | B*27:40+B*40:128      |                     |
| B*27:08+B*42:15         | B*27:89+B*42:01:01    |                     |

|                     |                     |                    |
|---------------------|---------------------|--------------------|
| B*27:08+B*44:03:01G | B*27:89+B*44:109    |                    |
| B*27:08+B*44:76     | B*27:40+B*44:28:02  |                    |
| B*27:08+B*44:79     | B*27:40+B*44:03:01G |                    |
| B*27:08+B*46:01:01G | B*27:40+B*46:09     |                    |
| B*27:08+B*46:08     | B*27:40+B*46:13:03  |                    |
| B*27:08+B*47:08     | B*27:71+B*47:02     |                    |
| B*27:08+B*48:01:01G | B*27:33+B*48:26     |                    |
| B*27:08+B*48:15     | B*27:40+B*48:01:01G |                    |
| B*27:08+B*48:25     | B*27:40+B*48:02:01  |                    |
| B*27:08+B*51:02:05  | B*27:40+B*51:40     |                    |
| B*27:08+B*51:08     | B*27:44+B*51:20     |                    |
| B*27:08+B*51:16     | B*27:40+B*51:31     |                    |
| B*27:08+B*51:23     | B*27:40+B*51:108    |                    |
| B*27:08+B*52:01:02  | B*27:89+B*52:09     |                    |
| B*27:08+B*52:01:07  | B*27:40+B*52:10:02  |                    |
| B*27:08+B*53:15     | B*27:83+B*35:01:01G |                    |
| B*27:08+B*54:20     | B*27:40+B*54:10     |                    |
| B*27:08+B*55:01:01G | B*27:40+B*55:02:01G |                    |
| B*27:08+B*55:12     | B*27:89+B*55:02:01G |                    |
| B*27:08+B*55:24     | B*27:40+B*55:22     |                    |
| B*27:08+B*55:31     | B*27:44+B*55:01:01G |                    |
| B*27:08+B*55:52     | B*27:40+B*55:37     |                    |
| B*27:08+B*56:25     | B*27:40+B*56:01:01G |                    |
| B*27:08+B*56:32     | B*27:40+B*56:18     |                    |
| B*27:08+B*57:22     | B*27:40+B*57:01:01G |                    |
| B*27:08+B*57:57     | B*27:40+B*57:03:01  |                    |
| B*27:08+B*58:06     | B*27:40+B*58:02     |                    |
| B*27:08+B*58:19     | B*27:40+B*58:01:01G |                    |
| B*27:08+B*78:02:02  | B*27:44+B*78:01:01  |                    |
| B*27:08+B*78:06     | B*27:89+B*78:05     |                    |
| B*27:10+B*27:12     | B*27:16+B*27:40     |                    |
| B*27:10+B*35:08:01  | B*27:45+B*35:11:01  |                    |
| B*27:10+B*35:156    | B*27:45+B*35:167    |                    |
| B*27:10+B*37:05     | B*27:42+B*37:13     |                    |
| B*27:10+B*37:31     | B*27:74+B*37:13     |                    |
| B*27:10+B*38:34N    | B*27:59N+B*38:32    |                    |
| B*27:10+B*39:05:01  | B*27:40+B*38:17     |                    |
| B*27:10+B*40:49     | B*27:37+B*40:183    |                    |
| B*27:10+B*40:63     | B*27:38+B*40:183    |                    |
| B*27:10+B*40:65     | B*27:55+B*40:183    |                    |
| B*27:10+B*40:88     | B*27:80+B*40:183    |                    |
| B*27:10+B*40:118N   | B*27:64N+B*40:183   |                    |
| B*27:10+B*40:199    | B*27:71+B*40:183    |                    |
| B*27:10+B*44:18     | B*27:47+B*49:07     |                    |
| B*27:10+B*44:144    | B*27:78+B*44:79     |                    |
| B*27:10+B*47:02     | B*27:40+B*47:01:01G |                    |
| B*27:10+B*51:05     | B*27:45+B*51:02:02  |                    |
| B*27:10+B*53:24     | B*27:45+B*53:08:01  |                    |
| B*27:10+B*57:02:01  | B*27:45+B*57:57     |                    |
| B*27:10+B*57:19     | B*27:45+B*57:22     |                    |
| B*27:10+B*57:50     | B*27:60+B*57:22     |                    |
| B*27:10+B*57:56     | B*27:51+B*57:22     |                    |
| B*27:10+B*58:22     | B*27:45+B*58:19     |                    |
| B*27:11+B*27:26     | B*27:31+B*27:33     |                    |
| B*27:11+B*37:11     | B*27:33+B*37:29     |                    |
| B*27:11+B*40:183    | B*27:24+B*40:72:02  |                    |
| B*27:11+B*48:26     | B*27:61+B*48:01:01G |                    |
| B*27:12+B*37:01:01G | B*27:16+B*37:11     |                    |
| B*27:12+B*38:17     | B*27:16+B*39:05:01  |                    |
| B*27:12+B*40:188    | B*27:16+B*40:01:01G |                    |
| B*27:12+B*42:01:01  | B*27:26+B*42:07     |                    |
| B*27:12+B*47:01:01G | B*27:16+B*47:02     |                    |
| B*27:12+B*53:03     | B*27:16+B*35:01:01G |                    |
| B*27:12+B*67:01:02  | B*27:26+B*39:10:01  |                    |
| B*27:14+B*35:12:02  | B*27:81+B*35:04:03  |                    |
| B*27:14+B*35:17     | B*27:81+B*35:30     |                    |
| B*27:14+B*35:32:01  | B*27:70+B*35:37     | B*27:81+B*35:68:02 |
| B*27:14+B*40:01:04  | B*27:81+B*40:125    |                    |
| B*27:14+B*40:02:01G | B*27:32+B*40:70     |                    |
| B*27:14+B*40:06:01G | B*27:81+B*40:70     |                    |
| B*27:14+B*40:11:01  | B*27:70+B*40:70     |                    |
| B*27:14+B*40:64     | B*27:81+B*40:04     |                    |
| B*27:14+B*41:01     | B*27:81+B*41:07     |                    |
| B*27:14+B*44:02:07  | B*27:81+B*44:48     |                    |
| B*27:14+B*54:09     | B*27:70+B*54:14     |                    |
| B*27:14+B*55:17     | B*27:81+B*55:28     |                    |
| B*27:14+B*55:38     | B*27:81+B*55:01:01G |                    |
| B*27:14+B*56:04     | B*27:70+B*56:01:01G | B*27:81+B*56:02    |
| B*27:14+B*56:18     | B*27:70+B*55:23     |                    |
| B*27:14+B*56:27     | B*27:81+B*56:01:01G |                    |
| B*27:15+B*27:38     | B*27:63+B*27:71     |                    |
| B*27:15+B*27:42     | B*27:40+B*27:71     |                    |
| B*27:15+B*35:01:01G | B*27:63+B*35:93     |                    |
| B*27:15+B*35:21     | B*27:63+B*35:188    |                    |
| B*27:15+B*35:24:01  | B*27:63+B*35:190    |                    |
| B*27:15+B*35:62     | B*27:25+B*35:93     |                    |
| B*27:15+B*35:81     | B*27:63+B*35:157    |                    |
| B*27:15+B*35:203    | B*27:71+B*35:11:01  |                    |
| B*27:15+B*39:32     | B*27:63+B*39:48     |                    |
| B*27:15+B*39:74     | B*27:63+B*39:01:01G |                    |
| B*27:15+B*40:63     | B*27:63+B*40:199    |                    |
| B*27:15+B*44:28:02  | B*27:63+B*44:04     |                    |
| B*27:15+B*44:91     | B*27:63+B*44:132    |                    |
| B*27:15+B*45:04     | B*27:63+B*45:08     |                    |
| B*27:15+B*46:01:01G | B*27:63+B*46:29     |                    |
| B*27:15+B*46:09     | B*27:25+B*46:21:01  |                    |
| B*27:15+B*46:11     | B*27:63+B*46:18     |                    |
| B*27:15+B*46:13:01  | B*27:63+B*46:21:02  |                    |
| B*27:15+B*46:13:03  | B*27:63+B*46:21:01  |                    |
| B*27:15+B*51:01:01G | B*27:63+B*51:21     |                    |
| B*27:15+B*51:31     | B*27:61+B*51:21     |                    |
| B*27:15+B*51:61:02  | B*27:25+B*51:21     |                    |
| B*27:15+B*54:03     | B*27:63+B*54:01:01G |                    |
| B*27:15+B*56:01:01G | B*27:63+B*55:02:01G |                    |
| B*27:15+B*56:02     | B*27:63+B*56:10     |                    |

|                     |                     |                     |
|---------------------|---------------------|---------------------|
| B*27:15+B*56:22     | B*27:63+B*55:13     |                     |
| B*27:15+B*56:25     | B*27:63+B*55:01:01G |                     |
| B*27:15+B*57:01:01G | B*27:63+B*57:26     |                     |
| B*27:15+B*58:01:01G | B*27:63+B*58:35     |                     |
| B*27:15+B*59:04     | B*27:63+B*59:01:01G |                     |
| B*27:15+B*78:01:01  | B*27:63+B*78:07     |                     |
| B*27:16+B*35:11:01  | B*27:92+B*35:69     |                     |
| B*27:17+B*51:29     | B*27:45+B*51:102    |                     |
| B*27:17+B*51:58     | B*27:87+B*51:102    |                     |
| B*27:17+B*51:84     | B*27:60+B*51:102    |                     |
| B*27:17+B*51:109    | B*27:55+B*51:102    |                     |
| B*27:18+B*40:188    | B*27:29+B*40:183    |                     |
| B*27:18+B*44:97     | B*27:40+B*44:02:01G |                     |
| B*27:18+B*53:03     | B*27:29+B*35:11:01  |                     |
| B*27:19+B*27:62     | B*27:28+B*27:30     |                     |
| B*27:19+B*35:05:01  | B*27:32+B*35:01:04  | B*27:70+B*35:30     |
| B*27:19+B*35:22     | B*27:32+B*35:12:01  |                     |
| B*27:19+B*35:37     | B*27:81+B*35:01:04  |                     |
| B*27:19+B*35:68:01  | B*27:70+B*35:01:01G |                     |
| B*27:19+B*35:68:02  | B*27:70+B*35:01:04  |                     |
| B*27:19+B*35:199    | B*27:32+B*35:39     |                     |
| B*27:19+B*37:34     | B*27:30+B*37:01:01G |                     |
| B*27:19+B*38:01:01  | B*27:30+B*38:17     | B*27:70+B*38:20     |
| B*27:19+B*38:19     | B*27:32+B*38:20     |                     |
| B*27:19+B*39:01:01G | B*27:70+B*39:42     |                     |
| B*27:19+B*39:03     | B*27:32+B*39:42     |                     |
| B*27:19+B*39:06:02  | B*27:81+B*39:42     |                     |
| B*27:19+B*40:01:01G | B*27:70+B*40:160    |                     |
| B*27:19+B*40:02:09  | B*27:32+B*40:64     |                     |
| B*27:19+B*40:11:02  | B*27:70+B*40:64     |                     |
| B*27:19+B*40:80     | B*27:32+B*40:160    |                     |
| B*27:19+B*40:117    | B*27:30+B*40:188    |                     |
| B*27:19+B*44:20     | B*27:81+B*44:02:01G |                     |
| B*27:19+B*44:41:01  | B*27:70+B*44:02:01G |                     |
| B*27:19+B*44:41:02  | B*27:70+B*44:02:07  |                     |
| B*27:19+B*44:47     | B*27:81+B*44:03:01G |                     |
| B*27:19+B*44:54     | B*27:32+B*44:03:01G | B*27:70+B*44:110    |
| B*27:19+B*44:65     | B*27:70+B*44:03:01G |                     |
| B*27:19+B*44:106    | B*27:32+B*44:02:01G |                     |
| B*27:19+B*44:135    | B*27:32+B*44:45     |                     |
| B*27:19+B*51:06:02  | B*27:70+B*51:04     |                     |
| B*27:19+B*53:01:01  | B*27:30+B*53:03     |                     |
| B*27:25+B*35:01:01G | B*27:63+B*35:62     |                     |
| B*27:25+B*35:03:01G | B*27:63+B*35:163    |                     |
| B*27:25+B*35:11:01  | B*27:63+B*35:14:01  |                     |
| B*27:25+B*35:11:02  | B*27:63+B*35:14:02  |                     |
| B*27:25+B*35:203    | B*27:38+B*35:14:01  |                     |
| B*27:25+B*44:79     | B*27:63+B*44:146    |                     |
| B*27:25+B*46:08     | B*27:63+B*46:01:01G |                     |
| B*27:25+B*46:13:03  | B*27:63+B*46:09     |                     |
| B*27:25+B*48:01:01G | B*27:63+B*48:19     |                     |
| B*27:25+B*51:01:01G | B*27:63+B*51:61:02  |                     |
| B*27:25+B*51:31     | B*27:61+B*51:61:02  |                     |
| B*27:25+B*52:01:02  | B*27:63+B*52:21     |                     |
| B*27:25+B*55:01:01G | B*27:63+B*55:21     |                     |
| B*27:26+B*37:01:01G | B*27:31+B*37:05     |                     |
| B*27:26+B*37:29     | B*27:31+B*37:11     |                     |
| B*27:26+B*53:03     | B*27:31+B*35:203    |                     |
| B*27:27+B*35:01:01G | B*27:41+B*35:04:01  |                     |
| B*27:27+B*35:01:10  | B*27:41+B*35:04:02  |                     |
| B*27:27+B*35:01:17  | B*27:41+B*35:04:03  |                     |
| B*27:27+B*35:43:01G | B*27:41+B*35:44     |                     |
| B*27:27+B*35:51     | B*27:41+B*35:22     |                     |
| B*27:27+B*35:64     | B*27:41+B*35:09:02  |                     |
| B*27:27+B*35:146    | B*27:41+B*35:02:01  |                     |
| B*27:27+B*40:03     | B*27:41+B*40:02:01G |                     |
| B*27:27+B*40:20     | B*27:41+B*40:11:01  |                     |
| B*27:27+B*40:52     | B*27:41+B*40:01:01G |                     |
| B*27:27+B*40:159    | B*27:41+B*40:06:01G |                     |
| B*27:27+B*42:09     | B*27:41+B*42:02     |                     |
| B*27:27+B*44:43:01  | B*27:41+B*44:77     |                     |
| B*27:27+B*44:117    | B*27:35+B*44:123    |                     |
| B*27:27+B*48:23     | B*27:41+B*48:03:01  |                     |
| B*27:27+B*51:37     | B*27:41+B*51:01:01G |                     |
| B*27:27+B*54:14     | B*27:41+B*54:04     |                     |
| B*27:27+B*57:01:01G | B*27:41+B*57:03:01  |                     |
| B*27:27+B*57:19     | B*27:41+B*57:02:01  |                     |
| B*27:27+B*57:22     | B*27:41+B*57:57     |                     |
| B*27:28+B*35:01:01G | B*27:38+B*35:190    | B*27:71+B*35:24:01  |
| B*27:28+B*35:02:01  | B*27:38+B*35:157    | B*27:71+B*35:81     |
| B*27:28+B*35:03:01G | B*27:71+B*35:109    |                     |
| B*27:28+B*35:11:01  | B*27:38+B*35:188    | B*27:71+B*35:21     |
| B*27:28+B*35:93     | B*27:71+B*35:190    |                     |
| B*27:28+B*35:167    | B*27:38+B*35:96     |                     |
| B*27:28+B*37:01:01G | B*27:71+B*37:04:01  |                     |
| B*27:28+B*37:34     | B*27:62+B*37:01:01G |                     |
| B*27:28+B*38:01:01  | B*27:62+B*38:17     |                     |
| B*27:28+B*39:01:01G | B*27:71+B*39:48     |                     |
| B*27:28+B*39:74     | B*27:38+B*39:48     | B*27:71+B*39:32     |
| B*27:28+B*40:01:01G | B*27:71+B*40:113    |                     |
| B*27:28+B*40:05     | B*27:71+B*40:174    |                     |
| B*27:28+B*40:92     | B*27:38+B*40:163    |                     |
| B*27:28+B*40:117    | B*27:62+B*40:188    |                     |
| B*27:28+B*49:01:01  | B*27:71+B*49:09     |                     |
| B*27:28+B*51:02:01  | B*27:38+B*51:21     | B*27:71+B*51:01:01G |
| B*27:28+B*51:02:02  | B*27:71+B*51:01:02  |                     |
| B*27:28+B*51:02:03  | B*27:71+B*51:01:31  |                     |
| B*27:28+B*51:02:04  | B*27:71+B*51:01:04  |                     |
| B*27:28+B*51:59     | B*27:71+B*51:06:01  |                     |
| B*27:28+B*52:11     | B*27:71+B*52:01:01G |                     |
| B*27:28+B*53:01:01  | B*27:62+B*53:03     | B*27:71+B*53:02     |
| B*27:28+B*56:01:01G | B*27:71+B*56:34     |                     |
| B*27:28+B*56:18     | B*27:71+B*56:31     |                     |
| B*27:28+B*58:01:01G | B*27:71+B*58:09     |                     |
| B*27:29+B*39:35     | B*27:92+B*39:02:01  |                     |



---

|                     |                     |
|---------------------|---------------------|
| B*27:32+B*35:32:02  | B*27:70+B*35:51     |
| B*27:32+B*35:37     | B*27:81+B*35:05:01  |
| B*27:32+B*35:68:02  | B*27:70+B*35:05:01  |
| B*27:32+B*38:01:01  | B*27:70+B*38:19     |
| B*27:32+B*39:01:01G | B*27:70+B*39:03     |
| B*27:32+B*39:05:01  | B*27:70+B*39:37     |
| B*27:32+B*39:06:02  | B*27:81+B*39:03     |
| B*27:32+B*39:70     | B*27:70+B*39:14     |
| B*27:32+B*40:01:01G | B*27:70+B*40:80     |
| B*27:32+B*40:06:01G | B*27:81+B*40:02:01G |
| B*27:32+B*40:06:02  | B*27:81+B*40:02:07  |
| B*27:32+B*40:11:01  | B*27:70+B*40:02:01G |
| B*27:32+B*40:11:02  | B*27:70+B*40:02:09  |
| B*27:32+B*40:20     | B*27:70+B*40:03     |
| B*27:32+B*40:33     | B*27:70+B*40:31     |
| B*27:32+B*40:44     | B*27:81+B*40:18     |
| B*27:32+B*40:96     | B*27:81+B*40:157    |
| B*27:32+B*40:114    | B*27:70+B*40:45     |
| B*27:32+B*40:159    | B*27:81+B*40:03     |
| B*27:32+B*41:03:02  | B*27:70+B*41:02:01  |
| B*27:32+B*42:04     | B*27:81+B*42:01:01  |
| B*27:32+B*44:20     | B*27:81+B*44:106    |
| B*27:32+B*44:41:01  | B*27:70+B*44:106    |
| B*27:32+B*44:47     | B*27:81+B*44:54     |
| B*27:32+B*44:65     | B*27:70+B*44:54     |
| B*27:32+B*46:01:01G | B*27:70+B*46:12     |
| B*27:32+B*46:32     | B*27:81+B*46:12     |
| B*27:32+B*48:03:01  | B*27:70+B*48:01:01G |
| B*27:32+B*51:01:01G | B*27:81+B*51:64     |
| B*27:32+B*51:06:01  | B*27:70+B*51:64     |
| B*27:32+B*51:10     | B*27:81+B*51:81     |
| B*27:32+B*58:16     | B*27:70+B*58:18     |
| B*27:35+B*45:09     | B*27:41+B*45:02     |
| B*27:37+B*40:39     | B*27:71+B*40:40     |
| B*27:37+B*40:63     | B*27:38+B*40:49     |
| B*27:37+B*40:65     | B*27:55+B*40:49     |
| B*27:37+B*40:88     | B*27:80+B*40:49     |
| B*27:37+B*40:118N   | B*27:64N+B*40:49    |
| B*27:37+B*40:128    | B*27:45+B*40:49     |
| B*27:37+B*40:199    | B*27:71+B*40:49     |
| B*27:38+B*27:40     | B*27:42+B*27:63     |
| B*27:38+B*35:11:01  | B*27:63+B*35:203    |
| B*27:38+B*35:93     | B*27:71+B*35:01:01G |
| B*27:38+B*35:169    | B*27:47+B*35:03:01G |
| B*27:38+B*39:01:01G | B*27:71+B*39:74     |
| B*27:38+B*40:65     | B*27:55+B*40:63     |
| B*27:38+B*40:88     | B*27:80+B*40:63     |
| B*27:38+B*40:118N   | B*27:64N+B*40:63    |
| B*27:38+B*40:128    | B*27:45+B*40:63     |
| B*27:38+B*40:199    | B*27:71+B*40:63     |
| B*27:38+B*44:02:01G | B*27:47+B*44:37:01  |
| B*27:38+B*44:02:07  | B*27:47+B*44:37:02  |
| B*27:38+B*44:04     | B*27:71+B*44:28:02  |
| B*27:38+B*44:18     | B*27:47+B*49:11     |
| B*27:38+B*44:132    | B*27:71+B*44:91     |
| B*27:38+B*45:08     | B*27:71+B*45:04     |
| B*27:38+B*46:18     | B*27:71+B*46:11     |
| B*27:38+B*46:21:01  | B*27:71+B*46:13:03  |
| B*27:38+B*46:21:02  | B*27:71+B*46:13:01  |
| B*27:38+B*46:29     | B*27:71+B*46:01:01G |
| B*27:38+B*53:22     | B*27:47+B*53:01:01  |
| B*27:38+B*54:01:01G | B*27:71+B*54:03     |
| B*27:38+B*55:01:01G | B*27:71+B*56:25     |
| B*27:38+B*55:02:01G | B*27:71+B*56:01:01G |
| B*27:38+B*55:09     | B*27:45+B*56:25     |
| B*27:38+B*55:13     | B*27:71+B*56:22     |
| B*27:38+B*56:10     | B*27:71+B*56:02     |
| B*27:38+B*57:26     | B*27:71+B*57:01:01G |
| B*27:38+B*58:35     | B*27:71+B*58:01:01G |
| B*27:38+B*59:01:01G | B*27:71+B*59:04     |
| B*27:38+B*78:07     | B*27:71+B*78:01:01  |
| B*27:39+B*44:05:01  | B*27:46+B*44:137    |
| B*27:39+B*44:71     | B*27:58+B*44:137    |
| B*27:40+B*35:27     | B*27:89+B*35:11:01  |
| B*27:40+B*35:56     | B*27:89+B*35:167    |
| B*27:40+B*35:203    | B*27:42+B*35:11:01  |
| B*27:40+B*39:05:01  | B*27:44+B*39:35     |
| B*27:40+B*53:15     | B*27:83+B*35:11:01  |
| B*27:40+B*55:12     | B*27:89+B*55:01:01G |
| B*27:42+B*35:27     | B*27:89+B*35:203    |
| B*27:42+B*37:31     | B*27:74+B*37:05     |
| B*27:42+B*40:19     | B*27:53+B*40:37     |
| B*27:42+B*40:109    | B*27:53+B*40:06:01G |
| B*27:42+B*44:25     | B*27:53+B*44:75     |
| B*27:42+B*48:18     | B*27:53+B*48:01:01G |
| B*27:42+B*52:01:01G | B*27:53+B*78:06     |
| B*27:42+B*53:04     | B*27:53+B*35:56     |
| B*27:42+B*53:05     | B*27:53+B*35:01:01G |
| B*27:42+B*53:15     | B*27:83+B*35:203    |
| B*27:42+B*53:16     | B*27:53+B*35:08:01  |
| B*27:45+B*35:129N   | B*27:59N+B*35:172   |
| B*27:45+B*40:65     | B*27:55+B*40:128    |
| B*27:45+B*40:88     | B*27:80+B*40:128    |
| B*27:45+B*40:118N   | B*27:64N+B*40:128   |
| B*27:45+B*40:199    | B*27:71+B*40:128    |
| B*27:45+B*44:144    | B*27:78+B*44:28:02  |
| B*27:45+B*51:21     | B*27:71+B*51:82     |
| B*27:45+B*51:58     | B*27:87+B*51:29     |
| B*27:45+B*51:84     | B*27:60+B*51:29     |
| B*27:45+B*51:109    | B*27:55+B*51:29     |
| B*27:45+B*57:41     | B*27:78+B*57:04     |
| B*27:45+B*57:50     | B*27:60+B*57:19     |
| B*27:45+B*57:56     | B*27:51+B*57:19     |
| B*27:46+B*35:01:01G | B*27:78+B*35:34     |
| B*27:46+B*35:51     | B*27:78+B*35:199    |

---

|                         |                         |                       |                 |
|-------------------------|-------------------------|-----------------------|-----------------|
| B*27:46+B*40:03         | B*27:78+B*40:18         |                       |                 |
| B*27:46+B*40:38         | B*27:78+B*40:01:01G     |                       |                 |
| B*27:46+B*40:52         | B*27:78+B*40:33         |                       |                 |
| B*27:46+B*40:105        | B*27:78+B*40:02:01G     |                       |                 |
| B*27:46+B*40:159        | B*27:78+B*40:44         |                       |                 |
| B*27:46+B*44:17         | B*27:78+B*44:123        |                       |                 |
| B*27:46+B*44:43:01      | B*27:78+B*44:107        |                       |                 |
| B*27:46+B*44:71         | B*27:58+B*44:05:01      |                       |                 |
| B*27:46+B*51:37         | B*27:78+B*51:90         |                       |                 |
| B*27:46+B*51:63         | B*27:78+B*51:01:01G     |                       |                 |
| B*27:46+B*51:97         | B*27:78+B*51:08         |                       |                 |
| B*27:51+B*57:50         | B*27:60+B*57:56         |                       |                 |
| B*27:52+B*51:104        | B*27:67+B*51:01:03      |                       |                 |
| B*27:52+B*52:02         | B*27:67+B*52:01:09      |                       |                 |
| B*27:55+B*40:88         | B*27:80+B*40:65         |                       |                 |
| B*27:55+B*40:118N       | B*27:64N+B*40:65        |                       |                 |
| B*27:55+B*40:199        | B*27:71+B*40:65         |                       |                 |
| B*27:55+B*51:58         | B*27:87+B*51:109        |                       |                 |
| B*27:55+B*51:84         | B*27:60+B*51:109        |                       |                 |
| B*27:60+B*51:58         | B*27:87+B*51:84         |                       |                 |
| B*27:61+B*37:31         | B*27:74+B*37:29         |                       |                 |
| B*27:61+B*40:05         | B*27:63+B*40:02:01G     |                       |                 |
| B*27:64N+B*40:88        | B*27:80+B*40:118N       |                       |                 |
| B*27:64N+B*40:199       | B*27:71+B*40:118N       |                       |                 |
| B*27:70+B*39:06:02      | B*27:81+B*39:01:01G     |                       |                 |
| B*27:70+B*39:34         | B*27:81+B*39:30         |                       |                 |
| B*27:70+B*39:50         | B*27:81+B*39:47         |                       |                 |
| B*27:70+B*39:57         | B*27:81+B*39:53         |                       |                 |
| B*27:70+B*40:06:01G     | B*27:81+B*40:11:01      |                       |                 |
| B*27:70+B*40:159        | B*27:81+B*40:20         |                       |                 |
| B*27:70+B*44:20         | B*27:81+B*44:41:01      |                       |                 |
| B*27:70+B*44:47         | B*27:81+B*44:65         |                       |                 |
| B*27:70+B*46:32         | B*27:81+B*46:01:01G     |                       |                 |
| B*27:70+B*51:01:01G     | B*27:81+B*51:06:01      |                       |                 |
| B*27:70+B*51:02:01      | B*27:81+B*51:59         |                       |                 |
| B*27:70+B*51:90         | B*27:81+B*51:135        |                       |                 |
| B*27:70+B*55:02:01G     | B*27:81+B*56:10         |                       |                 |
| B*27:70+B*56:27         | B*27:81+B*56:04         |                       |                 |
| B*27:71+B*40:88         | B*27:80+B*40:199        |                       |                 |
| B*27:83+B*35:27         | B*27:89+B*53:15         |                       |                 |
| B*35:01:01G+B*35:01:15  | B*35:01:08+B*35:01:19   |                       |                 |
| B*35:01:01G+B*35:02:01  | B*35:04:01+B*35:146     |                       |                 |
| B*35:01:01G+B*35:03:07  | B*35:01:17+B*35:03:01G  |                       |                 |
| B*35:01:01G+B*35:04:02  | B*35:01:10+B*35:04:01   |                       |                 |
| B*35:01:01G+B*35:04:03  | B*35:01:17+B*35:04:01   |                       |                 |
| B*35:01:01G+B*35:05:01  | B*35:30+B*35:68:01      |                       |                 |
| B*35:01:01G+B*35:08:03  | B*35:01:04+B*35:08:01   |                       |                 |
| B*35:01:01G+B*35:08:05  | B*35:08:02+B*35:42:02   |                       |                 |
| B*35:01:01G+B*35:09:02  | B*35:04:01+B*35:64      |                       |                 |
| B*35:01:01G+B*35:12:01  | B*35:01:04+B*35:12:02   |                       |                 |
| B*35:01:01G+B*35:13     | B*35:03:01G+B*35:10     |                       |                 |
| B*35:01:01G+B*35:14:01  | B*35:11:01+B*35:62      |                       |                 |
| B*35:01:01G+B*35:14:02  | B*35:11:02+B*35:62      |                       |                 |
| B*35:01:01G+B*35:16     | B*35:10+B*35:17         |                       |                 |
| B*35:01:01G+B*35:18     | B*35:08:01+B*35:09:02   |                       |                 |
| B*35:01:01G+B*35:21     | B*35:11:01+B*35:24:01   |                       |                 |
| B*35:01:01G+B*35:22     | B*35:04:01+B*35:51      | B*35:05:01+B*35:12:02 |                 |
| B*35:01:01G+B*35:28     | B*35:10+B*35:20:01      |                       |                 |
| B*35:01:01G+B*35:29:02  | B*35:01:15+B*35:29:01   |                       |                 |
| B*35:01:01G+B*35:32:02  | B*35:01:17+B*35:32:01   |                       |                 |
| B*35:01:01G+B*35:33     | B*35:03:01G+B*35:15     |                       |                 |
| B*35:01:01G+B*35:38     | B*35:03:01G+B*35:115    |                       |                 |
| B*35:01:01G+B*35:43:01G | B*35:14:02+B*35:32:02   |                       |                 |
| B*35:01:01G+B*35:44     | B*35:04:01+B*35:43:01G  |                       |                 |
| B*35:01:01G+B*35:45     | B*35:08:01+B*35:71      |                       |                 |
| B*35:01:01G+B*35:56     | B*35:03:01G+B*35:27     |                       |                 |
| B*35:01:01G+B*35:58     | B*35:05:01+B*35:11:01   |                       |                 |
| B*35:01:01G+B*35:68:02  | B*35:01:04+B*35:68:01   |                       |                 |
| B*35:01:01G+B*35:69     | B*35:10+B*35:29:01      |                       |                 |
| B*35:01:01G+B*35:72     | B*35:05:01+B*35:20:01   |                       |                 |
| B*35:01:01G+B*35:80     | B*35:08:01+B*35:10      |                       |                 |
| B*35:01:01G+B*35:81     | B*35:02:01+B*35:24:01   |                       |                 |
| B*35:01:01G+B*35:84     | B*35:50+B*35:150        |                       |                 |
| B*35:01:01G+B*35:85     | B*35:03:01G+B*35:82     |                       |                 |
| B*35:01:01G+B*35:86     | B*35:15+B*35:43:01G     |                       |                 |
| B*35:01:01G+B*35:95     | B*35:02:01+B*35:20:01   |                       |                 |
| B*35:01:01G+B*35:96     | B*35:03:01G+B*35:188    | B*35:167+B*35:190     |                 |
| B*35:01:01G+B*35:105    | B*35:08:01+B*35:159     |                       |                 |
| B*35:01:01G+B*35:109    | B*35:03:01G+B*35:24:01  |                       |                 |
| B*35:01:01G+B*35:113    | B*35:17+B*35:159        |                       |                 |
| B*35:01:01G+B*35:114    | B*35:05:01+B*35:64      |                       |                 |
| B*35:01:01G+B*35:125    | B*35:17+B*35:124        |                       |                 |
| B*35:01:01G+B*35:135    | B*35:43:01G+B*35:82     |                       |                 |
| B*35:01:01G+B*35:136    | B*35:03:01G+B*35:29:01  |                       |                 |
| B*35:01:01G+B*35:142    | B*35:08:01+B*35:124     |                       |                 |
| B*35:01:01G+B*35:150    | B*35:03:01G+B*35:90     |                       |                 |
| B*35:01:01G+B*35:151    | B*35:03:01G+B*35:68:02  |                       |                 |
| B*35:01:01G+B*35:154    | B*35:02:01+B*35:47      |                       |                 |
| B*35:01:01G+B*35:156    | B*35:03:01G+B*35:08:01  |                       |                 |
| B*35:01:01G+B*35:157    | B*35:02:01+B*35:190     | B*35:81+B*35:93       |                 |
| B*35:01:01G+B*35:163    | B*35:03:01G+B*35:62     |                       |                 |
| B*35:01:01G+B*35:167    | B*35:03:01G+B*35:11:01  |                       |                 |
| B*35:01:01G+B*35:169    | B*35:38+B*35:71         |                       |                 |
| B*35:01:01G+B*35:172    | B*35:02:01+B*35:08:01   |                       |                 |
| B*35:01:01G+B*35:182    | B*35:02:01+B*35:137:01G |                       |                 |
| B*35:01:01G+B*35:184    | B*35:02:01+B*35:90      |                       |                 |
| B*35:01:01G+B*35:188    | B*35:11:01+B*35:190     | B*35:21+B*35:93       |                 |
| B*35:01:01G+B*35:190    | B*35:24:01+B*35:93      |                       |                 |
| B*35:01:01G+B*35:195    | B*35:03:01G+B*35:101:02 |                       |                 |
| B*35:01:01G+B*35:198    | B*35:49+B*35:136        |                       |                 |
| B*35:01:01G+B*35:199    | B*35:34+B*35:51         |                       |                 |
| B*35:01:01G+B*35:205    | B*35:03:01G+B*35:64     |                       |                 |
| B*35:01:01G+B*37:01:01G | B*35:20:01+B*37:21      | B*35:203+B*37:29      | B*37:11+B*53:03 |
| B*35:01:01G+B*37:04:01  | B*35:24:01+B*37:01:01G  |                       |                 |
| B*35:01:01G+B*37:05     | B*35:203+B*37:11        |                       |                 |

|                         |                        |                        |                    |                       |
|-------------------------|------------------------|------------------------|--------------------|-----------------------|
| B*35:01:01G+B*37:10     | B*37:11+B*53:13        |                        |                    |                       |
| B*35:01:01G+B*37:13     | B*35:11:01+B*37:01:01G |                        |                    |                       |
| B*35:01:01G+B*37:34     | B*37:11+B*53:01:01     |                        |                    |                       |
| B*35:01:01G+B*38:01:01  | B*35:68:01+B*38:20     | B*35:124+B*38:28       | B*35:197+B*38:33   | B*39:05:01+B*53:01:01 |
| B*35:01:01G+B*38:01:03  | B*39:05:01+B*53:01:03  |                        |                    |                       |
| B*35:01:01G+B*38:01:07  | B*35:01:29+B*38:01:01  |                        |                    |                       |
| B*35:01:01G+B*38:02:01G | B*39:05:01+B*53:13     |                        |                    |                       |
| B*35:01:01G+B*38:03     | B*39:02:01+B*53:12     |                        |                    |                       |
| B*35:01:01G+B*38:04     | B*35:10+B*38:02:03     |                        |                    |                       |
| B*35:01:01G+B*38:05     | B*35:54+B*38:33        |                        |                    |                       |
| B*35:01:01G+B*38:10     | B*35:11:01+B*38:36     |                        |                    |                       |
| B*35:01:01G+B*38:14     | B*35:29:01+B*38:01:01  | B*39:01:01G+B*53:01:01 | B*39:04+B*53:21    | B*39:05:01+B*53:23    |
| B*35:01:01G+B*38:16     | B*35:90+B*38:28        |                        |                    |                       |
| B*35:01:01G+B*38:17     | B*39:05:01+B*53:03     |                        |                    |                       |
| B*35:01:01G+B*38:19     | B*39:37+B*53:01:01     |                        |                    |                       |
| B*35:01:01G+B*38:26     | B*53:01:01+B*67:01:01  |                        |                    |                       |
| B*35:01:01G+B*38:27     | B*35:101:02+B*38:01:01 |                        |                    |                       |
| B*35:01:01G+B*38:29     | B*39:55+B*53:13        |                        |                    |                       |
| B*35:01:01G+B*38:32     | B*35:11:01+B*38:01:01  | B*39:05:01+B*53:08:01  |                    |                       |
| B*35:01:01G+B*38:40     | B*35:143+B*38:01:01    |                        |                    |                       |
| B*35:01:01G+B*39:01:01G | B*35:29:01+B*39:05:01  | B*35:68:01+B*39:42     | B*35:82+B*39:58    | B*35:93+B*39:74       |
|                         | B*35:197+B*39:04       |                        |                    |                       |
| B*35:01:01G+B*39:01:09  | B*35:49+B*39:19:01     |                        |                    |                       |
| B*35:01:01G+B*39:02:01  | B*35:10+B*39:39:01     | B*35:28+B*39:58        |                    |                       |
| B*35:01:01G+B*39:02:02  | B*35:29:01+B*39:13:01  |                        |                    |                       |
| B*35:01:01G+B*39:03     | B*35:29:01+B*39:37     |                        |                    |                       |
| B*35:01:01G+B*39:05:01  | B*35:06+B*39:07        |                        |                    |                       |
| B*35:01:01G+B*39:05:02  | B*35:01:07+B*39:05:01  |                        |                    |                       |
| B*35:01:01G+B*39:06:01  | B*35:01:04+B*39:06:02  | B*35:37+B*39:42        |                    |                       |
| B*35:01:01G+B*39:11     | B*35:08:01+B*39:05:01  |                        |                    |                       |
| B*35:01:01G+B*39:15     | B*35:29:01+B*39:55     | B*35:136+B*39:07       |                    |                       |
| B*35:01:01G+B*39:18     | B*35:14:01+B*39:01:05  | B*35:14:02+B*39:01:01G |                    |                       |
| B*35:01:01G+B*39:22     | B*35:10+B*39:01:01G    | B*35:69+B*39:05:01     |                    |                       |
| B*35:01:01G+B*39:31     | B*35:50+B*39:04        |                        |                    |                       |
| B*35:01:01G+B*39:32     | B*35:24:01+B*39:74     |                        |                    |                       |
| B*35:01:01G+B*39:35     | B*35:11:01+B*39:01:01G |                        |                    |                       |
| B*35:01:01G+B*39:36     | B*35:14:01+B*39:30     |                        |                    |                       |
| B*35:01:01G+B*39:39:01  | B*35:20:01+B*39:58     |                        |                    |                       |
| B*35:01:01G+B*39:47     | B*35:15+B*39:74        |                        |                    |                       |
| B*35:01:01G+B*39:48     | B*35:24:01+B*39:01:01G | B*35:93+B*39:32        | B*35:190+B*39:74   |                       |
| B*35:01:01G+B*39:52     | B*35:200+B*39:01:01G   |                        |                    |                       |
| B*35:01:01G+B*39:55     | B*35:03:01G+B*39:07    |                        |                    |                       |
| B*35:01:01G+B*39:62     | B*35:159+B*39:06:02    |                        |                    |                       |
| B*35:01:01G+B*39:64     | B*35:177+B*39:06:02    |                        |                    |                       |
| B*35:01:01G+B*40:01:01G | B*35:01:04+B*40:01:04  | B*35:01:17+B*40:01:17  | B*35:04:01+B*40:52 | B*35:10+B*40:25       |
|                         | B*35:15+B*40:63        | B*35:20:01+B*40:07     | B*35:28+B*40:106   | B*35:34+B*40:38       |
|                         | B*35:68:01+B*40:160    |                        |                    |                       |
| B*35:01:01G+B*40:01:03  | B*35:01:19+B*40:01:01G |                        |                    |                       |
| B*35:01:01G+B*40:01:06  | B*35:01:10+B*40:01:01G | B*35:04:02+B*40:52     |                    |                       |
| B*35:01:01G+B*40:01:11  | B*35:42:02+B*40:01:01G |                        |                    |                       |
| B*35:01:01G+B*40:02:01G | B*35:01:04+B*40:02:09  | B*35:01:17+B*40:02:08  | B*35:04:01+B*40:03 | B*35:05:01+B*40:64    |
|                         | B*35:28+B*40:08        | B*35:30+B*40:11:02     | B*35:34+B*40:105   |                       |
| B*35:01:01G+B*40:02:02  | B*35:01:26+B*40:02:01G |                        |                    |                       |
| B*35:01:01G+B*40:04     | B*35:28+B*40:68        | B*35:50+B*40:129       |                    |                       |
| B*35:01:01G+B*40:06:01G | B*35:04:01+B*40:159    | B*35:20:01+B*40:162    | B*35:37+B*40:64    | B*35:197+B*40:53      |
| B*35:01:01G+B*40:07     | B*35:10+B*40:106       |                        |                    |                       |
| B*35:01:01G+B*40:11:01  | B*35:01:04+B*40:11:02  | B*35:04:01+B*40:20     | B*35:32:01+B*40:04 | B*35:68:02+B*40:64    |
| B*35:01:01G+B*40:11:02  | B*35:68:01+B*40:64     |                        |                    |                       |
| B*35:01:01G+B*40:14:03  | B*35:64+B*40:121       |                        |                    |                       |
| B*35:01:01G+B*40:18     | B*35:34+B*40:03        | B*35:51+B*40:120       |                    |                       |
| B*35:01:01G+B*40:19     | B*35:20:01+B*40:13     | B*40:02:01G+B*53:01:01 | B*40:08+B*53:17:02 | B*40:37+B*53:05       |
|                         | B*40:64+B*53:14        |                        |                    |                       |
| B*35:01:01G+B*40:21     | B*35:68:02+B*40:137    |                        |                    |                       |
| B*35:01:01G+B*40:24     | B*35:05:01+B*40:120    |                        |                    |                       |
| B*35:01:01G+B*40:25     | B*35:20:01+B*40:106    |                        |                    |                       |
| B*35:01:01G+B*40:27:02  | B*35:01:09+B*40:27:01  |                        |                    |                       |
| B*35:01:01G+B*40:31     | B*35:199+B*40:59       |                        |                    |                       |
| B*35:01:01G+B*40:33     | B*35:34+B*40:52        |                        |                    |                       |
| B*35:01:01G+B*40:36     | B*35:03:01G+B*40:38    | B*35:06+B*40:52        |                    |                       |
| B*35:01:01G+B*40:37     | B*35:27+B*40:02:01G    |                        |                    |                       |
| B*35:01:01G+B*40:43     | B*35:29:01+B*40:01:01G | B*35:69+B*40:25        |                    |                       |
| B*35:01:01G+B*40:44     | B*35:34+B*40:159       |                        |                    |                       |
| B*35:01:01G+B*40:47     | B*40:01:01G+B*53:13    | B*40:07+B*53:09        |                    |                       |
| B*35:01:01G+B*40:50     | B*35:29:01+B*40:02:01G |                        |                    |                       |
| B*35:01:01G+B*40:52     | B*35:32:02+B*40:59     |                        |                    |                       |
| B*35:01:01G+B*40:70     | B*35:37+B*40:04        |                        |                    |                       |
| B*35:01:01G+B*40:74     | B*35:50+B*40:49        | B*35:197+B*40:01:01G   |                    |                       |
| B*35:01:01G+B*40:75     | B*35:82+B*40:162       |                        |                    |                       |
| B*35:01:01G+B*40:80     | B*35:17+B*40:125       | B*35:22+B*40:59        | B*35:30+B*40:01:04 |                       |
| B*35:01:01G+B*40:86     | B*35:06+B*40:159       |                        |                    |                       |
| B*35:01:01G+B*40:96     | B*35:50+B*40:110       | B*40:06:01G+B*53:13    | B*40:162+B*53:09   |                       |
| B*35:01:01G+B*40:98     | B*35:197+B*40:32       |                        |                    |                       |
| B*35:01:01G+B*40:100    | B*35:23+B*40:01:04     |                        |                    |                       |
| B*35:01:01G+B*40:109    | B*40:06:01G+B*53:05    |                        |                    |                       |
| B*35:01:01G+B*40:113    | B*35:24:01+B*40:01:01G |                        |                    |                       |
| B*35:01:01G+B*40:117    | B*40:01:01G+B*53:01:01 | B*40:106+B*53:17:02    |                    |                       |
| B*35:01:01G+B*40:124:02 | B*35:01:04+B*40:124:01 |                        |                    |                       |
| B*35:01:01G+B*40:128    | B*35:08:01+B*40:01:01G | B*35:08:03+B*40:01:04  | B*35:80+B*40:25    | B*35:174+B*40:87:02   |
| B*35:01:01G+B*40:132    | B*35:71+B*40:01:01G    |                        |                    |                       |
| B*35:01:01G+B*40:136    | B*35:115+B*40:14:01    |                        |                    |                       |
| B*35:01:01G+B*40:143    | B*35:23+B*40:02:01G    |                        |                    |                       |
| B*35:01:01G+B*40:145    | B*35:122+B*40:02:01G   |                        |                    |                       |
| B*35:01:01G+B*40:148    | B*35:11:01+B*40:06:01G |                        |                    |                       |
| B*35:01:01G+B*40:154    | B*35:168+B*40:01:01G   |                        |                    |                       |
| B*35:01:01G+B*40:157    | B*35:27+B*40:201       | B*40:02:01G+B*53:13    | B*40:37+B*53:12    |                       |
| B*35:01:01G+B*40:160    | B*35:12:01+B*40:59     |                        |                    |                       |
| B*35:01:01G+B*40:161    | B*35:08:01+B*40:148    |                        |                    |                       |
| B*35:01:01G+B*40:163    | B*35:190+B*40:92       |                        |                    |                       |
| B*35:01:01G+B*40:166    | B*35:76+B*40:106       |                        |                    |                       |
| B*35:01:01G+B*40:174    | B*35:24:01+B*40:05     |                        |                    |                       |
| B*35:01:01G+B*40:183    | B*35:11:01+B*40:01:01G |                        |                    |                       |
| B*35:01:01G+B*40:188    | B*40:01:01G+B*53:03    |                        |                    |                       |
| B*35:01:01G+B*40:198    | B*35:08:01+B*40:183    | B*35:11:01+B*40:128    |                    |                       |
| B*35:01:01G+B*40:199    | B*35:93+B*40:63        |                        |                    |                       |
| B*35:01:01G+B*40:201    | B*40:02:01G+B*53:12    |                        |                    |                       |

|                         |                        |                        |                        |                       |
|-------------------------|------------------------|------------------------|------------------------|-----------------------|
| B*35:01:01G+B*40:202    | B*35:159+B*40:02:01G   |                        |                        |                       |
| B*35:01:01G+B*40:210    | B*35:197+B*40:49       |                        |                        |                       |
| B*35:01:01G+B*41:02:01  | B*35:63+B*35:87        |                        |                        |                       |
| B*35:01:01G+B*42:01:01  | B*35:05:01+B*42:13     |                        |                        |                       |
| B*35:01:01G+B*42:02     | B*35:04:01+B*42:09     |                        |                        |                       |
| B*35:01:01G+B*42:04     | B*35:37+B*42:13        |                        |                        |                       |
| B*35:01:01G+B*42:11     | B*35:87+B*46:02:01     |                        |                        |                       |
| B*35:01:01G+B*42:15     | B*35:27+B*42:01:01     |                        |                        |                       |
| B*35:01:01G+B*44:02:01G | B*35:01:04+B*44:02:07  | B*35:10+B*44:12        | B*35:71+B*44:91        | B*35:115+B*44:03:01G  |
|                         | B*35:137:01G+B*44:84   | B*44:09+B*53:13        |                        |                       |
|                         | B*35:115+B*44:03:02    |                        |                        |                       |
| B*35:01:01G+B*44:02:07  | B*35:42:02+B*44:02:01G | B*35:90+B*44:34        |                        |                       |
| B*35:01:01G+B*44:02:10  | B*35:01:02+B*44:02:01G |                        |                        |                       |
| B*35:01:01G+B*44:02:11  | B*35:01:13+B*44:02:01G |                        |                        |                       |
| B*35:01:01G+B*44:02:16  | B*35:115+B*44:03:05    |                        |                        |                       |
| B*35:01:01G+B*44:02:24  | B*35:01:04+B*44:03:02  | B*35:27+B*44:109       | B*35:71+B*44:37:01     | B*44:46+B*53:13       |
| B*35:01:01G+B*44:03:01G | B*35:71+B*44:37:02     |                        |                        |                       |
| B*35:01:01G+B*44:03:02  | B*35:93+B*44:28:02     |                        |                        |                       |
| B*35:01:01G+B*44:04     | B*35:19+B*44:134       | B*35:71+B*44:42        | B*44:75+B*53:12        |                       |
| B*35:01:01G+B*44:05:01  | B*35:115+B*51:42       |                        |                        |                       |
| B*35:01:01G+B*44:06     | B*35:115+B*44:57       |                        |                        |                       |
| B*35:01:01G+B*44:08     | B*35:115+B*44:46       |                        |                        |                       |
| B*35:01:01G+B*44:09     | B*45:01:01G+B*53:12    |                        |                        |                       |
| B*35:01:01G+B*44:15     | B*35:15+B*44:91        | B*35:115+B*44:64:02    |                        |                       |
| B*35:01:01G+B*44:16     | B*35:115+B*44:43:01    |                        |                        |                       |
| B*35:01:01G+B*44:17     | B*45:01:01G+B*53:01:01 |                        |                        |                       |
| B*35:01:01G+B*44:18     | B*35:37+B*44:02:07     | B*35:115+B*44:47       |                        |                       |
| B*35:01:01G+B*44:20     | B*35:15+B*44:02:01G    | B*35:71+B*44:16        |                        |                       |
| B*35:01:01G+B*44:21     | B*35:54+B*44:02:01G    | B*35:115+B*44:105      |                        |                       |
| B*35:01:01G+B*44:22     | B*44:75+B*53:05        |                        |                        |                       |
| B*35:01:01G+B*44:25     | B*35:138+B*44:03:01G   |                        |                        |                       |
| B*35:01:01G+B*44:26     | B*35:08:01+B*44:03:02  | B*35:45+B*44:37:02     |                        |                       |
| B*35:01:01G+B*44:28:01  | B*35:01:04+B*44:28:01  | B*35:08:01+B*44:03:01G | B*35:08:03+B*44:03:02  | B*35:45+B*44:37:01    |
| B*35:01:01G+B*44:28:02  | B*44:46+B*53:11        |                        |                        |                       |
|                         | B*35:01:04+B*44:37:02  |                        |                        |                       |
| B*35:01:01G+B*44:37:01  | B*35:01:04+B*44:41:02  | B*35:32:01+B*44:48     | B*35:68:01+B*44:02:01G | B*35:68:02+B*44:02:07 |
| B*35:01:01G+B*44:41:01  | B*35:115+B*44:65       |                        |                        |                       |
|                         | B*35:68:01+B*44:02:07  |                        |                        |                       |
| B*35:01:01G+B*44:41:02  | B*35:115+B*44:40       |                        |                        |                       |
| B*35:01:01G+B*44:44     | B*35:37+B*44:03:02     |                        |                        |                       |
| B*35:01:01G+B*44:47     | B*44:46+B*53:01:01     |                        |                        |                       |
| B*35:01:01G+B*44:50     | B*35:115+B*44:45       |                        |                        |                       |
| B*35:01:01G+B*44:51     | B*35:05:01+B*44:03:02  | B*35:68:01+B*44:110    |                        |                       |
| B*35:01:01G+B*44:54     | B*35:04:02+B*44:17     |                        |                        |                       |
| B*35:01:01G+B*44:62     | B*35:15+B*44:37:02     |                        |                        |                       |
| B*35:01:01G+B*44:64:01  | B*35:01:04+B*44:64:01  | B*35:15+B*44:37:01     |                        |                       |
| B*35:01:01G+B*44:64:02  | B*35:68:01+B*44:03:01G | B*35:68:02+B*44:03:02  |                        |                       |
| B*35:01:01G+B*44:65     | B*35:115+B*44:13       |                        |                        |                       |
| B*35:01:01G+B*44:67     | B*35:08:01+B*44:79     | B*35:11:01+B*44:28:02  |                        |                       |
| B*35:01:01G+B*44:76     | B*35:04:01+B*44:43:01  |                        |                        |                       |
| B*35:01:01G+B*44:77     | B*35:11:01+B*44:03:01G |                        |                        |                       |
| B*35:01:01G+B*44:79     | B*35:01:16+B*44:03:01G |                        |                        |                       |
| B*35:01:01G+B*44:81     | B*35:115+B*44:29       |                        |                        |                       |
| B*35:01:01G+B*44:89     | B*35:115+B*44:37:01    |                        |                        |                       |
| B*35:01:01G+B*44:91     | B*35:115+B*44:50       | B*44:09+B*53:01:01     |                        |                       |
| B*35:01:01G+B*44:95     | B*35:159+B*44:03:01G   |                        |                        |                       |
| B*35:01:01G+B*44:98     | B*35:180+B*44:02:01G   |                        |                        |                       |
| B*35:01:01G+B*44:102    | B*35:50+B*44:03:01G    |                        |                        |                       |
| B*35:01:01G+B*44:103    | B*35:54+B*44:03:01G    |                        |                        |                       |
| B*35:01:01G+B*44:105    | B*35:05:01+B*44:02:07  | B*35:30+B*44:41:02     | B*35:115+B*44:54       |                       |
| B*35:01:01G+B*44:106    | B*35:34+B*44:43:01     |                        |                        |                       |
| B*35:01:01G+B*44:107    | B*44:46+B*53:12        |                        |                        |                       |
| B*35:01:01G+B*44:109    | B*35:30+B*44:03:02     |                        |                        |                       |
| B*35:01:01G+B*44:110    | B*35:38+B*44:144       |                        |                        |                       |
| B*35:01:01G+B*44:117    | B*35:34+B*44:17        | B*35:115+B*44:107      |                        |                       |
| B*35:01:01G+B*44:123    | B*35:15+B*44:03:02     | B*35:71+B*44:64:01     |                        |                       |
| B*35:01:01G+B*44:124    | B*35:50+B*44:09        |                        |                        |                       |
| B*35:01:01G+B*44:131    | B*35:93+B*44:91        |                        |                        |                       |
| B*35:01:01G+B*44:132    | B*35:14:01+B*44:03:01G | B*35:62+B*44:79        |                        |                       |
| B*35:01:01G+B*44:146    | B*35:71+B*45:04        |                        |                        |                       |
| B*35:01:01G+B*45:01:01G | B*35:93+B*45:04        |                        |                        |                       |
| B*35:01:01G+B*45:08     | B*35:15+B*45:04        |                        |                        |                       |
| B*35:01:01G+B*45:10     | B*35:180+B*45:01:01G   |                        |                        |                       |
| B*35:01:01G+B*45:11     | B*35:146+B*45:01:01G   |                        |                        |                       |
| B*35:01:01G+B*45:12     | B*35:14:01+B*46:13:01  |                        |                        |                       |
| B*35:01:01G+B*46:01:03  | B*35:54+B*46:01:01G    |                        |                        |                       |
| B*35:01:01G+B*46:05     | B*35:11:01+B*46:13:03  | B*35:11:02+B*46:13:01  |                        |                       |
| B*35:01:01G+B*46:08     | B*35:62+B*46:13:03     |                        |                        |                       |
| B*35:01:01G+B*46:09     | B*35:90+B*46:01:01G    |                        |                        |                       |
| B*35:01:01G+B*46:10     | B*35:32:02+B*46:33     |                        |                        |                       |
| B*35:01:01G+B*46:13:01  | B*35:71+B*46:01:01G    |                        |                        |                       |
| B*35:01:01G+B*46:17     | B*35:60+B*46:33        | B*35:93+B*46:11        |                        |                       |
| B*35:01:01G+B*46:18     | B*35:93+B*46:13:03     |                        |                        |                       |
| B*35:01:01G+B*46:21:01  | B*35:93+B*46:13:01     |                        |                        |                       |
| B*35:01:01G+B*46:21:02  | B*35:159+B*46:01:01G   |                        |                        |                       |
| B*35:01:01G+B*46:27     | B*35:14:01+B*46:21:01  | B*35:14:02+B*46:21:02  | B*35:93+B*46:01:01G    |                       |
| B*35:01:01G+B*46:29     | B*35:15+B*46:01:01G    | B*35:86+B*46:33        |                        |                       |
| B*35:01:01G+B*46:30     | B*47:02+B*53:03        |                        |                        |                       |
| B*35:01:01G+B*47:01:01G | B*35:138+B*47:01:01G   |                        |                        |                       |
| B*35:01:01G+B*47:07     | B*35:28+B*48:06        | B*35:30+B*48:03:02     |                        |                       |
| B*35:01:01G+B*48:01:01G | B*35:01:04+B*48:03:02  | B*35:04:01+B*48:23     |                        |                       |
| B*35:01:01G+B*48:03:01  | B*35:64+B*48:12        |                        |                        |                       |
| B*35:01:01G+B*48:10     | B*35:31+B*48:02:01     |                        |                        |                       |
| B*35:01:01G+B*48:13     | B*35:11:01+B*48:01:01G |                        |                        |                       |
| B*35:01:01G+B*48:15     | B*48:01:01G+B*53:05    |                        |                        |                       |
| B*35:01:01G+B*48:18     | B*35:62+B*48:01:01G    |                        |                        |                       |
| B*35:01:01G+B*48:19     | B*35:11:01+B*48:02:01  |                        |                        |                       |
| B*35:01:01G+B*48:25     | B*35:11:01+B*49:11     | B*50:01:01+B*53:01:01  |                        |                       |
| B*35:01:01G+B*49:01:01  | B*50:01:01+B*53:13     |                        |                        |                       |
| B*35:01:01G+B*49:02     | B*35:15+B*49:01:01     |                        |                        |                       |
| B*35:01:01G+B*49:07     | B*35:104+B*49:01:01    |                        |                        |                       |
| B*35:01:01G+B*49:08     | B*35:21+B*49:11        | B*35:24:01+B*49:01:01  | B*50:01:01+B*53:02     |                       |
| B*35:01:01G+B*49:09     | B*50:13+B*53:01:01     |                        |                        |                       |
| B*35:01:01G+B*49:10     | B*35:91+B*49:01:01     |                        |                        |                       |
| B*35:01:01G+B*49:12     | B*50:14+B*53:01:01     |                        |                        |                       |
| B*35:01:01G+B*49:18     |                        |                        |                        |                       |

|                         |                         |                        |                       |                       |
|-------------------------|-------------------------|------------------------|-----------------------|-----------------------|
| B*35:01:01G+B*49:20     | B*35:71+B*49:01:01      | B*50:02+B*53:01:01     |                       |                       |
| B*35:01:01G+B*50:01:01  | B*35:10+B*50:15         |                        |                       |                       |
| B*35:01:01G+B*50:02     | B*35:71+B*50:01:01      |                        |                       |                       |
| B*35:01:01G+B*51:01:01G | B*35:01:10+B*51:01:04   | B*35:04:01+B*51:37     | B*35:11:01+B*51:09:01 | B*35:24:01+B*51:02:01 |
|                         | B*35:34+B*51:63         | B*35:37+B*51:04        | B*35:42:02+B*51:01:02 | B*53:01:01+B*78:02:02 |
|                         | B*53:06+B*78:04         |                        |                       |                       |
| B*35:01:01G+B*51:01:02  | B*35:11:01+B*51:09:02   | B*35:24:01+B*51:02:02  | B*53:01:01+B*78:02:01 |                       |
| B*35:01:01G+B*51:01:03  | B*35:01:19+B*51:01:01G  |                        |                       |                       |
| B*35:01:01G+B*51:01:04  | B*35:24:01+B*51:02:04   |                        |                       |                       |
| B*35:01:01G+B*51:01:16  | B*35:01:04+B*51:01:01G  |                        |                       |                       |
| B*35:01:01G+B*51:01:21  | B*35:42:02+B*51:01:09   |                        |                       |                       |
| B*35:01:01G+B*51:01:31  | B*35:24:01+B*51:02:03   |                        |                       |                       |
| B*35:01:01G+B*51:01:33  | B*35:01:08+B*51:01:01G  |                        |                       |                       |
| B*35:01:01G+B*51:02:01  | B*35:01:10+B*51:02:04   | B*35:42:02+B*51:02:02  |                       |                       |
| B*35:01:01G+B*51:02:02  | B*53:08:01+B*78:04      |                        |                       |                       |
| B*35:01:01G+B*51:02:05  | B*35:11:01+B*51:40      |                        |                       |                       |
| B*35:01:01G+B*51:05     | B*53:24+B*78:04         |                        |                       |                       |
| B*35:01:01G+B*51:06:01  | B*35:01:04+B*51:06:02   | B*35:04:02+B*51:45     | B*35:24:01+B*51:59    | B*35:32:02+B*51:56:02 |
|                         | B*35:68:02+B*51:04      |                        |                       |                       |
| B*35:01:01G+B*51:06:02  | B*35:68:01+B*51:04      |                        |                       |                       |
| B*35:01:01G+B*51:07:01  | B*35:20:01+B*51:01:01G  | B*35:42:02+B*51:07:02  |                       |                       |
| B*35:01:01G+B*51:07:02  | B*35:20:01+B*51:01:02   |                        |                       |                       |
| B*35:01:01G+B*51:08     | B*35:34+B*51:97         | B*35:115+B*51:09:01    |                       |                       |
| B*35:01:01G+B*51:09:01  | B*35:42:02+B*51:09:02   |                        |                       |                       |
| B*35:01:01G+B*51:09:02  | B*53:02+B*78:04         |                        |                       |                       |
| B*35:01:01G+B*51:13:02  | B*35:01:10+B*51:13:01   | B*35:03:01G+B*51:63    | B*35:06+B*51:37       |                       |
| B*35:01:01G+B*51:16     | B*35:11:01+B*51:31      | B*35:15+B*51:01:01G    | B*35:24:01+B*51:34    |                       |
| B*35:01:01G+B*51:20     | B*35:29:01+B*51:08      |                        |                       |                       |
| B*35:01:01G+B*51:21     | B*35:93+B*51:01:01G     | B*35:190+B*51:02:01    |                       |                       |
| B*35:01:01G+B*51:22     | B*35:82+B*51:01:01G     |                        |                       |                       |
| B*35:01:01G+B*51:23     | B*35:11:01+B*51:108     | B*35:71+B*51:02:01     |                       |                       |
| B*35:01:01G+B*51:24:02  | B*35:64+B*51:01:04      |                        |                       |                       |
| B*35:01:01G+B*51:24:03  | B*35:01:10+B*51:24:02   | B*35:09:02+B*51:37     | B*35:64+B*51:01:01G   |                       |
| B*35:01:01G+B*51:24:04  | B*35:09:03+B*51:37      |                        |                       |                       |
| B*35:01:01G+B*51:29     | B*35:08:01+B*51:01:01G  | B*53:24+B*78:02:02     |                       |                       |
| B*35:01:01G+B*51:31     | B*35:15+B*51:09:01      |                        |                       |                       |
| B*35:01:01G+B*51:34     | B*35:15+B*51:02:01      |                        |                       |                       |
| B*35:01:01G+B*51:35     | B*35:116+B*51:01:01G    |                        |                       |                       |
| B*35:01:01G+B*51:45     | B*35:32:02+B*53:06      |                        |                       |                       |
| B*35:01:01G+B*51:53     | B*35:180+B*51:01:01G    |                        |                       |                       |
| B*35:01:01G+B*51:54     | B*53:11+B*78:04         |                        |                       |                       |
| B*35:01:01G+B*51:56:02  | B*35:04:02+B*53:06      |                        |                       |                       |
| B*35:01:01G+B*51:57     | B*35:197+B*51:01:01G    | B*53:21+B*78:02:02     |                       |                       |
| B*35:01:01G+B*51:61:01  | B*35:14:02+B*51:09:01   |                        |                       |                       |
| B*35:01:01G+B*51:61:02  | B*35:14:01+B*51:09:01   | B*35:62+B*51:01:01G    |                       |                       |
| B*35:01:01G+B*51:64     | B*35:05:01+B*51:04      | B*35:30+B*51:06:02     | B*35:51+B*51:56:02    |                       |
| B*35:01:01G+B*51:73     | B*35:143+B*51:09:01     |                        |                       |                       |
| B*35:01:01G+B*51:76     | B*35:101:02+B*51:01:01G |                        |                       |                       |
| B*35:01:01G+B*51:78:01  | B*35:42:02+B*51:78:02   | B*53:13+B*78:02:02     |                       |                       |
| B*35:01:01G+B*51:78:02  | B*53:13+B*78:02:01      |                        |                       |                       |
| B*35:01:01G+B*51:82     | B*35:08:01+B*51:16      | B*35:15+B*51:29        |                       |                       |
| B*35:01:01G+B*51:90     | B*35:34+B*51:37         |                        |                       |                       |
| B*35:01:01G+B*51:101    | B*35:35+B*51:01:01G     |                        |                       |                       |
| B*35:01:01G+B*51:112    | B*35:19+B*51:01:01G     |                        |                       |                       |
| B*35:01:01G+B*51:119    | B*35:90+B*51:01:02      |                        |                       |                       |
| B*35:01:01G+B*51:130    | B*35:91+B*51:01:01G     |                        |                       |                       |
| B*35:01:01G+B*52:01:01G | B*35:01:10+B*52:01:05   | B*35:10+B*51:07:02     | B*35:11:01+B*52:10:01 | B*35:24:01+B*52:11    |
|                         | B*35:28+B*51:01:02      | B*53:01:01+B*78:05     | B*53:05+B*78:06       | B*53:17:02+B*78:02:01 |
|                         | B*35:10+B*51:07:01      | B*35:20:01+B*52:06:02  | B*35:21+B*52:03       | B*35:27+B*52:09       |
| B*35:01:01G+B*52:01:02  | B*35:28+B*51:01:01G     | B*35:42:02+B*52:01:01G | B*53:17:02+B*78:02:02 |                       |
|                         | B*35:01:08+B*52:01:01G  |                        |                       |                       |
| B*35:01:01G+B*52:01:03  | B*35:11:01+B*52:10:02   | B*35:11:02+B*52:10:01  | B*53:01:03+B*78:05    |                       |
| B*35:01:01G+B*52:01:07  | B*35:01:19+B*52:01:02   | B*35:28+B*51:01:03     |                       |                       |
| B*35:01:01G+B*52:01:09  | B*53:01:07+B*78:05      |                        |                       |                       |
| B*35:01:01G+B*52:01:11  | B*35:01:08+B*52:06:02   | B*35:10+B*51:01:33     |                       |                       |
| B*35:01:01G+B*52:06:01  | B*35:10+B*51:01:01G     |                        |                       |                       |
| B*35:01:01G+B*52:06:02  | B*35:15+B*52:01:01G     |                        |                       |                       |
| B*35:01:01G+B*52:08     | B*35:28+B*51:09:02      |                        |                       |                       |
| B*35:01:01G+B*52:10:01  | B*35:28+B*51:02:02      |                        |                       |                       |
| B*35:01:01G+B*52:11     | B*35:71+B*52:01:01G     |                        |                       |                       |
| B*35:01:01G+B*52:15     | B*35:49+B*52:27         |                        |                       |                       |
| B*35:01:01G+B*52:16     | B*35:115+B*52:10:01     |                        |                       |                       |
| B*35:01:01G+B*52:19     | B*35:28+B*51:78:02      | B*53:12+B*78:06        | B*53:13+B*78:05       |                       |
| B*35:01:01G+B*52:20     | B*35:28+B*51:61:02      | B*35:62+B*52:01:02     |                       |                       |
| B*35:01:01G+B*52:21     | B*35:200+B*52:01:01G    |                        |                       |                       |
| B*35:01:01G+B*52:23     | B*35:08:01+B*52:01:01G  | B*35:80+B*51:07:02     | B*53:16+B*78:06       | B*53:24+B*78:05       |
| B*35:01:01G+B*52:24     | B*35:124+B*52:01:01G    |                        |                       |                       |
| B*35:01:01G+B*52:27     | B*35:180+B*52:01:01G    |                        |                       |                       |
| B*35:01:01G+B*52:29     | B*35:27+B*53:05         |                        |                       |                       |
| B*35:01:01G+B*53:01:01  | B*35:01:16+B*53:01:01   |                        |                       |                       |
| B*35:01:01G+B*53:01:02  | B*35:24:01+B*53:01:01   |                        |                       |                       |
| B*35:01:01G+B*53:02     | B*35:03:01G+B*53:01:01  | B*35:56+B*53:05        |                       |                       |
| B*35:01:01G+B*53:04     | B*35:11:01+B*53:01:01   |                        |                       |                       |
| B*35:01:01G+B*53:08:01  | B*35:11:01+B*53:01:03   | B*35:11:02+B*53:01:01  |                       |                       |
| B*35:01:01G+B*53:08:02  | B*35:20:01+B*53:13      |                        |                       |                       |
| B*35:01:01G+B*53:09     | B*35:08:01+B*53:13      |                        |                       |                       |
| B*35:01:01G+B*53:11     | B*35:27+B*53:12         |                        |                       |                       |
| B*35:01:01G+B*53:13     | B*35:05:01+B*53:01:01   |                        |                       |                       |
| B*35:01:01G+B*53:14     | B*35:08:01+B*53:05      |                        |                       |                       |
| B*35:01:01G+B*53:16     | B*35:28+B*53:01:01      |                        |                       |                       |
| B*35:01:01G+B*53:17:02  | B*35:02:01+B*53:01:01   |                        |                       |                       |
| B*35:01:01G+B*53:19     | B*35:197+B*53:01:01     |                        |                       |                       |
| B*35:01:01G+B*53:21     | B*35:29:01+B*53:01:01   |                        |                       |                       |
| B*35:01:01G+B*53:23     | B*35:08:01+B*53:01:01   | B*35:27+B*53:16        |                       |                       |
| B*35:01:01G+B*53:24     | B*35:108:01+B*53:01:01  |                        |                       |                       |
| B*35:01:01G+B*53:26     | B*35:93+B*54:03         |                        |                       |                       |
| B*35:01:01G+B*54:01:01G | B*35:50+B*54:01:01G     |                        |                       |                       |
| B*35:01:01G+B*54:02     | B*35:04:01+B*54:14      |                        |                       |                       |
| B*35:01:01G+B*54:04     | B*35:08:01+B*54:01:01G  |                        |                       |                       |
| B*35:01:01G+B*54:10     | B*53:01:01+B*54:01:01G  |                        |                       |                       |
| B*35:01:01G+B*54:12     | B*35:11:01+B*54:10      |                        |                       |                       |
| B*35:01:01G+B*54:20     | B*35:124+B*54:01:01G    |                        |                       |                       |
| B*35:01:01G+B*54:21     | B*35:15+B*54:03         |                        |                       |                       |
| B*35:01:01G+B*54:26     | B*35:11:01+B*55:02:01G  | B*35:29:01+B*55:31     | B*35:93+B*56:25       |                       |
| B*35:01:01G+B*55:01:01G | B*35:01:10+B*55:01:01G  |                        |                       |                       |
| B*35:01:01G+B*55:01:04  |                         |                        |                       |                       |

|                         |                         |                        |                    |
|-------------------------|-------------------------|------------------------|--------------------|
| B*35:01:01G+B*55:02:01G | B*35:60+B*56:09         | B*35:93+B*56:01:01G    |                    |
| B*35:01:01G+B*55:02:04  | B*35:01:04+B*55:02:01G  |                        |                    |
| B*35:01:01G+B*55:09     | B*35:08:01+B*55:24      |                        |                    |
| B*35:01:01G+B*55:12     | B*35:27+B*55:02:01G     |                        |                    |
| B*35:01:01G+B*55:13     | B*35:03:01G+B*55:32     | B*35:06+B*55:23        | B*35:93+B*56:22    |
| B*35:01:01G+B*55:21     | B*35:14:01+B*55:02:01G  | B*35:62+B*55:01:01G    |                    |
| B*35:01:01G+B*55:22     | B*35:15+B*56:01:01G     |                        |                    |
| B*35:01:01G+B*55:24     | B*35:11:01+B*55:22      | B*35:15+B*56:25        |                    |
| B*35:01:01G+B*55:26     | B*35:143+B*55:02:01G    |                        |                    |
| B*35:01:01G+B*55:34     | B*35:10+B*55:47         |                        |                    |
| B*35:01:01G+B*55:37     | B*35:08:01+B*55:02:01G  |                        |                    |
| B*35:01:01G+B*55:40     | B*35:10+B*55:01:01G     | B*35:69+B*55:31        |                    |
| B*35:01:01G+B*55:42     | B*35:116+B*55:02:01G    |                        |                    |
| B*35:01:01G+B*55:52     | B*35:08:01+B*55:01:01G  | B*35:11:01+B*55:37     |                    |
| B*35:01:01G+B*55:54     | B*35:180+B*55:01:01G    |                        |                    |
| B*35:01:01G+B*55:56     | B*35:115+B*55:01:01G    |                        |                    |
| B*35:01:01G+B*56:05:01  | B*35:42:02+B*56:05:02   | B*56:09+B*78:02:02     |                    |
| B*35:01:01G+B*56:05:02  | B*56:09+B*78:02:01      |                        |                    |
| B*35:01:01G+B*56:06     | B*35:76+B*78:02:02      |                        |                    |
| B*35:01:01G+B*56:07     | B*53:13+B*56:01:01G     |                        |                    |
| B*35:01:01G+B*56:10     | B*35:93+B*56:02         |                        |                    |
| B*35:01:01G+B*56:11     | B*35:03:01G+B*56:09     |                        |                    |
| B*35:01:01G+B*56:13     | B*35:115+B*56:01:01G    |                        |                    |
| B*35:01:01G+B*56:16     | B*35:124+B*56:01:01G    |                        |                    |
| B*35:01:01G+B*56:20:02  | B*35:64+B*56:01:01G     |                        |                    |
| B*35:01:01G+B*56:21     | B*51:01:02+B*56:09      | B*53:01:01+B*56:05:02  |                    |
| B*35:01:01G+B*56:25     | B*35:11:01+B*56:01:01G  |                        |                    |
| B*35:01:01G+B*56:29     | B*35:122+B*56:01:01G    |                        |                    |
| B*35:01:01G+B*56:31     | B*35:24:01+B*56:18      |                        |                    |
| B*35:01:01G+B*56:32     | B*35:11:01+B*56:18      |                        |                    |
| B*35:01:01G+B*56:34     | B*35:24:01+B*56:01:01G  |                        |                    |
| B*35:01:01G+B*56:35     | B*35:50+B*56:01:01G     |                        |                    |
| B*35:01:01G+B*56:36     | B*35:90+B*56:01:01G     |                        |                    |
| B*35:01:01G+B*57:02:01  | B*35:04:01+B*57:19      | B*35:08:01+B*57:03:01  | B*53:01:01+B*57:12 |
| B*35:01:01G+B*57:03:01  | B*35:04:01+B*57:01:01G  |                        |                    |
| B*35:01:01G+B*57:07     | B*35:71+B*57:03:01      |                        |                    |
| B*35:01:01G+B*57:09     | B*35:115+B*57:57        |                        |                    |
| B*35:01:01G+B*57:10     | B*35:197+B*57:01:01G    |                        |                    |
| B*35:01:01G+B*57:19     | B*35:08:01+B*57:01:01G  |                        |                    |
| B*35:01:01G+B*57:22     | B*35:11:01+B*57:01:01G  |                        |                    |
| B*35:01:01G+B*57:24     | B*35:115+B*57:01:01G    |                        |                    |
| B*35:01:01G+B*57:25     | B*35:15+B*57:01:01G     |                        |                    |
| B*35:01:01G+B*57:26     | B*35:93+B*57:01:01G     |                        |                    |
| B*35:01:01G+B*57:46     | B*35:180+B*57:03:01     |                        |                    |
| B*35:01:01G+B*57:57     | B*35:04:01+B*57:22      | B*35:11:01+B*57:03:01  |                    |
| B*35:01:01G+B*57:58     | B*35:124+B*57:01:01G    |                        |                    |
| B*35:01:01G+B*58:04     | B*35:202+B*58:01:01G    |                        |                    |
| B*35:01:01G+B*58:06     | B*35:11:01+B*58:02      |                        |                    |
| B*35:01:01G+B*58:07     | B*35:71+B*58:02         |                        |                    |
| B*35:01:01G+B*58:08:01  | B*35:42:02+B*58:08:02   | B*58:01:01G+B*78:02:02 |                    |
| B*35:01:01G+B*58:08:02  | B*58:01:01G+B*78:02:01  |                        |                    |
| B*35:01:01G+B*58:09     | B*35:24:01+B*58:01:01G  |                        |                    |
| B*35:01:01G+B*58:12     | B*35:124+B*58:01:01G    |                        |                    |
| B*35:01:01G+B*58:16     | B*35:68:02+B*58:01:01G  |                        |                    |
| B*35:01:01G+B*58:18     | B*35:05:01+B*58:01:01G  |                        |                    |
| B*35:01:01G+B*58:19     | B*35:11:01+B*58:01:01G  |                        |                    |
| B*35:01:01G+B*58:22     | B*35:08:01+B*58:01:01G  |                        |                    |
| B*35:01:01G+B*58:27     | B*35:31+B*58:01:01G     |                        |                    |
| B*35:01:01G+B*58:28     | B*35:04:03+B*58:01:01G  |                        |                    |
| B*35:01:01G+B*58:34     | B*35:03:01G+B*58:01:01G |                        |                    |
| B*35:01:01G+B*58:35     | B*35:93+B*58:01:01G     |                        |                    |
| B*35:01:01G+B*58:37     | B*35:15+B*58:01:01G     |                        |                    |
| B*35:01:01G+B*59:01:01G | B*35:93+B*59:04         |                        |                    |
| B*35:01:01G+B*78:01:01  | B*35:29:01+B*78:02:02   |                        |                    |
| B*35:01:01G+B*78:02:01  | B*35:21+B*78:04         |                        |                    |
| B*35:01:01G+B*78:02:02  | B*35:42:02+B*78:02:01   |                        |                    |
| B*35:01:01G+B*78:03     | B*35:82+B*78:01:01      |                        |                    |
| B*35:01:01G+B*78:05     | B*35:28+B*78:02:01      |                        |                    |
| B*35:01:01G+B*78:06     | B*35:27+B*78:05         |                        |                    |
| B*35:01:01G+B*78:07     | B*35:93+B*78:01:01      |                        |                    |
| B*35:01:01G+B*81:01:01G | B*35:76+B*48:06         |                        |                    |
| B*35:01:02+B*44:02:10   | B*35:42:02+B*44:02:11   |                        |                    |
| B*35:01:02+B*44:02:16   | B*35:01:13+B*44:02:11   |                        |                    |
| B*35:01:02+B*44:21      | B*35:15+B*44:02:11      |                        |                    |
| B*35:01:02+B*44:22      | B*35:54+B*44:02:11      |                        |                    |
| B*35:01:02+B*44:41:01   | B*35:68:01+B*44:02:11   |                        |                    |
| B*35:01:02+B*44:102     | B*35:180+B*44:02:11     |                        |                    |
| B*35:01:04+B*35:05:01   | B*35:30+B*35:68:02      |                        |                    |
| B*35:01:04+B*35:18      | B*35:08:03+B*35:09:02   |                        |                    |
| B*35:01:04+B*35:22      | B*35:05:01+B*35:12:01   |                        |                    |
| B*35:01:04+B*35:45      | B*35:08:03+B*35:71      |                        |                    |
| B*35:01:04+B*35:51      | B*35:30+B*35:32:02      |                        |                    |
| B*35:01:04+B*35:80      | B*35:08:03+B*35:10      |                        |                    |
| B*35:01:04+B*35:105     | B*35:08:03+B*35:159     |                        |                    |
| B*35:01:04+B*35:142     | B*35:08:03+B*35:124     |                        |                    |
| B*35:01:04+B*35:156     | B*35:03:01G+B*35:08:03  |                        |                    |
| B*35:01:04+B*35:172     | B*35:02:01+B*35:08:03   |                        |                    |
| B*35:01:04+B*35:199     | B*35:05:01+B*35:39      |                        |                    |
| B*35:01:04+B*38:01:01   | B*35:68:02+B*38:20      |                        |                    |
| B*35:01:04+B*38:19      | B*35:05:01+B*38:20      | B*35:30+B*38:01:01     |                    |
| B*35:01:04+B*39:01:01G  | B*35:68:02+B*39:42      |                        |                    |
| B*35:01:04+B*39:03      | B*35:05:01+B*39:42      | B*35:30+B*39:01:01G    |                    |
| B*35:01:04+B*39:09      | B*35:48+B*39:01:01G     |                        |                    |
| B*35:01:04+B*39:11      | B*35:08:03+B*39:05:01   |                        |                    |
| B*35:01:04+B*39:14      | B*35:30+B*39:70         |                        |                    |
| B*35:01:04+B*39:37      | B*35:30+B*39:05:01      |                        |                    |
| B*35:01:04+B*39:62      | B*35:159+B*39:06:01     |                        |                    |
| B*35:01:04+B*39:64      | B*35:177+B*39:06:01     |                        |                    |
| B*35:01:04+B*40:01:01G  | B*35:68:02+B*40:160     |                        |                    |
| B*35:01:04+B*40:02:01G  | B*35:30+B*40:11:01      |                        |                    |
| B*35:01:04+B*40:03      | B*35:30+B*40:20         |                        |                    |
| B*35:01:04+B*40:31      | B*35:30+B*40:33         |                        |                    |
| B*35:01:04+B*40:45      | B*35:30+B*40:114        |                        |                    |
| B*35:01:04+B*40:80      | B*35:05:01+B*40:160     | B*35:30+B*40:01:01G    |                    |
| B*35:01:04+B*40:100     | B*35:23+B*40:01:01G     |                        |                    |

|                        |                        |                        |                       |
|------------------------|------------------------|------------------------|-----------------------|
| B*35:01:04+B*40:128    | B*35:08:03+B*40:01:01G |                        |                       |
| B*35:01:04+B*40:161    | B*35:08:03+B*40:148    |                        |                       |
| B*35:01:04+B*40:198    | B*35:08:03+B*40:183    |                        |                       |
| B*35:01:04+B*41:02:01  | B*35:30+B*41:03:02     |                        |                       |
| B*35:01:04+B*44:20     | B*35:37+B*44:02:01G    |                        |                       |
| B*35:01:04+B*44:28:02  | B*35:08:03+B*44:03:01G |                        |                       |
| B*35:01:04+B*44:41:01  | B*35:68:02+B*44:02:01G |                        |                       |
| B*35:01:04+B*44:47     | B*35:37+B*44:03:01G    |                        |                       |
| B*35:01:04+B*44:54     | B*35:05:01+B*44:03:01G | B*35:30+B*44:65        | B*35:68:02+B*44:110   |
| B*35:01:04+B*44:65     | B*35:68:02+B*44:03:01G |                        |                       |
| B*35:01:04+B*44:76     | B*35:08:03+B*44:79     |                        |                       |
| B*35:01:04+B*44:106    | B*35:05:01+B*44:02:01G | B*35:30+B*44:41:01     |                       |
| B*35:01:04+B*44:110    | B*35:30+B*44:03:01G    |                        |                       |
| B*35:01:04+B*44:124    | B*35:15+B*44:03:01G    | B*35:71+B*44:64:02     |                       |
| B*35:01:04+B*44:135    | B*35:05:01+B*44:45     |                        |                       |
| B*35:01:04+B*46:12     | B*35:30+B*46:01:01G    |                        |                       |
| B*35:01:04+B*48:01:01G | B*35:30+B*48:03:01     |                        |                       |
| B*35:01:04+B*51:01:03  | B*35:01:19+B*51:01:16  |                        |                       |
| B*35:01:04+B*51:01:33  | B*35:01:08+B*51:01:16  |                        |                       |
| B*35:01:04+B*51:06:01  | B*35:32:01+B*51:56:01  |                        |                       |
| B*35:01:04+B*51:07:01  | B*35:20:01+B*51:01:16  |                        |                       |
| B*35:01:04+B*51:16     | B*35:15+B*51:01:16     |                        |                       |
| B*35:01:04+B*51:21     | B*35:93+B*51:01:16     |                        |                       |
| B*35:01:04+B*51:22     | B*35:82+B*51:01:16     |                        |                       |
| B*35:01:04+B*51:24:03  | B*35:64+B*51:01:16     |                        |                       |
| B*35:01:04+B*51:29     | B*35:08:01+B*51:01:16  | B*35:08:03+B*51:01:01G |                       |
| B*35:01:04+B*51:35     | B*35:116+B*51:01:16    |                        |                       |
| B*35:01:04+B*51:53     | B*35:180+B*51:01:16    |                        |                       |
| B*35:01:04+B*51:57     | B*35:197+B*51:01:16    |                        |                       |
| B*35:01:04+B*51:61:02  | B*35:62+B*51:01:16     |                        |                       |
| B*35:01:04+B*51:64     | B*35:30+B*51:06:01     |                        |                       |
| B*35:01:04+B*51:76     | B*35:101:02+B*51:01:16 |                        |                       |
| B*35:01:04+B*51:82     | B*35:08:03+B*51:16     |                        |                       |
| B*35:01:04+B*51:101    | B*35:35+B*51:01:16     |                        |                       |
| B*35:01:04+B*51:112    | B*35:19+B*51:01:16     |                        |                       |
| B*35:01:04+B*51:130    | B*35:91+B*51:01:16     |                        |                       |
| B*35:01:04+B*52:01:02  | B*35:28+B*51:01:16     |                        |                       |
| B*35:01:04+B*52:06:02  | B*35:10+B*51:01:16     |                        |                       |
| B*35:01:04+B*52:24     | B*35:08:03+B*52:01:01G |                        |                       |
| B*35:01:04+B*53:11     | B*35:08:03+B*53:13     |                        |                       |
| B*35:01:04+B*53:16     | B*35:08:03+B*53:05     |                        |                       |
| B*35:01:04+B*53:24     | B*35:08:03+B*53:01:01  |                        |                       |
| B*35:01:04+B*54:10     | B*35:08:03+B*54:01:01G |                        |                       |
| B*35:01:04+B*55:01:01G | B*35:11:01+B*55:02:04  |                        |                       |
| B*35:01:04+B*55:09     | B*35:08:03+B*55:24     |                        |                       |
| B*35:01:04+B*55:12     | B*35:27+B*55:02:04     |                        |                       |
| B*35:01:04+B*55:21     | B*35:14:01+B*55:02:04  |                        |                       |
| B*35:01:04+B*55:26     | B*35:143+B*55:02:04    |                        |                       |
| B*35:01:04+B*55:37     | B*35:08:01+B*55:02:04  | B*35:08:03+B*55:02:01G |                       |
| B*35:01:04+B*55:42     | B*35:116+B*55:02:04    |                        |                       |
| B*35:01:04+B*55:52     | B*35:08:03+B*55:01:01G |                        |                       |
| B*35:01:04+B*57:02:01  | B*35:08:03+B*57:03:01  |                        |                       |
| B*35:01:04+B*57:19     | B*35:08:03+B*57:01:01G |                        |                       |
| B*35:01:04+B*58:18     | B*35:30+B*58:16        |                        |                       |
| B*35:01:04+B*58:22     | B*35:08:03+B*58:01:01G |                        |                       |
| B*35:01:07+B*38:01:01  | B*39:05:02+B*53:01:01  |                        |                       |
| B*35:01:07+B*38:01:03  | B*39:05:02+B*53:01:03  |                        |                       |
| B*35:01:07+B*38:02:01G | B*39:05:02+B*53:13     |                        |                       |
| B*35:01:07+B*38:14     | B*39:05:02+B*53:23     |                        |                       |
| B*35:01:07+B*38:17     | B*39:05:02+B*53:03     |                        |                       |
| B*35:01:07+B*38:32     | B*39:05:02+B*53:08:01  |                        |                       |
| B*35:01:07+B*39:01:01G | B*35:29:01+B*39:05:02  |                        |                       |
| B*35:01:07+B*39:11     | B*35:08:01+B*39:05:02  |                        |                       |
| B*35:01:07+B*39:22     | B*35:69+B*39:05:02     |                        |                       |
| B*35:01:08+B*37:06     | B*35:19+B*37:01:01G    |                        |                       |
| B*35:01:08+B*40:01:03  | B*35:01:15+B*40:01:01G |                        |                       |
| B*35:01:08+B*51:01:03  | B*35:01:15+B*51:01:01G | B*35:01:19+B*51:01:33  |                       |
| B*35:01:08+B*51:07:01  | B*35:20:01+B*51:01:33  |                        |                       |
| B*35:01:08+B*51:16     | B*35:15+B*51:01:33     |                        |                       |
| B*35:01:08+B*51:21     | B*35:93+B*51:01:33     |                        |                       |
| B*35:01:08+B*51:22     | B*35:82+B*51:01:33     |                        |                       |
| B*35:01:08+B*51:24:03  | B*35:64+B*51:01:33     |                        |                       |
| B*35:01:08+B*51:29     | B*35:08:01+B*51:01:33  |                        |                       |
| B*35:01:08+B*51:35     | B*35:116+B*51:01:33    |                        |                       |
| B*35:01:08+B*51:53     | B*35:180+B*51:01:33    |                        |                       |
| B*35:01:08+B*51:57     | B*35:197+B*51:01:33    |                        |                       |
| B*35:01:08+B*51:61:02  | B*35:62+B*51:01:33     |                        |                       |
| B*35:01:08+B*51:76     | B*35:101:02+B*51:01:33 |                        |                       |
| B*35:01:08+B*51:101    | B*35:35+B*51:01:33     |                        |                       |
| B*35:01:08+B*51:112    | B*35:19+B*51:01:33     |                        |                       |
| B*35:01:08+B*51:130    | B*35:91+B*51:01:33     |                        |                       |
| B*35:01:08+B*52:01:02  | B*35:20:01+B*52:06:01  | B*35:28+B*51:01:33     | B*35:42:02+B*52:01:03 |
| B*35:01:08+B*52:01:09  | B*35:01:15+B*52:01:02  |                        |                       |
| B*35:01:08+B*52:08     | B*35:15+B*52:01:03     |                        |                       |
| B*35:01:08+B*52:15     | B*35:71+B*52:01:03     |                        |                       |
| B*35:01:08+B*52:23     | B*35:200+B*52:01:03    |                        |                       |
| B*35:01:08+B*52:24     | B*35:08:01+B*52:01:03  |                        |                       |
| B*35:01:08+B*52:27     | B*35:124+B*52:01:03    |                        |                       |
| B*35:01:08+B*52:29     | B*35:180+B*52:01:03    |                        |                       |
| B*35:01:10+B*35:02:01  | B*35:04:02+B*35:146    |                        |                       |
| B*35:01:10+B*35:04:03  | B*35:01:17+B*35:04:02  |                        |                       |
| B*35:01:10+B*35:09:02  | B*35:04:02+B*35:64     |                        |                       |
| B*35:01:10+B*35:22     | B*35:04:02+B*35:51     |                        |                       |
| B*35:01:10+B*35:44     | B*35:04:02+B*35:43:01G |                        |                       |
| B*35:01:10+B*40:01:03  | B*35:01:19+B*40:01:06  |                        |                       |
| B*35:01:10+B*40:01:11  | B*35:42:02+B*40:01:06  |                        |                       |
| B*35:01:10+B*40:02:01G | B*35:04:02+B*40:03     |                        |                       |
| B*35:01:10+B*40:06:01G | B*35:04:02+B*40:159    |                        |                       |
| B*35:01:10+B*40:11:01  | B*35:04:02+B*40:20     |                        |                       |
| B*35:01:10+B*40:43     | B*35:29:01+B*40:01:06  |                        |                       |
| B*35:01:10+B*40:47     | B*40:01:06+B*53:13     |                        |                       |
| B*35:01:10+B*40:74     | B*35:197+B*40:01:06    |                        |                       |
| B*35:01:10+B*40:113    | B*35:24:01+B*40:01:06  |                        |                       |
| B*35:01:10+B*40:117    | B*40:01:06+B*53:01:01  |                        |                       |
| B*35:01:10+B*40:128    | B*35:08:01+B*40:01:06  |                        |                       |

|                        |                        |
|------------------------|------------------------|
| B*35:01:10+B*40:132    | B*35:71+B*40:01:06     |
| B*35:01:10+B*40:148    | B*35:64+B*40:95        |
| B*35:01:10+B*40:154    | B*35:168+B*40:01:06    |
| B*35:01:10+B*40:183    | B*35:11:01+B*40:01:06  |
| B*35:01:10+B*40:188    | B*40:01:06+B*53:03     |
| B*35:01:10+B*42:02     | B*35:04:02+B*42:09     |
| B*35:01:10+B*44:77     | B*35:04:02+B*44:43:01  |
| B*35:01:10+B*48:03:01  | B*35:04:02+B*48:23     |
| B*35:01:10+B*51:01:01G | B*35:04:02+B*51:37     |
| B*35:01:10+B*51:24:01  | B*35:09:01+B*51:37     |
| B*35:01:10+B*51:92     | B*35:03:01G+B*51:37    |
| B*35:01:10+B*52:01:01G | B*53:28+B*78:04        |
| B*35:01:10+B*54:04     | B*35:04:02+B*54:14     |
| B*35:01:10+B*55:21     | B*35:62+B*55:01:04     |
| B*35:01:10+B*55:40     | B*35:10+B*55:01:04     |
| B*35:01:10+B*55:52     | B*35:08:01+B*55:01:04  |
| B*35:01:10+B*55:54     | B*35:180+B*55:01:04    |
| B*35:01:10+B*55:56     | B*35:115+B*55:01:04    |
| B*35:01:10+B*57:02:01  | B*35:04:02+B*57:19     |
| B*35:01:10+B*57:03:01  | B*35:04:02+B*57:01:01G |
| B*35:01:10+B*57:57     | B*35:04:02+B*57:22     |
| B*35:01:13+B*44:02:10  | B*35:42:02+B*44:02:16  |
| B*35:01:13+B*44:21     | B*35:15+B*44:02:16     |
| B*35:01:13+B*44:22     | B*35:54+B*44:02:16     |
| B*35:01:13+B*44:41:01  | B*35:68:01+B*44:02:16  |
| B*35:01:13+B*44:102    | B*35:180+B*44:02:16    |
| B*35:01:15+B*35:69     | B*35:10+B*35:29:02     |
| B*35:01:15+B*35:136    | B*35:03:01G+B*35:29:02 |
| B*35:01:15+B*38:14     | B*35:29:02+B*38:01:01  |
| B*35:01:15+B*39:01:01G | B*35:29:02+B*39:05:01  |
| B*35:01:15+B*39:01:14  | B*35:49+B*39:19:02     |
| B*35:01:15+B*39:02:02  | B*35:29:02+B*39:13:01  |
| B*35:01:15+B*39:03     | B*35:29:02+B*39:37     |
| B*35:01:15+B*39:15     | B*35:29:02+B*39:55     |
| B*35:01:15+B*40:43     | B*35:29:02+B*40:01:01G |
| B*35:01:15+B*40:50     | B*35:29:02+B*40:02:01G |
| B*35:01:15+B*51:20     | B*35:29:02+B*51:08     |
| B*35:01:15+B*52:01:01G | B*35:01:19+B*52:01:03  |
| B*35:01:15+B*52:06:02  | B*35:01:19+B*52:06:01  |
| B*35:01:15+B*53:23     | B*35:29:02+B*53:01:01  |
| B*35:01:15+B*55:01:01G | B*35:29:02+B*55:31     |
| B*35:01:15+B*78:01:01  | B*35:29:02+B*78:02:02  |
| B*35:01:16+B*37:34     | B*37:11+B*53:01:02     |
| B*35:01:16+B*38:01:01  | B*39:05:01+B*53:01:02  |
| B*35:01:16+B*38:14     | B*39:01:01G+B*53:01:02 |
| B*35:01:16+B*38:19     | B*39:37+B*53:01:02     |
| B*35:01:16+B*38:26     | B*53:01:02+B*67:01:01  |
| B*35:01:16+B*40:19     | B*40:02:01G+B*53:01:02 |
| B*35:01:16+B*40:117    | B*40:01:01G+B*53:01:02 |
| B*35:01:16+B*44:02:01G | B*35:115+B*44:81       |
| B*35:01:16+B*44:18     | B*45:01:01G+B*53:01:02 |
| B*35:01:16+B*44:26     | B*35:138+B*44:81       |
| B*35:01:16+B*44:28:02  | B*35:08:01+B*44:81     |
| B*35:01:16+B*44:50     | B*44:46+B*53:01:02     |
| B*35:01:16+B*44:65     | B*35:68:01+B*44:81     |
| B*35:01:16+B*44:79     | B*35:11:01+B*44:81     |
| B*35:01:16+B*44:95     | B*44:09+B*53:01:02     |
| B*35:01:16+B*44:98     | B*35:159+B*44:81       |
| B*35:01:16+B*44:103    | B*35:50+B*44:81        |
| B*35:01:16+B*44:105    | B*35:54+B*44:81        |
| B*35:01:16+B*44:146    | B*35:14:01+B*44:81     |
| B*35:01:16+B*49:01:01  | B*50:01:01+B*53:01:02  |
| B*35:01:16+B*49:10     | B*50:13+B*53:01:02     |
| B*35:01:16+B*49:18     | B*50:14+B*53:01:02     |
| B*35:01:16+B*49:20     | B*50:02+B*53:01:02     |
| B*35:01:16+B*51:01:01G | B*53:01:02+B*78:02:02  |
| B*35:01:16+B*51:01:02  | B*53:01:02+B*78:02:01  |
| B*35:01:16+B*52:01:01G | B*53:01:02+B*78:05     |
| B*35:01:16+B*53:02     | B*35:24:01+B*53:01:02  |
| B*35:01:16+B*53:04     | B*35:03:01G+B*53:01:02 |
| B*35:01:16+B*53:08:01  | B*35:11:01+B*53:01:02  |
| B*35:01:16+B*53:08:02  | B*35:11:02+B*53:01:02  |
| B*35:01:16+B*53:14     | B*35:05:01+B*53:01:02  |
| B*35:01:16+B*53:17:02  | B*35:28+B*53:01:02     |
| B*35:01:16+B*53:19     | B*35:02:01+B*53:01:02  |
| B*35:01:16+B*53:21     | B*35:197+B*53:01:02    |
| B*35:01:16+B*53:23     | B*35:29:01+B*53:01:02  |
| B*35:01:16+B*53:24     | B*35:08:01+B*53:01:02  |
| B*35:01:16+B*53:26     | B*35:108:01+B*53:01:02 |
| B*35:01:16+B*54:12     | B*53:01:02+B*54:01:01G |
| B*35:01:16+B*56:21     | B*53:01:02+B*56:05:02  |
| B*35:01:16+B*57:02:01  | B*53:01:02+B*57:12     |
| B*35:01:17+B*35:02:01  | B*35:04:03+B*35:146    |
| B*35:01:17+B*35:09:02  | B*35:04:03+B*35:64     |
| B*35:01:17+B*35:13     | B*35:03:07+B*35:10     |
| B*35:01:17+B*35:22     | B*35:04:03+B*35:51     |
| B*35:01:17+B*35:31     | B*35:51+B*35:88        |
| B*35:01:17+B*35:33     | B*35:03:07+B*35:15     |
| B*35:01:17+B*35:38     | B*35:03:07+B*35:115    |
| B*35:01:17+B*35:44     | B*35:04:03+B*35:43:01G |
| B*35:01:17+B*35:56     | B*35:03:07+B*35:27     |
| B*35:01:17+B*35:85     | B*35:03:07+B*35:82     |
| B*35:01:17+B*35:96     | B*35:03:07+B*35:188    |
| B*35:01:17+B*35:109    | B*35:03:07+B*35:24:01  |
| B*35:01:17+B*35:136    | B*35:03:07+B*35:29:01  |
| B*35:01:17+B*35:150    | B*35:03:07+B*35:90     |
| B*35:01:17+B*35:151    | B*35:03:07+B*35:68:02  |
| B*35:01:17+B*35:156    | B*35:03:07+B*35:08:01  |
| B*35:01:17+B*35:163    | B*35:03:07+B*35:62     |
| B*35:01:17+B*35:167    | B*35:03:07+B*35:11:01  |
| B*35:01:17+B*35:195    | B*35:03:07+B*35:101:02 |
| B*35:01:17+B*35:205    | B*35:03:07+B*35:64     |
| B*35:01:17+B*39:55     | B*35:03:07+B*39:07     |
| B*35:01:17+B*40:01:01G | B*35:04:03+B*40:52     |
| B*35:01:17+B*40:02:01G | B*35:04:03+B*40:03     |
|                        | B*35:51+B*40:04        |



|                        |                        |                     |
|------------------------|------------------------|---------------------|
| B*35:01:17+B*40:06:01G | B*35:04:03+B*40:159    |                     |
| B*35:01:17+B*40:08     | B*35:51+B*40:68        |                     |
| B*35:01:17+B*40:11:01  | B*35:04:03+B*40:20     | B*35:32:02+B*40:44  |
| B*35:01:17+B*40:36     | B*35:03:07+B*40:38     |                     |
| B*35:01:17+B*40:128    | B*35:61+B*40:125       |                     |
| B*35:01:17+B*42:02     | B*35:04:03+B*42:09     |                     |
| B*35:01:17+B*44:41:01  | B*35:32:02+B*44:48     |                     |
| B*35:01:17+B*44:77     | B*35:04:03+B*44:43:01  |                     |
| B*35:01:17+B*44:106    | B*35:51+B*44:48        |                     |
| B*35:01:17+B*48:03:01  | B*35:04:03+B*48:23     |                     |
| B*35:01:17+B*49:18     | B*35:04:02+B*49:05     |                     |
| B*35:01:17+B*51:01:01G | B*35:04:03+B*51:37     |                     |
| B*35:01:17+B*51:13:02  | B*35:03:07+B*51:63     |                     |
| B*35:01:17+B*53:04     | B*35:03:07+B*53:01:01  |                     |
| B*35:01:17+B*54:04     | B*35:04:03+B*54:14     |                     |
| B*35:01:17+B*55:13     | B*35:03:07+B*55:32     |                     |
| B*35:01:17+B*55:27     | B*35:34+B*55:23        |                     |
| B*35:01:17+B*56:11     | B*35:03:07+B*56:09     |                     |
| B*35:01:17+B*57:02:01  | B*35:04:03+B*57:19     |                     |
| B*35:01:17+B*57:03:01  | B*35:04:03+B*57:01:01G |                     |
| B*35:01:17+B*57:57     | B*35:04:03+B*57:22     |                     |
| B*35:01:17+B*58:34     | B*35:03:07+B*58:01:01G |                     |
| B*35:01:19+B*37:28     | B*35:49+B*37:01:01G    |                     |
| B*35:01:19+B*40:01:11  | B*35:42:02+B*40:01:03  |                     |
| B*35:01:19+B*40:43     | B*35:29:01+B*40:01:03  |                     |
| B*35:01:19+B*40:47     | B*40:01:03+B*53:13     |                     |
| B*35:01:19+B*40:74     | B*35:197+B*40:01:03    |                     |
| B*35:01:19+B*40:113    | B*35:24:01+B*40:01:03  |                     |
| B*35:01:19+B*40:117    | B*40:01:03+B*53:01:01  |                     |
| B*35:01:19+B*40:128    | B*35:08:01+B*40:01:03  |                     |
| B*35:01:19+B*40:132    | B*35:71+B*40:01:03     |                     |
| B*35:01:19+B*40:154    | B*35:168+B*40:01:03    |                     |
| B*35:01:19+B*40:183    | B*35:11:01+B*40:01:03  |                     |
| B*35:01:19+B*40:188    | B*40:01:03+B*53:03     |                     |
| B*35:01:19+B*51:07:01  | B*35:20:01+B*51:01:03  |                     |
| B*35:01:19+B*51:16     | B*35:15+B*51:01:03     |                     |
| B*35:01:19+B*51:21     | B*35:93+B*51:01:03     |                     |
| B*35:01:19+B*51:22     | B*35:82+B*51:01:03     |                     |
| B*35:01:19+B*51:24:03  | B*35:64+B*51:01:03     |                     |
| B*35:01:19+B*51:29     | B*35:08:01+B*51:01:03  |                     |
| B*35:01:19+B*51:35     | B*35:116+B*51:01:03    |                     |
| B*35:01:19+B*51:53     | B*35:180+B*51:01:03    |                     |
| B*35:01:19+B*51:57     | B*35:197+B*51:01:03    |                     |
| B*35:01:19+B*51:61:02  | B*35:62+B*51:01:03     |                     |
| B*35:01:19+B*51:76     | B*35:101:02+B*51:01:03 |                     |
| B*35:01:19+B*51:101    | B*35:35+B*51:01:03     |                     |
| B*35:01:19+B*51:112    | B*35:19+B*51:01:03     |                     |
| B*35:01:19+B*51:130    | B*35:91+B*51:01:03     |                     |
| B*35:01:19+B*52:06:02  | B*35:10+B*51:01:03     |                     |
| B*35:01:19+B*52:21     | B*35:62+B*52:01:09     |                     |
| B*35:01:21+B*82:01     | B*35:23+B*82:03        |                     |
| B*35:01:26+B*40:19     | B*40:02:02+B*53:01:01  |                     |
| B*35:01:26+B*40:37     | B*35:27+B*40:02:02     |                     |
| B*35:01:26+B*40:50     | B*35:29:01+B*40:02:02  |                     |
| B*35:01:26+B*40:143    | B*35:23+B*40:02:02     |                     |
| B*35:01:26+B*40:145    | B*35:122+B*40:02:02    |                     |
| B*35:01:26+B*40:157    | B*40:02:02+B*53:13     |                     |
| B*35:01:26+B*40:201    | B*40:02:02+B*53:12     |                     |
| B*35:01:26+B*40:202    | B*35:159+B*40:02:02    |                     |
| B*35:01:29+B*38:14     | B*35:29:01+B*38:01:07  |                     |
| B*35:01:29+B*38:27     | B*35:101:02+B*38:01:07 |                     |
| B*35:01:29+B*38:32     | B*35:11:01+B*38:01:07  |                     |
| B*35:01:29+B*38:40     | B*35:143+B*38:01:07    |                     |
| B*35:01:30+B*40:19     | B*40:02:07+B*53:01:03  |                     |
| B*35:01:30+B*40:148    | B*35:11:02+B*40:06:02  |                     |
| B*35:01:30+B*57:57     | B*35:11:02+B*57:03:02  |                     |
| B*35:02:01+B*35:18     | B*35:09:02+B*35:172    |                     |
| B*35:02:01+B*35:20:02  | B*35:02:02+B*35:20:01  |                     |
| B*35:02:01+B*35:21     | B*35:11:01+B*35:81     |                     |
| B*35:02:01+B*35:28     | B*35:10+B*35:95        |                     |
| B*35:02:01+B*35:43:01G | B*35:44+B*35:146       |                     |
| B*35:02:01+B*35:45     | B*35:71+B*35:172       |                     |
| B*35:02:01+B*35:51     | B*35:22+B*35:146       |                     |
| B*35:02:01+B*35:64     | B*35:09:02+B*35:146    |                     |
| B*35:02:01+B*35:72     | B*35:05:01+B*35:95     |                     |
| B*35:02:01+B*35:80     | B*35:10+B*35:172       |                     |
| B*35:02:01+B*35:96     | B*35:157+B*35:167      |                     |
| B*35:02:01+B*35:105    | B*35:159+B*35:172      |                     |
| B*35:02:01+B*35:109    | B*35:03:01G+B*35:81    |                     |
| B*35:02:01+B*35:142    | B*35:124+B*35:172      |                     |
| B*35:02:01+B*35:150    | B*35:03:01G+B*35:184   |                     |
| B*35:02:01+B*35:156    | B*35:03:01G+B*35:172   |                     |
| B*35:02:01+B*35:188    | B*35:11:01+B*35:157    |                     |
| B*35:02:01+B*37:01:01G | B*35:95+B*37:21        |                     |
| B*35:02:01+B*37:04:01  | B*35:81+B*37:01:01G    |                     |
| B*35:02:01+B*37:34     | B*37:11+B*53:19        |                     |
| B*35:02:01+B*38:01:01  | B*39:05:01+B*53:19     |                     |
| B*35:02:01+B*38:14     | B*39:01:01G+B*53:19    |                     |
| B*35:02:01+B*38:16     | B*35:184+B*38:28       |                     |
| B*35:02:01+B*38:19     | B*39:37+B*53:19        |                     |
| B*35:02:01+B*38:26     | B*53:19+B*67:01:01     |                     |
| B*35:02:01+B*38:34N    | B*35:129N+B*38:01:01   |                     |
| B*35:02:01+B*39:11     | B*35:172+B*39:05:01    |                     |
| B*35:02:01+B*39:32     | B*35:81+B*39:74        |                     |
| B*35:02:01+B*39:39:01  | B*35:95+B*39:58        |                     |
| B*35:02:01+B*39:48     | B*35:81+B*39:01:01G    | B*35:157+B*39:74    |
| B*35:02:01+B*40:01:01G | B*35:95+B*40:07        |                     |
| B*35:02:01+B*40:03     | B*35:146+B*40:02:01G   |                     |
| B*35:02:01+B*40:06:01G | B*35:95+B*40:162       |                     |
| B*35:02:01+B*40:19     | B*35:95+B*40:13        | B*40:02:01G+B*53:19 |
| B*35:02:01+B*40:20     | B*35:146+B*40:11:01    |                     |
| B*35:02:01+B*40:25     | B*35:95+B*40:106       |                     |
| B*35:02:01+B*40:52     | B*35:146+B*40:01:01G   |                     |
| B*35:02:01+B*40:113    | B*35:81+B*40:01:01G    |                     |
| B*35:02:01+B*40:117    | B*40:01:01G+B*53:19    |                     |

|                         |                        |                      |
|-------------------------|------------------------|----------------------|
| B*35:02:01+B*40:128     | B*35:172+B*40:01:01G   |                      |
| B*35:02:01+B*40:138     | B*35:183+B*40:01:01G   |                      |
| B*35:02:01+B*40:159     | B*35:146+B*40:06:01G   |                      |
| B*35:02:01+B*40:161     | B*35:172+B*40:148      |                      |
| B*35:02:01+B*40:163     | B*35:157+B*40:92       |                      |
| B*35:02:01+B*40:174     | B*35:81+B*40:05        |                      |
| B*35:02:01+B*40:198     | B*35:172+B*40:183      |                      |
| B*35:02:01+B*42:09      | B*35:146+B*42:02       |                      |
| B*35:02:01+B*44:02:01G  | B*35:182+B*44:84       |                      |
| B*35:02:01+B*44:02:10   | B*35:184+B*44:34       |                      |
| B*35:02:01+B*44:02:23   | B*35:02:04+B*44:02:01G |                      |
| B*35:02:01+B*44:18      | B*45:01:01G+B*53:19    |                      |
| B*35:02:01+B*44:28:01   | B*35:172+B*44:03:02    |                      |
| B*35:02:01+B*44:28:02   | B*35:172+B*44:03:01G   |                      |
| B*35:02:01+B*44:43:01   | B*35:146+B*44:77       |                      |
| B*35:02:01+B*44:50      | B*44:46+B*53:19        |                      |
| B*35:02:01+B*44:76      | B*35:172+B*44:79       |                      |
| B*35:02:01+B*44:95      | B*44:09+B*53:19        |                      |
| B*35:02:01+B*45:01:01G  | B*35:04:01+B*45:12     |                      |
| B*35:02:01+B*46:10      | B*35:184+B*46:01:01G   |                      |
| B*35:02:01+B*48:23      | B*35:146+B*48:03:01    |                      |
| B*35:02:01+B*49:01:01   | B*50:01:01+B*53:19     |                      |
| B*35:02:01+B*49:09      | B*35:81+B*49:01:01     |                      |
| B*35:02:01+B*49:10      | B*50:13+B*53:19        |                      |
| B*35:02:01+B*49:18      | B*50:14+B*53:19        |                      |
| B*35:02:01+B*49:20      | B*50:02+B*53:19        |                      |
| B*35:02:01+B*51:01:01G  | B*35:81+B*51:02:01     | B*53:19+B*78:02:02   |
| B*35:02:01+B*51:01:02   | B*35:81+B*51:02:02     | B*53:19+B*78:02:01   |
| B*35:02:01+B*51:01:04   | B*35:81+B*51:02:04     |                      |
| B*35:02:01+B*51:01:31   | B*35:81+B*51:02:03     |                      |
| B*35:02:01+B*51:06:01   | B*35:81+B*51:59        |                      |
| B*35:02:01+B*51:07:01   | B*35:95+B*51:01:01G    |                      |
| B*35:02:01+B*51:07:02   | B*35:95+B*51:01:02     |                      |
| B*35:02:01+B*51:16      | B*35:81+B*51:34        |                      |
| B*35:02:01+B*51:21      | B*35:157+B*51:02:01    |                      |
| B*35:02:01+B*51:29      | B*35:172+B*51:01:01G   |                      |
| B*35:02:01+B*51:37      | B*35:146+B*51:01:01G   |                      |
| B*35:02:01+B*51:82      | B*35:172+B*51:16       |                      |
| B*35:02:01+B*51:116     | B*35:162+B*51:01:02    |                      |
| B*35:02:01+B*51:119     | B*35:184+B*51:01:02    |                      |
| B*35:02:01+B*52:01:01G  | B*35:81+B*52:11        | B*53:19+B*78:05      |
| B*35:02:01+B*52:01:02   | B*35:95+B*52:06:02     |                      |
| B*35:02:01+B*52:24      | B*35:172+B*52:01:01G   |                      |
| B*35:02:01+B*53:01:05   | B*35:02:04+B*53:01:01  |                      |
| B*35:02:01+B*53:02      | B*35:24:01+B*53:19     | B*35:81+B*53:01:01   |
| B*35:02:01+B*53:04      | B*35:03:01G+B*53:19    |                      |
| B*35:02:01+B*53:08:01   | B*35:11:01+B*53:19     |                      |
| B*35:02:01+B*53:08:02   | B*35:11:02+B*53:19     |                      |
| B*35:02:01+B*53:09      | B*35:95+B*53:13        |                      |
| B*35:02:01+B*53:11      | B*35:172+B*53:13       |                      |
| B*35:02:01+B*53:14      | B*35:05:01+B*53:19     |                      |
| B*35:02:01+B*53:16      | B*35:172+B*53:05       |                      |
| B*35:02:01+B*53:17:02   | B*35:28+B*53:19        |                      |
| B*35:02:01+B*53:21      | B*35:197+B*53:19       |                      |
| B*35:02:01+B*53:23      | B*35:29:01+B*53:19     |                      |
| B*35:02:01+B*53:24      | B*35:08:01+B*53:19     | B*35:172+B*53:01:01  |
| B*35:02:01+B*53:26      | B*35:108:01+B*53:19    |                      |
| B*35:02:01+B*54:10      | B*35:172+B*54:01:01G   |                      |
| B*35:02:01+B*54:12      | B*53:19+B*54:01:01G    |                      |
| B*35:02:01+B*54:14      | B*35:146+B*54:04       |                      |
| B*35:02:01+B*55:09      | B*35:172+B*55:24       |                      |
| B*35:02:01+B*55:37      | B*35:172+B*55:02:01G   |                      |
| B*35:02:01+B*55:52      | B*35:172+B*55:01:01G   |                      |
| B*35:02:01+B*56:21      | B*53:19+B*56:05:02     |                      |
| B*35:02:01+B*56:31      | B*35:81+B*56:18        |                      |
| B*35:02:01+B*56:34      | B*35:81+B*56:01:01G    |                      |
| B*35:02:01+B*56:36      | B*35:184+B*56:01:01G   |                      |
| B*35:02:01+B*57:01:01G  | B*35:146+B*57:03:01    |                      |
| B*35:02:01+B*57:02:01   | B*35:172+B*57:03:01    | B*53:19+B*57:12      |
| B*35:02:01+B*57:19      | B*35:146+B*57:02:01    | B*35:172+B*57:01:01G |
| B*35:02:01+B*57:22      | B*35:146+B*57:57       |                      |
| B*35:02:01+B*58:09      | B*35:81+B*58:01:01G    |                      |
| B*35:02:01+B*58:22      | B*35:172+B*58:01:01G   |                      |
| B*35:02:04+B*53:02      | B*35:81+B*53:01:05     |                      |
| B*35:02:04+B*53:24      | B*35:172+B*53:01:05    |                      |
| B*35:03:01G+B*35:04:01  | B*35:06+B*35:34        |                      |
| B*35:03:01G+B*35:04:03  | B*35:03:07+B*35:04:01  |                      |
| B*35:03:01G+B*35:09:02  | B*35:03:02+B*35:09:03  | B*35:04:01+B*35:205  |
| B*35:03:01G+B*35:09:03  | B*35:03:11+B*35:09:01  |                      |
| B*35:03:01G+B*35:11:02  | B*35:03:02+B*35:11:01  |                      |
| B*35:03:01G+B*35:12:01  | B*35:06+B*35:39        | B*35:34+B*35:59      |
| B*35:03:01G+B*35:14:01  | B*35:11:01+B*35:163    | B*35:62+B*35:167     |
| B*35:03:01G+B*35:14:02  | B*35:03:02+B*35:14:01  | B*35:11:02+B*35:163  |
| B*35:03:01G+B*35:16     | B*35:13+B*35:17        |                      |
| B*35:03:01G+B*35:18     | B*35:09:02+B*35:156    |                      |
| B*35:03:01G+B*35:21     | B*35:11:01+B*35:109    | B*35:24:01+B*35:167  |
| B*35:03:01G+B*35:22     | B*35:06+B*35:199       |                      |
| B*35:03:01G+B*35:28     | B*35:13+B*35:20:01     |                      |
| B*35:03:01G+B*35:32:02  | B*35:03:07+B*35:32:01  |                      |
| B*35:03:01G+B*35:45     | B*35:71+B*35:156       |                      |
| B*35:03:01G+B*35:58     | B*35:05:01+B*35:167    |                      |
| B*35:03:01G+B*35:69     | B*35:10+B*35:136       | B*35:13+B*35:29:01   |
| B*35:03:01G+B*35:80     | B*35:08:01+B*35:13     | B*35:10+B*35:156     |
| B*35:03:01G+B*35:86     | B*35:33+B*35:43:01G    |                      |
| B*35:03:01G+B*35:105    | B*35:156+B*35:159      |                      |
| B*35:03:01G+B*35:114    | B*35:05:01+B*35:205    |                      |
| B*35:03:01G+B*35:135    | B*35:43:01G+B*35:85    |                      |
| B*35:03:01G+B*35:142    | B*35:124+B*35:156      |                      |
| B*35:03:01G+B*35:190    | B*35:93+B*35:109       |                      |
| B*35:03:01G+B*37:04:01  | B*35:109+B*37:01:01G   |                      |
| B*35:03:01G+B*37:13     | B*35:167+B*37:01:01G   |                      |
| B*35:03:01G+B*37:34     | B*37:11+B*53:04        |                      |
| B*35:03:01G+B*38:01:01  | B*39:05:01+B*53:04     |                      |
| B*35:03:01G+B*38:01:03  | B*35:03:02+B*38:01:01  |                      |
| B*35:03:01G+B*38:02:01G | B*35:06+B*38:29        |                      |

|                         |                        |                       |                     |                 |
|-------------------------|------------------------|-----------------------|---------------------|-----------------|
| B*35:03:01G+B*38:04     | B*35:13+B*38:02:03     |                       |                     |                 |
| B*35:03:01G+B*38:10     | B*35:167+B*38:36       |                       |                     |                 |
| B*35:03:01G+B*38:14     | B*35:136+B*38:01:01    | B*39:01:01G+B*53:04   |                     |                 |
| B*35:03:01G+B*38:16     | B*35:150+B*38:28       |                       |                     |                 |
| B*35:03:01G+B*38:19     | B*39:37+B*53:04        |                       |                     |                 |
| B*35:03:01G+B*38:26     | B*53:04+B*67:01:01     |                       |                     |                 |
| B*35:03:01G+B*38:27     | B*35:195+B*38:01:01    |                       |                     |                 |
| B*35:03:01G+B*38:32     | B*35:167+B*38:01:01    |                       |                     |                 |
| B*35:03:01G+B*39:01:01G | B*35:06+B*39:15        | B*35:85+B*39:58       | B*35:136+B*39:05:01 |                 |
| B*35:03:01G+B*39:01:05  | B*35:03:02+B*39:01:01G |                       |                     |                 |
| B*35:03:01G+B*39:02:01  | B*35:13+B*39:39:01     |                       |                     |                 |
| B*35:03:01G+B*39:02:02  | B*35:136+B*39:13:01    |                       |                     |                 |
| B*35:03:01G+B*39:03     | B*35:136+B*39:37       |                       |                     |                 |
| B*35:03:01G+B*39:05:01  | B*35:06+B*39:55        |                       |                     |                 |
| B*35:03:01G+B*39:11     | B*35:156+B*39:05:01    |                       |                     |                 |
| B*35:03:01G+B*39:13:01  | B*35:06+B*39:49        |                       |                     |                 |
| B*35:03:01G+B*39:14     | B*35:06+B*39:29        | B*35:34+B*39:03       |                     |                 |
| B*35:03:01G+B*39:15     | B*35:136+B*39:55       |                       |                     |                 |
| B*35:03:01G+B*39:22     | B*35:13+B*39:01:01G    |                       |                     |                 |
| B*35:03:01G+B*39:27     | B*35:74+B*39:01:01G    |                       |                     |                 |
| B*35:03:01G+B*39:32     | B*35:109+B*39:74       |                       |                     |                 |
| B*35:03:01G+B*39:35     | B*35:167+B*39:01:01G   |                       |                     |                 |
| B*35:03:01G+B*39:41     | B*35:155+B*39:01:01G   |                       |                     |                 |
| B*35:03:01G+B*39:47     | B*35:33+B*39:74        |                       |                     |                 |
| B*35:03:01G+B*39:48     | B*35:109+B*39:01:01G   |                       |                     |                 |
| B*35:03:01G+B*39:70     | B*35:04:01+B*39:15     | B*35:34+B*39:01:01G   |                     |                 |
| B*35:03:01G+B*40:01:01G | B*35:03:07+B*40:01:17  | B*35:03:11+B*40:01:14 | B*35:06+B*40:33     | B*35:13+B*40:25 |
|                         | B*35:33+B*40:63        | B*35:34+B*40:36       |                     |                 |
| B*35:03:01G+B*40:01:05  | B*35:03:03+B*40:01:01G |                       |                     |                 |
| B*35:03:01G+B*40:02:01G | B*35:03:07+B*40:02:08  | B*35:06+B*40:18       |                     |                 |
| B*35:03:01G+B*40:06:01G | B*35:06+B*40:44        | B*35:34+B*40:86       |                     |                 |
| B*35:03:01G+B*40:07     | B*35:13+B*40:106       |                       |                     |                 |
| B*35:03:01G+B*40:11:01  | B*35:151+B*40:64       |                       |                     |                 |
| B*35:03:01G+B*40:14:02  | B*35:03:02+B*40:14:01  |                       |                     |                 |
| B*35:03:01G+B*40:14:03  | B*35:03:11+B*40:14:02  | B*35:205+B*40:121     |                     |                 |
| B*35:03:01G+B*40:16     | B*35:06+B*40:32        |                       |                     |                 |
| B*35:03:01G+B*40:19     | B*40:02:01G+B*53:04    |                       |                     |                 |
| B*35:03:01G+B*40:21     | B*35:151+B*40:137      |                       |                     |                 |
| B*35:03:01G+B*40:37     | B*35:56+B*40:02:01G    |                       |                     |                 |
| B*35:03:01G+B*40:43     | B*35:136+B*40:01:01G   |                       |                     |                 |
| B*35:03:01G+B*40:50     | B*35:136+B*40:02:01G   |                       |                     |                 |
| B*35:03:01G+B*40:73     | B*35:74+B*40:01:01G    |                       |                     |                 |
| B*35:03:01G+B*40:75     | B*35:85+B*40:162       |                       |                     |                 |
| B*35:03:01G+B*40:80     | B*35:06+B*40:31        |                       |                     |                 |
| B*35:03:01G+B*40:87:02  | B*35:03:11+B*40:87:01  |                       |                     |                 |
| B*35:03:01G+B*40:89     | B*35:06+B*40:09        |                       |                     |                 |
| B*35:03:01G+B*40:105    | B*35:06+B*40:03        |                       |                     |                 |
| B*35:03:01G+B*40:107    | B*35:204+B*40:02:01G   |                       |                     |                 |
| B*35:03:01G+B*40:113    | B*35:109+B*40:01:01G   |                       |                     |                 |
| B*35:03:01G+B*40:117    | B*40:01:01G+B*53:04    |                       |                     |                 |
| B*35:03:01G+B*40:128    | B*35:156+B*40:01:01G   |                       |                     |                 |
| B*35:03:01G+B*40:136    | B*35:38+B*40:14:01     |                       |                     |                 |
| B*35:03:01G+B*40:139    | B*35:127+B*40:01:01G   |                       |                     |                 |
| B*35:03:01G+B*40:148    | B*35:167+B*40:06:01G   |                       |                     |                 |
| B*35:03:01G+B*40:157    | B*35:56+B*40:201       |                       |                     |                 |
| B*35:03:01G+B*40:161    | B*35:156+B*40:148      |                       |                     |                 |
| B*35:03:01G+B*40:172    | B*35:06+B*40:42        |                       |                     |                 |
| B*35:03:01G+B*40:174    | B*35:109+B*40:05       |                       |                     |                 |
| B*35:03:01G+B*40:183    | B*35:167+B*40:01:01G   |                       |                     |                 |
| B*35:03:01G+B*40:198    | B*35:156+B*40:183      | B*35:167+B*40:128     |                     |                 |
| B*35:03:01G+B*40:207    | B*35:36+B*40:01:01G    |                       |                     |                 |
| B*35:03:01G+B*41:01     | B*35:06+B*41:21        |                       |                     |                 |
| B*35:03:01G+B*41:02:01  | B*35:04:01+B*41:18     |                       |                     |                 |
| B*35:03:01G+B*42:01:01  | B*35:06+B*42:16        | B*35:34+B*42:06       |                     |                 |
| B*35:03:01G+B*42:15     | B*35:56+B*42:01:01     |                       |                     |                 |
| B*35:03:01G+B*44:02:01G | B*35:13+B*44:12        | B*35:38+B*44:03:01G   | B*35:169+B*44:37:01 |                 |
| B*35:03:01G+B*44:02:07  | B*35:38+B*44:03:02     | B*35:169+B*44:37:02   |                     |                 |
| B*35:03:01G+B*44:02:09  | B*35:03:02+B*44:02:01G |                       |                     |                 |
| B*35:03:01G+B*44:02:10  | B*35:150+B*44:34       |                       |                     |                 |
| B*35:03:01G+B*44:02:24  | B*35:38+B*44:03:05     |                       |                     |                 |
| B*35:03:01G+B*44:03:01G | B*35:56+B*44:109       |                       |                     |                 |
| B*35:03:01G+B*44:05:01  | B*35:34+B*44:117       |                       |                     |                 |
| B*35:03:01G+B*44:06     | B*35:38+B*51:42        |                       |                     |                 |
| B*35:03:01G+B*44:08     | B*35:38+B*44:57        |                       |                     |                 |
| B*35:03:01G+B*44:09     | B*35:38+B*44:46        |                       |                     |                 |
| B*35:03:01G+B*44:14     | B*35:06+B*44:51        |                       |                     |                 |
| B*35:03:01G+B*44:16     | B*35:33+B*44:91        | B*35:38+B*44:64:02    |                     |                 |
| B*35:03:01G+B*44:17     | B*35:38+B*44:43:01     |                       |                     |                 |
| B*35:03:01G+B*44:18     | B*35:169+B*49:11       | B*45:01:01G+B*53:04   |                     |                 |
| B*35:03:01G+B*44:20     | B*35:38+B*44:47        |                       |                     |                 |
| B*35:03:01G+B*44:21     | B*35:33+B*44:02:01G    | B*35:169+B*44:64:02   |                     |                 |
| B*35:03:01G+B*44:22     | B*35:38+B*44:105       |                       |                     |                 |
| B*35:03:01G+B*44:28:01  | B*35:156+B*44:03:02    |                       |                     |                 |
| B*35:03:01G+B*44:28:02  | B*35:156+B*44:03:01G   |                       |                     |                 |
| B*35:03:01G+B*44:41:01  | B*35:38+B*44:65        | B*35:151+B*44:02:07   |                     |                 |
| B*35:03:01G+B*44:44     | B*35:38+B*44:40        |                       |                     |                 |
| B*35:03:01G+B*44:50     | B*44:46+B*53:04        |                       |                     |                 |
| B*35:03:01G+B*44:51     | B*35:38+B*44:45        |                       |                     |                 |
| B*35:03:01G+B*44:64:01  | B*35:33+B*44:37:02     |                       |                     |                 |
| B*35:03:01G+B*44:64:02  | B*35:33+B*44:37:01     |                       |                     |                 |
| B*35:03:01G+B*44:65     | B*35:151+B*44:03:02    |                       |                     |                 |
| B*35:03:01G+B*44:67     | B*35:38+B*44:13        |                       |                     |                 |
| B*35:03:01G+B*44:76     | B*35:156+B*44:79       | B*35:167+B*44:28:02   |                     |                 |
| B*35:03:01G+B*44:77     | B*35:06+B*44:107       |                       |                     |                 |
| B*35:03:01G+B*44:78     | B*35:204+B*44:05:01    |                       |                     |                 |
| B*35:03:01G+B*44:79     | B*35:167+B*44:03:01G   |                       |                     |                 |
| B*35:03:01G+B*44:89     | B*35:38+B*44:29        |                       |                     |                 |
| B*35:03:01G+B*44:91     | B*35:38+B*44:37:01     |                       |                     |                 |
| B*35:03:01G+B*44:95     | B*35:38+B*44:50        | B*44:09+B*53:04       |                     |                 |
| B*35:03:01G+B*44:106    | B*35:38+B*44:54        |                       |                     |                 |
| B*35:03:01G+B*44:120    | B*35:204+B*44:03:01G   |                       |                     |                 |
| B*35:03:01G+B*44:123    | B*35:38+B*44:107       |                       |                     |                 |
| B*35:03:01G+B*44:124    | B*35:33+B*44:03:02     |                       |                     |                 |
| B*35:03:01G+B*44:127    | B*35:36+B*44:02:01G    |                       |                     |                 |
| B*35:03:01G+B*44:146    | B*35:163+B*44:79       |                       |                     |                 |

|                         |                        |                       |                     |                     |
|-------------------------|------------------------|-----------------------|---------------------|---------------------|
| B*35:03:01G+B*45:10     | B*35:33+B*45:04        |                       |                     |                     |
| B*35:03:01G+B*46:01:01G | B*35:03:02+B*46:01:03  | B*35:03:07+B*46:01:07 | B*35:163+B*46:08    | B*35:167+B*46:09    |
| B*35:03:01G+B*46:02     | B*35:153+B*46:01:01G   |                       |                     |                     |
| B*35:03:01G+B*46:08     | B*35:167+B*46:13:03    |                       |                     |                     |
| B*35:03:01G+B*46:09     | B*35:163+B*46:13:03    |                       |                     |                     |
| B*35:03:01G+B*46:10     | B*35:150+B*46:01:01G   |                       |                     |                     |
| B*35:03:01G+B*46:13:03  | B*35:03:02+B*46:13:01  |                       |                     |                     |
| B*35:03:01G+B*46:21:01  | B*35:03:02+B*46:21:02  |                       |                     |                     |
| B*35:03:01G+B*46:30     | B*35:33+B*46:01:01G    |                       |                     |                     |
| B*35:03:01G+B*48:01:01G | B*35:34+B*48:07        |                       |                     |                     |
| B*35:03:01G+B*48:10     | B*35:205+B*48:12       |                       |                     |                     |
| B*35:03:01G+B*48:15     | B*35:167+B*48:01:01G   |                       |                     |                     |
| B*35:03:01G+B*48:19     | B*35:163+B*48:01:01G   |                       |                     |                     |
| B*35:03:01G+B*48:25     | B*35:167+B*48:02:01    |                       |                     |                     |
| B*35:03:01G+B*49:01:01  | B*35:167+B*49:11       | B*50:01:01+B*53:04    |                     |                     |
| B*35:03:01G+B*49:07     | B*35:33+B*49:01:01     |                       |                     |                     |
| B*35:03:01G+B*49:09     | B*35:109+B*49:01:01    |                       |                     |                     |
| B*35:03:01G+B*49:10     | B*50:13+B*53:04        |                       |                     |                     |
| B*35:03:01G+B*49:18     | B*50:14+B*53:04        |                       |                     |                     |
| B*35:03:01G+B*49:20     | B*50:02+B*53:04        |                       |                     |                     |
| B*35:03:01G+B*50:01:01  | B*35:13+B*50:15        |                       |                     |                     |
| B*35:03:01G+B*51:01:01G | B*35:04:02+B*51:92     | B*35:06+B*51:90       | B*35:34+B*51:13:02  | B*35:109+B*51:02:01 |
|                         | B*35:167+B*51:09:01    | B*53:04+B*78:02:02    |                     |                     |
|                         | B*35:109+B*51:02:02    | B*35:167+B*51:09:02   | B*53:04+B*78:02:01  |                     |
|                         | B*35:04:01+B*51:92     | B*35:34+B*51:13:01    | B*35:109+B*51:02:04 |                     |
|                         | B*35:03:11+B*51:01:02  |                       |                     |                     |
| B*35:03:01G+B*51:01:02  | B*35:03:11+B*51:01:01G |                       |                     |                     |
| B*35:03:01G+B*51:01:04  | B*35:03:02+B*51:01:21  |                       |                     |                     |
| B*35:03:01G+B*51:01:09  | B*35:109+B*51:02:03    |                       |                     |                     |
| B*35:03:01G+B*51:01:21  | B*35:03:06+B*51:01:01G |                       |                     |                     |
| B*35:03:01G+B*51:01:25  | B*35:03:02+B*51:02:01  | B*35:167+B*51:40      |                     |                     |
| B*35:03:01G+B*51:01:31  | B*35:06+B*51:135       | B*35:109+B*51:59      | B*35:151+B*51:04    |                     |
| B*35:03:01G+B*51:01:32  | B*35:38+B*51:09:01     |                       |                     |                     |
| B*35:03:01G+B*51:02:05  | B*35:06+B*51:92        |                       |                     |                     |
| B*35:03:01G+B*51:06:01  | B*35:33+B*51:01:01G    | B*35:109+B*51:34      | B*35:167+B*51:31    |                     |
| B*35:03:01G+B*51:08     | B*35:136+B*51:08       |                       |                     |                     |
| B*35:03:01G+B*51:13:01  | B*35:85+B*51:01:01G    |                       |                     |                     |
| B*35:03:01G+B*51:16     | B*35:167+B*51:108      |                       |                     |                     |
| B*35:03:01G+B*51:20     | B*35:09:01+B*51:92     |                       |                     |                     |
| B*35:03:01G+B*51:22     | B*35:09:02+B*51:92     | B*35:205+B*51:01:04   |                     |                     |
| B*35:03:01G+B*51:23     | B*35:03:02+B*51:24:04  | B*35:205+B*51:01:01G  |                     |                     |
| B*35:03:01G+B*51:24:01  | B*35:156+B*51:01:01G   |                       |                     |                     |
| B*35:03:01G+B*51:24:02  | B*35:33+B*51:09:01     |                       |                     |                     |
| B*35:03:01G+B*51:24:03  | B*35:33+B*51:02:01     |                       |                     |                     |
| B*35:03:01G+B*51:29     | B*35:03:02+B*51:61:02  |                       |                     |                     |
| B*35:03:01G+B*51:31     | B*35:163+B*51:01:01G   |                       |                     |                     |
| B*35:03:01G+B*51:34     | B*35:204+B*51:01:01G   |                       |                     |                     |
| B*35:03:01G+B*51:61:01  | B*35:195+B*51:01:01G   |                       |                     |                     |
| B*35:03:01G+B*51:61:02  | B*35:33+B*51:29        | B*35:156+B*51:16      |                     |                     |
| B*35:03:01G+B*51:70     | B*35:128+B*51:01:01G   |                       |                     |                     |
| B*35:03:01G+B*51:76     | B*35:150+B*51:01:02    |                       |                     |                     |
| B*35:03:01G+B*51:82     | B*35:06+B*52:12        | B*35:13+B*51:07:02    | B*35:109+B*52:11    | B*35:167+B*52:10:01 |
| B*35:03:01G+B*51:113    | B*53:04+B*78:05        | B*35:56+B*52:09       |                     |                     |
| B*35:03:01G+B*51:119    | B*35:13+B*51:07:01     |                       |                     |                     |
| B*35:03:01G+B*52:01:01G | B*35:03:03+B*52:01:02  |                       |                     |                     |
|                         | B*35:34+B*52:14        |                       |                     |                     |
|                         | B*35:03:02+B*52:01:01G | B*35:167+B*52:10:02   |                     |                     |
| B*35:03:01G+B*52:01:02  | B*35:193+B*52:01:01G   |                       |                     |                     |
| B*35:03:01G+B*52:01:05  | B*35:13+B*51:01:33     |                       |                     |                     |
| B*35:03:01G+B*52:06:01  | B*35:13+B*51:01:01G    |                       |                     |                     |
| B*35:03:01G+B*52:06:02  | B*35:33+B*52:01:01G    |                       |                     |                     |
| B*35:03:01G+B*52:08     | B*35:03:02+B*52:10:01  |                       |                     |                     |
| B*35:03:01G+B*52:10:02  | B*35:38+B*52:10:01     |                       |                     |                     |
| B*35:03:01G+B*52:19     | B*35:163+B*52:01:02    |                       |                     |                     |
| B*35:03:01G+B*52:21     | B*35:156+B*52:01:01G   |                       |                     |                     |
| B*35:03:01G+B*52:24     | B*35:03:02+B*53:01:01  |                       |                     |                     |
| B*35:03:01G+B*53:01:03  | B*35:24:01+B*53:04     | B*35:109+B*53:01:01   |                     |                     |
| B*35:03:01G+B*53:02     | B*35:11:01+B*53:04     | B*35:167+B*53:01:01   |                     |                     |
| B*35:03:01G+B*53:08:01  | B*35:03:02+B*53:08:01  | B*35:11:02+B*53:04    | B*35:167+B*53:01:03 |                     |
| B*35:03:01G+B*53:08:02  | B*35:156+B*53:13       |                       |                     |                     |
| B*35:03:01G+B*53:11     | B*35:56+B*53:12        |                       |                     |                     |
| B*35:03:01G+B*53:13     | B*35:05:01+B*53:04     |                       |                     |                     |
| B*35:03:01G+B*53:14     | B*35:156+B*53:05       |                       |                     |                     |
| B*35:03:01G+B*53:16     | B*35:28+B*53:04        |                       |                     |                     |
| B*35:03:01G+B*53:17:02  | B*35:197+B*53:04       |                       |                     |                     |
| B*35:03:01G+B*53:21     | B*35:169+B*53:01:01    |                       |                     |                     |
| B*35:03:01G+B*53:22     | B*35:29:01+B*53:04     | B*35:136+B*53:01:01   |                     |                     |
| B*35:03:01G+B*53:23     | B*35:08:01+B*53:04     | B*35:56+B*53:16       | B*35:156+B*53:01:01 |                     |
| B*35:03:01G+B*53:24     | B*35:108:01+B*53:04    |                       |                     |                     |
| B*35:03:01G+B*53:26     | B*35:06+B*54:16        |                       |                     |                     |
| B*35:03:01G+B*54:01:01G | B*35:156+B*54:01:01G   |                       |                     |                     |
| B*35:03:01G+B*54:10     | B*53:04+B*54:01:01G    |                       |                     |                     |
| B*35:03:01G+B*54:12     | B*35:167+B*54:10       |                       |                     |                     |
| B*35:03:01G+B*54:20     | B*35:33+B*54:03        |                       |                     |                     |
| B*35:03:01G+B*54:26     | B*35:136+B*55:31       | B*35:167+B*55:02:01G  |                     |                     |
| B*35:03:01G+B*55:01:01G | B*35:06+B*55:46        | B*35:60+B*56:11       |                     |                     |
| B*35:03:01G+B*55:02:01G | B*35:74+B*55:01:01G    |                       |                     |                     |
| B*35:03:01G+B*55:03     | B*35:156+B*55:24       |                       |                     |                     |
| B*35:03:01G+B*55:09     | B*35:56+B*55:02:01G    |                       |                     |                     |
| B*35:03:01G+B*55:12     | B*35:163+B*55:01:01G   |                       |                     |                     |
| B*35:03:01G+B*55:21     | B*35:33+B*56:01:01G    |                       |                     |                     |
| B*35:03:01G+B*55:22     | B*35:33+B*56:25        | B*35:167+B*55:22      |                     |                     |
| B*35:03:01G+B*55:24     | B*35:13+B*55:47        |                       |                     |                     |
| B*35:03:01G+B*55:34     | B*35:156+B*55:02:01G   |                       |                     |                     |
| B*35:03:01G+B*55:37     | B*35:13+B*55:01:01G    |                       |                     |                     |
| B*35:03:01G+B*55:40     | B*35:74+B*55:04        |                       |                     |                     |
| B*35:03:01G+B*55:49     | B*35:156+B*55:01:01G   | B*35:167+B*55:37      |                     |                     |
| B*35:03:01G+B*55:52     | B*35:38+B*55:01:01G    |                       |                     |                     |
| B*35:03:01G+B*55:56     | B*35:03:02+B*56:01:01G |                       |                     |                     |
| B*35:03:01G+B*56:01:03  | B*56:11+B*78:02:02     |                       |                     |                     |
| B*35:03:01G+B*56:05:01  | B*56:11+B*78:02:01     |                       |                     |                     |
| B*35:03:01G+B*56:05:02  | B*35:38+B*56:01:01G    |                       |                     |                     |
| B*35:03:01G+B*56:13     | B*35:34+B*56:22        |                       |                     |                     |
| B*35:03:01G+B*56:15     | B*35:205+B*56:01:01G   |                       |                     |                     |
| B*35:03:01G+B*56:20:02  | B*51:01:02+B*56:11     | B*53:04+B*56:05:02    |                     |                     |
| B*35:03:01G+B*56:21     |                        |                       |                     |                     |

|                        |                        |                      |
|------------------------|------------------------|----------------------|
| B*35:03:01G+B*56:25    | B*35:167+B*56:01:01G   |                      |
| B*35:03:01G+B*56:31    | B*35:109+B*56:18       |                      |
| B*35:03:01G+B*56:32    | B*35:167+B*56:18       |                      |
| B*35:03:01G+B*56:34    | B*35:109+B*56:01:01G   |                      |
| B*35:03:01G+B*56:36    | B*35:150+B*56:01:01G   |                      |
| B*35:03:01G+B*57:01:03 | B*35:03:06+B*57:01:01G |                      |
| B*35:03:01G+B*57:01:07 | B*35:03:11+B*57:01:01G |                      |
| B*35:03:01G+B*57:02:01 | B*35:156+B*57:03:01    | B*53:04+B*57:12      |
| B*35:03:01G+B*57:02:02 | B*35:03:10+B*57:02:01  |                      |
| B*35:03:01G+B*57:09    | B*35:38+B*57:57        |                      |
| B*35:03:01G+B*57:19    | B*35:156+B*57:01:01G   |                      |
| B*35:03:01G+B*57:21    | B*35:127+B*57:01:01G   |                      |
| B*35:03:01G+B*57:22    | B*35:167+B*57:01:01G   |                      |
| B*35:03:01G+B*57:24    | B*35:38+B*57:01:01G    |                      |
| B*35:03:01G+B*57:25    | B*35:33+B*57:01:01G    |                      |
| B*35:03:01G+B*57:57    | B*35:167+B*57:03:01    |                      |
| B*35:03:01G+B*58:01:05 | B*35:03:02+B*58:01:01G |                      |
| B*35:03:01G+B*58:04    | B*35:202+B*58:34       |                      |
| B*35:03:01G+B*58:06    | B*35:167+B*58:02       |                      |
| B*35:03:01G+B*58:08:01 | B*58:34+B*78:02:02     |                      |
| B*35:03:01G+B*58:08:02 | B*58:34+B*78:02:01     |                      |
| B*35:03:01G+B*58:09    | B*35:24:01+B*58:34     | B*35:109+B*58:01:01G |
| B*35:03:01G+B*58:12    | B*35:124+B*58:34       |                      |
| B*35:03:01G+B*58:16    | B*35:68:02+B*58:34     | B*35:151+B*58:01:01G |
| B*35:03:01G+B*58:18    | B*35:05:01+B*58:34     |                      |
| B*35:03:01G+B*58:19    | B*35:11:01+B*58:34     | B*35:167+B*58:01:01G |
| B*35:03:01G+B*58:22    | B*35:08:01+B*58:34     | B*35:156+B*58:01:01G |
| B*35:03:01G+B*58:26    | B*35:75+B*58:01:01G    |                      |
| B*35:03:01G+B*58:27    | B*35:31+B*58:34        |                      |
| B*35:03:01G+B*58:28    | B*35:04:03+B*58:34     |                      |
| B*35:03:01G+B*58:35    | B*35:93+B*58:34        |                      |
| B*35:03:01G+B*58:37    | B*35:15+B*58:34        | B*35:33+B*58:01:01G  |
| B*35:03:01G+B*78:01:01 | B*35:136+B*78:02:02    |                      |
| B*35:03:01G+B*78:03    | B*35:85+B*78:01:01     |                      |
| B*35:03:01G+B*78:06    | B*35:56+B*78:05        |                      |
| B*35:03:02+B*35:21     | B*35:11:02+B*35:109    |                      |
| B*35:03:02+B*35:118    | B*35:43:01G+B*35:205   |                      |
| B*35:03:02+B*38:14     | B*35:136+B*38:01:03    | B*39:01:05+B*53:04   |
| B*35:03:02+B*38:27     | B*35:195+B*38:01:03    |                      |
| B*35:03:02+B*38:32     | B*35:167+B*38:01:03    |                      |
| B*35:03:02+B*39:22     | B*35:13+B*39:01:05     |                      |
| B*35:03:02+B*39:27     | B*35:74+B*39:01:05     |                      |
| B*35:03:02+B*39:35     | B*35:167+B*39:01:05    |                      |
| B*35:03:02+B*39:41     | B*35:155+B*39:01:05    |                      |
| B*35:03:02+B*39:48     | B*35:109+B*39:01:05    |                      |
| B*35:03:02+B*39:70     | B*35:34+B*39:01:05     |                      |
| B*35:03:02+B*40:01:01G | B*35:205+B*40:87:01    |                      |
| B*35:03:02+B*40:136    | B*35:38+B*40:14:02     |                      |
| B*35:03:02+B*44:21     | B*35:33+B*44:02:09     |                      |
| B*35:03:02+B*44:127    | B*35:36+B*44:02:09     |                      |
| B*35:03:02+B*51:01:01G | B*35:109+B*51:02:05    |                      |
| B*35:03:02+B*51:09:01  | B*35:109+B*51:40       |                      |
| B*35:03:02+B*51:21     | B*35:96+B*51:40        |                      |
| B*35:03:02+B*51:34     | B*35:33+B*51:02:05     |                      |
| B*35:03:02+B*52:05     | B*35:193+B*52:01:07    |                      |
| B*35:03:02+B*52:08     | B*35:33+B*52:01:07     |                      |
| B*35:03:02+B*52:19     | B*35:38+B*52:10:02     |                      |
| B*35:03:02+B*52:24     | B*35:156+B*52:01:07    |                      |
| B*35:03:02+B*53:02     | B*35:109+B*53:01:03    |                      |
| B*35:03:02+B*53:22     | B*35:169+B*53:01:03    |                      |
| B*35:03:02+B*53:23     | B*35:136+B*53:01:03    |                      |
| B*35:03:02+B*53:24     | B*35:156+B*53:01:03    |                      |
| B*35:03:02+B*55:22     | B*35:33+B*56:01:03     |                      |
| B*35:03:02+B*56:13     | B*35:38+B*56:01:03     |                      |
| B*35:03:02+B*56:20:02  | B*35:205+B*56:01:03    |                      |
| B*35:03:02+B*56:25     | B*35:167+B*56:01:03    |                      |
| B*35:03:02+B*56:34     | B*35:109+B*56:01:03    |                      |
| B*35:03:02+B*56:36     | B*35:150+B*56:01:03    |                      |
| B*35:03:02+B*57:14     | B*35:109+B*57:01:01G   |                      |
| B*35:03:02+B*58:09     | B*35:109+B*58:01:05    |                      |
| B*35:03:02+B*58:16     | B*35:151+B*58:01:05    |                      |
| B*35:03:02+B*58:19     | B*35:11:02+B*58:34     | B*35:167+B*58:01:05  |
| B*35:03:02+B*58:22     | B*35:156+B*58:01:05    |                      |
| B*35:03:02+B*58:26     | B*35:75+B*58:01:05     |                      |
| B*35:03:02+B*58:37     | B*35:33+B*58:01:05     |                      |
| B*35:03:02+B*67:03     | B*35:205+B*67:01:01    |                      |
| B*35:03:03+B*40:43     | B*35:136+B*40:01:05    |                      |
| B*35:03:03+B*40:73     | B*35:74+B*40:01:05     |                      |
| B*35:03:03+B*40:113    | B*35:109+B*40:01:05    |                      |
| B*35:03:03+B*40:117    | B*40:01:05+B*53:04     |                      |
| B*35:03:03+B*40:128    | B*35:156+B*40:01:05    |                      |
| B*35:03:03+B*40:139    | B*35:127+B*40:01:05    |                      |
| B*35:03:03+B*40:183    | B*35:167+B*40:01:05    |                      |
| B*35:03:03+B*40:207    | B*35:36+B*40:01:05     |                      |
| B*35:03:03+B*52:21     | B*35:163+B*52:01:04    |                      |
| B*35:03:06+B*51:01:21  | B*35:03:11+B*51:01:32  |                      |
| B*35:03:06+B*51:16     | B*35:33+B*51:01:32     |                      |
| B*35:03:06+B*51:22     | B*35:85+B*51:01:32     |                      |
| B*35:03:06+B*51:24:03  | B*35:205+B*51:01:32    |                      |
| B*35:03:06+B*51:29     | B*35:156+B*51:01:32    |                      |
| B*35:03:06+B*51:61:02  | B*35:163+B*51:01:32    |                      |
| B*35:03:06+B*51:70     | B*35:204+B*51:01:32    |                      |
| B*35:03:06+B*51:76     | B*35:195+B*51:01:32    |                      |
| B*35:03:06+B*51:113    | B*35:128+B*51:01:32    |                      |
| B*35:03:06+B*52:06:02  | B*35:13+B*51:01:32     |                      |
| B*35:03:06+B*57:01:07  | B*35:03:11+B*57:01:03  |                      |
| B*35:03:06+B*57:19     | B*35:156+B*57:01:03    |                      |
| B*35:03:06+B*57:21     | B*35:127+B*57:01:03    |                      |
| B*35:03:06+B*57:22     | B*35:167+B*57:01:03    |                      |
| B*35:03:06+B*57:24     | B*35:38+B*57:01:03     |                      |
| B*35:03:06+B*57:25     | B*35:33+B*57:01:03     |                      |
| B*35:03:07+B*35:09:02  | B*35:04:03+B*35:205    |                      |
| B*35:03:07+B*39:70     | B*35:04:03+B*39:15     |                      |
| B*35:03:07+B*41:02:01  | B*35:04:03+B*41:18     |                      |
| B*35:03:07+B*51:01:04  | B*35:04:03+B*51:92     |                      |

|                        |                        |                        |                        |
|------------------------|------------------------|------------------------|------------------------|
| B*35:03:11+B*44:02:09  | B*35:38+B*44:03:14     |                        |                        |
| B*35:03:11+B*51:16     | B*35:33+B*51:01:21     |                        |                        |
| B*35:03:11+B*51:22     | B*35:85+B*51:01:21     |                        |                        |
| B*35:03:11+B*51:24:01  | B*35:09:03+B*51:92     |                        |                        |
| B*35:03:11+B*51:24:03  | B*35:205+B*51:01:21    |                        |                        |
| B*35:03:11+B*51:29     | B*35:156+B*51:01:21    |                        |                        |
| B*35:03:11+B*51:61:01  | B*35:163+B*51:01:25    |                        |                        |
| B*35:03:11+B*51:61:02  | B*35:163+B*51:01:21    |                        |                        |
| B*35:03:11+B*51:70     | B*35:204+B*51:01:21    |                        |                        |
| B*35:03:11+B*51:76     | B*35:195+B*51:01:21    |                        |                        |
| B*35:03:11+B*51:113    | B*35:128+B*51:01:21    |                        |                        |
| B*35:03:11+B*51:119    | B*35:150+B*51:01:09    |                        |                        |
| B*35:03:11+B*52:06:02  | B*35:13+B*51:01:21     |                        |                        |
| B*35:03:11+B*56:21     | B*51:01:09+B*56:11     |                        |                        |
| B*35:03:11+B*57:19     | B*35:156+B*57:01:07    |                        |                        |
| B*35:03:11+B*57:21     | B*35:127+B*57:01:07    |                        |                        |
| B*35:03:11+B*57:22     | B*35:167+B*57:01:07    |                        |                        |
| B*35:03:11+B*57:24     | B*35:38+B*57:01:07     |                        |                        |
| B*35:03:11+B*57:25     | B*35:33+B*57:01:07     |                        |                        |
| B*35:04:01+B*35:32:02  | B*35:04:03+B*35:32:01  | B*35:12:01+B*35:68:01  | B*35:12:02+B*35:68:02  |
| B*35:04:01+B*35:39     | B*35:12:01+B*35:34     |                        |                        |
| B*35:04:01+B*35:59     | B*35:06+B*35:12:01     |                        |                        |
| B*35:04:01+B*35:61     | B*35:08:01+B*35:12:01  | B*35:08:03+B*35:12:02  |                        |
| B*35:04:01+B*35:86     | B*35:15+B*35:44        |                        |                        |
| B*35:04:01+B*35:114    | B*35:05:01+B*35:09:02  |                        |                        |
| B*35:04:01+B*35:118    | B*35:09:03+B*35:43:01G |                        |                        |
| B*35:04:01+B*35:135    | B*35:44+B*35:82        |                        |                        |
| B*35:04:01+B*35:174    | B*35:08:01+B*35:09:01  |                        |                        |
| B*35:04:01+B*35:199    | B*35:22+B*35:34        |                        |                        |
| B*35:04:01+B*38:29     | B*35:34+B*38:02:01G    |                        |                        |
| B*35:04:01+B*39:01:01G | B*35:06+B*39:70        |                        |                        |
| B*35:04:01+B*39:03     | B*35:06+B*39:14        |                        |                        |
| B*35:04:01+B*39:29     | B*35:34+B*39:14        |                        |                        |
| B*35:04:01+B*39:49     | B*35:34+B*39:13:01     |                        |                        |
| B*35:04:01+B*39:55     | B*35:34+B*39:05:01     |                        |                        |
| B*35:04:01+B*39:68     | B*35:09:01+B*39:01:01G |                        |                        |
| B*35:04:01+B*40:01:01G | B*35:04:03+B*40:01:17  | B*35:09:01+B*40:87:02  | B*35:09:03+B*40:87:01  |
| B*35:04:01+B*40:01:06  | B*35:04:02+B*40:01:01G |                        |                        |
| B*35:04:01+B*40:01:14  | B*35:09:01+B*40:87:01  |                        |                        |
| B*35:04:01+B*40:02:01G | B*35:04:03+B*40:02:08  | B*35:09:01+B*40:35     |                        |
| B*35:04:01+B*40:09     | B*35:34+B*40:89        |                        |                        |
| B*35:04:01+B*40:14:01  | B*35:09:01+B*40:121    |                        |                        |
| B*35:04:01+B*40:14:03  | B*35:09:02+B*40:121    |                        |                        |
| B*35:04:01+B*40:18     | B*35:12:02+B*40:24     | B*35:22+B*40:120       | B*35:34+B*40:02:01G    |
| B*35:04:01+B*40:31     | B*35:34+B*40:80        |                        |                        |
| B*35:04:01+B*40:32     | B*35:34+B*40:16        |                        |                        |
| B*35:04:01+B*40:33     | B*35:34+B*40:01:01G    |                        |                        |
| B*35:04:01+B*40:36     | B*35:06+B*40:01:01G    |                        |                        |
| B*35:04:01+B*40:42     | B*35:34+B*40:172       |                        |                        |
| B*35:04:01+B*40:44     | B*35:34+B*40:06:01G    |                        |                        |
| B*35:04:01+B*40:86     | B*35:06+B*40:06:01G    |                        |                        |
| B*35:04:01+B*41:21     | B*35:34+B*41:01        |                        |                        |
| B*35:04:01+B*42:01:01  | B*35:09:01+B*42:10     |                        |                        |
| B*35:04:01+B*42:02     | B*35:09:01+B*42:17     |                        |                        |
| B*35:04:01+B*42:06     | B*35:06+B*42:01:01     |                        |                        |
| B*35:04:01+B*42:16     | B*35:34+B*42:01:01     |                        |                        |
| B*35:04:01+B*44:17     | B*35:115+B*44:77       |                        |                        |
| B*35:04:01+B*44:51     | B*35:34+B*44:14        |                        |                        |
| B*35:04:01+B*44:53     | B*35:09:01+B*44:02:01G |                        |                        |
| B*35:04:01+B*44:107    | B*35:34+B*44:77        |                        |                        |
| B*35:04:01+B*44:117    | B*35:06+B*44:05:01     |                        |                        |
| B*35:04:01+B*46:01:01G | B*35:04:03+B*46:01:07  | B*35:44+B*46:33        |                        |
| B*35:04:01+B*48:07     | B*35:06+B*48:01:01G    |                        |                        |
| B*35:04:01+B*48:10     | B*35:09:02+B*48:12     |                        |                        |
| B*35:04:01+B*51:01:01G | B*35:04:02+B*51:01:04  |                        |                        |
| B*35:04:01+B*51:02:01  | B*35:04:02+B*51:02:04  |                        |                        |
| B*35:04:01+B*51:04     | B*35:12:02+B*51:56:02  |                        |                        |
| B*35:04:01+B*51:13:01  | B*35:06+B*51:01:04     | B*35:06+B*51:01:01G    |                        |
| B*35:04:01+B*51:13:02  | B*35:04:02+B*51:13:01  |                        |                        |
| B*35:04:01+B*51:24:01  | B*35:09:01+B*51:01:04  |                        |                        |
| B*35:04:01+B*51:24:02  | B*35:09:02+B*51:01:04  |                        |                        |
| B*35:04:01+B*51:24:03  | B*35:04:02+B*51:24:02  | B*35:09:01+B*51:01:25  | B*35:09:02+B*51:01:01G |
| B*35:04:01+B*51:24:04  | B*35:09:01+B*51:01:21  | B*35:09:03+B*51:01:01G |                        |
| B*35:04:01+B*51:64     | B*35:22+B*51:56:02     |                        |                        |
| B*35:04:01+B*51:90     | B*35:34+B*51:01:01G    |                        |                        |
| B*35:04:01+B*51:135    | B*35:34+B*51:06:01     |                        |                        |
| B*35:04:01+B*52:01:01G | B*35:04:02+B*52:01:05  |                        |                        |
| B*35:04:01+B*52:12     | B*35:34+B*52:01:01G    |                        |                        |
| B*35:04:01+B*52:14     | B*35:06+B*52:01:05     |                        |                        |
| B*35:04:01+B*54:16     | B*35:34+B*54:01:01G    |                        |                        |
| B*35:04:01+B*55:01:04  | B*35:04:02+B*55:01:01G |                        |                        |
| B*35:04:01+B*55:23     | B*35:34+B*55:32        | B*35:93+B*56:15        |                        |
| B*35:04:01+B*55:46     | B*35:34+B*55:02:01G    |                        |                        |
| B*35:04:01+B*56:18     | B*35:68:01+B*56:12     |                        |                        |
| B*35:04:01+B*56:20:01  | B*35:09:01+B*56:01:01G |                        |                        |
| B*35:04:01+B*56:20:02  | B*35:09:02+B*56:01:01G | B*35:09:03+B*56:01:03  |                        |
| B*35:04:01+B*56:22     | B*35:06+B*56:15        |                        |                        |
| B*35:04:01+B*57:10     | B*35:197+B*57:03:01    |                        |                        |
| B*35:04:01+B*57:24     | B*35:115+B*57:03:01    |                        |                        |
| B*35:04:01+B*57:25     | B*35:15+B*57:03:01     |                        |                        |
| B*35:04:01+B*57:26     | B*35:93+B*57:03:01     |                        |                        |
| B*35:04:01+B*57:31     | B*35:09:01+B*57:01:01G |                        |                        |
| B*35:04:01+B*57:58     | B*35:124+B*57:03:01    |                        |                        |
| B*35:04:01+B*67:03     | B*35:09:03+B*67:01:01  |                        |                        |
| B*35:04:02+B*40:33     | B*35:34+B*40:01:06     |                        |                        |
| B*35:04:02+B*40:36     | B*35:06+B*40:01:06     |                        |                        |
| B*35:04:02+B*40:44     | B*40:120+B*78:04       |                        |                        |
| B*35:04:02+B*40:148    | B*35:09:02+B*40:95     |                        |                        |
| B*35:04:02+B*40:161    | B*35:18+B*40:95        |                        |                        |
| B*35:04:02+B*44:123    | B*35:34+B*44:62        |                        |                        |
| B*35:04:02+B*50:09     | B*35:06+B*50:14        |                        |                        |
| B*35:04:02+B*51:01:01G | B*51:56:02+B*78:04     |                        |                        |
| B*35:04:02+B*51:24:01  | B*35:09:01+B*51:01:01G |                        |                        |
| B*35:04:02+B*52:14     | B*35:06+B*52:01:01G    |                        |                        |
| B*35:04:03+B*35:17     | B*35:12:02+B*35:30     |                        |                        |

|                        |                        |                       |
|------------------------|------------------------|-----------------------|
| B*35:04:03+B*35:31     | B*35:22+B*35:88        |                       |
| B*35:04:03+B*40:01:01G | B*35:12:01+B*40:125    |                       |
| B*35:04:03+B*40:01:04  | B*35:12:02+B*40:125    |                       |
| B*35:04:03+B*40:02:01G | B*35:22+B*40:04        |                       |
| B*35:04:03+B*40:06:01G | B*35:12:02+B*40:70     |                       |
| B*35:04:03+B*40:08     | B*35:22+B*40:68        |                       |
| B*35:04:03+B*40:18     | B*35:199+B*40:04       |                       |
| B*35:04:03+B*40:33     | B*35:39+B*40:125       |                       |
| B*35:04:03+B*40:36     | B*35:59+B*40:125       |                       |
| B*35:04:03+B*40:64     | B*35:12:02+B*40:04     |                       |
| B*35:04:03+B*40:120    | B*35:34+B*40:04        |                       |
| B*35:04:03+B*41:01     | B*35:12:02+B*41:07     |                       |
| B*35:04:03+B*44:02:01G | B*35:12:01+B*44:48     |                       |
| B*35:04:03+B*44:02:07  | B*35:12:02+B*44:48     |                       |
| B*35:04:03+B*44:106    | B*35:22+B*44:48        |                       |
| B*35:04:03+B*50:04     | B*35:12:01+B*50:01:01  |                       |
| B*35:04:03+B*55:17     | B*35:12:02+B*55:28     |                       |
| B*35:04:03+B*55:38     | B*35:12:02+B*55:01:01G |                       |
| B*35:04:03+B*56:04     | B*35:12:02+B*56:02     |                       |
| B*35:04:03+B*56:27     | B*35:12:02+B*56:01:01G |                       |
| B*35:04:03+B*58:04     | B*35:202+B*58:28       |                       |
| B*35:04:03+B*58:08:01  | B*58:28+B*78:02:02     |                       |
| B*35:04:03+B*58:08:02  | B*58:28+B*78:02:01     |                       |
| B*35:04:03+B*58:09     | B*35:24:01+B*58:28     |                       |
| B*35:04:03+B*58:12     | B*35:124+B*58:28       |                       |
| B*35:04:03+B*58:16     | B*35:68:02+B*58:28     |                       |
| B*35:04:03+B*58:18     | B*35:05:01+B*58:28     |                       |
| B*35:04:03+B*58:19     | B*35:11:01+B*58:28     |                       |
| B*35:04:03+B*58:22     | B*35:08:01+B*58:28     |                       |
| B*35:04:03+B*58:27     | B*35:31+B*58:28        |                       |
| B*35:04:03+B*58:35     | B*35:93+B*58:28        |                       |
| B*35:04:03+B*58:37     | B*35:15+B*58:28        |                       |
| B*35:05:01+B*35:14:01  | B*35:58+B*35:62        |                       |
| B*35:05:01+B*35:21     | B*35:24:01+B*35:58     |                       |
| B*35:05:01+B*35:28     | B*35:10+B*35:72        |                       |
| B*35:05:01+B*35:32:02  | B*35:51+B*35:68:02     |                       |
| B*35:05:01+B*35:61     | B*35:08:03+B*35:51     |                       |
| B*35:05:01+B*35:188    | B*35:58+B*35:190       |                       |
| B*35:05:01+B*37:01:01G | B*35:72+B*37:21        |                       |
| B*35:05:01+B*37:13     | B*35:58+B*37:01:01G    |                       |
| B*35:05:01+B*37:32     | B*35:89+B*37:01:01G    |                       |
| B*35:05:01+B*37:34     | B*37:11+B*53:14        |                       |
| B*35:05:01+B*38:01:01  | B*35:68:02+B*38:19     | B*39:05:01+B*53:14    |
| B*35:05:01+B*38:10     | B*35:58+B*38:36        |                       |
| B*35:05:01+B*38:14     | B*39:01:01G+B*53:14    |                       |
| B*35:05:01+B*38:19     | B*39:37+B*53:14        |                       |
| B*35:05:01+B*38:26     | B*53:14+B*67:01:01     |                       |
| B*35:05:01+B*38:32     | B*35:58+B*38:01:01     |                       |
| B*35:05:01+B*39:01:01G | B*35:68:02+B*39:03     |                       |
| B*35:05:01+B*39:05:01  | B*35:68:02+B*39:37     |                       |
| B*35:05:01+B*39:06:02  | B*35:37+B*39:03        |                       |
| B*35:05:01+B*39:35     | B*35:58+B*39:01:01G    |                       |
| B*35:05:01+B*39:39:01  | B*35:72+B*39:58        |                       |
| B*35:05:01+B*39:70     | B*35:68:02+B*39:14     |                       |
| B*35:05:01+B*40:01:01G | B*35:68:02+B*40:80     | B*35:72+B*40:07       |
| B*35:05:01+B*40:01:04  | B*35:68:01+B*40:80     |                       |
| B*35:05:01+B*40:06:01G | B*35:37+B*40:02:01G    | B*35:72+B*40:162      |
| B*35:05:01+B*40:06:02  | B*35:37+B*40:02:07     |                       |
| B*35:05:01+B*40:11:01  | B*35:68:02+B*40:02:01G |                       |
| B*35:05:01+B*40:11:02  | B*35:68:01+B*40:02:01G | B*35:68:02+B*40:02:09 |
| B*35:05:01+B*40:14:03  | B*35:114+B*40:121      |                       |
| B*35:05:01+B*40:18     | B*35:51+B*40:24        |                       |
| B*35:05:01+B*40:19     | B*35:72+B*40:13        | B*40:02:01G+B*53:14   |
| B*35:05:01+B*40:20     | B*35:68:02+B*40:03     |                       |
| B*35:05:01+B*40:25     | B*35:72+B*40:106       |                       |
| B*35:05:01+B*40:33     | B*35:68:02+B*40:31     |                       |
| B*35:05:01+B*40:44     | B*35:37+B*40:18        |                       |
| B*35:05:01+B*40:96     | B*35:37+B*40:157       |                       |
| B*35:05:01+B*40:114    | B*35:68:02+B*40:45     |                       |
| B*35:05:01+B*40:117    | B*40:01:01G+B*53:14    |                       |
| B*35:05:01+B*40:128    | B*35:66+B*40:92        |                       |
| B*35:05:01+B*40:148    | B*35:58+B*40:06:01G    |                       |
| B*35:05:01+B*40:159    | B*35:37+B*40:03        |                       |
| B*35:05:01+B*40:183    | B*35:58+B*40:01:01G    |                       |
| B*35:05:01+B*40:198    | B*35:58+B*40:128       |                       |
| B*35:05:01+B*41:03:02  | B*35:68:02+B*41:02:01  |                       |
| B*35:05:01+B*42:04     | B*35:37+B*42:01:01     |                       |
| B*35:05:01+B*44:02:14  | B*35:05:03+B*44:02:01G |                       |
| B*35:05:01+B*44:18     | B*45:01:01G+B*53:14    |                       |
| B*35:05:01+B*44:20     | B*35:37+B*44:106       |                       |
| B*35:05:01+B*44:28:01  | B*35:08:01+B*44:54     |                       |
| B*35:05:01+B*44:28:02  | B*35:08:03+B*44:54     |                       |
| B*35:05:01+B*44:41:01  | B*35:68:02+B*44:106    |                       |
| B*35:05:01+B*44:41:02  | B*35:68:01+B*44:106    |                       |
| B*35:05:01+B*44:47     | B*35:37+B*44:54        |                       |
| B*35:05:01+B*44:50     | B*44:46+B*53:14        |                       |
| B*35:05:01+B*44:65     | B*35:68:02+B*44:54     |                       |
| B*35:05:01+B*44:76     | B*35:58+B*44:28:02     |                       |
| B*35:05:01+B*44:79     | B*35:58+B*44:03:01G    |                       |
| B*35:05:01+B*44:95     | B*44:09+B*53:14        |                       |
| B*35:05:01+B*44:110    | B*35:30+B*44:54        |                       |
| B*35:05:01+B*44:124    | B*35:15+B*44:54        |                       |
| B*35:05:01+B*46:01:01G | B*35:58+B*46:09        | B*35:68:02+B*46:12    |
| B*35:05:01+B*46:08     | B*35:58+B*46:13:03     |                       |
| B*35:05:01+B*46:32     | B*35:37+B*46:12        |                       |
| B*35:05:01+B*48:03:01  | B*35:68:02+B*48:01:01G |                       |
| B*35:05:01+B*48:03:02  | B*35:68:01+B*48:01:01G |                       |
| B*35:05:01+B*48:10     | B*35:114+B*48:12       |                       |
| B*35:05:01+B*48:15     | B*35:58+B*48:01:01G    |                       |
| B*35:05:01+B*48:25     | B*35:58+B*48:02:01     |                       |
| B*35:05:01+B*49:01:01  | B*35:58+B*49:11        | B*50:01:01+B*53:14    |
| B*35:05:01+B*49:10     | B*50:13+B*53:14        |                       |
| B*35:05:01+B*49:18     | B*50:14+B*53:14        |                       |
| B*35:05:01+B*49:20     | B*50:02+B*53:14        |                       |
| B*35:05:01+B*50:01:02  | B*35:05:03+B*50:01:01  |                       |

|                        |                        |                     |                    |
|------------------------|------------------------|---------------------|--------------------|
| B*35:05:01+B*51:01:01G | B*35:37+B*51:64        | B*35:58+B*51:09:01  | B*53:14+B*78:02:02 |
| B*35:05:01+B*51:01:02  | B*35:58+B*51:09:02     | B*53:14+B*78:02:01  |                    |
| B*35:05:01+B*51:02:05  | B*35:58+B*51:40        |                     |                    |
| B*35:05:01+B*51:06:01  | B*35:68:02+B*51:64     |                     |                    |
| B*35:05:01+B*51:06:02  | B*35:68:01+B*51:64     |                     |                    |
| B*35:05:01+B*51:07:01  | B*35:72+B*51:01:01G    |                     |                    |
| B*35:05:01+B*51:07:02  | B*35:72+B*51:01:02     |                     |                    |
| B*35:05:01+B*51:10     | B*35:37+B*51:81        |                     |                    |
| B*35:05:01+B*51:16     | B*35:58+B*51:31        |                     |                    |
| B*35:05:01+B*51:23     | B*35:58+B*51:108       |                     |                    |
| B*35:05:01+B*51:24:02  | B*35:114+B*51:01:04    |                     |                    |
| B*35:05:01+B*51:24:03  | B*35:114+B*51:01:01G   |                     |                    |
| B*35:05:01+B*52:01:01G | B*35:58+B*52:10:01     | B*53:14+B*78:05     |                    |
| B*35:05:01+B*52:01:02  | B*35:72+B*52:06:02     |                     |                    |
| B*35:05:01+B*52:01:07  | B*35:58+B*52:10:02     |                     |                    |
| B*35:05:01+B*53:02     | B*35:24:01+B*53:14     |                     |                    |
| B*35:05:01+B*53:08:01  | B*35:11:01+B*53:14     | B*35:58+B*53:01:01  |                    |
| B*35:05:01+B*53:08:02  | B*35:11:02+B*53:14     | B*35:58+B*53:01:03  |                    |
| B*35:05:01+B*53:09     | B*35:72+B*53:13        |                     |                    |
| B*35:05:01+B*53:17:02  | B*35:28+B*53:14        |                     |                    |
| B*35:05:01+B*53:21     | B*35:197+B*53:14       |                     |                    |
| B*35:05:01+B*53:23     | B*35:29:01+B*53:14     |                     |                    |
| B*35:05:01+B*53:24     | B*35:08:01+B*53:14     |                     |                    |
| B*35:05:01+B*53:26     | B*35:108:01+B*53:14    |                     |                    |
| B*35:05:01+B*54:12     | B*53:14+B*54:01:01G    |                     |                    |
| B*35:05:01+B*54:20     | B*35:58+B*54:10        |                     |                    |
| B*35:05:01+B*55:01:01G | B*35:58+B*55:02:01G    |                     |                    |
| B*35:05:01+B*55:24     | B*35:58+B*55:22        |                     |                    |
| B*35:05:01+B*55:52     | B*35:58+B*55:37        |                     |                    |
| B*35:05:01+B*56:20:02  | B*35:114+B*56:01:01G   |                     |                    |
| B*35:05:01+B*56:21     | B*53:14+B*56:05:02     |                     |                    |
| B*35:05:01+B*56:25     | B*35:58+B*56:01:01G    |                     |                    |
| B*35:05:01+B*56:32     | B*35:58+B*56:18        |                     |                    |
| B*35:05:01+B*57:02:01  | B*53:14+B*57:12        |                     |                    |
| B*35:05:01+B*57:22     | B*35:58+B*57:01:01G    |                     |                    |
| B*35:05:01+B*57:57     | B*35:58+B*57:03:01     |                     |                    |
| B*35:05:01+B*58:04     | B*35:202+B*58:18       |                     |                    |
| B*35:05:01+B*58:06     | B*35:58+B*58:02        |                     |                    |
| B*35:05:01+B*58:08:01  | B*58:18+B*78:02:02     |                     |                    |
| B*35:05:01+B*58:08:02  | B*58:18+B*78:02:01     |                     |                    |
| B*35:05:01+B*58:09     | B*35:24:01+B*58:18     |                     |                    |
| B*35:05:01+B*58:12     | B*35:124+B*58:18       |                     |                    |
| B*35:05:01+B*58:16     | B*35:68:02+B*58:18     |                     |                    |
| B*35:05:01+B*58:19     | B*35:11:01+B*58:18     | B*35:58+B*58:01:01G |                    |
| B*35:05:01+B*58:22     | B*35:08:01+B*58:18     |                     |                    |
| B*35:05:01+B*58:27     | B*35:31+B*58:18        |                     |                    |
| B*35:05:01+B*58:35     | B*35:93+B*58:18        |                     |                    |
| B*35:05:01+B*58:37     | B*35:15+B*58:18        |                     |                    |
| B*35:05:03+B*49:01:01  | B*50:01:02+B*53:14     |                     |                    |
| B*35:06+B*35:32:02     | B*35:59+B*35:68:01     |                     |                    |
| B*35:06+B*35:61        | B*35:08:01+B*35:59     |                     |                    |
| B*35:06+B*39:43        | B*35:24:01+B*39:30     |                     |                    |
| B*35:06+B*40:72:01     | B*35:09:01+B*40:77     |                     |                    |
| B*35:06+B*40:72:02     | B*35:09:02+B*40:77     |                     |                    |
| B*35:06+B*44:123       | B*35:38+B*44:77        |                     |                    |
| B*35:06+B*51:24:01     | B*35:09:01+B*51:13:01  |                     |                    |
| B*35:06+B*51:24:02     | B*35:09:02+B*51:13:01  |                     |                    |
| B*35:06+B*51:24:03     | B*35:09:02+B*51:13:02  |                     |                    |
| B*35:06+B*51:24:04     | B*35:09:03+B*51:13:02  |                     |                    |
| B*35:06+B*59:02        | B*35:09:01+B*59:03     |                     |                    |
| B*35:08:01+B*35:16     | B*35:17+B*35:80        |                     |                    |
| B*35:08:01+B*35:28     | B*35:20:01+B*35:80     |                     |                    |
| B*35:08:01+B*35:32:02  | B*35:61+B*35:68:01     |                     |                    |
| B*35:08:01+B*35:33     | B*35:15+B*35:156       |                     |                    |
| B*35:08:01+B*35:38     | B*35:115+B*35:156      |                     |                    |
| B*35:08:01+B*35:39     | B*35:34+B*35:61        |                     |                    |
| B*35:08:01+B*35:43:01G | B*35:62+B*35:99        |                     |                    |
| B*35:08:01+B*35:56     | B*35:27+B*35:156       |                     |                    |
| B*35:08:01+B*35:68:02  | B*35:08:03+B*35:68:01  |                     |                    |
| B*35:08:01+B*35:69     | B*35:29:01+B*35:80     |                     |                    |
| B*35:08:01+B*35:81     | B*35:24:01+B*35:172    |                     |                    |
| B*35:08:01+B*35:85     | B*35:82+B*35:156       |                     |                    |
| B*35:08:01+B*35:95     | B*35:20:01+B*35:172    |                     |                    |
| B*35:08:01+B*35:96     | B*35:156+B*35:188      |                     |                    |
| B*35:08:01+B*35:109    | B*35:24:01+B*35:156    |                     |                    |
| B*35:08:01+B*35:113    | B*35:17+B*35:105       |                     |                    |
| B*35:08:01+B*35:125    | B*35:17+B*35:142       |                     |                    |
| B*35:08:01+B*35:136    | B*35:29:01+B*35:156    |                     |                    |
| B*35:08:01+B*35:150    | B*35:90+B*35:156       |                     |                    |
| B*35:08:01+B*35:151    | B*35:68:02+B*35:156    |                     |                    |
| B*35:08:01+B*35:154    | B*35:47+B*35:172       |                     |                    |
| B*35:08:01+B*35:157    | B*35:172+B*35:190      |                     |                    |
| B*35:08:01+B*35:163    | B*35:62+B*35:156       |                     |                    |
| B*35:08:01+B*35:167    | B*35:11:01+B*35:156    |                     |                    |
| B*35:08:01+B*35:169    | B*35:38+B*35:45        |                     |                    |
| B*35:08:01+B*35:182    | B*35:137:01G+B*35:172  |                     |                    |
| B*35:08:01+B*35:184    | B*35:90+B*35:172       |                     |                    |
| B*35:08:01+B*35:195    | B*35:101:02+B*35:156   |                     |                    |
| B*35:08:01+B*35:205    | B*35:64+B*35:156       |                     |                    |
| B*35:08:01+B*37:01:06  | B*35:08:02+B*37:01:01G |                     |                    |
| B*35:08:01+B*37:04:02  | B*35:08:04+B*37:04:01  |                     |                    |
| B*35:08:01+B*37:10     | B*37:11+B*53:11        |                     |                    |
| B*35:08:01+B*37:34     | B*37:11+B*53:24        |                     |                    |
| B*35:08:01+B*38:01:01  | B*35:142+B*38:28       | B*39:05:01+B*53:24  | B*39:11+B*53:01:01 |
| B*35:08:01+B*38:01:03  | B*39:11+B*53:01:03     |                     |                    |
| B*35:08:01+B*38:02:01G | B*39:05:01+B*53:11     | B*39:11+B*53:13     |                    |
| B*35:08:01+B*38:04     | B*35:80+B*38:02:03     |                     |                    |
| B*35:08:01+B*38:14     | B*39:01:01G+B*53:24    | B*39:11+B*53:23     |                    |
| B*35:08:01+B*38:17     | B*39:11+B*53:03        |                     |                    |
| B*35:08:01+B*38:19     | B*39:37+B*53:24        |                     |                    |
| B*35:08:01+B*38:26     | B*53:24+B*67:01:01     |                     |                    |
| B*35:08:01+B*38:29     | B*39:55+B*53:11        |                     |                    |
| B*35:08:01+B*38:32     | B*39:11+B*53:08:01     |                     |                    |
| B*35:08:01+B*38:39     | B*35:158+B*38:01:01    |                     |                    |
| B*35:08:01+B*39:01:01G | B*35:29:01+B*39:11     |                     |                    |



|                        |                        |                       |                     |                     |
|------------------------|------------------------|-----------------------|---------------------|---------------------|
| B*35:08:01+B*39:02:01  | B*35:29:01+B*39:08     | B*35:80+B*39:39:01    |                     |                     |
| B*35:08:01+B*39:06:01  | B*35:08:03+B*39:06:02  |                       |                     |                     |
| B*35:08:01+B*39:06:02  | B*35:35+B*39:33        |                       |                     |                     |
| B*35:08:01+B*39:22     | B*35:69+B*39:11        | B*35:80+B*39:01:01G   |                     |                     |
| B*35:08:01+B*39:34     | B*35:93+B*39:33        |                       |                     |                     |
| B*35:08:01+B*39:55     | B*35:156+B*39:07       |                       |                     |                     |
| B*35:08:01+B*39:62     | B*35:105+B*39:06:02    |                       |                     |                     |
| B*35:08:01+B*39:68     | B*35:174+B*39:01:01G   |                       |                     |                     |
| B*35:08:01+B*40:01:11  | B*35:42:02+B*40:128    |                       |                     |                     |
| B*35:08:01+B*40:01:14  | B*35:174+B*40:87:01    |                       |                     |                     |
| B*35:08:01+B*40:02:01G | B*35:08:03+B*40:02:09  | B*35:174+B*40:35      |                     |                     |
| B*35:08:01+B*40:07     | B*35:80+B*40:106       |                       |                     |                     |
| B*35:08:01+B*40:11:01  | B*35:08:03+B*40:11:02  |                       |                     |                     |
| B*35:08:01+B*40:14:01  | B*35:174+B*40:121      |                       |                     |                     |
| B*35:08:01+B*40:19     | B*40:02:01G+B*53:24    | B*40:37+B*53:16       |                     |                     |
| B*35:08:01+B*40:36     | B*35:156+B*40:38       |                       |                     |                     |
| B*35:08:01+B*40:43     | B*35:29:01+B*40:128    |                       |                     |                     |
| B*35:08:01+B*40:47     | B*40:01:01G+B*53:11    | B*40:128+B*53:13      |                     |                     |
| B*35:08:01+B*40:74     | B*35:197+B*40:128      |                       |                     |                     |
| B*35:08:01+B*40:96     | B*40:06:01G+B*53:11    |                       |                     |                     |
| B*35:08:01+B*40:109    | B*40:06:01G+B*53:16    |                       |                     |                     |
| B*35:08:01+B*40:113    | B*35:24:01+B*40:128    |                       |                     |                     |
| B*35:08:01+B*40:117    | B*40:01:01G+B*53:24    | B*40:128+B*53:01:01   |                     |                     |
| B*35:08:01+B*40:124:02 | B*35:08:03+B*40:124:01 |                       |                     |                     |
| B*35:08:01+B*40:132    | B*35:45+B*40:01:01G    | B*35:71+B*40:128      |                     |                     |
| B*35:08:01+B*40:154    | B*35:168+B*40:128      |                       |                     |                     |
| B*35:08:01+B*40:157    | B*40:02:01G+B*53:11    |                       |                     |                     |
| B*35:08:01+B*40:188    | B*40:128+B*53:03       |                       |                     |                     |
| B*35:08:01+B*40:202    | B*35:105+B*40:02:01G   |                       |                     |                     |
| B*35:08:01+B*41:11     | B*35:192+B*41:02:01    |                       |                     |                     |
| B*35:08:01+B*42:01:01  | B*35:174+B*42:10       |                       |                     |                     |
| B*35:08:01+B*42:02     | B*35:174+B*42:17       |                       |                     |                     |
| B*35:08:01+B*44:02:01G | B*35:08:03+B*44:02:07  | B*35:45+B*44:91       | B*35:80+B*44:12     | B*35:115+B*44:28:02 |
|                        | B*44:09+B*53:11        |                       |                     |                     |
| B*35:08:01+B*44:02:07  | B*35:115+B*44:28:01    |                       |                     |                     |
| B*35:08:01+B*44:05:01  | B*35:45+B*44:42        |                       |                     |                     |
| B*35:08:01+B*44:18     | B*45:01:01G+B*53:24    |                       |                     |                     |
| B*35:08:01+B*44:21     | B*35:45+B*44:16        |                       |                     |                     |
| B*35:08:01+B*44:25     | B*44:75+B*53:16        |                       |                     |                     |
| B*35:08:01+B*44:26     | B*35:138+B*44:28:02    |                       |                     |                     |
| B*35:08:01+B*44:28:02  | B*35:08:03+B*44:28:01  |                       |                     |                     |
| B*35:08:01+B*44:37:01  | B*35:08:03+B*44:37:02  |                       |                     |                     |
| B*35:08:01+B*44:41:01  | B*35:08:03+B*44:41:02  |                       |                     |                     |
| B*35:08:01+B*44:47     | B*35:37+B*44:28:01     |                       |                     |                     |
| B*35:08:01+B*44:50     | B*44:46+B*53:24        |                       |                     |                     |
| B*35:08:01+B*44:53     | B*35:174+B*44:02:01G   |                       |                     |                     |
| B*35:08:01+B*44:64:02  | B*35:08:03+B*44:64:01  |                       |                     |                     |
| B*35:08:01+B*44:65     | B*35:68:01+B*44:28:02  | B*35:68:02+B*44:28:01 |                     |                     |
| B*35:08:01+B*44:95     | B*44:09+B*53:24        |                       |                     |                     |
| B*35:08:01+B*44:98     | B*35:105+B*44:03:01G   | B*35:159+B*44:28:02   |                     |                     |
| B*35:08:01+B*44:103    | B*35:50+B*44:28:02     |                       |                     |                     |
| B*35:08:01+B*44:105    | B*35:54+B*44:28:02     |                       |                     |                     |
| B*35:08:01+B*44:110    | B*35:30+B*44:28:01     |                       |                     |                     |
| B*35:08:01+B*44:124    | B*35:15+B*44:28:01     | B*35:45+B*44:64:01    |                     |                     |
| B*35:08:01+B*44:146    | B*35:14:01+B*44:28:02  | B*35:62+B*44:76       |                     |                     |
| B*35:08:01+B*45:01:01G | B*35:45+B*45:04        |                       |                     |                     |
| B*35:08:01+B*46:08     | B*35:99+B*46:33        |                       |                     |                     |
| B*35:08:01+B*46:17     | B*35:45+B*46:01:01G    |                       |                     |                     |
| B*35:08:01+B*46:27     | B*35:105+B*46:01:01G   |                       |                     |                     |
| B*35:08:01+B*46:29     | B*35:62+B*46:03        |                       |                     |                     |
| B*35:08:01+B*48:03:01  | B*35:08:03+B*48:03:02  |                       |                     |                     |
| B*35:08:01+B*48:18     | B*48:01:01G+B*53:16    |                       |                     |                     |
| B*35:08:01+B*49:01:01  | B*50:01:01+B*53:24     |                       |                     |                     |
| B*35:08:01+B*49:02     | B*50:01:01+B*53:11     |                       |                     |                     |
| B*35:08:01+B*49:10     | B*50:13+B*53:24        |                       |                     |                     |
| B*35:08:01+B*49:18     | B*50:14+B*53:24        |                       |                     |                     |
| B*35:08:01+B*49:20     | B*35:45+B*49:01:01     | B*50:02+B*53:24       |                     |                     |
| B*35:08:01+B*50:01:01  | B*35:80+B*50:15        |                       |                     |                     |
| B*35:08:01+B*50:02     | B*35:45+B*50:01:01     |                       |                     |                     |
| B*35:08:01+B*51:01:02  | B*35:21+B*51:05        | B*53:24+B*78:02:01    |                     |                     |
| B*35:08:01+B*51:02:02  | B*35:11:01+B*51:05     |                       |                     |                     |
| B*35:08:01+B*51:06:01  | B*35:08:03+B*51:06:02  |                       |                     |                     |
| B*35:08:01+B*51:07:01  | B*35:20:01+B*51:29     |                       |                     |                     |
| B*35:08:01+B*51:09:02  | B*35:24:01+B*51:05     |                       |                     |                     |
| B*35:08:01+B*51:13:02  | B*35:156+B*51:63       |                       |                     |                     |
| B*35:08:01+B*51:21     | B*35:93+B*51:29        |                       |                     |                     |
| B*35:08:01+B*51:22     | B*35:82+B*51:29        |                       |                     |                     |
| B*35:08:01+B*51:23     | B*35:45+B*51:02:01     |                       |                     |                     |
| B*35:08:01+B*51:24:01  | B*35:174+B*51:01:04    |                       |                     |                     |
| B*35:08:01+B*51:24:03  | B*35:18+B*51:37        | B*35:64+B*51:29       | B*35:174+B*51:01:25 |                     |
| B*35:08:01+B*51:24:04  | B*35:174+B*51:01:21    |                       |                     |                     |
| B*35:08:01+B*51:35     | B*35:116+B*51:29       |                       |                     |                     |
| B*35:08:01+B*51:53     | B*35:180+B*51:29       |                       |                     |                     |
| B*35:08:01+B*51:57     | B*35:197+B*51:29       |                       |                     |                     |
| B*35:08:01+B*51:61:02  | B*35:62+B*51:29        |                       |                     |                     |
| B*35:08:01+B*51:76     | B*35:101:02+B*51:29    |                       |                     |                     |
| B*35:08:01+B*51:78:01  | B*53:11+B*78:02:02     |                       |                     |                     |
| B*35:08:01+B*51:78:02  | B*35:21+B*51:54        | B*53:11+B*78:02:01    |                     |                     |
| B*35:08:01+B*51:101    | B*35:35+B*51:29        |                       |                     |                     |
| B*35:08:01+B*51:112    | B*35:19+B*51:29        |                       |                     |                     |
| B*35:08:01+B*51:130    | B*35:91+B*51:29        |                       |                     |                     |
| B*35:08:01+B*52:01:02  | B*35:28+B*51:29        | B*35:42:02+B*52:24    | B*35:80+B*51:07:01  |                     |
| B*35:08:01+B*52:06:01  | B*35:80+B*51:01:33     |                       |                     |                     |
| B*35:08:01+B*52:06:02  | B*35:10+B*51:29        | B*35:80+B*51:01:01G   |                     |                     |
| B*35:08:01+B*52:08     | B*35:15+B*52:24        |                       |                     |                     |
| B*35:08:01+B*52:15     | B*35:45+B*52:01:01G    | B*35:71+B*52:24       |                     |                     |
| B*35:08:01+B*52:20     | B*53:11+B*78:05        |                       |                     |                     |
| B*35:08:01+B*52:23     | B*35:200+B*52:24       |                       |                     |                     |
| B*35:08:01+B*52:27     | B*35:124+B*52:24       | B*35:142+B*52:01:01G  |                     |                     |
| B*35:08:01+B*52:29     | B*35:180+B*52:24       |                       |                     |                     |
| B*35:08:01+B*53:02     | B*35:24:01+B*53:24     |                       |                     |                     |
| B*35:08:01+B*53:08:01  | B*35:11:01+B*53:24     |                       |                     |                     |
| B*35:08:01+B*53:08:02  | B*35:11:02+B*53:24     |                       |                     |                     |
| B*35:08:01+B*53:09     | B*35:20:01+B*53:11     |                       |                     |                     |
| B*35:08:01+B*53:17:02  | B*35:28+B*53:24        |                       |                     |                     |

|                        |                        |                       |
|------------------------|------------------------|-----------------------|
| B*35:08:01+B*53:21     | B*35:197+B*53:24       |                       |
| B*35:08:01+B*53:23     | B*35:29:01+B*53:24     |                       |
| B*35:08:01+B*53:26     | B*35:108:01+B*53:24    |                       |
| B*35:08:01+B*54:02     | B*35:50+B*54:10        |                       |
| B*35:08:01+B*54:12     | B*53:01:01+B*54:10     | B*53:24+B*54:01:01G   |
| B*35:08:01+B*54:21     | B*35:124+B*54:10       | B*35:142+B*54:01:01G  |
| B*35:08:01+B*55:12     | B*35:27+B*55:37        |                       |
| B*35:08:01+B*55:13     | B*35:156+B*55:32       |                       |
| B*35:08:01+B*55:21     | B*35:14:01+B*55:37     | B*35:62+B*55:52       |
| B*35:08:01+B*55:26     | B*35:143+B*55:37       |                       |
| B*35:08:01+B*55:34     | B*35:80+B*55:47        |                       |
| B*35:08:01+B*55:40     | B*35:10+B*55:52        | B*35:80+B*55:01:01G   |
| B*35:08:01+B*55:42     | B*35:116+B*55:37       |                       |
| B*35:08:01+B*55:54     | B*35:180+B*55:52       |                       |
| B*35:08:01+B*55:56     | B*35:115+B*55:52       |                       |
| B*35:08:01+B*56:07     | B*53:11+B*56:01:01G    |                       |
| B*35:08:01+B*56:11     | B*35:156+B*56:09       |                       |
| B*35:08:01+B*56:16     | B*35:142+B*56:01:01G   |                       |
| B*35:08:01+B*56:20:01  | B*35:174+B*56:01:01G   |                       |
| B*35:08:01+B*56:21     | B*53:24+B*56:05:02     |                       |
| B*35:08:01+B*57:02:01  | B*53:24+B*57:12        |                       |
| B*35:08:01+B*57:07     | B*35:45+B*57:03:01     | B*35:71+B*57:02:01    |
| B*35:08:01+B*57:10     | B*35:197+B*57:19       |                       |
| B*35:08:01+B*57:22     | B*35:11:01+B*57:19     |                       |
| B*35:08:01+B*57:24     | B*35:115+B*57:19       |                       |
| B*35:08:01+B*57:25     | B*35:15+B*57:19        |                       |
| B*35:08:01+B*57:26     | B*35:93+B*57:19        |                       |
| B*35:08:01+B*57:31     | B*35:174+B*57:01:01G   |                       |
| B*35:08:01+B*57:46     | B*35:180+B*57:02:01    |                       |
| B*35:08:01+B*57:57     | B*35:11:01+B*57:02:01  | B*53:08:01+B*57:12    |
| B*35:08:01+B*57:58     | B*35:124+B*57:19       | B*35:142+B*57:01:01G  |
| B*35:08:01+B*58:04     | B*35:202+B*58:22       |                       |
| B*35:08:01+B*58:07     | B*35:45+B*58:02        |                       |
| B*35:08:01+B*58:08:01  | B*58:22+B*78:02:02     |                       |
| B*35:08:01+B*58:08:02  | B*58:22+B*78:02:01     |                       |
| B*35:08:01+B*58:09     | B*35:24:01+B*58:22     |                       |
| B*35:08:01+B*58:12     | B*35:124+B*58:22       | B*35:142+B*58:01:01G  |
| B*35:08:01+B*58:16     | B*35:68:02+B*58:22     |                       |
| B*35:08:01+B*58:19     | B*35:11:01+B*58:22     |                       |
| B*35:08:01+B*58:27     | B*35:31+B*58:22        |                       |
| B*35:08:01+B*58:35     | B*35:93+B*58:22        |                       |
| B*35:08:01+B*58:37     | B*35:15+B*58:22        |                       |
| B*35:08:02+B*40:01:11  | B*35:08:05+B*40:01:01G |                       |
| B*35:08:02+B*44:02:10  | B*35:08:05+B*44:02:01G |                       |
| B*35:08:02+B*51:01:01G | B*35:08:05+B*51:01:02  |                       |
| B*35:08:02+B*51:01:21  | B*35:08:05+B*51:01:09  |                       |
| B*35:08:02+B*51:02:01  | B*35:08:05+B*51:02:02  |                       |
| B*35:08:02+B*51:07:01  | B*35:08:05+B*51:07:02  |                       |
| B*35:08:02+B*51:09:01  | B*35:08:05+B*51:09:02  |                       |
| B*35:08:02+B*51:78:01  | B*35:08:05+B*51:78:02  |                       |
| B*35:08:02+B*52:01:02  | B*35:08:05+B*52:01:01G |                       |
| B*35:08:02+B*56:05:01  | B*35:08:05+B*56:05:02  |                       |
| B*35:08:02+B*58:08:01  | B*35:08:05+B*58:08:02  |                       |
| B*35:08:02+B*78:02:02  | B*35:08:05+B*78:02:01  |                       |
| B*35:08:03+B*35:32:02  | B*35:61+B*35:68:02     |                       |
| B*35:08:03+B*39:37     | B*35:30+B*39:11        |                       |
| B*35:08:03+B*39:62     | B*35:105+B*39:06:01    |                       |
| B*35:08:03+B*40:18     | B*35:61+B*40:24        |                       |
| B*35:08:03+B*40:80     | B*35:30+B*40:128       |                       |
| B*35:08:03+B*40:100    | B*35:23+B*40:128       |                       |
| B*35:08:03+B*44:47     | B*35:37+B*44:28:02     |                       |
| B*35:08:03+B*44:65     | B*35:68:02+B*44:28:02  |                       |
| B*35:08:03+B*44:110    | B*35:30+B*44:28:02     |                       |
| B*35:08:03+B*44:124    | B*35:15+B*44:28:02     | B*35:45+B*44:64:02    |
| B*35:08:03+B*51:04     | B*35:61+B*51:56:02     |                       |
| B*35:08:03+B*52:06:02  | B*35:80+B*51:01:16     |                       |
| B*35:09:01+B*35:61     | B*35:12:01+B*35:174    |                       |
| B*35:09:01+B*39:15     | B*35:34+B*39:68        |                       |
| B*35:09:01+B*40:01:01G | B*35:09:03+B*40:01:14  |                       |
| B*35:09:01+B*40:06:01G | B*35:09:02+B*40:06:05  |                       |
| B*35:09:01+B*40:14:03  | B*35:09:02+B*40:14:01  | B*35:09:03+B*40:14:02 |
| B*35:09:01+B*40:72:02  | B*35:09:02+B*40:72:01  |                       |
| B*35:09:01+B*40:159    | B*35:64+B*40:06:05     |                       |
| B*35:09:01+B*44:03:14  | B*35:09:02+B*44:03:01G |                       |
| B*35:09:01+B*51:01:09  | B*35:09:03+B*51:01:02  |                       |
| B*35:09:01+B*51:24:02  | B*35:09:02+B*51:24:01  |                       |
| B*35:09:01+B*56:20:02  | B*35:09:02+B*56:20:01  |                       |
| B*35:09:01+B*57:01:07  | B*35:09:03+B*57:01:01G |                       |
| B*35:09:01+B*57:19     | B*35:174+B*57:03:01    |                       |
| B*35:09:02+B*35:11:01  | B*35:09:03+B*35:11:02  |                       |
| B*35:09:02+B*35:14:01  | B*35:09:03+B*35:14:02  |                       |
| B*35:09:02+B*35:43:01G | B*35:44+B*35:64        |                       |
| B*35:09:02+B*35:45     | B*35:18+B*35:71        |                       |
| B*35:09:02+B*35:51     | B*35:12:02+B*35:114    | B*35:22+B*35:64       |
| B*35:09:02+B*35:80     | B*35:10+B*35:18        |                       |
| B*35:09:02+B*35:105    | B*35:18+B*35:159       |                       |
| B*35:09:02+B*35:142    | B*35:18+B*35:124       |                       |
| B*35:09:02+B*38:01:01  | B*35:09:03+B*38:01:03  |                       |
| B*35:09:02+B*39:01:01G | B*35:09:03+B*39:01:05  |                       |
| B*35:09:02+B*39:11     | B*35:18+B*39:05:01     |                       |
| B*35:09:02+B*39:15     | B*35:205+B*39:70       |                       |
| B*35:09:02+B*40:03     | B*35:64+B*40:02:01G    | B*35:114+B*40:64      |
| B*35:09:02+B*40:20     | B*35:64+B*40:11:01     |                       |
| B*35:09:02+B*40:52     | B*35:64+B*40:01:01G    |                       |
| B*35:09:02+B*40:128    | B*35:18+B*40:01:01G    |                       |
| B*35:09:02+B*40:159    | B*35:64+B*40:06:01G    |                       |
| B*35:09:02+B*40:161    | B*35:18+B*40:148       |                       |
| B*35:09:02+B*40:198    | B*35:18+B*40:183       |                       |
| B*35:09:02+B*41:18     | B*35:205+B*41:02:01    |                       |
| B*35:09:02+B*42:09     | B*35:64+B*42:02        |                       |
| B*35:09:02+B*44:02:01G | B*35:09:03+B*44:02:09  |                       |
| B*35:09:02+B*44:28:01  | B*35:18+B*44:03:02     |                       |
| B*35:09:02+B*44:28:02  | B*35:18+B*44:03:01G    |                       |
| B*35:09:02+B*44:43:01  | B*35:64+B*44:77        |                       |
| B*35:09:02+B*44:76     | B*35:18+B*44:79        |                       |

|                        |                        |                    |
|------------------------|------------------------|--------------------|
| B*35:09:02+B*46:01:03  | B*35:09:03+B*46:01:01G |                    |
| B*35:09:02+B*46:13:01  | B*35:09:03+B*46:13:03  |                    |
| B*35:09:02+B*46:21:02  | B*35:09:03+B*46:21:01  |                    |
| B*35:09:02+B*46:30     | B*35:88+B*46:01:07     |                    |
| B*35:09:02+B*48:23     | B*35:64+B*48:03:01     |                    |
| B*35:09:02+B*51:01:21  | B*35:09:03+B*51:01:25  |                    |
| B*35:09:02+B*51:02:01  | B*35:09:03+B*51:02:05  |                    |
| B*35:09:02+B*51:24:04  | B*35:09:03+B*51:24:03  |                    |
| B*35:09:02+B*51:29     | B*35:18+B*51:01:01G    |                    |
| B*35:09:02+B*51:61:02  | B*35:09:03+B*51:61:01  |                    |
| B*35:09:02+B*51:82     | B*35:18+B*51:16        |                    |
| B*35:09:02+B*51:90     | B*35:34+B*51:24:03     |                    |
| B*35:09:02+B*52:01:01G | B*35:09:03+B*52:01:07  |                    |
| B*35:09:02+B*52:10:01  | B*35:09:03+B*52:10:02  |                    |
| B*35:09:02+B*52:24     | B*35:18+B*52:01:01G    |                    |
| B*35:09:02+B*53:01:01  | B*35:09:03+B*53:01:03  |                    |
| B*35:09:02+B*53:08:01  | B*35:09:03+B*53:08:02  |                    |
| B*35:09:02+B*53:11     | B*35:18+B*53:13        |                    |
| B*35:09:02+B*53:16     | B*35:18+B*53:05        |                    |
| B*35:09:02+B*53:24     | B*35:18+B*53:01:01     |                    |
| B*35:09:02+B*54:10     | B*35:18+B*54:01:01G    |                    |
| B*35:09:02+B*54:14     | B*35:64+B*54:04        |                    |
| B*35:09:02+B*55:09     | B*35:18+B*55:24        |                    |
| B*35:09:02+B*55:37     | B*35:18+B*55:02:01G    |                    |
| B*35:09:02+B*55:52     | B*35:18+B*55:01:01G    |                    |
| B*35:09:02+B*57:01:01G | B*35:64+B*57:03:01     |                    |
| B*35:09:02+B*57:02:01  | B*35:18+B*57:03:01     |                    |
| B*35:09:02+B*57:19     | B*35:18+B*57:01:01G    | B*35:64+B*57:02:01 |
| B*35:09:02+B*57:22     | B*35:64+B*57:57        |                    |
| B*35:09:02+B*58:01:01G | B*35:09:03+B*58:01:05  |                    |
| B*35:09:02+B*58:22     | B*35:18+B*58:01:01G    |                    |
| B*35:09:03+B*51:90     | B*35:34+B*51:24:04     |                    |
| B*35:09:03+B*56:18     | B*35:93+B*55:08        |                    |
| B*35:09:03+B*56:31     | B*35:190+B*55:08       |                    |
| B*35:10+B*35:33        | B*35:13+B*35:15        |                    |
| B*35:10+B*35:38        | B*35:13+B*35:115       |                    |
| B*35:10+B*35:45        | B*35:71+B*35:80        |                    |
| B*35:10+B*35:56        | B*35:13+B*35:27        |                    |
| B*35:10+B*35:85        | B*35:13+B*35:82        |                    |
| B*35:10+B*35:96        | B*35:13+B*35:188       |                    |
| B*35:10+B*35:105       | B*35:80+B*35:159       |                    |
| B*35:10+B*35:109       | B*35:13+B*35:24:01     |                    |
| B*35:10+B*35:113       | B*35:16+B*35:159       |                    |
| B*35:10+B*35:125       | B*35:16+B*35:124       |                    |
| B*35:10+B*35:142       | B*35:80+B*35:124       |                    |
| B*35:10+B*35:150       | B*35:13+B*35:90        |                    |
| B*35:10+B*35:151       | B*35:13+B*35:68:02     |                    |
| B*35:10+B*35:163       | B*35:13+B*35:62        |                    |
| B*35:10+B*35:167       | B*35:11:01+B*35:13     |                    |
| B*35:10+B*35:195       | B*35:13+B*35:101:02    |                    |
| B*35:10+B*35:205       | B*35:13+B*35:64        |                    |
| B*35:10+B*37:01:01G    | B*35:28+B*37:21        |                    |
| B*35:10+B*38:14        | B*35:69+B*38:01:01     | B*39:22+B*53:01:01 |
| B*35:10+B*39:02:02     | B*35:69+B*39:13:01     |                    |
| B*35:10+B*39:03        | B*35:69+B*39:37        |                    |
| B*35:10+B*39:11        | B*35:80+B*39:05:01     |                    |
| B*35:10+B*39:15        | B*35:69+B*39:55        |                    |
| B*35:10+B*39:18        | B*35:14:02+B*39:22     |                    |
| B*35:10+B*39:35        | B*35:11:01+B*39:22     |                    |
| B*35:10+B*39:48        | B*35:24:01+B*39:22     |                    |
| B*35:10+B*39:52        | B*35:200+B*39:22       |                    |
| B*35:10+B*39:55        | B*35:13+B*39:07        |                    |
| B*35:10+B*40:01:01G    | B*35:28+B*40:07        |                    |
| B*35:10+B*40:06:01G    | B*35:28+B*40:162       |                    |
| B*35:10+B*40:19        | B*35:28+B*40:13        |                    |
| B*35:10+B*40:36        | B*35:13+B*40:38        |                    |
| B*35:10+B*40:43        | B*35:69+B*40:01:01G    |                    |
| B*35:10+B*40:50        | B*35:69+B*40:02:01G    |                    |
| B*35:10+B*40:80        | B*35:16+B*40:125       |                    |
| B*35:10+B*40:117       | B*40:07+B*53:17:02     |                    |
| B*35:10+B*40:128       | B*35:80+B*40:01:01G    |                    |
| B*35:10+B*40:161       | B*35:80+B*40:148       |                    |
| B*35:10+B*40:166       | B*35:76+B*40:07        |                    |
| B*35:10+B*40:198       | B*35:80+B*40:183       |                    |
| B*35:10+B*44:28:01     | B*35:80+B*44:03:02     |                    |
| B*35:10+B*44:28:02     | B*35:80+B*44:03:01G    |                    |
| B*35:10+B*44:76        | B*35:80+B*44:79        |                    |
| B*35:10+B*51:13:02     | B*35:13+B*51:63        |                    |
| B*35:10+B*51:16        | B*35:15+B*52:06:02     |                    |
| B*35:10+B*51:20        | B*35:69+B*51:08        |                    |
| B*35:10+B*51:21        | B*35:93+B*52:06:02     |                    |
| B*35:10+B*51:22        | B*35:82+B*52:06:02     |                    |
| B*35:10+B*51:24:03     | B*35:64+B*52:06:02     |                    |
| B*35:10+B*51:35        | B*35:116+B*52:06:02    |                    |
| B*35:10+B*51:53        | B*35:180+B*52:06:02    |                    |
| B*35:10+B*51:57        | B*35:197+B*52:06:02    |                    |
| B*35:10+B*51:61:02     | B*35:62+B*52:06:02     |                    |
| B*35:10+B*51:76        | B*35:101:02+B*52:06:02 |                    |
| B*35:10+B*51:82        | B*35:80+B*51:16        |                    |
| B*35:10+B*51:101       | B*35:35+B*52:06:02     |                    |
| B*35:10+B*51:112       | B*35:19+B*52:06:02     |                    |
| B*35:10+B*51:130       | B*35:91+B*52:06:02     |                    |
| B*35:10+B*52:01:02     | B*35:28+B*52:06:02     |                    |
| B*35:10+B*52:24        | B*35:80+B*52:01:01G    |                    |
| B*35:10+B*53:04        | B*35:13+B*53:01:01     |                    |
| B*35:10+B*53:09        | B*35:28+B*53:13        |                    |
| B*35:10+B*53:11        | B*35:80+B*53:13        |                    |
| B*35:10+B*53:16        | B*35:80+B*53:05        |                    |
| B*35:10+B*53:23        | B*35:69+B*53:01:01     |                    |
| B*35:10+B*53:24        | B*35:80+B*53:01:01     |                    |
| B*35:10+B*54:10        | B*35:80+B*54:01:01G    |                    |
| B*35:10+B*55:09        | B*35:80+B*55:24        |                    |
| B*35:10+B*55:13        | B*35:13+B*55:32        |                    |
| B*35:10+B*55:21        | B*35:62+B*55:40        |                    |
| B*35:10+B*55:37        | B*35:80+B*55:02:01G    |                    |

|                        |                        |                        |                    |
|------------------------|------------------------|------------------------|--------------------|
| B*35:10+B*55:54        | B*35:180+B*55:40       |                        |                    |
| B*35:10+B*55:56        | B*35:115+B*55:40       |                        |                    |
| B*35:10+B*56:11        | B*35:13+B*56:09        |                        |                    |
| B*35:10+B*57:02:01     | B*35:80+B*57:03:01     |                        |                    |
| B*35:10+B*57:19        | B*35:80+B*57:01:01G    |                        |                    |
| B*35:10+B*58:22        | B*35:80+B*58:01:01G    |                        |                    |
| B*35:10+B*58:34        | B*35:13+B*58:01:01G    |                        |                    |
| B*35:10+B*78:01:01     | B*35:69+B*78:02:02     |                        |                    |
| B*35:11:01+B*35:14:02  | B*35:11:02+B*35:14:01  |                        |                    |
| B*35:11:01+B*35:22     | B*35:12:02+B*35:58     |                        |                    |
| B*35:11:01+B*35:33     | B*35:15+B*35:167       |                        |                    |
| B*35:11:01+B*35:38     | B*35:115+B*35:167      |                        |                    |
| B*35:11:01+B*35:56     | B*35:27+B*35:167       |                        |                    |
| B*35:11:01+B*35:72     | B*35:20:01+B*35:58     |                        |                    |
| B*35:11:01+B*35:85     | B*35:82+B*35:167       |                        |                    |
| B*35:11:01+B*35:96     | B*35:167+B*35:188      |                        |                    |
| B*35:11:01+B*35:114    | B*35:58+B*35:64        |                        |                    |
| B*35:11:01+B*35:136    | B*35:29:01+B*35:167    |                        |                    |
| B*35:11:01+B*35:150    | B*35:90+B*35:167       |                        |                    |
| B*35:11:01+B*35:151    | B*35:68:02+B*35:167    |                        |                    |
| B*35:11:01+B*35:195    | B*35:101:02+B*35:167   |                        |                    |
| B*35:11:01+B*35:205    | B*35:64+B*35:167       |                        |                    |
| B*35:11:01+B*37:04:01  | B*35:21+B*37:01:01G    | B*35:24:01+B*37:13     |                    |
| B*35:11:01+B*37:34     | B*37:11+B*53:08:01     |                        |                    |
| B*35:11:01+B*38:01:03  | B*35:11:02+B*38:01:01  | B*39:05:01+B*53:08:02  |                    |
| B*35:11:01+B*38:14     | B*35:29:01+B*38:32     | B*39:01:01G+B*53:08:01 | B*39:35+B*53:01:01 |
| B*35:11:01+B*38:19     | B*39:37+B*53:08:01     |                        |                    |
| B*35:11:01+B*38:26     | B*53:08:01+B*67:01:01  |                        |                    |
| B*35:11:01+B*38:27     | B*35:101:02+B*38:32    |                        |                    |
| B*35:11:01+B*38:40     | B*35:143+B*38:32       |                        |                    |
| B*35:11:01+B*39:01:05  | B*35:11:02+B*39:01:01G |                        |                    |
| B*35:11:01+B*39:18     | B*35:14:02+B*39:35     |                        |                    |
| B*35:11:01+B*39:32     | B*35:21+B*39:74        |                        |                    |
| B*35:11:01+B*39:48     | B*35:21+B*39:01:01G    | B*35:24:01+B*39:35     | B*35:188+B*39:74   |
| B*35:11:01+B*39:52     | B*35:200+B*39:35       |                        |                    |
| B*35:11:01+B*39:55     | B*35:167+B*39:07       |                        |                    |
| B*35:11:01+B*40:01:11  | B*35:42:02+B*40:183    |                        |                    |
| B*35:11:01+B*40:02:01G | B*35:15+B*40:05        | B*35:58+B*40:64        |                    |
| B*35:11:01+B*40:14:02  | B*35:11:02+B*40:14:01  |                        |                    |
| B*35:11:01+B*40:19     | B*40:02:01G+B*53:08:01 |                        |                    |
| B*35:11:01+B*40:24     | B*35:58+B*40:120       |                        |                    |
| B*35:11:01+B*40:36     | B*35:167+B*40:38       |                        |                    |
| B*35:11:01+B*40:39     | B*35:93+B*40:05        |                        |                    |
| B*35:11:01+B*40:43     | B*35:29:01+B*40:183    |                        |                    |
| B*35:11:01+B*40:47     | B*40:183+B*53:13       |                        |                    |
| B*35:11:01+B*40:74     | B*35:197+B*40:183      |                        |                    |
| B*35:11:01+B*40:96     | B*40:148+B*53:13       |                        |                    |
| B*35:11:01+B*40:109    | B*40:148+B*53:05       |                        |                    |
| B*35:11:01+B*40:113    | B*35:21+B*40:01:01G    | B*35:24:01+B*40:183    |                    |
| B*35:11:01+B*40:117    | B*40:01:01G+B*53:08:01 | B*40:183+B*53:01:01    |                    |
| B*35:11:01+B*40:132    | B*35:71+B*40:183       |                        |                    |
| B*35:11:01+B*40:154    | B*35:168+B*40:183      |                        |                    |
| B*35:11:01+B*40:163    | B*35:188+B*40:92       |                        |                    |
| B*35:11:01+B*40:174    | B*35:21+B*40:05        |                        |                    |
| B*35:11:01+B*40:188    | B*40:183+B*53:03       |                        |                    |
| B*35:11:01+B*42:01:01  | B*35:58+B*42:13        |                        |                    |
| B*35:11:01+B*42:11     | B*35:87+B*48:25        |                        |                    |
| B*35:11:01+B*44:02:01G | B*35:115+B*44:79       |                        |                    |
| B*35:11:01+B*44:02:09  | B*35:11:02+B*44:02:01G |                        |                    |
| B*35:11:01+B*44:04     | B*35:93+B*44:76        |                        |                    |
| B*35:11:01+B*44:18     | B*35:115+B*49:20       | B*45:01:01G+B*53:08:01 | B*50:01:01+B*53:22 |
| B*35:11:01+B*44:26     | B*35:138+B*44:79       |                        |                    |
| B*35:11:01+B*44:50     | B*44:46+B*53:08:01     |                        |                    |
| B*35:11:01+B*44:54     | B*35:58+B*44:03:02     |                        |                    |
| B*35:11:01+B*44:65     | B*35:68:01+B*44:79     |                        |                    |
| B*35:11:01+B*44:95     | B*44:09+B*53:08:01     |                        |                    |
| B*35:11:01+B*44:98     | B*35:159+B*44:79       |                        |                    |
| B*35:11:01+B*44:103    | B*35:50+B*44:79        |                        |                    |
| B*35:11:01+B*44:105    | B*35:54+B*44:79        |                        |                    |
| B*35:11:01+B*44:106    | B*35:58+B*44:02:07     |                        |                    |
| B*35:11:01+B*44:146    | B*35:14:01+B*44:79     |                        |                    |
| B*35:11:01+B*45:01:01G | B*35:115+B*50:02       |                        |                    |
| B*35:11:01+B*45:04     | B*35:115+B*50:01:01    |                        |                    |
| B*35:11:01+B*46:01:01G | B*35:11:02+B*46:01:03  | B*35:14:01+B*46:08     |                    |
| B*35:11:01+B*46:21:01  | B*35:11:02+B*46:21:02  | B*35:93+B*46:08        |                    |
| B*35:11:01+B*48:13     | B*35:31+B*48:25        |                        |                    |
| B*35:11:01+B*48:18     | B*48:15+B*53:05        |                        |                    |
| B*35:11:01+B*48:19     | B*35:14:01+B*48:01:01G | B*35:62+B*48:15        |                    |
| B*35:11:01+B*49:01:01  | B*50:01:01+B*53:08:01  |                        |                    |
| B*35:11:01+B*49:09     | B*35:21+B*49:01:01     |                        |                    |
| B*35:11:01+B*49:10     | B*50:13+B*53:08:01     |                        |                    |
| B*35:11:01+B*49:18     | B*50:14+B*53:08:01     |                        |                    |
| B*35:11:01+B*49:20     | B*50:02+B*53:08:01     |                        |                    |
| B*35:11:01+B*51:01:01G | B*35:21+B*51:02:01     | B*53:08:01+B*78:02:02  |                    |
| B*35:11:01+B*51:01:02  | B*35:21+B*51:02:02     | B*53:08:01+B*78:02:01  |                    |
| B*35:11:01+B*51:01:04  | B*35:21+B*51:02:04     |                        |                    |
| B*35:11:01+B*51:01:25  | B*35:11:02+B*51:01:21  |                        |                    |
| B*35:11:01+B*51:01:31  | B*35:21+B*51:02:03     |                        |                    |
| B*35:11:01+B*51:02:05  | B*35:11:02+B*51:02:01  |                        |                    |
| B*35:11:01+B*51:06:01  | B*35:21+B*51:59        |                        |                    |
| B*35:11:01+B*51:08     | B*35:115+B*51:01:01G   |                        |                    |
| B*35:11:01+B*51:13:02  | B*35:167+B*51:63       |                        |                    |
| B*35:11:01+B*51:16     | B*35:21+B*51:34        |                        |                    |
| B*35:11:01+B*51:21     | B*35:188+B*51:02:01    |                        |                    |
| B*35:11:01+B*51:24:03  | B*35:11:02+B*51:24:04  |                        |                    |
| B*35:11:01+B*51:61:01  | B*35:11:02+B*51:61:02  | B*35:14:02+B*51:01:01G |                    |
| B*35:11:01+B*51:61:02  | B*35:14:01+B*51:01:01G |                        |                    |
| B*35:11:01+B*51:64     | B*35:58+B*51:04        |                        |                    |
| B*35:11:01+B*51:73     | B*35:143+B*51:01:01G   |                        |                    |
| B*35:11:01+B*51:97     | B*35:115+B*51:63       |                        |                    |
| B*35:11:01+B*52:01:01G | B*35:21+B*52:11        | B*53:08:01+B*78:05     |                    |
| B*35:11:01+B*52:01:07  | B*35:11:02+B*52:01:01G | B*53:08:02+B*78:05     |                    |
| B*35:11:01+B*52:03     | B*35:28+B*51:02:01     | B*35:42:02+B*52:11     |                    |
| B*35:11:01+B*52:19     | B*35:115+B*52:01:01G   |                        |                    |
| B*35:11:01+B*52:21     | B*35:14:01+B*52:01:02  |                        |                    |

|                        |                        |                       |                       |
|------------------------|------------------------|-----------------------|-----------------------|
| B*35:11:01+B*53:02     | B*35:21+B*53:01:01     | B*35:24:01+B*53:08:01 |                       |
| B*35:11:01+B*53:08:02  | B*35:11:02+B*53:08:01  |                       |                       |
| B*35:11:01+B*53:17:02  | B*35:28+B*53:08:01     |                       |                       |
| B*35:11:01+B*53:21     | B*35:197+B*53:08:01    |                       |                       |
| B*35:11:01+B*53:23     | B*35:29:01+B*53:08:01  |                       |                       |
| B*35:11:01+B*53:26     | B*35:108:01+B*53:08:01 |                       |                       |
| B*35:11:01+B*54:12     | B*53:08:01+B*54:01:01G |                       |                       |
| B*35:11:01+B*55:12     | B*35:27+B*55:01:01G    |                       |                       |
| B*35:11:01+B*55:13     | B*35:167+B*55:32       |                       |                       |
| B*35:11:01+B*55:21     | B*35:14:01+B*55:01:01G |                       |                       |
| B*35:11:01+B*55:26     | B*35:143+B*55:01:01G   |                       |                       |
| B*35:11:01+B*55:42     | B*35:116+B*55:01:01G   |                       |                       |
| B*35:11:01+B*56:01:03  | B*35:11:02+B*56:01:01G |                       |                       |
| B*35:11:01+B*56:07     | B*53:13+B*56:25        |                       |                       |
| B*35:11:01+B*56:11     | B*35:167+B*56:09       |                       |                       |
| B*35:11:01+B*56:13     | B*35:115+B*56:25       |                       |                       |
| B*35:11:01+B*56:16     | B*35:124+B*56:25       |                       |                       |
| B*35:11:01+B*56:20:02  | B*35:64+B*56:25        |                       |                       |
| B*35:11:01+B*56:21     | B*53:08:01+B*56:05:02  |                       |                       |
| B*35:11:01+B*56:29     | B*35:122+B*56:25       |                       |                       |
| B*35:11:01+B*56:31     | B*35:21+B*56:18        | B*35:24:01+B*56:32    |                       |
| B*35:11:01+B*56:34     | B*35:21+B*56:01:01G    | B*35:24:01+B*56:25    |                       |
| B*35:11:01+B*56:35     | B*35:50+B*56:25        |                       |                       |
| B*35:11:01+B*56:36     | B*35:90+B*56:25        |                       |                       |
| B*35:11:01+B*57:07     | B*35:71+B*57:57        |                       |                       |
| B*35:11:01+B*57:10     | B*35:197+B*57:22       |                       |                       |
| B*35:11:01+B*57:24     | B*35:115+B*57:22       |                       |                       |
| B*35:11:01+B*57:25     | B*35:15+B*57:22        |                       |                       |
| B*35:11:01+B*57:26     | B*35:93+B*57:22        |                       |                       |
| B*35:11:01+B*57:46     | B*35:180+B*57:57       |                       |                       |
| B*35:11:01+B*57:58     | B*35:124+B*57:22       |                       |                       |
| B*35:11:01+B*58:01:05  | B*35:11:02+B*58:01:01G |                       |                       |
| B*35:11:01+B*58:04     | B*35:202+B*58:19       |                       |                       |
| B*35:11:01+B*58:07     | B*35:71+B*58:06        |                       |                       |
| B*35:11:01+B*58:08:01  | B*58:19+B*78:02:02     |                       |                       |
| B*35:11:01+B*58:08:02  | B*58:19+B*78:02:01     |                       |                       |
| B*35:11:01+B*58:09     | B*35:21+B*58:01:01G    | B*35:24:01+B*58:19    |                       |
| B*35:11:01+B*58:12     | B*35:124+B*58:19       |                       |                       |
| B*35:11:01+B*58:16     | B*35:68:02+B*58:19     |                       |                       |
| B*35:11:01+B*58:27     | B*35:31+B*58:19        |                       |                       |
| B*35:11:01+B*58:35     | B*35:93+B*58:19        |                       |                       |
| B*35:11:01+B*58:37     | B*35:15+B*58:19        |                       |                       |
| B*35:11:02+B*37:34     | B*37:11+B*53:08:02     |                       |                       |
| B*35:11:02+B*38:14     | B*39:01:01G+B*53:08:02 | B*39:01:05+B*53:08:01 | B*39:35+B*53:01:03    |
| B*35:11:02+B*38:19     | B*39:37+B*53:08:02     |                       |                       |
| B*35:11:02+B*38:26     | B*53:08:02+B*67:01:01  |                       |                       |
| B*35:11:02+B*39:48     | B*35:21+B*39:01:05     |                       |                       |
| B*35:11:02+B*40:19     | B*40:02:01G+B*53:08:02 |                       |                       |
| B*35:11:02+B*40:117    | B*40:01:01G+B*53:08:02 | B*40:183+B*53:01:03   |                       |
| B*35:11:02+B*40:121    | B*35:34+B*40:158       |                       |                       |
| B*35:11:02+B*44:18     | B*45:01:01G+B*53:08:02 |                       |                       |
| B*35:11:02+B*44:50     | B*44:46+B*53:08:02     |                       |                       |
| B*35:11:02+B*44:95     | B*44:09+B*53:08:02     |                       |                       |
| B*35:11:02+B*44:146    | B*35:14:02+B*44:79     |                       |                       |
| B*35:11:02+B*46:01:01G | B*35:14:02+B*46:08     |                       |                       |
| B*35:11:02+B*46:09     | B*35:14:02+B*46:13:03  |                       |                       |
| B*35:11:02+B*48:19     | B*35:14:02+B*48:01:01G |                       |                       |
| B*35:11:02+B*49:01:01  | B*50:01:01+B*53:08:02  |                       |                       |
| B*35:11:02+B*49:10     | B*50:13+B*53:08:02     |                       |                       |
| B*35:11:02+B*49:11     | B*50:01:01+B*53:01:03  |                       |                       |
| B*35:11:02+B*49:18     | B*50:14+B*53:08:02     |                       |                       |
| B*35:11:02+B*49:20     | B*50:02+B*53:08:02     |                       |                       |
| B*35:11:02+B*51:01:01G | B*35:21+B*51:02:05     | B*53:08:02+B*78:02:02 |                       |
| B*35:11:02+B*51:01:02  | B*53:08:02+B*78:02:01  |                       |                       |
| B*35:11:02+B*51:09:01  | B*35:21+B*51:40        | B*35:24:01+B*51:02:05 | B*53:01:03+B*78:02:02 |
| B*35:11:02+B*51:09:02  | B*53:01:03+B*78:02:01  |                       |                       |
| B*35:11:02+B*51:21     | B*35:188+B*51:02:05    |                       |                       |
| B*35:11:02+B*51:108    | B*35:71+B*51:02:05     |                       |                       |
| B*35:11:02+B*52:03     | B*35:28+B*51:02:05     |                       |                       |
| B*35:11:02+B*52:19     | B*35:115+B*52:01:07    |                       |                       |
| B*35:11:02+B*52:21     | B*35:14:02+B*52:01:02  |                       |                       |
| B*35:11:02+B*53:02     | B*35:21+B*53:01:03     | B*35:24:01+B*53:08:02 |                       |
| B*35:11:02+B*53:17:02  | B*35:28+B*53:08:02     |                       |                       |
| B*35:11:02+B*53:21     | B*35:197+B*53:08:02    |                       |                       |
| B*35:11:02+B*53:23     | B*35:29:01+B*53:08:02  |                       |                       |
| B*35:11:02+B*53:26     | B*35:108:01+B*53:08:02 |                       |                       |
| B*35:11:02+B*54:12     | B*53:08:02+B*54:01:01G |                       |                       |
| B*35:11:02+B*55:21     | B*35:14:02+B*55:01:01G |                       |                       |
| B*35:11:02+B*56:21     | B*53:08:02+B*56:05:02  |                       |                       |
| B*35:11:02+B*56:34     | B*35:21+B*56:01:03     |                       |                       |
| B*35:11:02+B*57:02:01  | B*53:08:02+B*57:12     |                       |                       |
| B*35:11:02+B*57:14     | B*35:21+B*57:01:01G    | B*35:24:01+B*57:22    |                       |
| B*35:11:02+B*58:09     | B*35:21+B*58:01:05     |                       |                       |
| B*35:11:02+B*58:18     | B*35:58+B*58:01:05     |                       |                       |
| B*35:12:01+B*35:199    | B*35:22+B*35:39        |                       |                       |
| B*35:12:01+B*38:19     | B*35:22+B*38:20        |                       |                       |
| B*35:12:01+B*38:29     | B*35:39+B*38:02:01G    |                       |                       |
| B*35:12:01+B*39:01:01G | B*35:59+B*39:70        |                       |                       |
| B*35:12:01+B*39:03     | B*35:22+B*39:42        | B*35:59+B*39:14       |                       |
| B*35:12:01+B*39:06:02  | B*35:12:02+B*39:06:01  |                       |                       |
| B*35:12:01+B*39:15     | B*35:39+B*39:01:01G    |                       |                       |
| B*35:12:01+B*39:18     | B*35:44+B*39:42        |                       |                       |
| B*35:12:01+B*39:29     | B*35:39+B*39:14        |                       |                       |
| B*35:12:01+B*39:49     | B*35:39+B*39:13:01     |                       |                       |
| B*35:12:01+B*39:55     | B*35:39+B*39:05:01     |                       |                       |
| B*35:12:01+B*40:01:04  | B*35:12:02+B*40:01:01G |                       |                       |
| B*35:12:01+B*40:02:09  | B*35:12:02+B*40:02:01G | B*35:22+B*40:64       |                       |
| B*35:12:01+B*40:03     | B*35:39+B*40:105       |                       |                       |
| B*35:12:01+B*40:09     | B*35:39+B*40:89        |                       |                       |
| B*35:12:01+B*40:11:02  | B*35:12:02+B*40:11:01  |                       |                       |
| B*35:12:01+B*40:18     | B*35:39+B*40:02:01G    |                       |                       |
| B*35:12:01+B*40:31     | B*35:39+B*40:80        | B*35:199+B*40:160     |                       |
| B*35:12:01+B*40:32     | B*35:39+B*40:16        |                       |                       |
| B*35:12:01+B*40:33     | B*35:39+B*40:01:01G    |                       |                       |
| B*35:12:01+B*40:36     | B*35:59+B*40:01:01G    |                       |                       |

|                        |                        |                  |
|------------------------|------------------------|------------------|
| B*35:12:01+B*40:42     | B*35:39+B*40:172       |                  |
| B*35:12:01+B*40:44     | B*35:39+B*40:06:01G    |                  |
| B*35:12:01+B*40:52     | B*35:32:02+B*40:160    | B*35:39+B*40:38  |
| B*35:12:01+B*40:60     | B*35:48+B*40:172       |                  |
| B*35:12:01+B*40:80     | B*35:22+B*40:160       |                  |
| B*35:12:01+B*40:86     | B*35:59+B*40:06:01G    |                  |
| B*35:12:01+B*40:124:01 | B*35:12:02+B*40:124:02 |                  |
| B*35:12:01+B*41:21     | B*35:39+B*41:01        |                  |
| B*35:12:01+B*42:06     | B*35:59+B*42:01:01     |                  |
| B*35:12:01+B*42:16     | B*35:39+B*42:01:01     |                  |
| B*35:12:01+B*44:02:07  | B*35:12:02+B*44:02:01G |                  |
| B*35:12:01+B*44:03:02  | B*35:12:02+B*44:03:01G |                  |
| B*35:12:01+B*44:28:01  | B*35:12:02+B*44:28:02  |                  |
| B*35:12:01+B*44:37:02  | B*35:12:02+B*44:37:01  |                  |
| B*35:12:01+B*44:41:02  | B*35:12:02+B*44:41:01  |                  |
| B*35:12:01+B*44:51     | B*35:39+B*44:14        |                  |
| B*35:12:01+B*44:54     | B*35:22+B*44:03:01G    |                  |
| B*35:12:01+B*44:64:01  | B*35:12:02+B*44:64:02  |                  |
| B*35:12:01+B*44:106    | B*35:22+B*44:02:01G    |                  |
| B*35:12:01+B*44:107    | B*35:39+B*44:77        |                  |
| B*35:12:01+B*44:117    | B*35:59+B*44:05:01     |                  |
| B*35:12:01+B*44:135    | B*35:22+B*44:45        |                  |
| B*35:12:01+B*48:03:02  | B*35:12:02+B*48:03:01  |                  |
| B*35:12:01+B*48:07     | B*35:59+B*48:01:01G    |                  |
| B*35:12:01+B*51:01:01G | B*35:12:02+B*51:01:16  |                  |
| B*35:12:01+B*51:06:02  | B*35:12:02+B*51:06:01  |                  |
| B*35:12:01+B*51:13:01  | B*35:59+B*51:01:04     |                  |
| B*35:12:01+B*51:13:02  | B*35:59+B*51:01:01G    |                  |
| B*35:12:01+B*51:37     | B*35:39+B*51:63        |                  |
| B*35:12:01+B*51:90     | B*35:39+B*51:01:01G    |                  |
| B*35:12:01+B*51:92     | B*35:39+B*51:13:01     |                  |
| B*35:12:01+B*51:135    | B*35:39+B*51:06:01     |                  |
| B*35:12:01+B*52:12     | B*35:39+B*52:01:01G    |                  |
| B*35:12:01+B*52:14     | B*35:59+B*52:01:05     |                  |
| B*35:12:01+B*53:01:06  | B*35:12:03+B*53:01:01  |                  |
| B*35:12:01+B*54:16     | B*35:39+B*54:01:01G    |                  |
| B*35:12:01+B*55:02:01G | B*35:12:02+B*55:02:04  |                  |
| B*35:12:01+B*55:23     | B*35:39+B*55:32        |                  |
| B*35:12:01+B*55:46     | B*35:39+B*55:02:01G    |                  |
| B*35:12:01+B*56:18     | B*35:32:02+B*56:12     |                  |
| B*35:12:01+B*56:22     | B*35:59+B*56:15        |                  |
| B*35:12:01+B*57:19     | B*35:61+B*57:03:01     |                  |
| B*35:12:02+B*35:72     | B*35:20:01+B*35:22     |                  |
| B*35:12:02+B*40:03     | B*35:51+B*40:64        |                  |
| B*35:12:02+B*40:18     | B*35:39+B*40:02:09     | B*35:199+B*40:64 |
| B*35:12:02+B*40:20     | B*35:32:02+B*40:64     |                  |
| B*35:12:02+B*40:33     | B*35:39+B*40:01:04     |                  |
| B*35:12:02+B*40:36     | B*35:59+B*40:01:04     |                  |
| B*35:12:02+B*40:120    | B*35:34+B*40:64        |                  |
| B*35:12:02+B*41:04     | B*35:34+B*41:02:01     |                  |
| B*35:12:02+B*42:01:01  | B*35:22+B*42:13        |                  |
| B*35:12:02+B*42:16     | B*35:199+B*42:13       |                  |
| B*35:12:02+B*44:54     | B*35:22+B*44:03:02     |                  |
| B*35:12:02+B*44:106    | B*35:22+B*44:02:07     |                  |
| B*35:12:02+B*51:64     | B*35:22+B*51:04        |                  |
| B*35:12:02+B*51:135    | B*35:39+B*51:06:02     |                  |
| B*35:12:02+B*53:14     | B*35:22+B*53:01:01     |                  |
| B*35:12:02+B*58:16     | B*35:32:01+B*58:28     |                  |
| B*35:12:02+B*58:18     | B*35:22+B*58:01:01G    |                  |
| B*35:13+B*38:14        | B*39:22+B*53:04        |                  |
| B*35:13+B*39:27        | B*35:74+B*39:22        |                  |
| B*35:13+B*39:35        | B*35:167+B*39:22       |                  |
| B*35:13+B*39:41        | B*35:155+B*39:22       |                  |
| B*35:13+B*39:48        | B*35:109+B*39:22       |                  |
| B*35:13+B*39:70        | B*35:34+B*39:22        |                  |
| B*35:13+B*51:16        | B*35:33+B*52:06:02     |                  |
| B*35:13+B*51:22        | B*35:85+B*52:06:02     |                  |
| B*35:13+B*51:24:03     | B*35:205+B*52:06:02    |                  |
| B*35:13+B*51:29        | B*35:156+B*52:06:02    |                  |
| B*35:13+B*51:61:02     | B*35:163+B*52:06:02    |                  |
| B*35:13+B*51:70        | B*35:204+B*52:06:02    |                  |
| B*35:13+B*51:76        | B*35:195+B*52:06:02    |                  |
| B*35:13+B*51:113       | B*35:128+B*52:06:02    |                  |
| B*35:13+B*53:23        | B*35:69+B*53:04        |                  |
| B*35:13+B*53:24        | B*35:80+B*53:04        |                  |
| B*35:13+B*55:03        | B*35:74+B*55:40        |                  |
| B*35:13+B*55:21        | B*35:163+B*55:40       |                  |
| B*35:13+B*55:52        | B*35:156+B*55:40       |                  |
| B*35:13+B*55:56        | B*35:38+B*55:40        |                  |
| B*35:13+B*58:22        | B*35:80+B*58:34        |                  |
| B*35:14:01+B*35:24:01  | B*35:21+B*35:62        |                  |
| B*35:14:01+B*35:109    | B*35:21+B*35:163       |                  |
| B*35:14:01+B*35:190    | B*35:62+B*35:188       |                  |
| B*35:14:01+B*37:01:01G | B*35:62+B*37:13        |                  |
| B*35:14:01+B*38:01:01  | B*35:62+B*38:32        |                  |
| B*35:14:01+B*38:01:03  | B*35:14:02+B*38:01:01  |                  |
| B*35:14:01+B*38:36     | B*35:62+B*38:10        |                  |
| B*35:14:01+B*39:01:01G | B*35:62+B*39:35        |                  |
| B*35:14:01+B*40:01:01G | B*35:62+B*40:183       |                  |
| B*35:14:01+B*40:06:01G | B*35:62+B*40:148       |                  |
| B*35:14:01+B*40:14:02  | B*35:14:02+B*40:14:01  |                  |
| B*35:14:01+B*40:128    | B*35:62+B*40:198       |                  |
| B*35:14:01+B*44:02:01G | B*35:115+B*44:146      |                  |
| B*35:14:01+B*44:02:09  | B*35:14:02+B*44:02:01G |                  |
| B*35:14:01+B*44:26     | B*35:138+B*44:146      |                  |
| B*35:14:01+B*44:65     | B*35:68:01+B*44:146    |                  |
| B*35:14:01+B*44:98     | B*35:159+B*44:146      |                  |
| B*35:14:01+B*44:103    | B*35:50+B*44:146       |                  |
| B*35:14:01+B*44:105    | B*35:54+B*44:146       |                  |
| B*35:14:01+B*46:01:01G | B*35:14:02+B*46:01:03  |                  |
| B*35:14:01+B*46:09     | B*35:62+B*46:01:01G    |                  |
| B*35:14:01+B*46:21:02  | B*35:93+B*46:01:03     |                  |
| B*35:14:01+B*48:02:01  | B*35:62+B*48:25        |                  |
| B*35:14:01+B*49:11     | B*35:62+B*49:01:01     |                  |
| B*35:14:01+B*51:01:25  | B*35:14:02+B*51:01:21  |                  |

|                        |                        |                    |
|------------------------|------------------------|--------------------|
| B*35:14:01+B*51:02:05  | B*35:14:02+B*51:02:01  |                    |
| B*35:14:01+B*51:08     | B*35:115+B*51:61:02    |                    |
| B*35:14:01+B*51:09:02  | B*35:62+B*51:01:02     |                    |
| B*35:14:01+B*51:24:03  | B*35:14:02+B*51:24:04  |                    |
| B*35:14:01+B*51:31     | B*35:15+B*51:61:02     | B*35:62+B*51:16    |
| B*35:14:01+B*51:40     | B*35:62+B*51:02:05     |                    |
| B*35:14:01+B*51:61:01  | B*35:14:02+B*51:61:02  |                    |
| B*35:14:01+B*51:73     | B*35:143+B*51:61:02    |                    |
| B*35:14:01+B*51:108    | B*35:62+B*51:23        |                    |
| B*35:14:01+B*52:01:07  | B*35:14:02+B*52:01:01G |                    |
| B*35:14:01+B*52:10:01  | B*35:62+B*52:01:01G    |                    |
| B*35:14:01+B*52:10:02  | B*35:14:02+B*52:10:01  | B*35:62+B*52:01:07 |
| B*35:14:01+B*53:01:01  | B*35:62+B*53:08:01     |                    |
| B*35:14:01+B*53:01:03  | B*35:14:02+B*53:01:01  | B*35:62+B*53:08:02 |
| B*35:14:01+B*53:04     | B*35:163+B*53:08:01    |                    |
| B*35:14:01+B*53:08:02  | B*35:14:02+B*53:08:01  |                    |
| B*35:14:01+B*54:10     | B*35:62+B*54:20        |                    |
| B*35:14:01+B*55:12     | B*35:27+B*55:21        |                    |
| B*35:14:01+B*55:22     | B*35:62+B*55:24        |                    |
| B*35:14:01+B*55:26     | B*35:143+B*55:21       |                    |
| B*35:14:01+B*55:42     | B*35:116+B*55:21       |                    |
| B*35:14:01+B*56:01:01G | B*35:62+B*56:25        |                    |
| B*35:14:01+B*56:01:03  | B*35:14:02+B*56:01:01G |                    |
| B*35:14:01+B*56:18     | B*35:62+B*56:32        |                    |
| B*35:14:01+B*57:01:01G | B*35:62+B*57:22        |                    |
| B*35:14:01+B*57:03:01  | B*35:62+B*57:57        |                    |
| B*35:14:01+B*58:01:01G | B*35:62+B*58:19        |                    |
| B*35:14:01+B*58:01:05  | B*35:14:02+B*58:01:01G |                    |
| B*35:14:01+B*58:02     | B*35:62+B*58:06        |                    |
| B*35:14:01+B*58:34     | B*35:163+B*58:19       |                    |
| B*35:14:02+B*38:14     | B*39:18+B*53:01:01     |                    |
| B*35:14:02+B*39:48     | B*35:24:01+B*39:18     |                    |
| B*35:14:02+B*39:52     | B*35:200+B*39:18       |                    |
| B*35:14:02+B*40:01:01G | B*35:44+B*40:59        |                    |
| B*35:14:02+B*40:52     | B*35:43:01G+B*40:59    |                    |
| B*35:14:02+B*51:06:01  | B*35:43:01G+B*51:56:02 |                    |
| B*35:14:02+B*51:08     | B*35:115+B*51:61:01    |                    |
| B*35:14:02+B*51:31     | B*35:15+B*51:61:01     |                    |
| B*35:14:02+B*51:45     | B*35:43:01G+B*53:06    |                    |
| B*35:14:02+B*51:73     | B*35:143+B*51:61:01    |                    |
| B*35:14:02+B*53:04     | B*35:163+B*53:08:02    |                    |
| B*35:14:02+B*54:09     | B*35:93+B*54:06        |                    |
| B*35:15+B*35:38        | B*35:33+B*35:115       |                    |
| B*35:15+B*35:56        | B*35:27+B*35:33        |                    |
| B*35:15+B*35:85        | B*35:33+B*35:82        |                    |
| B*35:15+B*35:96        | B*35:33+B*35:188       |                    |
| B*35:15+B*35:109       | B*35:24:01+B*35:33     |                    |
| B*35:15+B*35:135       | B*35:82+B*35:86        |                    |
| B*35:15+B*35:136       | B*35:29:01+B*35:33     |                    |
| B*35:15+B*35:150       | B*35:33+B*35:90        |                    |
| B*35:15+B*35:151       | B*35:33+B*35:68:02     |                    |
| B*35:15+B*35:163       | B*35:33+B*35:62        |                    |
| B*35:15+B*35:195       | B*35:33+B*35:101:02    |                    |
| B*35:15+B*35:205       | B*35:33+B*35:64        |                    |
| B*35:15+B*39:01:01G    | B*35:93+B*39:47        |                    |
| B*35:15+B*39:06:02     | B*35:93+B*39:50        |                    |
| B*35:15+B*39:32        | B*35:24:01+B*39:47     |                    |
| B*35:15+B*39:48        | B*35:190+B*39:47       |                    |
| B*35:15+B*39:55        | B*35:33+B*39:07        |                    |
| B*35:15+B*40:36        | B*35:33+B*40:38        |                    |
| B*35:15+B*40:39        | B*35:93+B*40:02:01G    |                    |
| B*35:15+B*40:174       | B*35:21+B*40:02:01G    |                    |
| B*35:15+B*40:199       | B*35:93+B*40:01:01G    |                    |
| B*35:15+B*41:02:01     | B*35:93+B*41:19        |                    |
| B*35:15+B*44:02:07     | B*35:115+B*44:124      |                    |
| B*35:15+B*44:02:10     | B*35:42:02+B*44:21     |                    |
| B*35:15+B*44:22        | B*35:54+B*44:21        |                    |
| B*35:15+B*44:41:01     | B*35:68:01+B*44:21     |                    |
| B*35:15+B*44:47        | B*35:37+B*44:124       |                    |
| B*35:15+B*44:65        | B*35:68:02+B*44:124    |                    |
| B*35:15+B*44:102       | B*35:180+B*44:21       |                    |
| B*35:15+B*44:110       | B*35:30+B*44:124       |                    |
| B*35:15+B*44:132       | B*35:93+B*44:16        |                    |
| B*35:15+B*45:01:01G    | B*35:71+B*45:10        |                    |
| B*35:15+B*45:08        | B*35:93+B*45:10        |                    |
| B*35:15+B*46:05        | B*35:54+B*46:30        |                    |
| B*35:15+B*46:10        | B*35:90+B*46:30        |                    |
| B*35:15+B*46:17        | B*35:71+B*46:30        |                    |
| B*35:15+B*46:27        | B*35:159+B*46:30       |                    |
| B*35:15+B*46:29        | B*35:93+B*46:30        |                    |
| B*35:15+B*47:08        | B*35:93+B*47:01:01G    |                    |
| B*35:15+B*49:08        | B*35:104+B*49:07       |                    |
| B*35:15+B*49:09        | B*35:24:01+B*49:07     |                    |
| B*35:15+B*49:12        | B*35:91+B*49:07        |                    |
| B*35:15+B*49:20        | B*35:71+B*49:07        |                    |
| B*35:15+B*51:07:01     | B*35:20:01+B*51:16     |                    |
| B*35:15+B*51:08        | B*35:115+B*51:31       |                    |
| B*35:15+B*51:13:02     | B*35:33+B*51:63        |                    |
| B*35:15+B*51:21        | B*35:93+B*51:16        | B*35:190+B*51:34   |
| B*35:15+B*51:22        | B*35:82+B*51:16        |                    |
| B*35:15+B*51:23        | B*35:71+B*51:34        |                    |
| B*35:15+B*51:24:02     | B*35:21+B*51:10        |                    |
| B*35:15+B*51:24:03     | B*35:64+B*51:16        |                    |
| B*35:15+B*51:35        | B*35:116+B*51:16       |                    |
| B*35:15+B*51:53        | B*35:180+B*51:16       |                    |
| B*35:15+B*51:57        | B*35:197+B*51:16       |                    |
| B*35:15+B*51:73        | B*35:143+B*51:31       |                    |
| B*35:15+B*51:76        | B*35:101:02+B*51:16    |                    |
| B*35:15+B*51:101       | B*35:35+B*51:16        |                    |
| B*35:15+B*51:112       | B*35:19+B*51:16        |                    |
| B*35:15+B*51:130       | B*35:91+B*51:16        |                    |
| B*35:15+B*52:01:02     | B*35:28+B*51:16        | B*35:42:02+B*52:08 |
| B*35:15+B*52:15        | B*35:71+B*52:08        |                    |
| B*35:15+B*52:23        | B*35:200+B*52:08       |                    |
| B*35:15+B*52:27        | B*35:124+B*52:08       |                    |

|                        |                      |                    |
|------------------------|----------------------|--------------------|
| B*35:15+B*52:29        | B*35:180+B*52:08     |                    |
| B*35:15+B*53:04        | B*35:33+B*53:01:01   |                    |
| B*35:15+B*54:01:01G    | B*35:93+B*54:26      |                    |
| B*35:15+B*55:01:01G    | B*35:93+B*55:24      |                    |
| B*35:15+B*55:02:01G    | B*35:93+B*55:22      |                    |
| B*35:15+B*55:13        | B*35:33+B*55:32      |                    |
| B*35:15+B*55:52        | B*35:93+B*55:09      |                    |
| B*35:15+B*56:07        | B*53:13+B*55:22      |                    |
| B*35:15+B*56:11        | B*35:33+B*56:09      |                    |
| B*35:15+B*56:13        | B*35:115+B*55:22     |                    |
| B*35:15+B*56:16        | B*35:124+B*55:22     |                    |
| B*35:15+B*56:20:02     | B*35:64+B*55:22      |                    |
| B*35:15+B*56:29        | B*35:122+B*55:22     |                    |
| B*35:15+B*56:34        | B*35:24:01+B*55:22   |                    |
| B*35:15+B*56:35        | B*35:50+B*55:22      |                    |
| B*35:15+B*56:36        | B*35:90+B*55:22      |                    |
| B*35:15+B*57:10        | B*35:197+B*57:25     |                    |
| B*35:15+B*57:24        | B*35:115+B*57:25     |                    |
| B*35:15+B*57:26        | B*35:93+B*57:25      |                    |
| B*35:15+B*57:58        | B*35:124+B*57:25     |                    |
| B*35:15+B*58:04        | B*35:202+B*58:37     |                    |
| B*35:15+B*58:08:01     | B*58:37+B*78:02:02   |                    |
| B*35:15+B*58:08:02     | B*58:37+B*78:02:01   |                    |
| B*35:15+B*58:09        | B*35:24:01+B*58:37   |                    |
| B*35:15+B*58:12        | B*35:124+B*58:37     |                    |
| B*35:15+B*58:16        | B*35:68:02+B*58:37   |                    |
| B*35:15+B*58:27        | B*35:31+B*58:37      |                    |
| B*35:15+B*58:35        | B*35:93+B*58:37      |                    |
| B*35:16+B*35:20:01     | B*35:17+B*35:28      |                    |
| B*35:16+B*35:29:01     | B*35:17+B*35:69      |                    |
| B*35:16+B*35:105       | B*35:80+B*35:113     |                    |
| B*35:16+B*35:142       | B*35:80+B*35:125     |                    |
| B*35:16+B*38:02:03     | B*35:17+B*38:04      |                    |
| B*35:16+B*39:01:01G    | B*35:17+B*39:22      |                    |
| B*35:16+B*39:39:01     | B*35:17+B*39:02:01   |                    |
| B*35:16+B*40:25        | B*35:17+B*40:01:01G  |                    |
| B*35:16+B*40:106       | B*35:17+B*40:07      |                    |
| B*35:16+B*44:12        | B*35:17+B*44:02:01G  |                    |
| B*35:16+B*50:15        | B*35:17+B*50:01:01   |                    |
| B*35:16+B*51:01:01G    | B*35:17+B*52:06:02   |                    |
| B*35:16+B*51:01:33     | B*35:17+B*52:06:01   |                    |
| B*35:16+B*51:07:01     | B*35:17+B*52:01:02   |                    |
| B*35:16+B*51:07:02     | B*35:17+B*52:01:01G  |                    |
| B*35:16+B*55:01:01G    | B*35:17+B*55:40      |                    |
| B*35:16+B*55:47        | B*35:17+B*55:34      |                    |
| B*35:17+B*35:68:02     | B*35:30+B*35:32:01   |                    |
| B*35:17+B*38:01:01     | B*35:125+B*38:28     |                    |
| B*35:17+B*39:62        | B*35:113+B*39:06:02  |                    |
| B*35:17+B*40:04        | B*35:30+B*40:64      |                    |
| B*35:17+B*40:70        | B*35:30+B*40:06:01G  |                    |
| B*35:17+B*40:202       | B*35:113+B*40:02:01G |                    |
| B*35:17+B*41:07        | B*35:30+B*41:01      |                    |
| B*35:17+B*44:48        | B*35:30+B*44:02:07   | B*35:115+B*44:110  |
| B*35:17+B*44:65        | B*35:32:01+B*44:110  |                    |
| B*35:17+B*44:98        | B*35:113+B*44:03:01G |                    |
| B*35:17+B*46:27        | B*35:113+B*46:01:01G |                    |
| B*35:17+B*52:27        | B*35:125+B*52:01:01G |                    |
| B*35:17+B*54:21        | B*35:125+B*54:01:01G |                    |
| B*35:17+B*55:01:01G    | B*35:30+B*55:38      |                    |
| B*35:17+B*55:28        | B*35:30+B*55:17      |                    |
| B*35:17+B*56:01:01G    | B*35:30+B*56:27      |                    |
| B*35:17+B*56:02        | B*35:30+B*56:04      |                    |
| B*35:17+B*56:16        | B*35:125+B*56:01:01G |                    |
| B*35:17+B*57:58        | B*35:125+B*57:01:01G |                    |
| B*35:17+B*58:12        | B*35:125+B*58:01:01G |                    |
| B*35:18+B*35:146       | B*35:64+B*35:172     |                    |
| B*35:18+B*40:52        | B*35:64+B*40:128     |                    |
| B*35:18+B*51:92        | B*35:156+B*51:24:02  |                    |
| B*35:19+B*38:12        | B*35:47+B*38:01:01   |                    |
| B*35:19+B*44:03:02     | B*35:47+B*44:07      |                    |
| B*35:19+B*44:40        | B*35:49+B*44:03:01G  |                    |
| B*35:19+B*44:44        | B*35:49+B*44:02:01G  |                    |
| B*35:19+B*50:01:01     | B*35:47+B*50:07      |                    |
| B*35:19+B*51:07:01     | B*35:20:01+B*51:112  |                    |
| B*35:19+B*51:21        | B*35:93+B*51:112     |                    |
| B*35:19+B*51:22        | B*35:82+B*51:112     |                    |
| B*35:19+B*51:24:03     | B*35:64+B*51:112     |                    |
| B*35:19+B*51:35        | B*35:116+B*51:112    |                    |
| B*35:19+B*51:53        | B*35:180+B*51:112    |                    |
| B*35:19+B*51:57        | B*35:197+B*51:112    |                    |
| B*35:19+B*51:61:02     | B*35:62+B*51:112     |                    |
| B*35:19+B*51:74        | B*35:47+B*51:01:01G  |                    |
| B*35:19+B*51:76        | B*35:101:02+B*51:112 |                    |
| B*35:19+B*51:101       | B*35:35+B*51:112     |                    |
| B*35:19+B*51:130       | B*35:91+B*51:112     |                    |
| B*35:19+B*52:01:02     | B*35:28+B*51:112     |                    |
| B*35:20:01+B*35:69     | B*35:28+B*35:29:01   |                    |
| B*35:20:01+B*35:81     | B*35:24:01+B*35:95   |                    |
| B*35:20:01+B*35:114    | B*35:64+B*35:72      |                    |
| B*35:20:01+B*35:154    | B*35:47+B*35:95      |                    |
| B*35:20:01+B*35:157    | B*35:95+B*35:190     |                    |
| B*35:20:01+B*35:182    | B*35:95+B*35:137:01G |                    |
| B*35:20:01+B*35:184    | B*35:90+B*35:95      |                    |
| B*35:20:01+B*37:10     | B*37:11+B*53:09      |                    |
| B*35:20:01+B*38:02:01G | B*39:05:01+B*53:09   |                    |
| B*35:20:01+B*38:04     | B*35:28+B*38:02:03   |                    |
| B*35:20:01+B*38:29     | B*39:55+B*53:09      |                    |
| B*35:20:01+B*39:01:01G | B*35:82+B*39:39:01   |                    |
| B*35:20:01+B*39:02:01  | B*35:28+B*39:39:01   |                    |
| B*35:20:01+B*39:22     | B*35:28+B*39:01:01G  | B*35:82+B*39:02:01 |
| B*35:20:01+B*40:01:01G | B*35:28+B*40:25      |                    |
| B*35:20:01+B*40:02:01G | B*35:72+B*40:64      |                    |
| B*35:20:01+B*40:24     | B*35:72+B*40:120     |                    |
| B*35:20:01+B*40:47     | B*40:01:01G+B*53:09  |                    |
| B*35:20:01+B*40:75     | B*35:82+B*40:06:01G  |                    |



|                        |                        |                      |                  |
|------------------------|------------------------|----------------------|------------------|
| B*35:20:01+B*40:96     | B*40:06:01G+B*53:09    |                      |                  |
| B*35:20:01+B*40:117    | B*40:25+B*53:17:02     |                      |                  |
| B*35:20:01+B*40:157    | B*40:02:01G+B*53:09    |                      |                  |
| B*35:20:01+B*40:166    | B*35:76+B*40:25        |                      |                  |
| B*35:20:01+B*42:01:01  | B*35:72+B*42:13        |                      |                  |
| B*35:20:01+B*44:02:01G | B*35:28+B*44:12        | B*44:09+B*53:09      |                  |
| B*35:20:01+B*44:03:01G | B*44:46+B*53:09        |                      |                  |
| B*35:20:01+B*44:54     | B*35:72+B*44:03:02     |                      |                  |
| B*35:20:01+B*44:90     | B*35:76+B*44:09        |                      |                  |
| B*35:20:01+B*44:106    | B*35:72+B*44:02:07     |                      |                  |
| B*35:20:01+B*45:06     | B*35:76+B*45:01:01G    |                      |                  |
| B*35:20:01+B*49:01:01  | B*50:15+B*53:17:02     |                      |                  |
| B*35:20:01+B*49:02     | B*50:01:01+B*53:09     |                      |                  |
| B*35:20:01+B*50:01:01  | B*35:28+B*50:15        |                      |                  |
| B*35:20:01+B*51:21     | B*35:93+B*51:07:01     |                      |                  |
| B*35:20:01+B*51:22     | B*35:82+B*51:07:01     |                      |                  |
| B*35:20:01+B*51:24:03  | B*35:64+B*51:07:01     |                      |                  |
| B*35:20:01+B*51:35     | B*35:116+B*51:07:01    |                      |                  |
| B*35:20:01+B*51:53     | B*35:180+B*51:07:01    |                      |                  |
| B*35:20:01+B*51:57     | B*35:197+B*51:07:01    |                      |                  |
| B*35:20:01+B*51:61:02  | B*35:62+B*51:07:01     |                      |                  |
| B*35:20:01+B*51:64     | B*35:72+B*51:04        |                      |                  |
| B*35:20:01+B*51:76     | B*35:101:02+B*51:07:01 |                      |                  |
| B*35:20:01+B*51:78:01  | B*53:09+B*78:02:02     |                      |                  |
| B*35:20:01+B*51:78:02  | B*53:09+B*78:02:01     |                      |                  |
| B*35:20:01+B*51:101    | B*35:35+B*51:07:01     |                      |                  |
| B*35:20:01+B*51:119    | B*35:90+B*51:07:02     |                      |                  |
| B*35:20:01+B*51:130    | B*35:91+B*51:07:01     |                      |                  |
| B*35:20:01+B*52:01:01G | B*35:28+B*51:07:02     |                      |                  |
| B*35:20:01+B*52:01:02  | B*35:28+B*51:07:01     |                      |                  |
| B*35:20:01+B*52:20     | B*53:09+B*78:05        |                      |                  |
| B*35:20:01+B*53:14     | B*35:72+B*53:01:01     |                      |                  |
| B*35:20:01+B*53:19     | B*35:95+B*53:01:01     |                      |                  |
| B*35:20:01+B*55:34     | B*35:28+B*55:47        |                      |                  |
| B*35:20:01+B*55:40     | B*35:28+B*55:01:01G    |                      |                  |
| B*35:20:01+B*56:07     | B*53:09+B*56:01:01G    |                      |                  |
| B*35:20:01+B*56:21     | B*51:07:02+B*56:09     |                      |                  |
| B*35:20:01+B*58:18     | B*35:72+B*58:01:01G    |                      |                  |
| B*35:21+B*35:157       | B*35:81+B*35:188       |                      |                  |
| B*35:21+B*35:190       | B*35:24:01+B*35:188    |                      |                  |
| B*35:21+B*38:01:01     | B*35:24:01+B*38:32     |                      |                  |
| B*35:21+B*38:14        | B*39:35+B*53:02        | B*39:48+B*53:08:01   |                  |
| B*35:21+B*38:36        | B*35:24:01+B*38:10     |                      |                  |
| B*35:21+B*39:48        | B*35:188+B*39:32       |                      |                  |
| B*35:21+B*40:06:01G    | B*35:24:01+B*40:148    |                      |                  |
| B*35:21+B*40:39        | B*35:93+B*40:174       | B*35:190+B*40:05     |                  |
| B*35:21+B*40:117       | B*40:113+B*53:08:01    | B*40:183+B*53:02     |                  |
| B*35:21+B*40:128       | B*35:24:01+B*40:198    |                      |                  |
| B*35:21+B*40:199       | B*35:188+B*40:63       |                      |                  |
| B*35:21+B*44:03:01G    | B*35:24:01+B*44:79     |                      |                  |
| B*35:21+B*44:04        | B*35:188+B*44:28:02    | B*35:190+B*44:76     |                  |
| B*35:21+B*44:28:02     | B*35:24:01+B*44:76     |                      |                  |
| B*35:21+B*44:132       | B*35:188+B*44:91       |                      |                  |
| B*35:21+B*45:08        | B*35:188+B*45:04       |                      |                  |
| B*35:21+B*46:09        | B*35:24:01+B*46:01:01G |                      |                  |
| B*35:21+B*46:13:03     | B*35:24:01+B*46:08     |                      |                  |
| B*35:21+B*46:18        | B*35:188+B*46:11       |                      |                  |
| B*35:21+B*46:21:01     | B*35:188+B*46:13:03    | B*35:190+B*46:08     |                  |
| B*35:21+B*46:21:02     | B*35:188+B*46:13:01    |                      |                  |
| B*35:21+B*46:29        | B*35:188+B*46:01:01G   |                      |                  |
| B*35:21+B*48:01:01G    | B*35:24:01+B*48:15     |                      |                  |
| B*35:21+B*48:02:01     | B*35:24:01+B*48:25     |                      |                  |
| B*35:21+B*51:01:01G    | B*53:06+B*78:02:01     |                      |                  |
| B*35:21+B*51:09:01     | B*35:24:01+B*51:01:01G | B*53:02+B*78:02:02   |                  |
| B*35:21+B*51:09:02     | B*35:24:01+B*51:01:02  | B*53:02+B*78:02:01   |                  |
| B*35:21+B*51:21        | B*35:188+B*51:01:01G   |                      |                  |
| B*35:21+B*51:31        | B*35:24:01+B*51:16     |                      |                  |
| B*35:21+B*51:81        | B*35:31+B*53:06        |                      |                  |
| B*35:21+B*51:108       | B*35:24:01+B*51:23     | B*35:71+B*51:01:01G  |                  |
| B*35:21+B*52:01:02     | B*53:06+B*78:05        |                      |                  |
| B*35:21+B*52:10:01     | B*35:24:01+B*52:01:01G | B*53:02+B*78:05      |                  |
| B*35:21+B*52:10:02     | B*35:24:01+B*52:01:07  |                      |                  |
| B*35:21+B*53:04        | B*35:109+B*53:08:01    | B*35:167+B*53:02     |                  |
| B*35:21+B*53:14        | B*35:58+B*53:02        |                      |                  |
| B*35:21+B*53:19        | B*35:81+B*53:08:01     |                      |                  |
| B*35:21+B*54:01:01G    | B*35:188+B*54:03       |                      |                  |
| B*35:21+B*54:10        | B*35:24:01+B*54:20     |                      |                  |
| B*35:21+B*55:01:01G    | B*35:188+B*56:25       |                      |                  |
| B*35:21+B*55:02:01G    | B*35:24:01+B*55:01:01G | B*35:188+B*56:01:01G | B*35:190+B*56:25 |
| B*35:21+B*55:13        | B*35:188+B*56:22       |                      |                  |
| B*35:21+B*55:22        | B*35:24:01+B*55:24     |                      |                  |
| B*35:21+B*55:37        | B*35:24:01+B*55:52     |                      |                  |
| B*35:21+B*56:10        | B*35:188+B*56:02       |                      |                  |
| B*35:21+B*57:03:01     | B*35:24:01+B*57:57     |                      |                  |
| B*35:21+B*57:26        | B*35:188+B*57:01:01G   | B*35:190+B*57:22     |                  |
| B*35:21+B*58:02        | B*35:24:01+B*58:06     |                      |                  |
| B*35:21+B*58:18        | B*35:58+B*58:09        |                      |                  |
| B*35:21+B*58:34        | B*35:109+B*58:19       | B*35:167+B*58:09     |                  |
| B*35:21+B*58:35        | B*35:188+B*58:01:01G   | B*35:190+B*58:19     |                  |
| B*35:21+B*59:01:01G    | B*35:188+B*59:04       |                      |                  |
| B*35:21+B*78:07        | B*35:188+B*78:01:01    |                      |                  |
| B*35:22+B*35:43:01G    | B*35:44+B*35:51        |                      |                  |
| B*35:22+B*38:29        | B*35:199+B*38:02:01G   |                      |                  |
| B*35:22+B*39:15        | B*35:199+B*39:01:01G   |                      |                  |
| B*35:22+B*39:18        | B*35:44+B*39:03        |                      |                  |
| B*35:22+B*39:29        | B*35:199+B*39:14       |                      |                  |
| B*35:22+B*39:49        | B*35:199+B*39:13:01    |                      |                  |
| B*35:22+B*39:55        | B*35:199+B*39:05:01    |                      |                  |
| B*35:22+B*40:03        | B*35:51+B*40:02:01G    | B*35:199+B*40:105    |                  |
| B*35:22+B*40:09        | B*35:199+B*40:89       |                      |                  |
| B*35:22+B*40:18        | B*35:199+B*40:02:01G   |                      |                  |
| B*35:22+B*40:20        | B*35:32:02+B*40:02:01G | B*35:51+B*40:11:01   |                  |
| B*35:22+B*40:31        | B*35:199+B*40:80       |                      |                  |
| B*35:22+B*40:32        | B*35:199+B*40:16       |                      |                  |
| B*35:22+B*40:33        | B*35:199+B*40:01:01G   |                      |                  |

|                        |                        |                       |                  |
|------------------------|------------------------|-----------------------|------------------|
| B*35:22+B*40:42        | B*35:199+B*40:172      |                       |                  |
| B*35:22+B*40:44        | B*35:199+B*40:06:01G   |                       |                  |
| B*35:22+B*40:52        | B*35:32:02+B*40:80     | B*35:51+B*40:01:01G   | B*35:199+B*40:38 |
| B*35:22+B*40:159       | B*35:51+B*40:06:01G    |                       |                  |
| B*35:22+B*41:21        | B*35:199+B*41:01       |                       |                  |
| B*35:22+B*42:09        | B*35:51+B*42:02        |                       |                  |
| B*35:22+B*42:16        | B*35:199+B*42:01:01    |                       |                  |
| B*35:22+B*44:43:01     | B*35:51+B*44:77        |                       |                  |
| B*35:22+B*44:51        | B*35:199+B*44:14       |                       |                  |
| B*35:22+B*44:107       | B*35:199+B*44:77       |                       |                  |
| B*35:22+B*48:23        | B*35:32:02+B*48:01:01G | B*35:51+B*48:03:01    |                  |
| B*35:22+B*51:37        | B*35:51+B*51:01:01G    | B*35:199+B*51:63      |                  |
| B*35:22+B*51:90        | B*35:199+B*51:01:01G   |                       |                  |
| B*35:22+B*51:92        | B*35:199+B*51:13:01    |                       |                  |
| B*35:22+B*51:135       | B*35:199+B*51:06:01    |                       |                  |
| B*35:22+B*52:12        | B*35:199+B*52:01:01G   |                       |                  |
| B*35:22+B*54:14        | B*35:51+B*54:04        |                       |                  |
| B*35:22+B*54:16        | B*35:199+B*54:01:01G   |                       |                  |
| B*35:22+B*55:20        | B*35:87+B*56:15        |                       |                  |
| B*35:22+B*55:23        | B*35:199+B*55:32       |                       |                  |
| B*35:22+B*55:46        | B*35:199+B*55:02:01G   |                       |                  |
| B*35:22+B*57:01:01G    | B*35:51+B*57:03:01     |                       |                  |
| B*35:22+B*57:19        | B*35:51+B*57:02:01     |                       |                  |
| B*35:22+B*57:22        | B*35:51+B*57:57        |                       |                  |
| B*35:23+B*40:19        | B*40:143+B*53:01:01    |                       |                  |
| B*35:23+B*40:37        | B*35:27+B*40:143       |                       |                  |
| B*35:23+B*40:50        | B*35:29:01+B*40:143    |                       |                  |
| B*35:23+B*40:80        | B*35:30+B*40:100       |                       |                  |
| B*35:23+B*40:145       | B*35:122+B*40:143      |                       |                  |
| B*35:23+B*40:157       | B*40:143+B*53:13       |                       |                  |
| B*35:23+B*40:201       | B*40:143+B*53:12       |                       |                  |
| B*35:23+B*40:202       | B*35:159+B*40:143      |                       |                  |
| B*35:24:01+B*35:38     | B*35:109+B*35:115      |                       |                  |
| B*35:24:01+B*35:56     | B*35:27+B*35:109       |                       |                  |
| B*35:24:01+B*35:85     | B*35:82+B*35:109       |                       |                  |
| B*35:24:01+B*35:96     | B*35:109+B*35:188      |                       |                  |
| B*35:24:01+B*35:136    | B*35:29:01+B*35:109    |                       |                  |
| B*35:24:01+B*35:150    | B*35:90+B*35:109       |                       |                  |
| B*35:24:01+B*35:151    | B*35:68:02+B*35:109    |                       |                  |
| B*35:24:01+B*35:154    | B*35:47+B*35:81        |                       |                  |
| B*35:24:01+B*35:157    | B*35:81+B*35:190       |                       |                  |
| B*35:24:01+B*35:163    | B*35:62+B*35:109       |                       |                  |
| B*35:24:01+B*35:182    | B*35:81+B*35:137:01G   |                       |                  |
| B*35:24:01+B*35:184    | B*35:81+B*35:90        |                       |                  |
| B*35:24:01+B*35:195    | B*35:101:02+B*35:109   |                       |                  |
| B*35:24:01+B*35:205    | B*35:64+B*35:109       |                       |                  |
| B*35:24:01+B*37:34     | B*37:11+B*53:02        |                       |                  |
| B*35:24:01+B*38:01:01  | B*39:05:01+B*53:02     |                       |                  |
| B*35:24:01+B*38:14     | B*39:01:01G+B*53:02    | B*39:48+B*53:01:01    |                  |
| B*35:24:01+B*38:19     | B*39:37+B*53:02        |                       |                  |
| B*35:24:01+B*38:26     | B*53:02+B*67:01:01     |                       |                  |
| B*35:24:01+B*39:48     | B*35:190+B*39:32       |                       |                  |
| B*35:24:01+B*39:52     | B*35:200+B*39:48       |                       |                  |
| B*35:24:01+B*39:55     | B*35:109+B*39:07       |                       |                  |
| B*35:24:01+B*40:01:11  | B*35:42:02+B*40:113    |                       |                  |
| B*35:24:01+B*40:19     | B*40:02:01G+B*53:02    |                       |                  |
| B*35:24:01+B*40:36     | B*35:109+B*40:38       |                       |                  |
| B*35:24:01+B*40:43     | B*35:29:01+B*40:113    |                       |                  |
| B*35:24:01+B*40:47     | B*40:113+B*53:13       |                       |                  |
| B*35:24:01+B*40:74     | B*35:197+B*40:113      |                       |                  |
| B*35:24:01+B*40:117    | B*40:01:01G+B*53:02    | B*40:113+B*53:01:01   |                  |
| B*35:24:01+B*40:132    | B*35:71+B*40:113       |                       |                  |
| B*35:24:01+B*40:154    | B*35:168+B*40:113      |                       |                  |
| B*35:24:01+B*40:188    | B*40:113+B*53:03       |                       |                  |
| B*35:24:01+B*40:199    | B*35:190+B*40:63       |                       |                  |
| B*35:24:01+B*44:04     | B*35:190+B*44:28:02    |                       |                  |
| B*35:24:01+B*44:18     | B*45:01:01G+B*53:02    |                       |                  |
| B*35:24:01+B*44:50     | B*44:46+B*53:02        |                       |                  |
| B*35:24:01+B*44:95     | B*44:09+B*53:02        |                       |                  |
| B*35:24:01+B*44:132    | B*35:190+B*44:91       |                       |                  |
| B*35:24:01+B*45:08     | B*35:190+B*45:04       |                       |                  |
| B*35:24:01+B*46:18     | B*35:190+B*46:11       |                       |                  |
| B*35:24:01+B*46:21:01  | B*35:190+B*46:13:03    |                       |                  |
| B*35:24:01+B*46:21:02  | B*35:190+B*46:13:01    |                       |                  |
| B*35:24:01+B*46:29     | B*35:188+B*46:09       | B*35:190+B*46:01:01G  |                  |
| B*35:24:01+B*49:08     | B*35:104+B*49:09       |                       |                  |
| B*35:24:01+B*49:10     | B*50:13+B*53:02        |                       |                  |
| B*35:24:01+B*49:12     | B*35:91+B*49:09        |                       |                  |
| B*35:24:01+B*49:18     | B*50:14+B*53:02        |                       |                  |
| B*35:24:01+B*49:20     | B*35:71+B*49:09        | B*50:02+B*53:02       |                  |
| B*35:24:01+B*51:13:02  | B*35:109+B*51:63       |                       |                  |
| B*35:24:01+B*51:21     | B*35:188+B*51:09:01    | B*35:190+B*51:01:01G  |                  |
| B*35:24:01+B*51:36     | B*35:115+B*51:21       |                       |                  |
| B*35:24:01+B*51:101    | B*35:188+B*51:19       |                       |                  |
| B*35:24:01+B*51:108    | B*35:71+B*51:09:01     |                       |                  |
| B*35:24:01+B*52:03     | B*35:28+B*51:09:01     | B*35:42:02+B*52:10:01 |                  |
| B*35:24:01+B*53:17:02  | B*35:28+B*53:02        |                       |                  |
| B*35:24:01+B*53:21     | B*35:197+B*53:02       |                       |                  |
| B*35:24:01+B*53:23     | B*35:29:01+B*53:02     |                       |                  |
| B*35:24:01+B*53:26     | B*35:108:01+B*53:02    |                       |                  |
| B*35:24:01+B*54:01:01G | B*35:190+B*54:03       |                       |                  |
| B*35:24:01+B*54:12     | B*53:02+B*54:01:01G    |                       |                  |
| B*35:24:01+B*55:02:01G | B*35:93+B*56:34        | B*35:190+B*56:01:01G  |                  |
| B*35:24:01+B*55:13     | B*35:109+B*55:32       | B*35:190+B*56:22      |                  |
| B*35:24:01+B*55:28     | B*35:188+B*56:15       |                       |                  |
| B*35:24:01+B*55:38     | B*35:188+B*56:27       |                       |                  |
| B*35:24:01+B*55:56     | B*35:188+B*56:13       |                       |                  |
| B*35:24:01+B*56:07     | B*53:13+B*56:34        |                       |                  |
| B*35:24:01+B*56:10     | B*35:190+B*56:02       |                       |                  |
| B*35:24:01+B*56:11     | B*35:109+B*56:09       |                       |                  |
| B*35:24:01+B*56:13     | B*35:115+B*56:34       |                       |                  |
| B*35:24:01+B*56:16     | B*35:124+B*56:34       |                       |                  |
| B*35:24:01+B*56:20:02  | B*35:64+B*56:34        |                       |                  |
| B*35:24:01+B*56:21     | B*53:02+B*56:05:02     |                       |                  |
| B*35:24:01+B*56:29     | B*35:122+B*56:34       |                       |                  |

|                        |                        |                       |
|------------------------|------------------------|-----------------------|
| B*35:24:01+B*56:35     | B*35:50+B*56:34        |                       |
| B*35:24:01+B*56:36     | B*35:90+B*56:34        |                       |
| B*35:24:01+B*57:02:01  | B*53:02+B*57:12        |                       |
| B*35:24:01+B*57:26     | B*35:190+B*57:01:01G   |                       |
| B*35:24:01+B*58:04     | B*35:202+B*58:09       |                       |
| B*35:24:01+B*58:08:01  | B*58:09+B*78:02:02     |                       |
| B*35:24:01+B*58:08:02  | B*58:09+B*78:02:01     |                       |
| B*35:24:01+B*58:12     | B*35:124+B*58:09       |                       |
| B*35:24:01+B*58:16     | B*35:68:02+B*58:09     |                       |
| B*35:24:01+B*58:27     | B*35:31+B*58:09        |                       |
| B*35:24:01+B*58:35     | B*35:93+B*58:09        | B*35:190+B*58:01:01G  |
| B*35:24:01+B*59:01:01G | B*35:190+B*59:04       |                       |
| B*35:24:01+B*78:07     | B*35:190+B*78:01:01    |                       |
| B*35:25+B*35:76        | B*35:124+B*56:09       |                       |
| B*35:25+B*51:15        | B*35:124+B*59:04       |                       |
| B*35:25+B*56:06        | B*35:124+B*56:05:01    |                       |
| B*35:27+B*35:38        | B*35:56+B*35:115       |                       |
| B*35:27+B*35:85        | B*35:56+B*35:82        |                       |
| B*35:27+B*35:96        | B*35:56+B*35:188       |                       |
| B*35:27+B*35:136       | B*35:29:01+B*35:56     |                       |
| B*35:27+B*35:150       | B*35:56+B*35:90        |                       |
| B*35:27+B*35:151       | B*35:56+B*35:68:02     |                       |
| B*35:27+B*35:163       | B*35:56+B*35:62        |                       |
| B*35:27+B*35:195       | B*35:56+B*35:101:02    |                       |
| B*35:27+B*35:205       | B*35:56+B*35:64        |                       |
| B*35:27+B*38:03        | B*39:02:01+B*53:13     |                       |
| B*35:27+B*39:10:01     | B*35:29:01+B*39:20     |                       |
| B*35:27+B*39:55        | B*35:56+B*39:07        |                       |
| B*35:27+B*40:19        | B*40:37+B*53:01:01     |                       |
| B*35:27+B*40:36        | B*35:56+B*40:38        |                       |
| B*35:27+B*40:50        | B*35:29:01+B*40:37     |                       |
| B*35:27+B*40:109       | B*40:06:01G+B*53:01:01 | B*40:53+B*53:21       |
| B*35:27+B*40:145       | B*35:122+B*40:37       |                       |
| B*35:27+B*40:157       | B*40:37+B*53:13        |                       |
| B*35:27+B*40:202       | B*35:159+B*40:37       |                       |
| B*35:27+B*44:05:01     | B*44:75+B*53:13        |                       |
| B*35:27+B*44:15        | B*45:01:01G+B*53:13    |                       |
| B*35:27+B*44:25        | B*44:75+B*53:01:01     |                       |
| B*35:27+B*48:18        | B*48:01:01G+B*53:01:01 | B*48:06+B*53:17:02    |
| B*35:27+B*51:13:02     | B*35:56+B*51:63        |                       |
| B*35:27+B*52:01:01G    | B*53:01:01+B*78:06     |                       |
| B*35:27+B*52:01:07     | B*53:01:03+B*78:06     |                       |
| B*35:27+B*52:01:11     | B*53:01:07+B*78:06     |                       |
| B*35:27+B*52:20        | B*53:13+B*78:06        |                       |
| B*35:27+B*52:24        | B*53:24+B*78:06        |                       |
| B*35:27+B*53:04        | B*35:56+B*53:01:01     |                       |
| B*35:27+B*55:13        | B*35:56+B*55:32        |                       |
| B*35:27+B*55:26        | B*35:143+B*55:12       |                       |
| B*35:27+B*55:42        | B*35:116+B*55:12       |                       |
| B*35:27+B*56:11        | B*35:56+B*56:09        |                       |
| B*35:27+B*58:34        | B*35:56+B*58:01:01G    |                       |
| B*35:28+B*35:172       | B*35:80+B*35:95        |                       |
| B*35:28+B*37:34        | B*37:11+B*53:17:02     |                       |
| B*35:28+B*38:01:01     | B*39:05:01+B*53:17:02  |                       |
| B*35:28+B*38:14        | B*39:01:01G+B*53:17:02 |                       |
| B*35:28+B*38:19        | B*39:37+B*53:17:02     |                       |
| B*35:28+B*38:26        | B*53:17:02+B*67:01:01  |                       |
| B*35:28+B*39:01:09     | B*35:82+B*39:02:02     |                       |
| B*35:28+B*39:11        | B*35:82+B*39:08        |                       |
| B*35:28+B*40:19        | B*40:02:01G+B*53:17:02 |                       |
| B*35:28+B*40:117       | B*40:01:01G+B*53:17:02 |                       |
| B*35:28+B*40:166       | B*35:76+B*40:01:01G    |                       |
| B*35:28+B*42:01:01     | B*35:76+B*42:11        |                       |
| B*35:28+B*44:18        | B*45:01:01G+B*53:17:02 |                       |
| B*35:28+B*44:50        | B*44:46+B*53:17:02     |                       |
| B*35:28+B*44:55        | B*35:63+B*44:83        |                       |
| B*35:28+B*44:95        | B*44:09+B*53:17:02     |                       |
| B*35:28+B*49:01:01     | B*50:01:01+B*53:17:02  |                       |
| B*35:28+B*49:10        | B*50:13+B*53:17:02     |                       |
| B*35:28+B*49:18        | B*50:14+B*53:17:02     |                       |
| B*35:28+B*49:20        | B*50:02+B*53:17:02     |                       |
| B*35:28+B*51:01:04     | B*35:42:02+B*52:01:05  |                       |
| B*35:28+B*51:01:22     | B*35:42:02+B*52:01:06  |                       |
| B*35:28+B*51:08        | B*35:42:02+B*52:19     |                       |
| B*35:28+B*51:13:01     | B*35:42:02+B*52:14     |                       |
| B*35:28+B*51:21        | B*35:93+B*52:01:02     | B*35:188+B*52:03      |
| B*35:28+B*51:22        | B*35:82+B*52:01:02     |                       |
| B*35:28+B*51:24:03     | B*35:64+B*52:01:02     |                       |
| B*35:28+B*51:35        | B*35:116+B*52:01:02    |                       |
| B*35:28+B*51:53        | B*35:42:02+B*52:29     | B*35:180+B*52:01:02   |
| B*35:28+B*51:57        | B*35:197+B*52:01:02    |                       |
| B*35:28+B*51:69        | B*35:42:02+B*52:30     |                       |
| B*35:28+B*51:76        | B*35:101:02+B*52:01:02 |                       |
| B*35:28+B*51:78:01     | B*35:42:02+B*52:20     |                       |
| B*35:28+B*51:90        | B*35:42:02+B*52:12     |                       |
| B*35:28+B*51:101       | B*35:35+B*52:01:02     |                       |
| B*35:28+B*51:108       | B*35:71+B*52:03        |                       |
| B*35:28+B*51:116       | B*35:50+B*52:27        |                       |
| B*35:28+B*51:119       | B*35:90+B*52:01:01G    |                       |
| B*35:28+B*51:130       | B*35:91+B*52:01:02     |                       |
| B*35:28+B*52:01:01G    | B*53:17:02+B*78:05     |                       |
| B*35:28+B*53:11        | B*35:80+B*53:09        |                       |
| B*35:28+B*53:21        | B*35:197+B*53:17:02    |                       |
| B*35:28+B*53:23        | B*35:29:01+B*53:17:02  |                       |
| B*35:28+B*53:26        | B*35:108:01+B*53:17:02 |                       |
| B*35:28+B*54:12        | B*53:17:02+B*54:01:01G |                       |
| B*35:28+B*56:05:02     | B*56:09+B*78:05        |                       |
| B*35:28+B*56:21        | B*52:01:01G+B*56:09    | B*53:17:02+B*56:05:02 |
| B*35:28+B*57:02:01     | B*53:17:02+B*57:12     |                       |
| B*35:28+B*58:08:02     | B*58:01:01G+B*78:05    |                       |
| B*35:28+B*67:01:02     | B*35:76+B*39:13:01     |                       |
| B*35:28+B*78:02:02     | B*35:42:02+B*78:05     |                       |
| B*35:28+B*81:01:01G    | B*35:76+B*48:01:01G    |                       |
| B*35:29:01+B*35:38     | B*35:115+B*35:136      |                       |
| B*35:29:01+B*35:85     | B*35:82+B*35:136       |                       |

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| B*35:29:01+B*35:96     | B*35:136+B*35:188      |                        |
| B*35:29:01+B*35:150    | B*35:90+B*35:136       |                        |
| B*35:29:01+B*35:151    | B*35:68:02+B*35:136    |                        |
| B*35:29:01+B*35:163    | B*35:62+B*35:136       |                        |
| B*35:29:01+B*35:195    | B*35:101:02+B*35:136   |                        |
| B*35:29:01+B*35:205    | B*35:64+B*35:136       |                        |
| B*35:29:01+B*37:34     | B*37:11+B*53:23        |                        |
| B*35:29:01+B*38:01:03  | B*39:01:01G+B*53:01:03 | B*39:01:05+B*53:01:01  |
| B*35:29:01+B*38:02:01G | B*39:01:01G+B*53:13    |                        |
| B*35:29:01+B*38:02:03  | B*39:01:09+B*53:13     |                        |
| B*35:29:01+B*38:04     | B*35:69+B*38:02:03     |                        |
| B*35:29:01+B*38:10     | B*39:30+B*53:08:01     |                        |
| B*35:29:01+B*38:14     | B*39:01:01G+B*53:23    |                        |
| B*35:29:01+B*38:17     | B*39:01:01G+B*53:03    |                        |
| B*35:29:01+B*38:19     | B*39:03+B*53:01:01     | B*39:37+B*53:23        |
| B*35:29:01+B*38:20     | B*39:42+B*53:01:01     |                        |
| B*35:29:01+B*38:23     | B*39:73+B*53:13        |                        |
| B*35:29:01+B*38:26     | B*53:23+B*67:01:01     |                        |
| B*35:29:01+B*38:27     | B*35:101:02+B*38:14    |                        |
| B*35:29:01+B*38:29     | B*39:15+B*53:13        |                        |
| B*35:29:01+B*38:33     | B*39:04+B*53:01:01     |                        |
| B*35:29:01+B*38:36     | B*39:30+B*53:01:01     |                        |
| B*35:29:01+B*38:40     | B*35:143+B*38:14       |                        |
| B*35:29:01+B*39:02:01  | B*35:69+B*39:39:01     |                        |
| B*35:29:01+B*39:22     | B*35:69+B*39:01:01G    |                        |
| B*35:29:01+B*40:01:11  | B*35:42:02+B*40:43     |                        |
| B*35:29:01+B*40:07     | B*35:69+B*40:106       |                        |
| B*35:29:01+B*40:19     | B*40:02:01G+B*53:23    | B*40:50+B*53:01:01     |
| B*35:29:01+B*40:36     | B*35:136+B*40:38       |                        |
| B*35:29:01+B*40:47     | B*40:43+B*53:13        |                        |
| B*35:29:01+B*40:74     | B*35:197+B*40:43       |                        |
| B*35:29:01+B*40:117    | B*40:01:01G+B*53:23    | B*40:43+B*53:01:01     |
| B*35:29:01+B*40:132    | B*35:71+B*40:43        |                        |
| B*35:29:01+B*40:145    | B*35:122+B*40:50       |                        |
| B*35:29:01+B*40:154    | B*35:168+B*40:43       |                        |
| B*35:29:01+B*40:157    | B*40:50+B*53:13        |                        |
| B*35:29:01+B*40:188    | B*40:43+B*53:03        |                        |
| B*35:29:01+B*40:201    | B*40:50+B*53:12        |                        |
| B*35:29:01+B*40:202    | B*35:159+B*40:50       |                        |
| B*35:29:01+B*44:02:01G | B*35:69+B*44:12        |                        |
| B*35:29:01+B*44:18     | B*45:01:01G+B*53:23    |                        |
| B*35:29:01+B*44:50     | B*44:46+B*53:23        |                        |
| B*35:29:01+B*44:95     | B*44:09+B*53:23        |                        |
| B*35:29:01+B*49:01:01  | B*50:01:01+B*53:23     |                        |
| B*35:29:01+B*49:10     | B*50:13+B*53:23        |                        |
| B*35:29:01+B*49:18     | B*50:14+B*53:23        |                        |
| B*35:29:01+B*49:20     | B*50:02+B*53:23        |                        |
| B*35:29:01+B*50:01:01  | B*35:69+B*50:15        |                        |
| B*35:29:01+B*51:01:01G | B*53:01:01+B*78:01:01  | B*53:23+B*78:02:02     |
| B*35:29:01+B*51:01:02  | B*53:23+B*78:02:01     |                        |
| B*35:29:01+B*51:01:34  | B*53:01:01+B*78:01:02  |                        |
| B*35:29:01+B*51:13:02  | B*35:136+B*51:63       |                        |
| B*35:29:01+B*51:21     | B*53:01:01+B*78:07     |                        |
| B*35:29:01+B*51:22     | B*53:01:01+B*78:03     |                        |
| B*35:29:01+B*51:29     | B*53:24+B*78:01:01     |                        |
| B*35:29:01+B*51:57     | B*53:21+B*78:01:01     |                        |
| B*35:29:01+B*51:78:01  | B*53:13+B*78:01:01     |                        |
| B*35:29:01+B*52:01:01G | B*35:69+B*51:07:02     | B*53:23+B*78:05        |
| B*35:29:01+B*52:01:02  | B*35:69+B*51:07:01     | B*53:17:02+B*78:01:01  |
| B*35:29:01+B*52:06:01  | B*35:69+B*51:01:33     |                        |
| B*35:29:01+B*52:06:02  | B*35:69+B*51:01:01G    |                        |
| B*35:29:01+B*53:21     | B*35:197+B*53:23       |                        |
| B*35:29:01+B*53:26     | B*35:108:01+B*53:23    |                        |
| B*35:29:01+B*54:12     | B*53:23+B*54:01:01G    |                        |
| B*35:29:01+B*55:13     | B*35:136+B*55:32       |                        |
| B*35:29:01+B*55:34     | B*35:69+B*55:47        |                        |
| B*35:29:01+B*55:40     | B*35:69+B*55:01:01G    |                        |
| B*35:29:01+B*56:05:01  | B*56:09+B*78:01:01     |                        |
| B*35:29:01+B*56:06     | B*35:76+B*78:01:01     |                        |
| B*35:29:01+B*56:11     | B*35:136+B*56:09       |                        |
| B*35:29:01+B*56:21     | B*53:23+B*56:05:02     |                        |
| B*35:29:01+B*56:23     | B*35:93+B*56:17        |                        |
| B*35:29:01+B*57:02:01  | B*53:23+B*57:12        |                        |
| B*35:29:01+B*58:08:01  | B*58:01:01G+B*78:01:01 |                        |
| B*35:29:01+B*58:34     | B*35:136+B*58:01:01G   |                        |
| B*35:29:01+B*67:01:01  | B*35:76+B*39:58        |                        |
| B*35:30+B*38:14        | B*39:42+B*53:14        |                        |
| B*35:30+B*38:32        | B*35:58+B*38:20        |                        |
| B*35:30+B*39:09        | B*35:48+B*39:03        |                        |
| B*35:30+B*39:35        | B*35:58+B*39:42        |                        |
| B*35:30+B*40:117       | B*40:160+B*53:14       |                        |
| B*35:30+B*40:183       | B*35:58+B*40:160       |                        |
| B*35:30+B*44:47        | B*35:37+B*44:110       |                        |
| B*35:31+B*40:04        | B*35:88+B*40:02:01G    |                        |
| B*35:31+B*40:68        | B*35:88+B*40:08        |                        |
| B*35:31+B*42:11        | B*35:87+B*48:13        |                        |
| B*35:31+B*44:48        | B*35:88+B*44:106       |                        |
| B*35:31+B*51:01:01G    | B*51:81+B*78:02:01     |                        |
| B*35:31+B*52:01:02     | B*51:81+B*78:05        |                        |
| B*35:31+B*58:04        | B*35:202+B*58:27       |                        |
| B*35:31+B*58:08:01     | B*58:27+B*78:02:02     |                        |
| B*35:31+B*58:08:02     | B*58:27+B*78:02:01     |                        |
| B*35:31+B*58:12        | B*35:124+B*58:27       |                        |
| B*35:31+B*58:16        | B*35:68:02+B*58:27     |                        |
| B*35:31+B*58:35        | B*35:93+B*58:27        |                        |
| B*35:32:01+B*40:01:01G | B*35:32:02+B*40:01:17  |                        |
| B*35:32:01+B*40:02:01G | B*35:32:02+B*40:02:08  |                        |
| B*35:32:01+B*40:70     | B*35:37+B*40:11:01     | B*35:68:02+B*40:06:01G |
| B*35:32:01+B*40:80     | B*35:51+B*40:01:17     |                        |
| B*35:32:01+B*40:125    | B*35:68:01+B*40:01:01G | B*35:68:02+B*40:01:04  |
| B*35:32:01+B*41:07     | B*35:68:02+B*41:01     |                        |
| B*35:32:01+B*46:01:01G | B*35:32:02+B*46:01:07  |                        |
| B*35:32:01+B*46:12     | B*35:51+B*46:01:07     |                        |
| B*35:32:01+B*50:01:01  | B*35:68:01+B*50:04     |                        |
| B*35:32:01+B*54:14     | B*35:37+B*54:09        |                        |

|                        |                         |                       |
|------------------------|-------------------------|-----------------------|
| B*35:32:01+B*55:01:01G | B*35:68:02+B*55:38      |                       |
| B*35:32:01+B*55:23     | B*35:37+B*56:18         |                       |
| B*35:32:01+B*55:28     | B*35:68:02+B*55:17      |                       |
| B*35:32:01+B*56:01:01G | B*35:37+B*56:04         | B*35:68:02+B*56:27    |
| B*35:32:01+B*56:02     | B*35:68:02+B*56:04      |                       |
| B*35:32:02+B*35:34     | B*35:39+B*35:68:01      |                       |
| B*35:32:02+B*38:19     | B*35:51+B*38:01:01      |                       |
| B*35:32:02+B*39:03     | B*35:51+B*39:01:01G     |                       |
| B*35:32:02+B*39:14     | B*35:51+B*39:70         |                       |
| B*35:32:02+B*39:18     | B*35:43:01G+B*39:01:01G | B*35:135+B*39:58      |
| B*35:32:02+B*39:37     | B*35:51+B*39:05:01      |                       |
| B*35:32:02+B*40:02:09  | B*35:51+B*40:11:02      |                       |
| B*35:32:02+B*40:03     | B*35:51+B*40:20         |                       |
| B*35:32:02+B*40:18     | B*35:199+B*40:20        |                       |
| B*35:32:02+B*40:24     | B*35:68:02+B*40:18      |                       |
| B*35:32:02+B*40:31     | B*35:51+B*40:33         | B*35:199+B*40:52      |
| B*35:32:02+B*40:45     | B*35:51+B*40:114        |                       |
| B*35:32:02+B*40:120    | B*35:34+B*40:20         |                       |
| B*35:32:02+B*41:02:01  | B*35:51+B*41:03:02      |                       |
| B*35:32:02+B*44:28:02  | B*35:61+B*44:65         |                       |
| B*35:32:02+B*44:54     | B*35:51+B*44:65         |                       |
| B*35:32:02+B*44:106    | B*35:51+B*44:41:01      |                       |
| B*35:32:02+B*44:110    | B*35:51+B*44:03:01G     |                       |
| B*35:32:02+B*46:01:01G | B*35:43:01G+B*46:13:01  |                       |
| B*35:32:02+B*46:03     | B*35:99+B*46:21:02      |                       |
| B*35:32:02+B*46:12     | B*35:51+B*46:01:01G     |                       |
| B*35:32:02+B*46:18     | B*35:60+B*46:13:01      |                       |
| B*35:32:02+B*46:29     | B*35:43:01G+B*46:21:02  |                       |
| B*35:32:02+B*46:30     | B*35:86+B*46:13:01      |                       |
| B*35:32:02+B*51:01:01G | B*51:45+B*78:04         |                       |
| B*35:32:02+B*51:61:01  | B*35:43:01G+B*51:09:01  |                       |
| B*35:32:02+B*51:64     | B*35:51+B*51:06:01      |                       |
| B*35:32:02+B*54:12     | B*51:15+B*54:09         |                       |
| B*35:32:02+B*58:18     | B*35:51+B*58:16         |                       |
| B*35:33+B*35:135       | B*35:85+B*35:86         |                       |
| B*35:33+B*39:32        | B*35:109+B*39:47        |                       |
| B*35:33+B*40:05        | B*35:167+B*40:02:01G    |                       |
| B*35:33+B*44:02:07     | B*35:38+B*44:124        | B*35:169+B*44:64:01   |
| B*35:33+B*44:28:01     | B*35:156+B*44:124       |                       |
| B*35:33+B*44:65        | B*35:151+B*44:124       |                       |
| B*35:33+B*44:127       | B*35:36+B*44:21         |                       |
| B*35:33+B*46:02        | B*35:153+B*46:30        |                       |
| B*35:33+B*46:10        | B*35:150+B*46:30        |                       |
| B*35:33+B*49:09        | B*35:109+B*49:07        |                       |
| B*35:33+B*51:08        | B*35:38+B*51:31         |                       |
| B*35:33+B*51:22        | B*35:85+B*51:16         |                       |
| B*35:33+B*51:24:03     | B*35:205+B*51:16        |                       |
| B*35:33+B*51:61:02     | B*35:163+B*51:16        |                       |
| B*35:33+B*51:70        | B*35:204+B*51:16        |                       |
| B*35:33+B*51:76        | B*35:195+B*51:16        |                       |
| B*35:33+B*51:113       | B*35:128+B*51:16        |                       |
| B*35:33+B*52:05        | B*35:193+B*52:08        |                       |
| B*35:33+B*52:24        | B*35:156+B*52:08        |                       |
| B*35:33+B*56:13        | B*35:38+B*55:22         |                       |
| B*35:33+B*56:20:02     | B*35:205+B*55:22        |                       |
| B*35:33+B*56:34        | B*35:109+B*55:22        |                       |
| B*35:33+B*56:36        | B*35:150+B*55:22        |                       |
| B*35:33+B*57:19        | B*35:156+B*57:25        |                       |
| B*35:33+B*57:21        | B*35:127+B*57:25        |                       |
| B*35:33+B*57:22        | B*35:167+B*57:25        |                       |
| B*35:33+B*57:24        | B*35:38+B*57:25         |                       |
| B*35:33+B*58:09        | B*35:109+B*58:37        |                       |
| B*35:33+B*58:16        | B*35:151+B*58:37        |                       |
| B*35:33+B*58:19        | B*35:167+B*58:37        |                       |
| B*35:33+B*58:22        | B*35:156+B*58:37        |                       |
| B*35:33+B*58:26        | B*35:75+B*58:37         |                       |
| B*35:34+B*38:14        | B*39:70+B*53:04         |                       |
| B*35:34+B*39:27        | B*35:74+B*39:70         |                       |
| B*35:34+B*39:35        | B*35:167+B*39:70        |                       |
| B*35:34+B*39:41        | B*35:155+B*39:70        |                       |
| B*35:34+B*39:48        | B*35:109+B*39:70        |                       |
| B*35:34+B*40:18        | B*35:199+B*40:120       |                       |
| B*35:34+B*51:64        | B*35:199+B*51:56:02     |                       |
| B*35:35+B*38:10        | B*35:93+B*38:32         |                       |
| B*35:35+B*38:30        | B*35:115+B*38:01:01     |                       |
| B*35:35+B*38:36        | B*35:93+B*38:01:01      |                       |
| B*35:35+B*39:30        | B*35:93+B*39:01:01G     |                       |
| B*35:35+B*39:34        | B*35:93+B*39:06:02      |                       |
| B*35:35+B*44:02:01G    | B*35:93+B*44:89         |                       |
| B*35:35+B*44:03:01G    | B*35:93+B*44:29         |                       |
| B*35:35+B*46:13:03     | B*35:93+B*46:19         |                       |
| B*35:35+B*51:09:01     | B*35:93+B*51:19         |                       |
| B*35:35+B*51:21        | B*35:93+B*51:101        |                       |
| B*35:35+B*51:22        | B*35:82+B*51:101        |                       |
| B*35:35+B*51:24:03     | B*35:64+B*51:101        |                       |
| B*35:35+B*51:35        | B*35:116+B*51:101       |                       |
| B*35:35+B*51:53        | B*35:180+B*51:101       |                       |
| B*35:35+B*51:57        | B*35:197+B*51:101       |                       |
| B*35:35+B*51:61:02     | B*35:62+B*51:101        |                       |
| B*35:35+B*51:76        | B*35:101:02+B*51:101    |                       |
| B*35:35+B*51:130       | B*35:91+B*51:101        |                       |
| B*35:36+B*40:43        | B*35:136+B*40:207       |                       |
| B*35:36+B*40:73        | B*35:74+B*40:207        |                       |
| B*35:36+B*40:113       | B*35:109+B*40:207       |                       |
| B*35:36+B*40:117       | B*40:207+B*53:04        |                       |
| B*35:36+B*40:128       | B*35:156+B*40:207       |                       |
| B*35:36+B*40:139       | B*35:127+B*40:207       |                       |
| B*35:36+B*40:183       | B*35:167+B*40:207       |                       |
| B*35:37+B*39:01:01G    | B*35:68:01+B*39:06:01   | B*35:68:02+B*39:06:02 |
| B*35:37+B*39:30        | B*35:68:02+B*39:34      |                       |
| B*35:37+B*39:47        | B*35:68:02+B*39:50      |                       |
| B*35:37+B*39:53        | B*35:68:02+B*39:57      |                       |
| B*35:37+B*40:11:02     | B*35:68:01+B*40:06:01G  |                       |
| B*35:37+B*40:13        | B*40:162+B*53:14        |                       |
| B*35:37+B*40:19        | B*40:06:01G+B*53:14     |                       |

|                         |                        |                        |
|-------------------------|------------------------|------------------------|
| B*35:37+B*40:20         | B*35:68:02+B*40:159    |                        |
| B*35:37+B*44:41:01      | B*35:68:02+B*44:20     |                        |
| B*35:37+B*44:41:02      | B*35:68:01+B*44:20     |                        |
| B*35:37+B*44:65         | B*35:68:02+B*44:47     |                        |
| B*35:37+B*46:01:01G     | B*35:68:02+B*46:32     |                        |
| B*35:37+B*51:06:01      | B*35:68:01+B*51:01:16  | B*35:68:02+B*51:01:01G |
| B*35:37+B*51:06:02      | B*35:68:01+B*51:01:01G |                        |
| B*35:37+B*51:59         | B*35:68:02+B*51:02:01  |                        |
| B*35:37+B*51:135        | B*35:68:02+B*51:90     |                        |
| B*35:37+B*56:02         | B*35:68:02+B*56:01:01G |                        |
| B*35:37+B*56:10         | B*35:68:01+B*55:02:04  | B*35:68:02+B*55:02:01G |
| B*35:38+B*35:62         | B*35:115+B*35:163      |                        |
| B*35:38+B*35:64         | B*35:115+B*35:205      |                        |
| B*35:38+B*35:68:02      | B*35:115+B*35:151      |                        |
| B*35:38+B*35:82         | B*35:85+B*35:115       |                        |
| B*35:38+B*35:90         | B*35:115+B*35:150      |                        |
| B*35:38+B*35:101:02     | B*35:115+B*35:195      |                        |
| B*35:38+B*35:188        | B*35:96+B*35:115       |                        |
| B*35:38+B*39:07         | B*35:115+B*39:55       |                        |
| B*35:38+B*40:38         | B*35:115+B*40:36       |                        |
| B*35:38+B*40:132        | B*35:169+B*40:01:01G   |                        |
| B*35:38+B*44:02:01G     | B*35:169+B*44:91       |                        |
| B*35:38+B*44:05:01      | B*35:169+B*44:42       |                        |
| B*35:38+B*44:21         | B*35:169+B*44:16       |                        |
| B*35:38+B*44:28:01      | B*35:156+B*44:02:07    |                        |
| B*35:38+B*44:28:02      | B*35:156+B*44:02:01G   |                        |
| B*35:38+B*44:79         | B*35:167+B*44:02:01G   |                        |
| B*35:38+B*44:120        | B*35:204+B*44:02:01G   |                        |
| B*35:38+B*45:01:01G     | B*35:169+B*45:04       |                        |
| B*35:38+B*46:17         | B*35:169+B*46:01:01G   |                        |
| B*35:38+B*49:11         | B*45:04+B*53:04        |                        |
| B*35:38+B*49:20         | B*35:167+B*44:18       | B*35:169+B*49:01:01    |
| B*35:38+B*50:01:01      | B*35:167+B*45:04       |                        |
| B*35:38+B*50:02         | B*35:167+B*45:01:01G   | B*35:169+B*50:01:01    |
| B*35:38+B*51:01:01G     | B*35:167+B*51:08       |                        |
| B*35:38+B*51:21         | B*35:109+B*51:36       |                        |
| B*35:38+B*51:23         | B*35:169+B*51:02:01    |                        |
| B*35:38+B*51:63         | B*35:115+B*51:13:02    | B*35:167+B*51:97       |
| B*35:38+B*52:01:01G     | B*35:167+B*52:19       |                        |
| B*35:38+B*52:15         | B*35:169+B*52:01:01G   |                        |
| B*35:38+B*53:01:01      | B*35:115+B*53:04       |                        |
| B*35:38+B*55:03         | B*35:74+B*55:56        |                        |
| B*35:38+B*55:21         | B*35:163+B*55:56       |                        |
| B*35:38+B*55:32         | B*35:115+B*55:13       |                        |
| B*35:38+B*55:52         | B*35:156+B*55:56       |                        |
| B*35:38+B*56:09         | B*35:115+B*56:11       |                        |
| B*35:38+B*56:20:02      | B*35:205+B*56:13       |                        |
| B*35:38+B*56:25         | B*35:167+B*56:13       |                        |
| B*35:38+B*56:34         | B*35:109+B*56:13       |                        |
| B*35:38+B*56:36         | B*35:150+B*56:13       |                        |
| B*35:38+B*57:07         | B*35:169+B*57:03:01    |                        |
| B*35:38+B*57:19         | B*35:156+B*57:24       |                        |
| B*35:38+B*57:21         | B*35:127+B*57:24       |                        |
| B*35:38+B*57:22         | B*35:167+B*57:24       |                        |
| B*35:38+B*58:01:01G     | B*35:115+B*58:34       |                        |
| B*35:38+B*58:07         | B*35:169+B*58:02       |                        |
| B*35:39+B*38:19         | B*35:199+B*38:20       |                        |
| B*35:39+B*39:03         | B*35:59+B*39:29        | B*35:199+B*39:42       |
| B*35:39+B*40:36         | B*35:59+B*40:33        |                        |
| B*35:39+B*40:60         | B*35:48+B*40:42        |                        |
| B*35:39+B*40:86         | B*35:59+B*40:44        |                        |
| B*35:39+B*42:06         | B*35:59+B*42:16        |                        |
| B*35:39+B*44:54         | B*35:199+B*44:03:01G   |                        |
| B*35:39+B*44:106        | B*35:199+B*44:02:01G   |                        |
| B*35:39+B*44:135        | B*35:199+B*44:45       |                        |
| B*35:39+B*51:13:02      | B*35:59+B*51:90        |                        |
| B*35:42:02+B*40:47      | B*40:01:11+B*53:13     |                        |
| B*35:42:02+B*40:74      | B*35:197+B*40:01:11    |                        |
| B*35:42:02+B*40:117     | B*40:01:11+B*53:01:01  |                        |
| B*35:42:02+B*40:132     | B*35:71+B*40:01:11     |                        |
| B*35:42:02+B*40:154     | B*35:168+B*40:01:11    |                        |
| B*35:42:02+B*40:188     | B*40:01:11+B*53:03     |                        |
| B*35:42:02+B*44:22      | B*35:54+B*44:02:10     |                        |
| B*35:42:02+B*44:41:01   | B*35:68:01+B*44:02:10  |                        |
| B*35:42:02+B*44:102     | B*35:180+B*44:02:10    |                        |
| B*35:42:02+B*51:119     | B*35:90+B*51:01:01G    |                        |
| B*35:42:02+B*52:15      | B*35:71+B*52:01:02     |                        |
| B*35:42:02+B*52:23      | B*35:200+B*52:01:02    |                        |
| B*35:42:02+B*52:27      | B*35:124+B*52:01:02    |                        |
| B*35:42:02+B*56:21      | B*51:01:01G+B*56:09    | B*53:01:01+B*56:05:01  |
| B*35:43:01G+B*35:156    | B*35:99+B*35:163       |                        |
| B*35:43:01G+B*39:03     | B*35:51+B*39:18        |                        |
| B*35:43:01G+B*39:47     | B*35:86+B*39:74        |                        |
| B*35:43:01G+B*40:06:01G | B*35:44+B*40:159       |                        |
| B*35:43:01G+B*40:11:01  | B*35:44+B*40:20        |                        |
| B*35:43:01G+B*40:75     | B*35:135+B*40:162      |                        |
| B*35:43:01G+B*42:02     | B*35:44+B*42:09        |                        |
| B*35:43:01G+B*44:16     | B*35:86+B*44:91        |                        |
| B*35:43:01G+B*44:21     | B*35:86+B*44:02:01G    |                        |
| B*35:43:01G+B*44:64:01  | B*35:86+B*44:37:02     |                        |
| B*35:43:01G+B*44:64:02  | B*35:86+B*44:37:01     |                        |
| B*35:43:01G+B*44:76     | B*35:99+B*44:146       |                        |
| B*35:43:01G+B*44:77     | B*35:44+B*44:43:01     |                        |
| B*35:43:01G+B*44:124    | B*35:86+B*44:03:02     |                        |
| B*35:43:01G+B*45:10     | B*35:86+B*45:04        |                        |
| B*35:43:01G+B*46:03     | B*35:99+B*46:29        |                        |
| B*35:43:01G+B*46:18     | B*35:60+B*46:01:01G    |                        |
| B*35:43:01G+B*46:30     | B*35:86+B*46:01:01G    |                        |
| B*35:43:01G+B*48:03:01  | B*35:44+B*48:23        |                        |
| B*35:43:01G+B*49:07     | B*35:86+B*49:01:01     |                        |
| B*35:43:01G+B*51:01:01G | B*35:44+B*51:37        |                        |
| B*35:43:01G+B*51:16     | B*35:86+B*51:01:01G    |                        |
| B*35:43:01G+B*51:22     | B*35:135+B*51:01:01G   |                        |
| B*35:43:01G+B*51:24:04  | B*35:118+B*51:01:01G   |                        |
| B*35:43:01G+B*51:29     | B*35:99+B*51:61:02     |                        |

|                         |                       |                    |                  |
|-------------------------|-----------------------|--------------------|------------------|
| B*35:43:01G+B*51:31     | B*35:86+B*51:09:01    |                    |                  |
| B*35:43:01G+B*51:34     | B*35:86+B*51:02:01    |                    |                  |
| B*35:43:01G+B*51:82     | B*35:86+B*51:29       |                    |                  |
| B*35:43:01G+B*52:08     | B*35:86+B*52:01:01G   |                    |                  |
| B*35:43:01G+B*54:01:01G | B*35:60+B*54:06       |                    |                  |
| B*35:43:01G+B*54:04     | B*35:44+B*54:14       |                    |                  |
| B*35:43:01G+B*54:26     | B*35:86+B*54:03       |                    |                  |
| B*35:43:01G+B*55:22     | B*35:86+B*56:01:01G   |                    |                  |
| B*35:43:01G+B*55:24     | B*35:86+B*56:25       |                    |                  |
| B*35:43:01G+B*55:52     | B*35:99+B*55:21       |                    |                  |
| B*35:43:01G+B*56:20:02  | B*35:118+B*56:01:03   |                    |                  |
| B*35:43:01G+B*57:02:01  | B*35:44+B*57:19       |                    |                  |
| B*35:43:01G+B*57:03:01  | B*35:44+B*57:01:01G   |                    |                  |
| B*35:43:01G+B*57:25     | B*35:86+B*57:01:01G   |                    |                  |
| B*35:43:01G+B*57:57     | B*35:44+B*57:22       |                    |                  |
| B*35:43:01G+B*58:37     | B*35:86+B*58:01:01G   |                    |                  |
| B*35:43:01G+B*67:03     | B*35:118+B*67:01:01   |                    |                  |
| B*35:43:01G+B*78:03     | B*35:135+B*78:01:01   |                    |                  |
| B*35:44+B*57:25         | B*35:86+B*57:03:01    |                    |                  |
| B*35:45+B*35:124        | B*35:71+B*35:142      |                    |                  |
| B*35:45+B*35:159        | B*35:71+B*35:105      |                    |                  |
| B*35:45+B*39:05:01      | B*35:71+B*39:11       |                    |                  |
| B*35:45+B*40:47         | B*40:132+B*53:11      |                    |                  |
| B*35:45+B*40:117        | B*40:132+B*53:24      |                    |                  |
| B*35:45+B*40:148        | B*35:71+B*40:161      |                    |                  |
| B*35:45+B*40:183        | B*35:71+B*40:198      |                    |                  |
| B*35:45+B*44:03:01G     | B*35:71+B*44:28:02    |                    |                  |
| B*35:45+B*44:03:02      | B*35:71+B*44:28:01    |                    |                  |
| B*35:45+B*44:79         | B*35:71+B*44:76       |                    |                  |
| B*35:45+B*44:132        | B*35:115+B*44:04      |                    |                  |
| B*35:45+B*46:27         | B*35:105+B*46:17      |                    |                  |
| B*35:45+B*49:02         | B*50:02+B*53:11       |                    |                  |
| B*35:45+B*51:01:01G     | B*35:71+B*51:29       |                    |                  |
| B*35:45+B*51:16         | B*35:71+B*51:82       |                    |                  |
| B*35:45+B*52:27         | B*35:142+B*52:15      |                    |                  |
| B*35:45+B*53:01:01      | B*35:71+B*53:24       |                    |                  |
| B*35:45+B*53:05         | B*35:71+B*53:16       |                    |                  |
| B*35:45+B*53:13         | B*35:71+B*53:11       |                    |                  |
| B*35:45+B*54:01:01G     | B*35:71+B*54:10       |                    |                  |
| B*35:45+B*55:01:01G     | B*35:71+B*55:52       |                    |                  |
| B*35:45+B*55:02:01G     | B*35:71+B*55:37       |                    |                  |
| B*35:45+B*55:24         | B*35:71+B*55:09       |                    |                  |
| B*35:45+B*57:01:01G     | B*35:71+B*57:19       |                    |                  |
| B*35:45+B*58:01:01G     | B*35:71+B*58:22       |                    |                  |
| B*35:46+B*51:112        | B*35:47+B*51:104      |                    |                  |
| B*35:47+B*35:157        | B*35:154+B*35:190     |                    |                  |
| B*35:47+B*35:182        | B*35:137:01G+B*35:154 |                    |                  |
| B*35:47+B*35:184        | B*35:90+B*35:154      |                    |                  |
| B*35:47+B*40:46         | B*35:49+B*40:01:01G   |                    |                  |
| B*35:47+B*40:93         | B*35:49+B*40:06:01G   |                    |                  |
| B*35:47+B*53:19         | B*35:154+B*53:01:01   |                    |                  |
| B*35:49+B*39:15         | B*35:198+B*39:07      |                    |                  |
| B*35:50+B*38:14         | B*39:31+B*53:21       |                    |                  |
| B*35:50+B*39:01:01G     | B*35:197+B*39:31      |                    |                  |
| B*35:50+B*40:40         | B*35:197+B*40:02:01G  |                    |                  |
| B*35:50+B*40:210        | B*35:197+B*40:74      |                    |                  |
| B*35:50+B*42:01:01      | B*35:197+B*42:02      |                    |                  |
| B*35:50+B*42:10         | B*35:197+B*42:17      |                    |                  |
| B*35:50+B*44:02:01G     | B*35:115+B*44:103     | B*35:197+B*44:55   | B*44:131+B*53:13 |
| B*35:50+B*44:26         | B*35:138+B*44:103     |                    |                  |
| B*35:50+B*44:65         | B*35:68:01+B*44:103   |                    |                  |
| B*35:50+B*44:95         | B*44:131+B*53:01:01   |                    |                  |
| B*35:50+B*44:98         | B*35:159+B*44:103     |                    |                  |
| B*35:50+B*44:105        | B*35:54+B*44:103      |                    |                  |
| B*35:50+B*46:01:01G     | B*35:197+B*46:14      |                    |                  |
| B*35:50+B*49:10         | B*35:197+B*49:01:01   | B*50:01:01+B*53:21 |                  |
| B*35:50+B*50:13         | B*35:197+B*50:01:01   |                    |                  |
| B*35:50+B*54:12         | B*53:01:01+B*54:02    |                    |                  |
| B*35:50+B*54:21         | B*35:124+B*54:02      |                    |                  |
| B*35:50+B*55:02:01G     | B*35:93+B*56:35       | B*35:197+B*55:16   |                  |
| B*35:50+B*56:07         | B*53:13+B*56:35       |                    |                  |
| B*35:50+B*56:13         | B*35:115+B*56:35      |                    |                  |
| B*35:50+B*56:16         | B*35:124+B*56:35      |                    |                  |
| B*35:50+B*56:20:02      | B*35:64+B*56:35       |                    |                  |
| B*35:50+B*56:29         | B*35:122+B*56:35      |                    |                  |
| B*35:50+B*56:36         | B*35:90+B*56:35       |                    |                  |
| B*35:50+B*57:03:01      | B*35:197+B*57:39      |                    |                  |
| B*35:51+B*40:18         | B*35:199+B*40:03      |                    |                  |
| B*35:51+B*40:44         | B*35:199+B*40:159     |                    |                  |
| B*35:51+B*44:28:02      | B*35:61+B*44:54       |                    |                  |
| B*35:51+B*44:107        | B*35:199+B*44:43:01   |                    |                  |
| B*35:51+B*44:123        | B*35:199+B*44:17      |                    |                  |
| B*35:51+B*51:08         | B*35:199+B*51:97      |                    |                  |
| B*35:51+B*51:90         | B*35:199+B*51:37      |                    |                  |
| B*35:54+B*38:01:01      | B*35:197+B*38:05      |                    |                  |
| B*35:54+B*44:26         | B*35:138+B*44:105     |                    |                  |
| B*35:54+B*44:41:01      | B*35:68:01+B*44:22    |                    |                  |
| B*35:54+B*44:65         | B*35:68:01+B*44:105   |                    |                  |
| B*35:54+B*44:98         | B*35:159+B*44:105     |                    |                  |
| B*35:54+B*44:102        | B*35:180+B*44:22      |                    |                  |
| B*35:54+B*46:10         | B*35:90+B*46:05       |                    |                  |
| B*35:54+B*46:17         | B*35:71+B*46:05       |                    |                  |
| B*35:54+B*46:27         | B*35:159+B*46:05      |                    |                  |
| B*35:54+B*46:29         | B*35:93+B*46:05       |                    |                  |
| B*35:56+B*39:10:01      | B*35:136+B*39:20      |                    |                  |
| B*35:56+B*40:19         | B*40:37+B*53:04       |                    |                  |
| B*35:56+B*40:50         | B*35:136+B*40:37      |                    |                  |
| B*35:56+B*40:107        | B*35:204+B*40:37      |                    |                  |
| B*35:56+B*40:109        | B*40:06:01G+B*53:04   |                    |                  |
| B*35:56+B*44:25         | B*44:75+B*53:04       |                    |                  |
| B*35:56+B*48:18         | B*48:01:01G+B*53:04   |                    |                  |
| B*35:56+B*52:01:01G     | B*53:04+B*78:06       |                    |                  |
| B*35:56+B*55:01:01G     | B*35:167+B*55:12      |                    |                  |
| B*35:56+B*55:37         | B*35:156+B*55:12      |                    |                  |
| B*35:58+B*35:205        | B*35:114+B*35:167     |                    |                  |

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| B*35:58+B*37:32        | B*35:89+B*37:13        |                        |
| B*35:58+B*38:14        | B*39:35+B*53:14        |                        |
| B*35:58+B*40:117       | B*40:183+B*53:14       |                        |
| B*35:58+B*48:03:01     | B*35:68:02+B*48:15     |                        |
| B*35:58+B*48:03:02     | B*35:68:01+B*48:15     |                        |
| B*35:58+B*53:04        | B*35:167+B*53:14       |                        |
| B*35:58+B*56:20:02     | B*35:114+B*56:25       |                        |
| B*35:58+B*58:34        | B*35:167+B*58:18       |                        |
| B*35:60+B*46:30        | B*35:86+B*46:18        |                        |
| B*35:60+B*53:01:01     | B*35:93+B*51:15        |                        |
| B*35:60+B*53:02        | B*35:190+B*51:15       |                        |
| B*35:60+B*56:05:01     | B*55:02:01G+B*78:02:02 |                        |
| B*35:60+B*56:05:02     | B*55:02:01G+B*78:02:01 |                        |
| B*35:60+B*56:21        | B*51:01:02+B*55:02:01G | B*51:09:02+B*55:01:01G |
| B*35:62+B*35:85        | B*35:82+B*35:163       |                        |
| B*35:62+B*35:96        | B*35:163+B*35:188      |                        |
| B*35:62+B*35:150       | B*35:90+B*35:163       |                        |
| B*35:62+B*35:151       | B*35:68:02+B*35:163    |                        |
| B*35:62+B*35:195       | B*35:101:02+B*35:163   |                        |
| B*35:62+B*35:205       | B*35:64+B*35:163       |                        |
| B*35:62+B*39:55        | B*35:163+B*39:07       |                        |
| B*35:62+B*40:36        | B*35:163+B*40:38       |                        |
| B*35:62+B*46:21:01     | B*35:93+B*46:09        |                        |
| B*35:62+B*48:18        | B*48:19+B*53:05        |                        |
| B*35:62+B*51:13:02     | B*35:163+B*51:63       |                        |
| B*35:62+B*51:21        | B*35:93+B*51:61:02     |                        |
| B*35:62+B*51:22        | B*35:82+B*51:61:02     |                        |
| B*35:62+B*51:24:03     | B*35:64+B*51:61:02     |                        |
| B*35:62+B*51:35        | B*35:116+B*51:61:02    |                        |
| B*35:62+B*51:53        | B*35:180+B*51:61:02    |                        |
| B*35:62+B*51:57        | B*35:197+B*51:61:02    |                        |
| B*35:62+B*51:76        | B*35:101:02+B*51:61:02 |                        |
| B*35:62+B*51:130       | B*35:91+B*51:61:02     |                        |
| B*35:62+B*53:04        | B*35:163+B*53:01:01    |                        |
| B*35:62+B*55:13        | B*35:163+B*55:32       |                        |
| B*35:62+B*55:54        | B*35:180+B*55:21       |                        |
| B*35:62+B*55:56        | B*35:115+B*55:21       |                        |
| B*35:62+B*56:11        | B*35:163+B*56:09       |                        |
| B*35:62+B*58:34        | B*35:163+B*58:01:01G   |                        |
| B*35:63+B*42:11        | B*41:02:01+B*48:02:01  |                        |
| B*35:63+B*44:100       | B*44:37:01+B*45:09     |                        |
| B*35:63+B*46:06        | B*40:52+B*46:33        | B*40:59+B*46:13:01     |
| B*35:63+B*48:01:01G    | B*40:80+B*48:02:01     |                        |
| B*35:63+B*48:03:01     | B*40:01:01G+B*48:02:01 |                        |
| B*35:63+B*48:03:02     | B*40:01:04+B*48:02:01  |                        |
| B*35:63+B*48:08        | B*40:32+B*48:02:01     |                        |
| B*35:63+B*48:15        | B*40:80+B*48:25        |                        |
| B*35:63+B*48:23        | B*40:52+B*48:02:01     |                        |
| B*35:64+B*35:85        | B*35:82+B*35:205       |                        |
| B*35:64+B*35:96        | B*35:188+B*35:205      |                        |
| B*35:64+B*35:150       | B*35:90+B*35:205       |                        |
| B*35:64+B*35:151       | B*35:68:02+B*35:205    |                        |
| B*35:64+B*35:195       | B*35:101:02+B*35:205   |                        |
| B*35:64+B*38:26        | B*53:01:03+B*67:03     |                        |
| B*35:64+B*39:55        | B*35:205+B*39:07       |                        |
| B*35:64+B*40:24        | B*35:114+B*40:120      |                        |
| B*35:64+B*40:36        | B*35:205+B*40:38       |                        |
| B*35:64+B*42:01:01     | B*35:114+B*42:13       |                        |
| B*35:64+B*44:28:02     | B*35:174+B*44:03:14    |                        |
| B*35:64+B*44:54        | B*35:114+B*44:03:02    |                        |
| B*35:64+B*44:106       | B*35:114+B*44:02:07    |                        |
| B*35:64+B*46:01:03     | B*35:118+B*46:33       |                        |
| B*35:64+B*51:13:02     | B*35:205+B*51:63       |                        |
| B*35:64+B*51:21        | B*35:93+B*51:24:03     |                        |
| B*35:64+B*51:22        | B*35:82+B*51:24:03     |                        |
| B*35:64+B*51:35        | B*35:116+B*51:24:03    |                        |
| B*35:64+B*51:53        | B*35:180+B*51:24:03    |                        |
| B*35:64+B*51:57        | B*35:197+B*51:24:03    |                        |
| B*35:64+B*51:64        | B*35:114+B*51:04       |                        |
| B*35:64+B*51:76        | B*35:101:02+B*51:24:03 |                        |
| B*35:64+B*51:130       | B*35:91+B*51:24:03     |                        |
| B*35:64+B*53:04        | B*35:205+B*53:01:01    |                        |
| B*35:64+B*53:14        | B*35:114+B*53:01:01    |                        |
| B*35:64+B*55:02:01G    | B*35:93+B*56:20:02     |                        |
| B*35:64+B*55:13        | B*35:205+B*55:32       |                        |
| B*35:64+B*56:07        | B*53:13+B*56:20:02     |                        |
| B*35:64+B*56:11        | B*35:205+B*56:09       |                        |
| B*35:64+B*56:13        | B*35:115+B*56:20:02    |                        |
| B*35:64+B*56:16        | B*35:124+B*56:20:02    |                        |
| B*35:64+B*56:29        | B*35:122+B*56:20:02    |                        |
| B*35:64+B*56:36        | B*35:90+B*56:20:02     |                        |
| B*35:64+B*58:18        | B*35:114+B*58:01:01G   |                        |
| B*35:64+B*58:34        | B*35:205+B*58:01:01G   |                        |
| B*35:68:01+B*40:11:01  | B*35:68:02+B*40:11:02  |                        |
| B*35:68:01+B*40:19     | B*40:11:02+B*53:14     |                        |
| B*35:68:01+B*40:124:02 | B*35:68:02+B*40:124:01 |                        |
| B*35:68:01+B*44:26     | B*35:138+B*44:65       |                        |
| B*35:68:01+B*44:37:01  | B*35:68:02+B*44:37:02  |                        |
| B*35:68:01+B*44:41:01  | B*35:68:02+B*44:41:02  |                        |
| B*35:68:01+B*44:64:02  | B*35:68:02+B*44:64:01  |                        |
| B*35:68:01+B*44:98     | B*35:159+B*44:65       |                        |
| B*35:68:01+B*44:102    | B*35:180+B*44:41:01    |                        |
| B*35:68:01+B*48:03:01  | B*35:68:02+B*48:03:02  |                        |
| B*35:68:01+B*51:06:01  | B*35:68:02+B*51:06:02  |                        |
| B*35:68:02+B*35:85     | B*35:82+B*35:151       |                        |
| B*35:68:02+B*35:96     | B*35:151+B*35:188      |                        |
| B*35:68:02+B*35:150    | B*35:90+B*35:151       |                        |
| B*35:68:02+B*35:195    | B*35:101:02+B*35:151   |                        |
| B*35:68:02+B*39:55     | B*35:151+B*39:07       |                        |
| B*35:68:02+B*40:19     | B*40:11:01+B*53:14     |                        |
| B*35:68:02+B*40:36     | B*35:151+B*40:38       |                        |
| B*35:68:02+B*51:13:02  | B*35:151+B*51:63       |                        |
| B*35:68:02+B*53:04     | B*35:151+B*53:01:01    |                        |
| B*35:68:02+B*55:13     | B*35:151+B*55:32       |                        |
| B*35:68:02+B*56:11     | B*35:151+B*56:09       |                        |



|                       |                        |                        |
|-----------------------|------------------------|------------------------|
| B*35:68:02+B*58:04    | B*35:202+B*58:16       |                        |
| B*35:68:02+B*58:08:01 | B*58:16+B*78:02:02     |                        |
| B*35:68:02+B*58:08:02 | B*58:16+B*78:02:01     |                        |
| B*35:68:02+B*58:12    | B*35:124+B*58:16       |                        |
| B*35:68:02+B*58:35    | B*35:93+B*58:16        |                        |
| B*35:69+B*35:156      | B*35:80+B*35:136       |                        |
| B*35:69+B*38:01:03    | B*39:22+B*53:01:03     |                        |
| B*35:69+B*38:02:01G   | B*39:22+B*53:13        |                        |
| B*35:69+B*38:14       | B*39:22+B*53:23        |                        |
| B*35:69+B*38:17       | B*39:22+B*53:03        |                        |
| B*35:69+B*38:32       | B*39:22+B*53:08:01     |                        |
| B*35:69+B*39:08       | B*35:80+B*39:02:01     |                        |
| B*35:69+B*40:128      | B*35:80+B*40:43        |                        |
| B*35:69+B*53:24       | B*35:80+B*53:23        |                        |
| B*35:71+B*40:47       | B*40:132+B*53:13       |                        |
| B*35:71+B*40:74       | B*35:197+B*40:132      |                        |
| B*35:71+B*40:117      | B*40:132+B*53:01:01    |                        |
| B*35:71+B*40:154      | B*35:168+B*40:132      |                        |
| B*35:71+B*40:188      | B*40:132+B*53:03       |                        |
| B*35:71+B*44:95       | B*44:46+B*53:22        |                        |
| B*35:71+B*44:117      | B*35:169+B*44:144      |                        |
| B*35:71+B*44:132      | B*35:93+B*44:02:01G    |                        |
| B*35:71+B*45:08       | B*35:93+B*45:01:01G    |                        |
| B*35:71+B*46:10       | B*35:90+B*46:17        |                        |
| B*35:71+B*46:27       | B*35:159+B*46:17       |                        |
| B*35:71+B*46:29       | B*35:93+B*46:17        |                        |
| B*35:71+B*49:02       | B*50:02+B*53:13        |                        |
| B*35:71+B*49:08       | B*35:104+B*49:20       |                        |
| B*35:71+B*49:12       | B*35:91+B*49:20        |                        |
| B*35:71+B*51:21       | B*35:188+B*51:108      | B*35:190+B*51:23       |
| B*35:71+B*52:23       | B*35:200+B*52:15       |                        |
| B*35:71+B*52:27       | B*35:124+B*52:15       |                        |
| B*35:71+B*52:29       | B*35:180+B*52:15       |                        |
| B*35:71+B*57:46       | B*35:180+B*57:07       |                        |
| B*35:72+B*51:24:03    | B*35:114+B*51:07:01    |                        |
| B*35:72+B*53:19       | B*35:95+B*53:14        |                        |
| B*35:74+B*38:14       | B*39:27+B*53:04        |                        |
| B*35:74+B*39:35       | B*35:167+B*39:27       |                        |
| B*35:74+B*39:41       | B*35:155+B*39:27       |                        |
| B*35:74+B*39:48       | B*35:109+B*39:27       |                        |
| B*35:74+B*40:43       | B*35:136+B*40:73       |                        |
| B*35:74+B*40:113      | B*35:109+B*40:73       |                        |
| B*35:74+B*40:117      | B*40:73+B*53:04        |                        |
| B*35:74+B*40:128      | B*35:156+B*40:73       |                        |
| B*35:74+B*40:139      | B*35:127+B*40:73       |                        |
| B*35:74+B*40:183      | B*35:167+B*40:73       |                        |
| B*35:74+B*55:21       | B*35:163+B*55:03       |                        |
| B*35:74+B*55:52       | B*35:156+B*55:03       |                        |
| B*35:75+B*40:99       | B*35:151+B*40:04       |                        |
| B*35:75+B*58:09       | B*35:109+B*58:26       |                        |
| B*35:75+B*58:16       | B*35:151+B*58:26       |                        |
| B*35:75+B*58:19       | B*35:167+B*58:26       |                        |
| B*35:75+B*58:22       | B*35:156+B*58:26       |                        |
| B*35:76+B*38:01:01    | B*35:82+B*38:26        |                        |
| B*35:76+B*39:05:01    | B*35:82+B*67:01:01     |                        |
| B*35:76+B*40:117      | B*40:166+B*53:17:02    |                        |
| B*35:76+B*44:02:01G   | B*44:90+B*53:09        |                        |
| B*35:76+B*46:18       | B*35:186+B*55:35       |                        |
| B*35:76+B*51:01:01G   | B*53:01:01+B*56:06     |                        |
| B*35:76+B*51:29       | B*53:24+B*56:06        |                        |
| B*35:76+B*51:57       | B*53:21+B*56:06        |                        |
| B*35:76+B*51:78:01    | B*53:13+B*56:06        |                        |
| B*35:76+B*52:01:02    | B*53:17:02+B*56:06     |                        |
| B*35:76+B*56:05:01    | B*56:06+B*56:09        |                        |
| B*35:76+B*58:08:01    | B*56:06+B*58:01:01G    |                        |
| B*35:76+B*59:01:01G   | B*53:01:01+B*55:02:01G | B*53:05+B*55:12        |
| B*35:76+B*59:03       | B*53:01:01+B*55:13     | B*53:04+B*55:32        |
| B*35:76+B*59:04       | B*51:15+B*56:09        | B*53:01:01+B*56:01:01G |
| B*35:80+B*38:14       | B*39:22+B*53:24        |                        |
| B*35:80+B*39:68       | B*35:174+B*39:22       |                        |
| B*35:81+B*35:150      | B*35:109+B*35:184      |                        |
| B*35:81+B*35:156      | B*35:109+B*35:172      |                        |
| B*35:81+B*38:14       | B*39:48+B*53:19        |                        |
| B*35:81+B*39:48       | B*35:157+B*39:32       |                        |
| B*35:81+B*40:52       | B*35:146+B*40:113      |                        |
| B*35:81+B*40:117      | B*40:113+B*53:19       |                        |
| B*35:81+B*40:128      | B*35:172+B*40:113      |                        |
| B*35:81+B*40:138      | B*35:183+B*40:113      |                        |
| B*35:81+B*40:199      | B*35:157+B*40:63       |                        |
| B*35:81+B*44:04       | B*35:157+B*44:28:02    |                        |
| B*35:81+B*44:132      | B*35:157+B*44:91       |                        |
| B*35:81+B*45:08       | B*35:157+B*45:04       |                        |
| B*35:81+B*46:18       | B*35:157+B*46:11       |                        |
| B*35:81+B*46:21:01    | B*35:157+B*46:13:03    |                        |
| B*35:81+B*46:21:02    | B*35:157+B*46:13:01    |                        |
| B*35:81+B*46:29       | B*35:157+B*46:01:01G   |                        |
| B*35:81+B*51:05       | B*35:172+B*51:09:02    |                        |
| B*35:81+B*51:21       | B*35:157+B*51:01:01G   |                        |
| B*35:81+B*53:04       | B*35:109+B*53:19       |                        |
| B*35:81+B*53:24       | B*35:172+B*53:02       |                        |
| B*35:81+B*54:01:01G   | B*35:157+B*54:03       |                        |
| B*35:81+B*55:01:01G   | B*35:157+B*56:25       |                        |
| B*35:81+B*55:02:01G   | B*35:157+B*56:01:01G   |                        |
| B*35:81+B*55:13       | B*35:157+B*56:22       |                        |
| B*35:81+B*56:10       | B*35:157+B*56:02       |                        |
| B*35:81+B*56:36       | B*35:184+B*56:34       |                        |
| B*35:81+B*57:26       | B*35:157+B*57:01:01G   |                        |
| B*35:81+B*58:22       | B*35:172+B*58:09       |                        |
| B*35:81+B*58:35       | B*35:157+B*58:01:01G   |                        |
| B*35:81+B*59:01:01G   | B*35:157+B*59:04       |                        |
| B*35:81+B*78:07       | B*35:157+B*78:01:01    |                        |
| B*35:82+B*35:96       | B*35:85+B*35:188       |                        |
| B*35:82+B*35:150      | B*35:85+B*35:90        |                        |
| B*35:82+B*35:195      | B*35:85+B*35:101:02    |                        |
| B*35:82+B*39:55       | B*35:85+B*39:07        |                        |

|                     |                       |                     |
|---------------------|-----------------------|---------------------|
| B*35:82+B*40:36     | B*35:85+B*40:38       |                     |
| B*35:82+B*40:96     | B*40:75+B*53:09       |                     |
| B*35:82+B*46:01:01G | B*35:135+B*46:33      |                     |
| B*35:82+B*51:13:02  | B*35:85+B*51:63       |                     |
| B*35:82+B*51:21     | B*35:93+B*51:22       |                     |
| B*35:82+B*51:35     | B*35:116+B*51:22      |                     |
| B*35:82+B*51:53     | B*35:180+B*51:22      |                     |
| B*35:82+B*51:57     | B*35:197+B*51:22      |                     |
| B*35:82+B*51:76     | B*35:101:02+B*51:22   |                     |
| B*35:82+B*51:130    | B*35:91+B*51:22       |                     |
| B*35:82+B*53:04     | B*35:85+B*53:01:01    |                     |
| B*35:82+B*55:13     | B*35:85+B*55:32       |                     |
| B*35:82+B*56:11     | B*35:85+B*56:09       |                     |
| B*35:82+B*58:34     | B*35:85+B*58:01:01G   |                     |
| B*35:82+B*78:07     | B*35:93+B*78:03       |                     |
| B*35:84+B*39:04     | B*35:150+B*39:31      |                     |
| B*35:84+B*40:49     | B*35:150+B*40:74      |                     |
| B*35:84+B*40:110    | B*35:150+B*40:96      |                     |
| B*35:84+B*40:129    | B*35:150+B*40:04      |                     |
| B*35:84+B*44:03:01G | B*35:150+B*44:103     |                     |
| B*35:84+B*44:09     | B*35:150+B*44:131     |                     |
| B*35:84+B*54:01:01G | B*35:150+B*54:02      |                     |
| B*35:84+B*56:01:01G | B*35:150+B*56:35      |                     |
| B*35:85+B*51:24:03  | B*35:205+B*51:22      |                     |
| B*35:85+B*51:29     | B*35:156+B*51:22      |                     |
| B*35:85+B*51:61:02  | B*35:163+B*51:22      |                     |
| B*35:85+B*51:70     | B*35:204+B*51:22      |                     |
| B*35:85+B*51:76     | B*35:195+B*51:22      |                     |
| B*35:85+B*51:113    | B*35:128+B*51:22      |                     |
| B*35:86+B*51:22     | B*35:135+B*51:16      |                     |
| B*35:86+B*51:24:04  | B*35:118+B*51:16      |                     |
| B*35:90+B*35:96     | B*35:150+B*35:188     |                     |
| B*35:90+B*35:157    | B*35:184+B*35:190     |                     |
| B*35:90+B*35:182    | B*35:137:01G+B*35:184 |                     |
| B*35:90+B*35:195    | B*35:101:02+B*35:150  |                     |
| B*35:90+B*38:01:01  | B*35:124+B*38:16      |                     |
| B*35:90+B*39:55     | B*35:150+B*39:07      |                     |
| B*35:90+B*40:36     | B*35:150+B*40:38      |                     |
| B*35:90+B*40:149    | B*35:124+B*40:74      |                     |
| B*35:90+B*46:27     | B*35:159+B*46:10      |                     |
| B*35:90+B*46:29     | B*35:93+B*46:10       |                     |
| B*35:90+B*51:13:02  | B*35:150+B*51:63      |                     |
| B*35:90+B*53:04     | B*35:150+B*53:01:01   |                     |
| B*35:90+B*53:19     | B*35:184+B*53:01:01   |                     |
| B*35:90+B*55:02:01G | B*35:93+B*56:36       |                     |
| B*35:90+B*55:13     | B*35:150+B*55:32      |                     |
| B*35:90+B*56:07     | B*53:13+B*56:36       |                     |
| B*35:90+B*56:11     | B*35:150+B*56:09      |                     |
| B*35:90+B*56:13     | B*35:115+B*56:36      |                     |
| B*35:90+B*56:16     | B*35:124+B*56:36      |                     |
| B*35:90+B*56:21     | B*51:119+B*56:09      |                     |
| B*35:90+B*56:29     | B*35:122+B*56:36      |                     |
| B*35:90+B*58:34     | B*35:150+B*58:01:01G  |                     |
| B*35:91+B*49:08     | B*35:104+B*49:12      |                     |
| B*35:91+B*51:21     | B*35:93+B*51:130      |                     |
| B*35:91+B*51:35     | B*35:116+B*51:130     |                     |
| B*35:91+B*51:53     | B*35:180+B*51:130     |                     |
| B*35:91+B*51:57     | B*35:197+B*51:130     |                     |
| B*35:91+B*51:76     | B*35:101:02+B*51:130  |                     |
| B*35:93+B*37:04:01  | B*35:190+B*37:01:01G  |                     |
| B*35:93+B*38:30     | B*35:115+B*38:36      |                     |
| B*35:93+B*39:48     | B*35:190+B*39:01:01G  |                     |
| B*35:93+B*40:113    | B*35:190+B*40:01:01G  |                     |
| B*35:93+B*46:27     | B*35:159+B*46:29      |                     |
| B*35:93+B*49:09     | B*35:188+B*49:11      | B*35:190+B*49:01:01 |
| B*35:93+B*51:01:02  | B*35:190+B*51:02:02   |                     |
| B*35:93+B*51:01:04  | B*35:190+B*51:02:04   |                     |
| B*35:93+B*51:01:31  | B*35:190+B*51:02:03   |                     |
| B*35:93+B*51:06:01  | B*35:190+B*51:59      |                     |
| B*35:93+B*51:35     | B*35:116+B*51:21      |                     |
| B*35:93+B*51:53     | B*35:180+B*51:21      |                     |
| B*35:93+B*51:57     | B*35:197+B*51:21      |                     |
| B*35:93+B*51:76     | B*35:101:02+B*51:21   |                     |
| B*35:93+B*52:01:01G | B*35:190+B*52:11      |                     |
| B*35:93+B*53:02     | B*35:190+B*53:01:01   |                     |
| B*35:93+B*56:07     | B*53:12+B*55:12       | B*53:13+B*55:02:01G |
| B*35:93+B*56:13     | B*35:115+B*55:02:01G  |                     |
| B*35:93+B*56:16     | B*35:124+B*55:02:01G  |                     |
| B*35:93+B*56:29     | B*35:122+B*55:02:01G  |                     |
| B*35:93+B*56:31     | B*35:190+B*56:18      |                     |
| B*35:93+B*57:10     | B*35:197+B*57:26      |                     |
| B*35:93+B*57:24     | B*35:115+B*57:26      |                     |
| B*35:93+B*57:58     | B*35:124+B*57:26      |                     |
| B*35:93+B*58:04     | B*35:202+B*58:35      |                     |
| B*35:93+B*58:08:01  | B*58:35+B*78:02:02    |                     |
| B*35:93+B*58:08:02  | B*58:35+B*78:02:01    |                     |
| B*35:93+B*58:12     | B*35:124+B*58:35      |                     |
| B*35:93+B*78:02:01  | B*35:188+B*78:04      |                     |
| B*35:95+B*51:29     | B*35:172+B*51:07:01   |                     |
| B*35:95+B*51:37     | B*35:146+B*51:07:01   |                     |
| B*35:95+B*51:116    | B*35:162+B*51:07:02   |                     |
| B*35:95+B*51:119    | B*35:184+B*51:07:02   |                     |
| B*35:95+B*53:11     | B*35:172+B*53:09      |                     |
| B*35:96+B*35:101:02 | B*35:188+B*35:195     |                     |
| B*35:96+B*39:07     | B*35:188+B*39:55      |                     |
| B*35:96+B*39:74     | B*35:109+B*39:35      | B*35:167+B*39:48    |
| B*35:96+B*40:38     | B*35:188+B*40:36      |                     |
| B*35:96+B*40:92     | B*35:167+B*40:163     |                     |
| B*35:96+B*46:09     | B*35:109+B*46:29      |                     |
| B*35:96+B*51:02:01  | B*35:167+B*51:21      |                     |
| B*35:96+B*51:09:01  | B*35:109+B*51:21      |                     |
| B*35:96+B*51:19     | B*35:109+B*51:101     |                     |
| B*35:96+B*51:63     | B*35:188+B*51:13:02   |                     |
| B*35:96+B*53:01:01  | B*35:188+B*53:04      |                     |
| B*35:96+B*55:32     | B*35:188+B*55:13      |                     |

|                         |                      |
|-------------------------|----------------------|
| B*35:96+B*56:01:01G     | B*35:109+B*55:01:01G |
| B*35:96+B*56:09         | B*35:188+B*56:11     |
| B*35:96+B*56:13         | B*35:109+B*55:56     |
| B*35:96+B*56:15         | B*35:109+B*55:28     |
| B*35:96+B*56:27         | B*35:109+B*55:38     |
| B*35:96+B*58:01:01G     | B*35:188+B*58:34     |
| B*35:101:02+B*38:40     | B*35:143+B*38:27     |
| B*35:101:02+B*39:55     | B*35:195+B*39:07     |
| B*35:101:02+B*40:36     | B*35:195+B*40:38     |
| B*35:101:02+B*51:13:02  | B*35:195+B*51:63     |
| B*35:101:02+B*51:35     | B*35:116+B*51:76     |
| B*35:101:02+B*51:53     | B*35:180+B*51:76     |
| B*35:101:02+B*51:57     | B*35:197+B*51:76     |
| B*35:101:02+B*53:04     | B*35:195+B*53:01:01  |
| B*35:101:02+B*55:13     | B*35:195+B*55:32     |
| B*35:101:02+B*56:11     | B*35:195+B*56:09     |
| B*35:101:02+B*58:34     | B*35:195+B*58:01:01G |
| B*35:105+B*35:124       | B*35:142+B*35:159    |
| B*35:105+B*35:125       | B*35:113+B*35:142    |
| B*35:105+B*39:05:01     | B*35:159+B*39:11     |
| B*35:105+B*40:01:01G    | B*35:159+B*40:128    |
| B*35:105+B*40:19        | B*40:202+B*53:24     |
| B*35:105+B*40:148       | B*35:159+B*40:161    |
| B*35:105+B*40:157       | B*40:202+B*53:11     |
| B*35:105+B*40:183       | B*35:159+B*40:198    |
| B*35:105+B*44:03:02     | B*35:159+B*44:28:01  |
| B*35:105+B*44:79        | B*35:159+B*44:76     |
| B*35:105+B*51:01:01G    | B*35:159+B*51:29     |
| B*35:105+B*51:16        | B*35:159+B*51:82     |
| B*35:105+B*52:01:01G    | B*35:159+B*52:24     |
| B*35:105+B*53:01:01     | B*35:159+B*53:24     |
| B*35:105+B*53:05        | B*35:159+B*53:16     |
| B*35:105+B*53:13        | B*35:159+B*53:11     |
| B*35:105+B*54:01:01G    | B*35:159+B*54:10     |
| B*35:105+B*55:01:01G    | B*35:159+B*55:52     |
| B*35:105+B*55:02:01G    | B*35:159+B*55:37     |
| B*35:105+B*55:24        | B*35:159+B*55:09     |
| B*35:105+B*57:01:01G    | B*35:159+B*57:19     |
| B*35:105+B*57:03:01     | B*35:159+B*57:02:01  |
| B*35:105+B*58:01:01G    | B*35:159+B*58:22     |
| B*35:108:01+B*37:34     | B*37:11+B*53:26      |
| B*35:108:01+B*38:01:01  | B*39:05:01+B*53:26   |
| B*35:108:01+B*38:14     | B*39:01:01G+B*53:26  |
| B*35:108:01+B*38:19     | B*39:37+B*53:26      |
| B*35:108:01+B*38:26     | B*53:26+B*67:01:01   |
| B*35:108:01+B*40:19     | B*40:02:01G+B*53:26  |
| B*35:108:01+B*40:117    | B*40:01:01G+B*53:26  |
| B*35:108:01+B*44:18     | B*45:01:01G+B*53:26  |
| B*35:108:01+B*44:50     | B*44:46+B*53:26      |
| B*35:108:01+B*44:95     | B*44:09+B*53:26      |
| B*35:108:01+B*49:01:01  | B*50:01:01+B*53:26   |
| B*35:108:01+B*49:10     | B*50:13+B*53:26      |
| B*35:108:01+B*49:18     | B*50:14+B*53:26      |
| B*35:108:01+B*49:20     | B*50:02+B*53:26      |
| B*35:108:01+B*51:01:01G | B*53:26+B*78:02:02   |
| B*35:108:01+B*51:01:02  | B*53:26+B*78:02:01   |
| B*35:108:01+B*52:01:01G | B*53:26+B*78:05      |
| B*35:108:01+B*53:21     | B*35:197+B*53:26     |
| B*35:108:01+B*54:12     | B*53:26+B*54:01:01G  |
| B*35:108:01+B*56:21     | B*53:26+B*56:05:02   |
| B*35:108:01+B*57:02:01  | B*53:26+B*57:12      |
| B*35:109+B*37:13        | B*35:167+B*37:04:01  |
| B*35:109+B*38:14        | B*39:48+B*53:04      |
| B*35:109+B*39:41        | B*35:155+B*39:48     |
| B*35:109+B*40:43        | B*35:136+B*40:113    |
| B*35:109+B*40:117       | B*40:113+B*53:04     |
| B*35:109+B*40:128       | B*35:156+B*40:113    |
| B*35:109+B*40:139       | B*35:127+B*40:113    |
| B*35:109+B*40:183       | B*35:167+B*40:113    |
| B*35:109+B*51:05        | B*35:156+B*51:09:02  |
| B*35:109+B*53:22        | B*35:169+B*53:02     |
| B*35:109+B*53:23        | B*35:136+B*53:02     |
| B*35:109+B*53:24        | B*35:156+B*53:02     |
| B*35:109+B*56:20:02     | B*35:205+B*56:34     |
| B*35:109+B*56:25        | B*35:167+B*56:34     |
| B*35:109+B*56:32        | B*35:167+B*56:31     |
| B*35:109+B*56:36        | B*35:150+B*56:34     |
| B*35:109+B*58:16        | B*35:151+B*58:09     |
| B*35:109+B*58:22        | B*35:156+B*58:09     |
| B*35:109+B*58:35        | B*35:190+B*58:34     |
| B*35:113+B*35:124       | B*35:125+B*35:159    |
| B*35:113+B*40:125       | B*35:159+B*40:80     |
| B*35:114+B*53:04        | B*35:205+B*53:14     |
| B*35:114+B*58:34        | B*35:205+B*58:18     |
| B*35:115+B*44:18        | B*45:04+B*53:22      |
| B*35:115+B*44:26        | B*35:138+B*44:02:01G |
| B*35:115+B*44:98        | B*35:159+B*44:02:01G |
| B*35:115+B*44:109       | B*44:09+B*53:12      |
| B*35:115+B*49:01:01     | B*45:04+B*53:08:01   |
| B*35:115+B*49:07        | B*45:10+B*53:08:01   |
| B*35:115+B*49:11        | B*45:04+B*53:01:01   |
| B*35:115+B*51:73        | B*35:143+B*51:08     |
| B*35:115+B*52:15        | B*53:22+B*78:05      |
| B*35:115+B*55:54        | B*35:180+B*55:56     |
| B*35:115+B*56:07        | B*53:13+B*56:13      |
| B*35:115+B*56:16        | B*35:124+B*56:13     |
| B*35:115+B*56:29        | B*35:122+B*56:13     |
| B*35:115+B*57:10        | B*35:197+B*57:24     |
| B*35:115+B*57:58        | B*35:124+B*57:24     |
| B*35:116+B*51:53        | B*35:180+B*51:35     |
| B*35:116+B*51:57        | B*35:197+B*51:35     |
| B*35:116+B*55:26        | B*35:143+B*55:42     |
| B*35:118+B*51:22        | B*35:135+B*51:24:04  |
| B*35:122+B*40:19        | B*40:145+B*53:01:01  |
| B*35:122+B*40:157       | B*40:145+B*53:13     |

|                       |                      |                 |
|-----------------------|----------------------|-----------------|
| B*35:122+B*40:201     | B*40:145+B*53:12     |                 |
| B*35:122+B*40:202     | B*35:159+B*40:145    |                 |
| B*35:122+B*56:07      | B*53:13+B*56:29      |                 |
| B*35:122+B*56:16      | B*35:124+B*56:29     |                 |
| B*35:124+B*39:11      | B*35:142+B*39:05:01  |                 |
| B*35:124+B*40:80      | B*35:125+B*40:125    |                 |
| B*35:124+B*40:128     | B*35:142+B*40:01:01G |                 |
| B*35:124+B*40:161     | B*35:142+B*40:148    |                 |
| B*35:124+B*40:198     | B*35:142+B*40:183    |                 |
| B*35:124+B*44:28:01   | B*35:142+B*44:03:02  |                 |
| B*35:124+B*44:28:02   | B*35:142+B*44:03:01G |                 |
| B*35:124+B*44:76      | B*35:142+B*44:79     |                 |
| B*35:124+B*51:29      | B*35:142+B*51:01:01G |                 |
| B*35:124+B*51:82      | B*35:142+B*51:16     |                 |
| B*35:124+B*52:23      | B*35:200+B*52:27     |                 |
| B*35:124+B*52:29      | B*35:180+B*52:27     |                 |
| B*35:124+B*53:11      | B*35:142+B*53:13     |                 |
| B*35:124+B*53:16      | B*35:142+B*53:05     |                 |
| B*35:124+B*53:24      | B*35:142+B*53:01:01  |                 |
| B*35:124+B*54:12      | B*53:01:01+B*54:21   |                 |
| B*35:124+B*55:09      | B*35:142+B*55:24     |                 |
| B*35:124+B*55:37      | B*35:142+B*55:02:01G |                 |
| B*35:124+B*55:52      | B*35:142+B*55:01:01G |                 |
| B*35:124+B*56:07      | B*53:13+B*56:16      |                 |
| B*35:124+B*57:02:01   | B*35:142+B*57:03:01  |                 |
| B*35:124+B*57:10      | B*35:197+B*57:58     |                 |
| B*35:124+B*58:04      | B*35:202+B*58:12     |                 |
| B*35:124+B*58:08:01   | B*58:12+B*78:02:02   |                 |
| B*35:124+B*58:08:02   | B*58:12+B*78:02:01   |                 |
| B*35:127+B*40:43      | B*35:136+B*40:139    |                 |
| B*35:127+B*40:117     | B*40:139+B*53:04     |                 |
| B*35:127+B*40:128     | B*35:156+B*40:139    |                 |
| B*35:127+B*40:183     | B*35:167+B*40:139    |                 |
| B*35:127+B*57:19      | B*35:156+B*57:21     |                 |
| B*35:127+B*57:22      | B*35:167+B*57:21     |                 |
| B*35:128+B*51:24:03   | B*35:205+B*51:113    |                 |
| B*35:128+B*51:29      | B*35:156+B*51:113    |                 |
| B*35:128+B*51:61:02   | B*35:163+B*51:113    |                 |
| B*35:128+B*51:70      | B*35:204+B*51:113    |                 |
| B*35:128+B*51:76      | B*35:195+B*51:113    |                 |
| B*35:136+B*38:19      | B*39:03+B*53:04      |                 |
| B*35:136+B*38:20      | B*39:42+B*53:04      |                 |
| B*35:136+B*38:27      | B*35:195+B*38:14     |                 |
| B*35:136+B*38:32      | B*35:167+B*38:14     | B*39:35+B*53:04 |
| B*35:136+B*38:33      | B*39:04+B*53:04      |                 |
| B*35:136+B*38:36      | B*39:30+B*53:04      |                 |
| B*35:136+B*39:01:09   | B*35:198+B*39:19:01  |                 |
| B*35:136+B*39:08      | B*35:156+B*39:02:01  |                 |
| B*35:136+B*39:11      | B*35:156+B*39:01:01G |                 |
| B*35:136+B*40:19      | B*40:50+B*53:04      |                 |
| B*35:136+B*40:107     | B*35:204+B*40:50     |                 |
| B*35:136+B*40:117     | B*40:43+B*53:04      |                 |
| B*35:136+B*40:128     | B*35:156+B*40:43     |                 |
| B*35:136+B*40:183     | B*35:167+B*40:43     |                 |
| B*35:136+B*51:01:01G  | B*53:04+B*78:01:01   |                 |
| B*35:136+B*51:01:34   | B*53:04+B*78:01:02   |                 |
| B*35:136+B*51:21      | B*53:04+B*78:07      |                 |
| B*35:136+B*51:22      | B*53:04+B*78:03      |                 |
| B*35:136+B*52:16      | B*35:198+B*52:27     |                 |
| B*35:136+B*53:08:01   | B*35:167+B*53:23     |                 |
| B*35:136+B*53:22      | B*35:169+B*53:23     |                 |
| B*35:136+B*53:24      | B*35:156+B*53:23     |                 |
| B*35:136+B*56:05:01   | B*56:11+B*78:01:01   |                 |
| B*35:136+B*58:08:01   | B*58:34+B*78:01:01   |                 |
| B*35:137:01G+B*35:157 | B*35:182+B*35:190    |                 |
| B*35:137:01G+B*53:19  | B*35:182+B*53:01:01  |                 |
| B*35:138+B*44:98      | B*35:159+B*44:26     |                 |
| B*35:142+B*54:12      | B*53:24+B*54:21      |                 |
| B*35:142+B*56:07      | B*53:11+B*56:16      |                 |
| B*35:142+B*56:20:01   | B*35:174+B*56:16     |                 |
| B*35:142+B*57:31      | B*35:174+B*57:58     |                 |
| B*35:142+B*58:34      | B*35:156+B*58:12     |                 |
| B*35:146+B*40:19      | B*40:03+B*53:19      |                 |
| B*35:146+B*40:117     | B*40:52+B*53:19      |                 |
| B*35:146+B*40:128     | B*35:172+B*40:52     |                 |
| B*35:146+B*40:138     | B*35:183+B*40:52     |                 |
| B*35:146+B*44:15      | B*45:12+B*53:12      |                 |
| B*35:146+B*44:18      | B*45:12+B*53:01:01   |                 |
| B*35:146+B*45:11      | B*35:180+B*45:12     |                 |
| B*35:146+B*51:29      | B*35:172+B*51:37     |                 |
| B*35:150+B*35:172     | B*35:156+B*35:184    |                 |
| B*35:150+B*46:02      | B*35:153+B*46:10     |                 |
| B*35:150+B*53:19      | B*35:184+B*53:04     |                 |
| B*35:150+B*56:20:02   | B*35:205+B*56:36     |                 |
| B*35:150+B*56:21      | B*51:119+B*56:11     |                 |
| B*35:150+B*56:25      | B*35:167+B*56:36     |                 |
| B*35:151+B*44:28:01   | B*35:156+B*44:65     |                 |
| B*35:151+B*58:19      | B*35:167+B*58:16     |                 |
| B*35:151+B*58:22      | B*35:156+B*58:16     |                 |
| B*35:155+B*38:14      | B*39:41+B*53:04      |                 |
| B*35:155+B*39:35      | B*35:167+B*39:41     |                 |
| B*35:156+B*38:01:01   | B*39:11+B*53:04      |                 |
| B*35:156+B*40:117     | B*40:128+B*53:04     |                 |
| B*35:156+B*44:120     | B*35:204+B*44:28:02  |                 |
| B*35:156+B*44:146     | B*35:163+B*44:76     |                 |
| B*35:156+B*46:29      | B*35:163+B*46:03     |                 |
| B*35:156+B*51:02:02   | B*35:167+B*51:05     |                 |
| B*35:156+B*51:24:03   | B*35:205+B*51:29     |                 |
| B*35:156+B*51:61:02   | B*35:163+B*51:29     |                 |
| B*35:156+B*51:70      | B*35:204+B*51:29     |                 |
| B*35:156+B*51:76      | B*35:195+B*51:29     |                 |
| B*35:156+B*52:05      | B*35:193+B*52:24     |                 |
| B*35:156+B*53:08:01   | B*35:167+B*53:24     |                 |
| B*35:156+B*53:19      | B*35:172+B*53:04     |                 |
| B*35:156+B*53:22      | B*35:169+B*53:24     |                 |

|                         |                        |                    |
|-------------------------|------------------------|--------------------|
| B*35:156+B*54:12        | B*53:04+B*54:10        |                    |
| B*35:156+B*55:21        | B*35:163+B*55:52       |                    |
| B*35:156+B*57:22        | B*35:167+B*57:19       |                    |
| B*35:156+B*57:57        | B*35:167+B*57:02:01    |                    |
| B*35:156+B*58:19        | B*35:167+B*58:22       |                    |
| B*35:157+B*53:01:01     | B*35:190+B*53:19       |                    |
| B*35:157+B*53:08:01     | B*35:188+B*53:19       |                    |
| B*35:159+B*39:64        | B*35:177+B*39:62       |                    |
| B*35:159+B*40:19        | B*40:202+B*53:01:01    |                    |
| B*35:159+B*40:157       | B*40:202+B*53:13       |                    |
| B*35:159+B*40:201       | B*40:202+B*53:12       |                    |
| B*35:162+B*40:49        | B*35:184+B*40:149      |                    |
| B*35:162+B*51:119       | B*35:184+B*51:116      |                    |
| B*35:163+B*48:15        | B*35:167+B*48:19       |                    |
| B*35:163+B*51:24:03     | B*35:205+B*51:61:02    |                    |
| B*35:163+B*51:70        | B*35:204+B*51:61:02    |                    |
| B*35:163+B*51:76        | B*35:195+B*51:61:02    |                    |
| B*35:167+B*38:27        | B*35:195+B*38:32       |                    |
| B*35:167+B*40:117       | B*40:183+B*53:04       |                    |
| B*35:167+B*44:120       | B*35:204+B*44:79       |                    |
| B*35:167+B*45:02        | B*35:169+B*50:09       |                    |
| B*35:167+B*53:22        | B*35:169+B*53:08:01    |                    |
| B*35:167+B*56:20:02     | B*35:205+B*56:25       |                    |
| B*35:168+B*40:47        | B*40:154+B*53:13       |                    |
| B*35:168+B*40:74        | B*35:197+B*40:154      |                    |
| B*35:168+B*40:117       | B*40:154+B*53:01:01    |                    |
| B*35:168+B*40:188       | B*40:154+B*53:03       |                    |
| B*35:172+B*38:01:01     | B*39:11+B*53:19        |                    |
| B*35:172+B*40:117       | B*40:128+B*53:19       |                    |
| B*35:172+B*40:138       | B*35:183+B*40:128      |                    |
| B*35:172+B*54:12        | B*53:19+B*54:10        |                    |
| B*35:174+B*38:14        | B*39:68+B*53:24        |                    |
| B*35:174+B*56:07        | B*53:11+B*56:20:01     |                    |
| B*35:180+B*44:15        | B*45:11+B*53:12        |                    |
| B*35:180+B*44:18        | B*45:11+B*53:01:01     |                    |
| B*35:180+B*51:57        | B*35:197+B*51:53       |                    |
| B*35:180+B*52:23        | B*35:200+B*52:29       |                    |
| B*35:183+B*40:117       | B*40:138+B*53:19       |                    |
| B*35:186+B*51:104       | B*46:33+B*51:01:01G    |                    |
| B*35:186+B*52:02        | B*46:33+B*52:01:02     |                    |
| B*35:186+B*58:36        | B*46:33+B*58:01:01G    |                    |
| B*35:188+B*37:01:01G    | B*35:190+B*37:13       |                    |
| B*35:188+B*38:01:01     | B*35:190+B*38:32       |                    |
| B*35:188+B*38:36        | B*35:190+B*38:10       |                    |
| B*35:188+B*39:01:01G    | B*35:190+B*39:35       |                    |
| B*35:188+B*40:01:01G    | B*35:190+B*40:183      |                    |
| B*35:188+B*40:06:01G    | B*35:190+B*40:148      |                    |
| B*35:188+B*40:128       | B*35:190+B*40:198      |                    |
| B*35:188+B*44:03:01G    | B*35:190+B*44:79       |                    |
| B*35:188+B*48:01:01G    | B*35:190+B*48:15       |                    |
| B*35:188+B*48:02:01     | B*35:190+B*48:25       |                    |
| B*35:188+B*51:09:02     | B*35:190+B*51:01:02    |                    |
| B*35:188+B*51:31        | B*35:190+B*51:16       |                    |
| B*35:188+B*51:40        | B*35:190+B*51:02:05    |                    |
| B*35:188+B*52:10:01     | B*35:190+B*52:01:01G   |                    |
| B*35:188+B*52:10:02     | B*35:190+B*52:01:07    |                    |
| B*35:188+B*53:01:01     | B*35:190+B*53:08:01    |                    |
| B*35:188+B*53:01:03     | B*35:190+B*53:08:02    |                    |
| B*35:188+B*54:10        | B*35:190+B*54:20       |                    |
| B*35:188+B*55:02:01G    | B*35:190+B*55:01:01G   |                    |
| B*35:188+B*55:22        | B*35:190+B*55:24       |                    |
| B*35:188+B*55:37        | B*35:190+B*55:52       |                    |
| B*35:188+B*56:18        | B*35:190+B*56:32       |                    |
| B*35:188+B*57:03:01     | B*35:190+B*57:57       |                    |
| B*35:188+B*58:02        | B*35:190+B*58:06       |                    |
| B*35:195+B*51:24:03     | B*35:205+B*51:76       |                    |
| B*35:195+B*51:70        | B*35:204+B*51:76       |                    |
| B*35:197+B*37:34        | B*37:11+B*53:21        |                    |
| B*35:197+B*38:01:01     | B*39:05:01+B*53:21     |                    |
| B*35:197+B*38:14        | B*39:01:01G+B*53:21    |                    |
| B*35:197+B*38:19        | B*39:37+B*53:21        |                    |
| B*35:197+B*38:26        | B*53:21+B*67:01:01     |                    |
| B*35:197+B*40:19        | B*40:02:01G+B*53:21    |                    |
| B*35:197+B*40:47        | B*40:74+B*53:13        |                    |
| B*35:197+B*40:117       | B*40:01:01G+B*53:21    | B*40:74+B*53:01:01 |
| B*35:197+B*40:188       | B*40:74+B*53:03        |                    |
| B*35:197+B*44:18        | B*45:01:01G+B*53:21    |                    |
| B*35:197+B*44:50        | B*44:46+B*53:21        |                    |
| B*35:197+B*44:95        | B*44:09+B*53:21        |                    |
| B*35:197+B*49:10        | B*50:13+B*53:21        |                    |
| B*35:197+B*49:18        | B*50:14+B*53:21        |                    |
| B*35:197+B*49:20        | B*50:02+B*53:21        |                    |
| B*35:197+B*51:01:02     | B*53:21+B*78:02:01     |                    |
| B*35:197+B*52:01:01G    | B*53:21+B*78:05        |                    |
| B*35:197+B*52:16        | B*48:02:01+B*51:01:02  | B*48:25+B*51:09:02 |
| B*35:197+B*54:12        | B*53:21+B*54:01:01G    |                    |
| B*35:197+B*56:21        | B*53:21+B*56:05:02     |                    |
| B*35:197+B*57:02:01     | B*53:21+B*57:12        |                    |
| B*35:200+B*38:14        | B*39:52+B*53:01:01     |                    |
| B*35:202+B*58:08:01     | B*58:04+B*78:02:02     |                    |
| B*35:202+B*58:08:02     | B*58:04+B*78:02:01     |                    |
| B*35:203+B*37:01:01G    | B*37:05+B*53:03        |                    |
| B*35:203+B*37:10        | B*37:05+B*53:13        |                    |
| B*35:203+B*37:34        | B*37:05+B*53:01:01     |                    |
| B*35:204+B*40:19        | B*40:107+B*53:04       |                    |
| B*35:204+B*51:24:03     | B*35:205+B*51:70       |                    |
| B*37:01:01G+B*37:11     | B*37:05+B*37:29        |                    |
| B*37:01:01G+B*38:01:01  | B*37:34+B*38:17        |                    |
| B*37:01:01G+B*38:02:01G | B*37:10+B*38:17        |                    |
| B*37:01:01G+B*38:10     | B*37:13+B*38:36        |                    |
| B*37:01:01G+B*38:32     | B*37:13+B*38:01:01     |                    |
| B*37:01:01G+B*39:05:01  | B*37:11+B*38:17        |                    |
| B*37:01:01G+B*39:32     | B*37:04:01+B*39:74     |                    |
| B*37:01:01G+B*39:35     | B*37:13+B*39:01:01G    |                    |
| B*37:01:01G+B*39:48     | B*37:04:01+B*39:01:01G |                    |

|                         |                        |                    |                    |
|-------------------------|------------------------|--------------------|--------------------|
| B*37:01:01G+B*39:58     | B*37:21+B*39:39:01     |                    |                    |
| B*37:01:01G+B*40:01:01G | B*37:11+B*40:188       |                    |                    |
| B*37:01:01G+B*40:07     | B*37:21+B*40:01:01G    |                    |                    |
| B*37:01:01G+B*40:13     | B*37:21+B*40:19        |                    |                    |
| B*37:01:01G+B*40:25     | B*37:08+B*40:01:03     |                    |                    |
| B*37:01:01G+B*40:47     | B*37:10+B*40:188       |                    |                    |
| B*37:01:01G+B*40:106    | B*37:21+B*40:25        |                    |                    |
| B*37:01:01G+B*40:113    | B*37:04:01+B*40:01:01G |                    |                    |
| B*37:01:01G+B*40:117    | B*37:34+B*40:188       |                    |                    |
| B*37:01:01G+B*40:148    | B*37:13+B*40:06:01G    |                    |                    |
| B*37:01:01G+B*40:152    | B*37:24+B*40:01:01G    |                    |                    |
| B*37:01:01G+B*40:153    | B*37:17+B*40:01:01G    |                    |                    |
| B*37:01:01G+B*40:162    | B*37:21+B*40:06:01G    |                    |                    |
| B*37:01:01G+B*40:174    | B*37:04:01+B*40:05     |                    |                    |
| B*37:01:01G+B*40:183    | B*37:13+B*40:01:01G    |                    |                    |
| B*37:01:01G+B*40:198    | B*37:13+B*40:128       |                    |                    |
| B*37:01:01G+B*44:02:19  | B*37:01:02+B*44:02:01G |                    |                    |
| B*37:01:01G+B*44:76     | B*37:13+B*44:28:02     |                    |                    |
| B*37:01:01G+B*44:79     | B*37:13+B*44:03:01G    |                    |                    |
| B*37:01:01G+B*44:133    | B*37:25+B*44:02:01G    |                    |                    |
| B*37:01:01G+B*45:03     | B*37:25+B*45:01:01G    |                    |                    |
| B*37:01:01G+B*46:01:01G | B*37:13+B*46:09        |                    |                    |
| B*37:01:01G+B*46:08     | B*37:13+B*46:13:03     |                    |                    |
| B*37:01:01G+B*47:02     | B*37:11+B*47:01:01G    |                    |                    |
| B*37:01:01G+B*47:03     | B*37:14+B*47:01:01G    |                    |                    |
| B*37:01:01G+B*47:04     | B*37:10+B*47:05        |                    |                    |
| B*37:01:01G+B*48:15     | B*37:13+B*48:01:01G    |                    |                    |
| B*37:01:01G+B*48:25     | B*37:13+B*48:02:01     |                    |                    |
| B*37:01:01G+B*49:01:01  | B*37:13+B*49:11        |                    |                    |
| B*37:01:01G+B*49:09     | B*37:04:01+B*49:01:01  |                    |                    |
| B*37:01:01G+B*51:01:01G | B*37:04:01+B*51:02:01  | B*37:13+B*51:09:01 | B*37:21+B*51:07:01 |
| B*37:01:01G+B*51:01:02  | B*37:04:01+B*51:02:02  | B*37:13+B*51:09:02 | B*37:21+B*51:07:02 |
| B*37:01:01G+B*51:01:04  | B*37:04:01+B*51:02:04  |                    |                    |
| B*37:01:01G+B*51:01:18  | B*37:01:04+B*51:01:01G |                    |                    |
| B*37:01:01G+B*51:01:31  | B*37:04:01+B*51:02:03  |                    |                    |
| B*37:01:01G+B*51:02:05  | B*37:13+B*51:40        |                    |                    |
| B*37:01:01G+B*51:06:01  | B*37:04:01+B*51:59     |                    |                    |
| B*37:01:01G+B*51:07:01  | B*37:08+B*52:01:09     |                    |                    |
| B*37:01:01G+B*51:16     | B*37:04:01+B*51:34     | B*37:13+B*51:31    |                    |
| B*37:01:01G+B*51:23     | B*37:13+B*51:108       |                    |                    |
| B*37:01:01G+B*51:112    | B*37:06+B*51:01:33     |                    |                    |
| B*37:01:01G+B*52:01:01G | B*37:04:01+B*52:11     | B*37:13+B*52:10:01 |                    |
| B*37:01:01G+B*52:01:07  | B*37:13+B*52:10:02     |                    |                    |
| B*37:01:01G+B*52:06:02  | B*37:21+B*52:01:02     |                    |                    |
| B*37:01:01G+B*53:01:01  | B*37:34+B*53:03        |                    |                    |
| B*37:01:01G+B*53:02     | B*37:04:01+B*53:01:01  |                    |                    |
| B*37:01:01G+B*53:08:01  | B*37:13+B*53:01:01     |                    |                    |
| B*37:01:01G+B*53:08:02  | B*37:13+B*53:01:03     |                    |                    |
| B*37:01:01G+B*53:13     | B*37:10+B*53:03        | B*37:21+B*53:09    |                    |
| B*37:01:01G+B*54:20     | B*37:13+B*54:10        |                    |                    |
| B*37:01:01G+B*55:01:01G | B*37:13+B*55:02:01G    |                    |                    |
| B*37:01:01G+B*55:24     | B*37:13+B*55:22        |                    |                    |
| B*37:01:01G+B*55:52     | B*37:13+B*55:37        |                    |                    |
| B*37:01:01G+B*56:25     | B*37:13+B*56:01:01G    |                    |                    |
| B*37:01:01G+B*56:31     | B*37:04:01+B*56:18     |                    |                    |
| B*37:01:01G+B*56:32     | B*37:13+B*56:18        |                    |                    |
| B*37:01:01G+B*56:34     | B*37:04:01+B*56:01:01G |                    |                    |
| B*37:01:01G+B*57:22     | B*37:13+B*57:01:01G    |                    |                    |
| B*37:01:01G+B*57:57     | B*37:13+B*57:03:01     |                    |                    |
| B*37:01:01G+B*58:01:08  | B*37:01:04+B*58:01:01G |                    |                    |
| B*37:01:01G+B*58:06     | B*37:13+B*58:02        |                    |                    |
| B*37:01:01G+B*58:09     | B*37:04:01+B*58:01:01G |                    |                    |
| B*37:01:01G+B*58:19     | B*37:13+B*58:01:01G    |                    |                    |
| B*37:01:02+B*44:133     | B*37:25+B*44:02:19     |                    |                    |
| B*37:01:04+B*58:09      | B*37:04:01+B*58:01:08  |                    |                    |
| B*37:01:04+B*58:19      | B*37:13+B*58:01:08     |                    |                    |
| B*37:01:05+B*54:07      | B*37:26+B*54:01:01G    |                    |                    |
| B*37:04:01+B*39:35      | B*37:13+B*39:48        |                    |                    |
| B*37:04:01+B*40:07      | B*37:21+B*40:113       |                    |                    |
| B*37:04:01+B*40:152     | B*37:24+B*40:113       |                    |                    |
| B*37:04:01+B*40:153     | B*37:17+B*40:113       |                    |                    |
| B*37:04:01+B*40:183     | B*37:13+B*40:113       |                    |                    |
| B*37:04:01+B*53:08:01   | B*37:13+B*53:02        |                    |                    |
| B*37:04:01+B*56:25      | B*37:13+B*56:34        |                    |                    |
| B*37:04:01+B*56:32      | B*37:13+B*56:31        |                    |                    |
| B*37:04:01+B*58:19      | B*37:13+B*58:09        |                    |                    |
| B*37:10+B*38:01:01      | B*37:34+B*38:02:01G    |                    |                    |
| B*37:10+B*39:05:01      | B*37:11+B*38:02:01G    |                    |                    |
| B*37:10+B*39:55         | B*37:11+B*38:29        |                    |                    |
| B*37:10+B*40:01:01G     | B*37:11+B*40:47        |                    |                    |
| B*37:10+B*40:02:01G     | B*37:11+B*40:157       |                    |                    |
| B*37:10+B*40:06:01G     | B*37:11+B*40:96        |                    |                    |
| B*37:10+B*40:19         | B*37:34+B*40:157       |                    |                    |
| B*37:10+B*40:117        | B*37:34+B*40:47        |                    |                    |
| B*37:10+B*44:09         | B*37:11+B*44:02:01G    |                    |                    |
| B*37:10+B*44:25         | B*37:34+B*44:05:01     |                    |                    |
| B*37:10+B*44:46         | B*37:11+B*44:03:01G    |                    |                    |
| B*37:10+B*44:50         | B*37:34+B*44:03:01G    |                    |                    |
| B*37:10+B*44:95         | B*37:34+B*44:02:01G    |                    |                    |
| B*37:10+B*49:01:01      | B*37:34+B*49:02        |                    |                    |
| B*37:10+B*50:01:01      | B*37:11+B*49:02        |                    |                    |
| B*37:10+B*51:01:01G     | B*37:34+B*51:78:01     |                    |                    |
| B*37:10+B*51:01:02      | B*37:34+B*51:78:02     |                    |                    |
| B*37:10+B*51:05         | B*37:34+B*51:54        |                    |                    |
| B*37:10+B*52:01:01G     | B*37:34+B*52:20        |                    |                    |
| B*37:10+B*53:01:01      | B*37:34+B*53:13        |                    |                    |
| B*37:10+B*53:05         | B*37:34+B*53:12        |                    |                    |
| B*37:10+B*53:24         | B*37:34+B*53:11        |                    |                    |
| B*37:10+B*56:01:01G     | B*37:11+B*56:07        |                    |                    |
| B*37:10+B*78:02:01      | B*37:11+B*51:78:02     |                    |                    |
| B*37:10+B*78:02:02      | B*37:11+B*51:78:01     |                    |                    |
| B*37:10+B*78:05         | B*37:11+B*52:20        |                    |                    |
| B*37:11+B*38:01:01      | B*37:34+B*39:05:01     |                    |                    |
| B*37:11+B*38:14         | B*37:34+B*39:01:01G    |                    |                    |
| B*37:11+B*38:19         | B*37:34+B*39:37        |                    |                    |

|                        |                        |                       |                 |
|------------------------|------------------------|-----------------------|-----------------|
| B*37:11+B*38:26        | B*37:34+B*67:01:01     |                       |                 |
| B*37:11+B*40:19        | B*37:34+B*40:02:01G    |                       |                 |
| B*37:11+B*40:117       | B*37:34+B*40:01:01G    |                       |                 |
| B*37:11+B*44:18        | B*37:34+B*45:01:01G    |                       |                 |
| B*37:11+B*44:50        | B*37:34+B*44:46        |                       |                 |
| B*37:11+B*44:95        | B*37:34+B*44:09        |                       |                 |
| B*37:11+B*47:03        | B*37:14+B*47:02        |                       |                 |
| B*37:11+B*49:01:01     | B*37:34+B*50:01:01     |                       |                 |
| B*37:11+B*49:10        | B*37:34+B*50:13        |                       |                 |
| B*37:11+B*49:18        | B*37:34+B*50:14        |                       |                 |
| B*37:11+B*49:20        | B*37:34+B*50:02        |                       |                 |
| B*37:11+B*51:01:01G    | B*37:34+B*78:02:02     |                       |                 |
| B*37:11+B*51:01:02     | B*37:34+B*78:02:01     |                       |                 |
| B*37:11+B*52:01:01G    | B*37:34+B*78:05        |                       |                 |
| B*37:11+B*54:12        | B*37:34+B*54:01:01G    |                       |                 |
| B*37:11+B*56:21        | B*37:34+B*56:05:02     |                       |                 |
| B*37:11+B*57:02:01     | B*37:34+B*57:12        |                       |                 |
| B*37:13+B*40:07        | B*37:21+B*40:183       |                       |                 |
| B*37:13+B*40:152       | B*37:24+B*40:183       |                       |                 |
| B*37:13+B*40:153       | B*37:17+B*40:183       |                       |                 |
| B*37:13+B*40:162       | B*37:21+B*40:148       |                       |                 |
| B*37:17+B*40:07        | B*37:21+B*40:153       |                       |                 |
| B*37:17+B*40:152       | B*37:24+B*40:153       |                       |                 |
| B*37:21+B*40:152       | B*37:24+B*40:07        |                       |                 |
| B*38:01:01+B*38:10     | B*38:32+B*38:36        |                       |                 |
| B*38:01:01+B*39:01:01G | B*38:14+B*39:05:01     |                       |                 |
| B*38:01:01+B*39:01:05  | B*38:01:03+B*39:01:01G |                       |                 |
| B*38:01:01+B*39:02:02  | B*38:14+B*39:13:01     |                       |                 |
| B*38:01:01+B*39:03     | B*38:14+B*39:37        | B*38:19+B*39:01:01G   |                 |
| B*38:01:01+B*39:04     | B*38:33+B*39:01:01G    |                       |                 |
| B*38:01:01+B*39:14     | B*38:19+B*39:70        |                       |                 |
| B*38:01:01+B*39:15     | B*38:14+B*39:55        |                       |                 |
| B*38:01:01+B*39:30     | B*38:36+B*39:01:01G    |                       |                 |
| B*38:01:01+B*39:34     | B*38:36+B*39:06:02     |                       |                 |
| B*38:01:01+B*39:35     | B*38:32+B*39:01:01G    |                       |                 |
| B*38:01:01+B*39:37     | B*38:19+B*39:05:01     |                       |                 |
| B*38:01:01+B*39:42     | B*38:20+B*39:01:01G    |                       |                 |
| B*38:01:01+B*40:01:01G | B*38:33+B*40:74        | B*39:05:01+B*40:117   |                 |
| B*38:01:01+B*40:02:01G | B*38:19+B*40:11:01     | B*39:05:01+B*40:19    |                 |
| B*38:01:01+B*40:02:09  | B*38:19+B*40:11:02     |                       |                 |
| B*38:01:01+B*40:03     | B*38:19+B*40:20        |                       |                 |
| B*38:01:01+B*40:14:02  | B*38:01:03+B*40:14:01  |                       |                 |
| B*38:01:01+B*40:18     | B*39:55+B*40:19        |                       |                 |
| B*38:01:01+B*40:31     | B*38:19+B*40:33        |                       |                 |
| B*38:01:01+B*40:32     | B*38:33+B*40:98        |                       |                 |
| B*38:01:01+B*40:33     | B*39:55+B*40:117       |                       |                 |
| B*38:01:01+B*40:43     | B*38:14+B*40:01:01G    | B*39:01:01G+B*40:117  |                 |
| B*38:01:01+B*40:45     | B*38:19+B*40:114       |                       |                 |
| B*38:01:01+B*40:47     | B*38:02:01G+B*40:117   |                       |                 |
| B*38:01:01+B*40:49     | B*38:33+B*40:210       |                       |                 |
| B*38:01:01+B*40:50     | B*38:14+B*40:02:01G    | B*39:01:01G+B*40:19   |                 |
| B*38:01:01+B*40:53     | B*38:33+B*40:06:01G    |                       |                 |
| B*38:01:01+B*40:64     | B*38:20+B*40:11:02     |                       |                 |
| B*38:01:01+B*40:74     | B*38:16+B*40:149       |                       |                 |
| B*38:01:01+B*40:80     | B*38:19+B*40:01:01G    | B*39:37+B*40:117      |                 |
| B*38:01:01+B*40:90     | B*38:37+B*40:02:01G    |                       |                 |
| B*38:01:01+B*40:91     | B*38:38+B*40:02:01G    |                       |                 |
| B*38:01:01+B*40:128    | B*39:11+B*40:117       |                       |                 |
| B*38:01:01+B*40:148    | B*38:32+B*40:06:01G    |                       |                 |
| B*38:01:01+B*40:157    | B*38:02:01G+B*40:19    |                       |                 |
| B*38:01:01+B*40:160    | B*38:20+B*40:01:01G    |                       |                 |
| B*38:01:01+B*40:183    | B*38:32+B*40:01:01G    |                       |                 |
| B*38:01:01+B*40:188    | B*38:17+B*40:117       |                       |                 |
| B*38:01:01+B*40:198    | B*38:32+B*40:128       |                       |                 |
| B*38:01:01+B*41:02:01  | B*38:19+B*41:03:02     |                       |                 |
| B*38:01:01+B*44:02:01G | B*38:02:01G+B*44:95    | B*38:20+B*44:41:01    | B*38:36+B*44:89 |
| B*38:01:01+B*44:02:07  | B*38:20+B*44:41:02     |                       |                 |
| B*38:01:01+B*44:02:09  | B*38:01:03+B*44:02:01G |                       |                 |
| B*38:01:01+B*44:03:01G | B*38:02:01G+B*44:50    | B*38:20+B*44:65       | B*38:36+B*44:29 |
| B*38:01:01+B*44:03:02  | B*38:12+B*44:07        |                       |                 |
| B*38:01:01+B*44:03:11  | B*38:01:04+B*44:03:01G |                       |                 |
| B*38:01:01+B*44:05:01  | B*38:02:01G+B*44:25    |                       |                 |
| B*38:01:01+B*44:09     | B*39:05:01+B*44:95     |                       |                 |
| B*38:01:01+B*44:46     | B*39:05:01+B*44:50     |                       |                 |
| B*38:01:01+B*44:54     | B*38:19+B*44:65        |                       |                 |
| B*38:01:01+B*44:76     | B*38:32+B*44:28:02     |                       |                 |
| B*38:01:01+B*44:79     | B*38:10+B*44:29        | B*38:32+B*44:03:01G   |                 |
| B*38:01:01+B*44:106    | B*38:19+B*44:41:01     |                       |                 |
| B*38:01:01+B*44:110    | B*38:19+B*44:03:01G    | B*38:20+B*44:54       |                 |
| B*38:01:01+B*44:114    | B*38:31+B*44:03:01G    |                       |                 |
| B*38:01:01+B*44:147    | B*38:37+B*44:03:01G    |                       |                 |
| B*38:01:01+B*45:01:01G | B*39:05:01+B*44:18     |                       |                 |
| B*38:01:01+B*46:01:01G | B*38:01:03+B*46:01:03  | B*38:32+B*46:09       |                 |
| B*38:01:01+B*46:08     | B*38:10+B*46:19        | B*38:32+B*46:13:03    |                 |
| B*38:01:01+B*46:12     | B*38:19+B*46:01:01G    |                       |                 |
| B*38:01:01+B*46:13:03  | B*38:01:03+B*46:13:01  | B*38:36+B*46:19       |                 |
| B*38:01:01+B*46:21:01  | B*38:01:03+B*46:21:02  |                       |                 |
| B*38:01:01+B*48:01:01G | B*38:19+B*48:03:01     |                       |                 |
| B*38:01:01+B*48:15     | B*38:32+B*48:01:01G    |                       |                 |
| B*38:01:01+B*48:25     | B*38:32+B*48:02:01     |                       |                 |
| B*38:01:01+B*49:01:01  | B*38:32+B*49:11        |                       |                 |
| B*38:01:01+B*49:02     | B*38:02:01G+B*49:01:01 |                       |                 |
| B*38:01:01+B*50:01:01  | B*38:12+B*50:07        | B*39:05:01+B*49:01:01 |                 |
| B*38:01:01+B*50:02     | B*39:05:01+B*49:20     |                       |                 |
| B*38:01:01+B*50:13     | B*39:05:01+B*49:10     |                       |                 |
| B*38:01:01+B*50:14     | B*39:05:01+B*49:18     |                       |                 |
| B*38:01:01+B*51:01:01G | B*38:10+B*51:19        | B*38:32+B*51:09:01    | B*38:33+B*51:57 |
| B*38:01:01+B*51:01:02  | B*38:32+B*51:09:02     |                       |                 |
| B*38:01:01+B*51:01:25  | B*38:01:03+B*51:01:21  |                       |                 |
| B*38:01:01+B*51:01:31  | B*38:01:02+B*51:01:01G |                       |                 |
| B*38:01:01+B*51:02:03  | B*38:01:02+B*51:02:01  |                       |                 |
| B*38:01:01+B*51:02:05  | B*38:01:03+B*51:02:01  | B*38:32+B*51:40       |                 |
| B*38:01:01+B*51:04     | B*38:20+B*51:06:02     |                       |                 |
| B*38:01:01+B*51:09:01  | B*38:36+B*51:19        |                       |                 |
| B*38:01:01+B*51:16     | B*38:32+B*51:31        |                       |                 |

|                         |                         |                         |                    |                       |
|-------------------------|-------------------------|-------------------------|--------------------|-----------------------|
| B*38:01:01+B*51:20      | B*38:14+B*51:08         |                         |                    |                       |
| B*38:01:01+B*51:21      | B*38:36+B*51:101        |                         |                    |                       |
| B*38:01:01+B*51:23      | B*38:32+B*51:108        |                         |                    |                       |
| B*38:01:01+B*51:24:03   | B*38:01:03+B*51:24:04   |                         |                    |                       |
| B*38:01:01+B*51:39      | B*38:11+B*51:01:03      |                         |                    |                       |
| B*38:01:01+B*51:54      | B*38:02:01G+B*51:05     |                         |                    |                       |
| B*38:01:01+B*51:61:01   | B*38:01:03+B*51:61:02   |                         |                    |                       |
| B*38:01:01+B*51:64      | B*38:19+B*51:06:01      |                         |                    |                       |
| B*38:01:01+B*51:73      | B*38:40+B*51:09:01      |                         |                    |                       |
| B*38:01:01+B*51:74      | B*38:12+B*51:01:01G     |                         |                    |                       |
| B*38:01:01+B*51:76      | B*38:27+B*51:01:01G     |                         |                    |                       |
| B*38:01:01+B*51:78:01   | B*38:02:01G+B*51:01:01G |                         |                    |                       |
| B*38:01:01+B*51:78:02   | B*38:02:01G+B*51:01:02  |                         |                    |                       |
| B*38:01:01+B*51:122     | B*38:38+B*51:09:01      |                         |                    |                       |
| B*38:01:01+B*52:01:01G  | B*38:28+B*52:27         | B*38:32+B*52:10:01      |                    |                       |
| B*38:01:01+B*52:01:07   | B*38:01:03+B*52:01:01G  | B*38:32+B*52:10:02      |                    |                       |
| B*38:01:01+B*52:10:02   | B*38:01:03+B*52:10:01   |                         |                    |                       |
| B*38:01:01+B*52:20      | B*38:02:01G+B*52:01:01G | B*38:02:03+B*52:01:10   |                    |                       |
| B*38:01:01+B*53:01:01   | B*38:33+B*53:21         |                         |                    |                       |
| B*38:01:01+B*53:01:03   | B*38:01:03+B*53:01:01   |                         |                    |                       |
| B*38:01:01+B*53:03      | B*38:17+B*53:01:01      |                         |                    |                       |
| B*38:01:01+B*53:08:01   | B*38:32+B*53:01:01      |                         |                    |                       |
| B*38:01:01+B*53:08:02   | B*38:01:03+B*53:08:01   | B*38:32+B*53:01:03      |                    |                       |
| B*38:01:01+B*53:11      | B*38:02:01G+B*53:24     |                         |                    |                       |
| B*38:01:01+B*53:12      | B*38:02:01G+B*53:05     |                         |                    |                       |
| B*38:01:01+B*53:13      | B*38:02:01G+B*53:01:01  |                         |                    |                       |
| B*38:01:01+B*53:23      | B*38:14+B*53:01:01      |                         |                    |                       |
| B*38:01:01+B*54:01:01G  | B*38:28+B*54:21         | B*39:05:01+B*54:12      |                    |                       |
| B*38:01:01+B*54:10      | B*39:11+B*54:12         |                         |                    |                       |
| B*38:01:01+B*54:16      | B*39:55+B*54:12         |                         |                    |                       |
| B*38:01:01+B*54:20      | B*38:32+B*54:10         |                         |                    |                       |
| B*38:01:01+B*55:01:01G  | B*38:14+B*55:31         | B*38:32+B*55:02:01G     |                    |                       |
| B*38:01:01+B*55:24      | B*38:32+B*55:22         |                         |                    |                       |
| B*38:01:01+B*55:26      | B*38:40+B*55:02:01G     |                         |                    |                       |
| B*38:01:01+B*55:50      | B*38:38+B*55:02:01G     |                         |                    |                       |
| B*38:01:01+B*55:52      | B*38:32+B*55:37         |                         |                    |                       |
| B*38:01:01+B*56:01:01G  | B*38:28+B*56:16         |                         |                    |                       |
| B*38:01:01+B*56:01:03   | B*38:01:03+B*56:01:01G  |                         |                    |                       |
| B*38:01:01+B*56:05:02   | B*39:05:01+B*56:21      |                         |                    |                       |
| B*38:01:01+B*56:06      | B*51:22+B*67:01:01      |                         |                    |                       |
| B*38:01:01+B*56:25      | B*38:32+B*56:01:01G     |                         |                    |                       |
| B*38:01:01+B*56:32      | B*38:32+B*56:18         |                         |                    |                       |
| B*38:01:01+B*56:36      | B*38:16+B*56:16         |                         |                    |                       |
| B*38:01:01+B*57:01:01G  | B*38:28+B*57:58         | B*38:33+B*57:10         |                    |                       |
| B*38:01:01+B*57:12      | B*39:05:01+B*57:02:01   | B*39:11+B*57:03:01      |                    |                       |
| B*38:01:01+B*57:22      | B*38:32+B*57:01:01G     |                         |                    |                       |
| B*38:01:01+B*57:57      | B*38:32+B*57:03:01      |                         |                    |                       |
| B*38:01:01+B*58:01:01G  | B*38:28+B*58:12         |                         |                    |                       |
| B*38:01:01+B*58:01:02   | B*38:01:06+B*58:01:01G  |                         |                    |                       |
| B*38:01:01+B*58:01:05   | B*38:01:03+B*58:01:01G  |                         |                    |                       |
| B*38:01:01+B*58:06      | B*38:32+B*58:02         |                         |                    |                       |
| B*38:01:01+B*58:18      | B*38:19+B*58:16         |                         |                    |                       |
| B*38:01:01+B*58:19      | B*38:32+B*58:01:01G     |                         |                    |                       |
| B*38:01:01+B*67:01:01   | B*38:26+B*39:05:01      |                         |                    |                       |
| B*38:01:01+B*78:01:01   | B*38:14+B*78:02:02      | B*39:01:01G+B*51:01:01G | B*39:04+B*51:57    | B*39:06:01+B*51:06:02 |
|                         | B*39:06:02+B*51:06:01   | B*39:35+B*51:09:01      | B*39:48+B*51:02:01 | B*39:58+B*51:22       |
|                         | B*39:70+B*51:13:02      | B*39:74+B*51:21         |                    |                       |
| B*38:01:01+B*78:01:02   | B*39:01:01G+B*51:01:34  |                         |                    |                       |
| B*38:01:01+B*78:02:01   | B*39:05:01+B*51:01:02   |                         |                    |                       |
| B*38:01:01+B*78:02:02   | B*39:05:01+B*51:01:01G  |                         |                    |                       |
| B*38:01:01+B*78:03      | B*39:01:01G+B*51:22     |                         |                    |                       |
| B*38:01:01+B*78:05      | B*39:05:01+B*52:01:01G  |                         |                    |                       |
| B*38:01:01+B*78:07      | B*39:01:01G+B*51:21     | B*39:30+B*51:101        |                    |                       |
| B*38:01:02+B*51:02:05   | B*38:01:03+B*51:02:03   |                         |                    |                       |
| B*38:01:02+B*51:74      | B*38:12+B*51:01:31      |                         |                    |                       |
| B*38:01:02+B*51:76      | B*38:27+B*51:01:31      |                         |                    |                       |
| B*38:01:02+B*51:78:01   | B*38:02:01G+B*51:01:31  |                         |                    |                       |
| B*38:01:02+B*78:01:01   | B*39:01:01G+B*51:01:31  | B*39:48+B*51:02:03      |                    |                       |
| B*38:01:02+B*78:02:02   | B*39:05:01+B*51:01:31   |                         |                    |                       |
| B*38:01:03+B*39:03      | B*38:19+B*39:01:05      |                         |                    |                       |
| B*38:01:03+B*39:04      | B*38:33+B*39:01:05      |                         |                    |                       |
| B*38:01:03+B*39:30      | B*38:36+B*39:01:05      |                         |                    |                       |
| B*38:01:03+B*39:35      | B*38:32+B*39:01:05      |                         |                    |                       |
| B*38:01:03+B*39:36      | B*38:36+B*39:18         |                         |                    |                       |
| B*38:01:03+B*39:42      | B*38:20+B*39:01:05      |                         |                    |                       |
| B*38:01:03+B*40:43      | B*39:01:05+B*40:117     |                         |                    |                       |
| B*38:01:03+B*40:50      | B*39:01:05+B*40:19      |                         |                    |                       |
| B*38:01:03+B*52:20      | B*38:02:01G+B*52:01:07  |                         |                    |                       |
| B*38:01:03+B*53:03      | B*38:17+B*53:01:03      |                         |                    |                       |
| B*38:01:03+B*53:13      | B*38:02:01G+B*53:01:03  |                         |                    |                       |
| B*38:01:03+B*53:23      | B*38:14+B*53:01:03      |                         |                    |                       |
| B*38:01:03+B*56:25      | B*38:32+B*56:01:03      |                         |                    |                       |
| B*38:01:03+B*58:01:02   | B*38:01:06+B*58:01:05   |                         |                    |                       |
| B*38:01:03+B*58:19      | B*38:32+B*58:01:05      |                         |                    |                       |
| B*38:01:03+B*78:01:01   | B*39:01:05+B*51:01:01G  | B*39:48+B*51:02:05      |                    |                       |
| B*38:01:03+B*78:01:02   | B*39:01:05+B*51:01:34   |                         |                    |                       |
| B*38:01:03+B*78:03      | B*39:01:05+B*51:22      |                         |                    |                       |
| B*38:01:03+B*78:05      | B*39:05:01+B*52:01:07   |                         |                    |                       |
| B*38:01:03+B*78:07      | B*39:01:05+B*51:21      |                         |                    |                       |
| B*38:01:04+B*44:79      | B*38:32+B*44:03:11      |                         |                    |                       |
| B*38:01:04+B*44:110     | B*38:19+B*44:03:11      |                         |                    |                       |
| B*38:01:04+B*44:114     | B*38:31+B*44:03:11      |                         |                    |                       |
| B*38:01:04+B*44:147     | B*38:37+B*44:03:11      |                         |                    |                       |
| B*38:01:06+B*58:19      | B*38:32+B*58:01:02      |                         |                    |                       |
| B*38:02:01G+B*39:01:09  | B*38:02:03+B*39:01:01G  |                         |                    |                       |
| B*38:02:01G+B*39:02:02  | B*38:02:03+B*39:02:01   | B*38:04+B*39:39:01      |                    |                       |
| B*38:02:01G+B*39:15     | B*38:29+B*39:01:01G     |                         |                    |                       |
| B*38:02:01G+B*39:29     | B*38:29+B*39:14         |                         |                    |                       |
| B*38:02:01G+B*39:49     | B*38:29+B*39:13:01      |                         |                    |                       |
| B*38:02:01G+B*39:55     | B*38:29+B*39:05:01      |                         |                    |                       |
| B*38:02:01G+B*39:73     | B*38:23+B*39:01:01G     |                         |                    |                       |
| B*38:02:01G+B*40:01:01G | B*39:05:01+B*40:47      |                         |                    |                       |
| B*38:02:01G+B*40:02:01G | B*39:05:01+B*40:157     |                         |                    |                       |
| B*38:02:01G+B*40:03     | B*38:29+B*40:105        |                         |                    |                       |
| B*38:02:01G+B*40:06:01G | B*39:05:01+B*40:96      |                         |                    |                       |



|                         |                        |                  |
|-------------------------|------------------------|------------------|
| B*38:02:01G+B*40:09     | B*38:29+B*40:89        |                  |
| B*38:02:01G+B*40:18     | B*38:29+B*40:02:01G    | B*39:55+B*40:157 |
| B*38:02:01G+B*40:31     | B*38:29+B*40:80        |                  |
| B*38:02:01G+B*40:32     | B*38:29+B*40:16        |                  |
| B*38:02:01G+B*40:33     | B*38:29+B*40:01:01G    | B*39:55+B*40:47  |
| B*38:02:01G+B*40:42     | B*38:29+B*40:172       |                  |
| B*38:02:01G+B*40:43     | B*39:01:01G+B*40:47    |                  |
| B*38:02:01G+B*40:44     | B*38:29+B*40:06:01G    | B*39:55+B*40:96  |
| B*38:02:01G+B*40:50     | B*39:01:01G+B*40:157   |                  |
| B*38:02:01G+B*40:52     | B*38:29+B*40:38        |                  |
| B*38:02:01G+B*40:80     | B*39:37+B*40:47        |                  |
| B*38:02:01G+B*40:128    | B*39:11+B*40:47        |                  |
| B*38:02:01G+B*40:188    | B*38:17+B*40:47        |                  |
| B*38:02:01G+B*41:21     | B*38:29+B*41:01        |                  |
| B*38:02:01G+B*42:16     | B*38:29+B*42:01:01     |                  |
| B*38:02:01G+B*44:09     | B*39:05:01+B*44:02:01G |                  |
| B*38:02:01G+B*44:46     | B*39:05:01+B*44:03:01G |                  |
| B*38:02:01G+B*44:51     | B*38:29+B*44:14        |                  |
| B*38:02:01G+B*44:107    | B*38:29+B*44:77        |                  |
| B*38:02:01G+B*47:05     | B*38:17+B*47:04        |                  |
| B*38:02:01G+B*50:01:01  | B*39:05:01+B*49:02     |                  |
| B*38:02:01G+B*51:28     | B*38:35+B*51:01:01G    |                  |
| B*38:02:01G+B*51:37     | B*38:29+B*51:63        |                  |
| B*38:02:01G+B*51:74     | B*38:12+B*51:78:01     |                  |
| B*38:02:01G+B*51:76     | B*38:27+B*51:78:01     |                  |
| B*38:02:01G+B*51:90     | B*38:29+B*51:01:01G    |                  |
| B*38:02:01G+B*51:92     | B*38:29+B*51:13:01     |                  |
| B*38:02:01G+B*51:135    | B*38:29+B*51:06:01     |                  |
| B*38:02:01G+B*52:12     | B*38:29+B*52:01:01G    |                  |
| B*38:02:01G+B*53:03     | B*38:17+B*53:13        |                  |
| B*38:02:01G+B*53:08:01  | B*38:32+B*53:13        |                  |
| B*38:02:01G+B*53:23     | B*38:14+B*53:13        |                  |
| B*38:02:01G+B*54:16     | B*38:29+B*54:01:01G    |                  |
| B*38:02:01G+B*55:23     | B*38:29+B*55:32        |                  |
| B*38:02:01G+B*55:46     | B*38:29+B*55:02:01G    |                  |
| B*38:02:01G+B*56:01:01G | B*39:05:01+B*56:07     |                  |
| B*38:02:01G+B*57:01:01G | B*38:08+B*57:43        |                  |
| B*38:02:01G+B*67:01:02  | B*38:02:03+B*67:01:01  |                  |
| B*38:02:01G+B*78:01:01  | B*39:01:01G+B*51:78:01 |                  |
| B*38:02:01G+B*78:02:01  | B*39:05:01+B*51:78:02  |                  |
| B*38:02:01G+B*78:02:02  | B*39:05:01+B*51:78:01  |                  |
| B*38:02:01G+B*78:05     | B*39:05:01+B*52:20     |                  |
| B*38:02:03+B*39:15      | B*38:29+B*39:01:09     |                  |
| B*38:02:03+B*39:22      | B*38:04+B*39:01:01G    |                  |
| B*38:02:03+B*39:73      | B*38:23+B*39:01:09     |                  |
| B*38:02:03+B*40:01:01G  | B*38:04+B*40:25        |                  |
| B*38:02:03+B*40:07      | B*38:04+B*40:106       |                  |
| B*38:02:03+B*40:43      | B*39:01:09+B*40:47     |                  |
| B*38:02:03+B*40:50      | B*39:01:09+B*40:157    |                  |
| B*38:02:03+B*44:02:01G  | B*38:04+B*44:12        |                  |
| B*38:02:03+B*50:01:01   | B*38:04+B*50:15        |                  |
| B*38:02:03+B*52:01:01G  | B*38:04+B*51:07:02     |                  |
| B*38:02:03+B*52:01:02   | B*38:04+B*51:07:01     |                  |
| B*38:02:03+B*52:06:01   | B*38:04+B*51:01:33     |                  |
| B*38:02:03+B*52:06:02   | B*38:04+B*51:01:01G    |                  |
| B*38:02:03+B*55:34      | B*38:04+B*55:47        |                  |
| B*38:02:03+B*55:40      | B*38:04+B*55:01:01G    |                  |
| B*38:02:03+B*78:01:01   | B*39:01:09+B*51:78:01  |                  |
| B*38:03+B*40:02:01G     | B*39:02:01+B*40:201    |                  |
| B*38:03+B*40:08         | B*39:58+B*40:201       |                  |
| B*38:03+B*40:37         | B*39:02:01+B*40:157    |                  |
| B*38:03+B*44:46         | B*39:02:01+B*44:109    |                  |
| B*38:03+B*44:75         | B*39:02:01+B*44:05:01  |                  |
| B*38:03+B*45:01:01G     | B*39:02:01+B*44:15     |                  |
| B*38:03+B*78:06         | B*39:02:01+B*52:20     |                  |
| B*38:05+B*44:02:01G     | B*38:33+B*44:22        |                  |
| B*38:05+B*44:03:01G     | B*38:33+B*44:105       |                  |
| B*38:05+B*46:01:01G     | B*38:33+B*46:05        |                  |
| B*38:06+B*56:33         | B*39:19:01+B*59:04     |                  |
| B*38:06+B*78:03         | B*39:19:01+B*51:01:01G |                  |
| B*38:10+B*39:01:01G     | B*38:32+B*39:30        | B*38:36+B*39:35  |
| B*38:10+B*39:06:02      | B*38:32+B*39:34        |                  |
| B*38:10+B*40:01:01G     | B*38:36+B*40:183       |                  |
| B*38:10+B*40:06:01G     | B*38:36+B*40:148       |                  |
| B*38:10+B*40:128        | B*38:36+B*40:198       |                  |
| B*38:10+B*44:03:01G     | B*38:36+B*44:79        |                  |
| B*38:10+B*44:28:02      | B*38:36+B*44:76        |                  |
| B*38:10+B*44:89         | B*38:32+B*44:02:01G    |                  |
| B*38:10+B*46:09         | B*38:36+B*46:01:01G    |                  |
| B*38:10+B*46:13:03      | B*38:36+B*46:08        |                  |
| B*38:10+B*48:01:01G     | B*38:36+B*48:15        |                  |
| B*38:10+B*48:02:01      | B*38:36+B*48:25        |                  |
| B*38:10+B*49:11         | B*38:36+B*49:01:01     |                  |
| B*38:10+B*51:08         | B*38:30+B*51:21        |                  |
| B*38:10+B*51:09:01      | B*38:36+B*51:01:01G    |                  |
| B*38:10+B*51:09:02      | B*38:36+B*51:01:02     |                  |
| B*38:10+B*51:31         | B*38:36+B*51:16        |                  |
| B*38:10+B*51:40         | B*38:36+B*51:02:05     |                  |
| B*38:10+B*51:101        | B*38:32+B*51:21        |                  |
| B*38:10+B*51:108        | B*38:36+B*51:23        |                  |
| B*38:10+B*52:10:01      | B*38:36+B*52:01:01G    |                  |
| B*38:10+B*52:10:02      | B*38:36+B*52:01:07     |                  |
| B*38:10+B*53:01:01      | B*38:36+B*53:08:01     |                  |
| B*38:10+B*53:01:03      | B*38:36+B*53:08:02     |                  |
| B*38:10+B*54:10         | B*38:36+B*54:20        |                  |
| B*38:10+B*55:02:01G     | B*38:36+B*55:01:01G    |                  |
| B*38:10+B*55:22         | B*38:36+B*55:24        |                  |
| B*38:10+B*55:37         | B*38:36+B*55:52        |                  |
| B*38:10+B*56:01:01G     | B*38:36+B*56:25        |                  |
| B*38:10+B*56:13         | B*38:30+B*55:01:01G    |                  |
| B*38:10+B*56:18         | B*38:36+B*56:32        |                  |
| B*38:10+B*57:01:01G     | B*38:36+B*57:22        |                  |
| B*38:10+B*57:03:01      | B*38:36+B*57:57        |                  |
| B*38:10+B*58:01:01G     | B*38:36+B*58:19        |                  |
| B*38:10+B*58:02         | B*38:36+B*58:06        |                  |

|                     |                         |                       |                    |                    |
|---------------------|-------------------------|-----------------------|--------------------|--------------------|
| B*38:12+B*51:76     | B*38:27+B*51:74         |                       |                    |                    |
| B*38:12+B*78:01:01  | B*39:01:01G+B*51:74     |                       |                    |                    |
| B*38:12+B*78:02:02  | B*39:05:01+B*51:74      |                       |                    |                    |
| B*38:14+B*40:02:04  | B*39:01:14+B*40:19      |                       |                    |                    |
| B*38:14+B*40:18     | B*39:15+B*40:19         |                       |                    |                    |
| B*38:14+B*40:29     | B*39:66+B*40:19         |                       |                    |                    |
| B*38:14+B*40:33     | B*39:15+B*40:117        |                       |                    |                    |
| B*38:14+B*40:73     | B*39:27+B*40:117        |                       |                    |                    |
| B*38:14+B*40:80     | B*38:19+B*40:43         | B*39:03+B*40:117      |                    |                    |
| B*38:14+B*40:90     | B*38:37+B*40:50         |                       |                    |                    |
| B*38:14+B*40:91     | B*38:38+B*40:50         |                       |                    |                    |
| B*38:14+B*40:113    | B*39:48+B*40:117        |                       |                    |                    |
| B*38:14+B*40:160    | B*38:20+B*40:43         | B*39:42+B*40:117      |                    |                    |
| B*38:14+B*40:171    | B*39:53+B*40:117        |                       |                    |                    |
| B*38:14+B*40:183    | B*38:32+B*40:43         | B*39:35+B*40:117      |                    |                    |
| B*38:14+B*44:09     | B*39:01:01G+B*44:95     |                       |                    |                    |
| B*38:14+B*44:46     | B*39:01:01G+B*44:50     |                       |                    |                    |
| B*38:14+B*45:01:01G | B*39:01:01G+B*44:18     |                       |                    |                    |
| B*38:14+B*50:01:01  | B*39:01:01G+B*49:01:01  | B*39:31+B*49:10       | B*39:35+B*49:11    |                    |
| B*38:14+B*50:02     | B*39:01:01G+B*49:20     |                       |                    |                    |
| B*38:14+B*50:13     | B*39:01:01G+B*49:10     |                       |                    |                    |
| B*38:14+B*50:14     | B*39:01:01G+B*49:18     |                       |                    |                    |
| B*38:14+B*53:03     | B*38:17+B*53:23         |                       |                    |                    |
| B*38:14+B*53:08:01  | B*38:32+B*53:23         |                       |                    |                    |
| B*38:14+B*54:01:01G | B*39:01:01G+B*54:12     |                       |                    |                    |
| B*38:14+B*54:03     | B*39:74+B*54:12         |                       |                    |                    |
| B*38:14+B*54:16     | B*39:15+B*54:12         |                       |                    |                    |
| B*38:14+B*54:26     | B*39:47+B*54:12         |                       |                    |                    |
| B*38:14+B*56:01:01G | B*38:26+B*56:33         |                       |                    |                    |
| B*38:14+B*56:05:02  | B*39:01:01G+B*56:21     |                       |                    |                    |
| B*38:14+B*56:06     | B*38:26+B*78:03         |                       |                    |                    |
| B*38:14+B*57:12     | B*39:01:01G+B*57:02:01  |                       |                    |                    |
| B*38:14+B*67:01:01  | B*38:26+B*39:01:01G     |                       |                    |                    |
| B*38:14+B*67:01:02  | B*38:26+B*39:01:09      |                       |                    |                    |
| B*38:14+B*78:02:01  | B*39:01:01G+B*51:01:02  | B*39:35+B*51:09:02    | B*39:48+B*51:02:02 |                    |
| B*38:14+B*78:05     | B*39:01:01G+B*52:01:01G | B*39:01:09+B*52:01:10 | B*39:22+B*51:07:02 | B*39:35+B*52:10:01 |
|                     | B*39:48+B*52:11         |                       |                    |                    |
| B*38:16+B*44:34     | B*38:28+B*44:02:10      |                       |                    |                    |
| B*38:16+B*46:01:01G | B*38:28+B*46:10         |                       |                    |                    |
| B*38:16+B*51:01:02  | B*38:28+B*51:119        |                       |                    |                    |
| B*38:16+B*56:01:01G | B*38:28+B*56:36         |                       |                    |                    |
| B*38:17+B*40:01:01G | B*39:05:01+B*40:188     |                       |                    |                    |
| B*38:17+B*40:33     | B*39:55+B*40:188        |                       |                    |                    |
| B*38:17+B*40:43     | B*39:01:01G+B*40:188    |                       |                    |                    |
| B*38:17+B*40:80     | B*39:37+B*40:188        |                       |                    |                    |
| B*38:17+B*40:128    | B*39:11+B*40:188        |                       |                    |                    |
| B*38:17+B*47:02     | B*39:05:01+B*47:01:01G  |                       |                    |                    |
| B*38:17+B*53:08:01  | B*38:32+B*53:03         |                       |                    |                    |
| B*38:19+B*39:04     | B*38:33+B*39:03         |                       |                    |                    |
| B*38:19+B*39:30     | B*38:36+B*39:03         |                       |                    |                    |
| B*38:19+B*39:35     | B*38:32+B*39:03         |                       |                    |                    |
| B*38:19+B*39:42     | B*38:20+B*39:03         |                       |                    |                    |
| B*38:19+B*40:02:01G | B*39:37+B*40:19         |                       |                    |                    |
| B*38:19+B*40:50     | B*39:03+B*40:19         |                       |                    |                    |
| B*38:19+B*40:64     | B*38:20+B*40:02:09      |                       |                    |                    |
| B*38:19+B*40:160    | B*38:20+B*40:80         |                       |                    |                    |
| B*38:19+B*40:183    | B*38:32+B*40:80         |                       |                    |                    |
| B*38:19+B*44:02:01G | B*38:20+B*44:106        |                       |                    |                    |
| B*38:19+B*44:09     | B*39:37+B*44:95         |                       |                    |                    |
| B*38:19+B*44:45     | B*38:20+B*44:135        |                       |                    |                    |
| B*38:19+B*44:46     | B*39:37+B*44:50         |                       |                    |                    |
| B*38:19+B*44:79     | B*38:32+B*44:110        |                       |                    |                    |
| B*38:19+B*44:114    | B*38:31+B*44:110        |                       |                    |                    |
| B*38:19+B*44:147    | B*38:37+B*44:110        |                       |                    |                    |
| B*38:19+B*45:01:01G | B*39:37+B*44:18         |                       |                    |                    |
| B*38:19+B*50:01:01  | B*39:37+B*49:01:01      |                       |                    |                    |
| B*38:19+B*50:02     | B*39:37+B*49:20         |                       |                    |                    |
| B*38:19+B*50:13     | B*39:37+B*49:10         |                       |                    |                    |
| B*38:19+B*50:14     | B*39:37+B*49:18         |                       |                    |                    |
| B*38:19+B*54:01:01G | B*39:37+B*54:12         |                       |                    |                    |
| B*38:19+B*56:05:02  | B*39:37+B*56:21         |                       |                    |                    |
| B*38:19+B*57:12     | B*39:37+B*57:02:01      |                       |                    |                    |
| B*38:19+B*67:01:01  | B*38:26+B*39:37         |                       |                    |                    |
| B*38:19+B*78:01:01  | B*39:03+B*51:01:01G     | B*39:06:02+B*51:64    | B*39:14+B*51:13:02 |                    |
| B*38:19+B*78:01:02  | B*39:03+B*51:01:34      |                       |                    |                    |
| B*38:19+B*78:02:01  | B*39:37+B*51:01:02      |                       |                    |                    |
| B*38:19+B*78:02:02  | B*39:37+B*51:01:01G     |                       |                    |                    |
| B*38:19+B*78:03     | B*39:03+B*51:22         |                       |                    |                    |
| B*38:19+B*78:05     | B*39:37+B*52:01:01G     |                       |                    |                    |
| B*38:19+B*78:07     | B*39:03+B*51:21         |                       |                    |                    |
| B*38:20+B*39:04     | B*38:33+B*39:42         |                       |                    |                    |
| B*38:20+B*39:30     | B*38:36+B*39:42         |                       |                    |                    |
| B*38:20+B*39:35     | B*38:32+B*39:42         |                       |                    |                    |
| B*38:20+B*40:50     | B*39:42+B*40:19         |                       |                    |                    |
| B*38:20+B*40:183    | B*38:32+B*40:160        |                       |                    |                    |
| B*38:20+B*78:01:01  | B*39:06:01+B*51:04      | B*39:42+B*51:01:01G   |                    |                    |
| B*38:20+B*78:01:02  | B*39:42+B*51:01:34      |                       |                    |                    |
| B*38:20+B*78:03     | B*39:42+B*51:22         |                       |                    |                    |
| B*38:20+B*78:07     | B*39:42+B*51:21         |                       |                    |                    |
| B*38:23+B*39:15     | B*38:29+B*39:73         |                       |                    |                    |
| B*38:23+B*40:43     | B*39:73+B*40:47         |                       |                    |                    |
| B*38:23+B*40:50     | B*39:73+B*40:157        |                       |                    |                    |
| B*38:23+B*78:01:01  | B*39:73+B*51:78:01      |                       |                    |                    |
| B*38:26+B*40:01:01G | B*40:117+B*67:01:01     |                       |                    |                    |
| B*38:26+B*40:02:01G | B*40:19+B*67:01:01      |                       |                    |                    |
| B*38:26+B*44:09     | B*44:95+B*67:01:01      |                       |                    |                    |
| B*38:26+B*44:46     | B*44:50+B*67:01:01      |                       |                    |                    |
| B*38:26+B*45:01:01G | B*44:18+B*67:01:01      |                       |                    |                    |
| B*38:26+B*50:01:01  | B*49:01:01+B*67:01:01   |                       |                    |                    |
| B*38:26+B*50:02     | B*49:20+B*67:01:01      |                       |                    |                    |
| B*38:26+B*50:13     | B*49:10+B*67:01:01      |                       |                    |                    |
| B*38:26+B*50:14     | B*49:18+B*67:01:01      |                       |                    |                    |
| B*38:26+B*54:01:01G | B*54:12+B*67:01:01      |                       |                    |                    |
| B*38:26+B*56:05:02  | B*56:21+B*67:01:01      |                       |                    |                    |
| B*38:26+B*57:12     | B*57:02:01+B*67:01:01   |                       |                    |                    |

|                         |                        |                       |                    |                 |
|-------------------------|------------------------|-----------------------|--------------------|-----------------|
| B*38:26+B*78:02:01      | B*51:01:02+B*67:01:01  |                       |                    |                 |
| B*38:26+B*78:02:02      | B*51:01:01G+B*67:01:01 |                       |                    |                 |
| B*38:26+B*78:05         | B*52:01:01G+B*67:01:01 | B*52:01:10+B*67:01:02 |                    |                 |
| B*38:27+B*78:01:01      | B*39:01:01G+B*51:76    |                       |                    |                 |
| B*38:27+B*78:02:02      | B*39:05:01+B*51:76     |                       |                    |                 |
| B*38:29+B*40:43         | B*39:15+B*40:47        |                       |                    |                 |
| B*38:29+B*40:50         | B*39:15+B*40:157       |                       |                    |                 |
| B*38:29+B*44:09         | B*39:55+B*44:02:01G    |                       |                    |                 |
| B*38:29+B*44:46         | B*39:55+B*44:03:01G    |                       |                    |                 |
| B*38:29+B*50:01:01      | B*39:55+B*49:02        |                       |                    |                 |
| B*38:29+B*51:28         | B*38:35+B*51:90        |                       |                    |                 |
| B*38:29+B*56:01:01G     | B*39:55+B*56:07        |                       |                    |                 |
| B*38:29+B*78:01:01      | B*39:15+B*51:78:01     |                       |                    |                 |
| B*38:29+B*78:02:01      | B*39:55+B*51:78:02     |                       |                    |                 |
| B*38:29+B*78:02:02      | B*39:55+B*51:78:01     |                       |                    |                 |
| B*38:29+B*78:05         | B*39:55+B*52:20        |                       |                    |                 |
| B*38:30+B*51:101        | B*38:32+B*51:08        |                       |                    |                 |
| B*38:30+B*55:02:01G     | B*38:36+B*56:13        |                       |                    |                 |
| B*38:30+B*57:26         | B*38:36+B*57:24        |                       |                    |                 |
| B*38:31+B*44:79         | B*38:32+B*44:114       |                       |                    |                 |
| B*38:31+B*44:147        | B*38:37+B*44:114       |                       |                    |                 |
| B*38:32+B*39:04         | B*38:33+B*39:35        |                       |                    |                 |
| B*38:32+B*40:50         | B*39:35+B*40:19        |                       |                    |                 |
| B*38:32+B*40:53         | B*38:33+B*40:148       |                       |                    |                 |
| B*38:32+B*44:147        | B*38:37+B*44:79        |                       |                    |                 |
| B*38:32+B*51:73         | B*38:40+B*51:01:01G    |                       |                    |                 |
| B*38:32+B*51:122        | B*38:38+B*51:01:01G    |                       |                    |                 |
| B*38:32+B*55:26         | B*38:40+B*55:01:01G    |                       |                    |                 |
| B*38:32+B*55:50         | B*38:38+B*55:01:01G    |                       |                    |                 |
| B*38:32+B*57:12         | B*39:11+B*57:57        |                       |                    |                 |
| B*38:32+B*78:01:01      | B*39:35+B*51:01:01G    |                       |                    |                 |
| B*38:32+B*78:01:02      | B*39:35+B*51:01:34     |                       |                    |                 |
| B*38:32+B*78:03         | B*39:35+B*51:22        |                       |                    |                 |
| B*38:32+B*78:04         | B*39:05:01+B*51:02:02  |                       |                    |                 |
| B*38:32+B*78:07         | B*39:35+B*51:21        |                       |                    |                 |
| B*38:33+B*39:30         | B*38:36+B*39:04        |                       |                    |                 |
| B*38:33+B*40:43         | B*39:04+B*40:117       |                       |                    |                 |
| B*38:33+B*40:50         | B*39:04+B*40:19        |                       |                    |                 |
| B*38:33+B*78:01:01      | B*39:04+B*51:01:01G    |                       |                    |                 |
| B*38:33+B*78:01:02      | B*39:04+B*51:01:34     |                       |                    |                 |
| B*38:33+B*78:03         | B*39:04+B*51:22        |                       |                    |                 |
| B*38:33+B*78:07         | B*39:04+B*51:21        |                       |                    |                 |
| B*38:36+B*40:43         | B*39:30+B*40:117       |                       |                    |                 |
| B*38:36+B*40:50         | B*39:30+B*40:19        |                       |                    |                 |
| B*38:36+B*78:01:01      | B*39:30+B*51:01:01G    | B*39:34+B*51:06:01    |                    |                 |
| B*38:36+B*78:01:02      | B*39:30+B*51:01:34     |                       |                    |                 |
| B*38:36+B*78:03         | B*39:30+B*51:22        |                       |                    |                 |
| B*38:36+B*78:07         | B*39:30+B*51:21        |                       |                    |                 |
| B*38:37+B*40:91         | B*38:38+B*40:90        |                       |                    |                 |
| B*38:38+B*51:73         | B*38:40+B*51:122       |                       |                    |                 |
| B*38:38+B*55:26         | B*38:40+B*55:50        |                       |                    |                 |
| B*38:38+B*78:01:01      | B*39:35+B*51:122       |                       |                    |                 |
| B*38:40+B*78:01:01      | B*39:35+B*51:73        |                       |                    |                 |
| B*39:01:01G+B*39:02:01  | B*39:22+B*39:39:01     |                       |                    |                 |
| B*39:01:01G+B*39:02:02  | B*39:01:09+B*39:02:01  |                       |                    |                 |
| B*39:01:01G+B*39:08     | B*39:02:01+B*39:11     |                       |                    |                 |
| B*39:01:01G+B*39:13:01  | B*39:02:02+B*39:05:01  |                       |                    |                 |
| B*39:01:01G+B*39:13:02  | B*39:01:14+B*39:13:01  |                       |                    |                 |
| B*39:01:01G+B*39:14     | B*39:03+B*39:70        |                       |                    |                 |
| B*39:01:01G+B*39:23     | B*39:02:02+B*39:44     |                       |                    |                 |
| B*39:01:01G+B*39:29     | B*39:14+B*39:15        |                       |                    |                 |
| B*39:01:01G+B*39:32     | B*39:48+B*39:74        |                       |                    |                 |
| B*39:01:01G+B*39:34     | B*39:06:02+B*39:30     |                       |                    |                 |
| B*39:01:01G+B*39:37     | B*39:03+B*39:05:01     |                       |                    |                 |
| B*39:01:01G+B*39:49     | B*39:02:02+B*39:55     | B*39:13:01+B*39:15    |                    |                 |
| B*39:01:01G+B*39:50     | B*39:06:02+B*39:47     |                       |                    |                 |
| B*39:01:01G+B*39:55     | B*39:05:01+B*39:15     |                       |                    |                 |
| B*39:01:01G+B*39:57     | B*39:06:02+B*39:53     |                       |                    |                 |
| B*39:01:01G+B*40:01:01G | B*39:04+B*40:74        | B*39:05:01+B*40:43    | B*39:22+B*40:25    | B*39:31+B*40:49 |
|                         | B*39:47+B*40:199       | B*39:68+B*40:87:02    | B*39:70+B*40:36    |                 |
| B*39:01:01G+B*40:01:14  | B*39:68+B*40:87:01     |                       |                    |                 |
| B*39:01:01G+B*40:02:01G | B*39:03+B*40:11:01     | B*39:05:01+B*40:50    | B*39:31+B*40:40    | B*39:47+B*40:39 |
|                         | B*39:68+B*40:35        |                       |                    |                 |
| B*39:01:01G+B*40:02:04  | B*39:01:14+B*40:02:01G |                       |                    |                 |
| B*39:01:01G+B*40:02:09  | B*39:03+B*40:11:02     |                       |                    |                 |
| B*39:01:01G+B*40:03     | B*39:03+B*40:20        | B*39:15+B*40:105      |                    |                 |
| B*39:01:01G+B*40:06:01G | B*39:06:01+B*40:11:02  | B*39:06:02+B*40:11:01 | B*39:39:01+B*40:75 | B*39:70+B*40:86 |
| B*39:01:01G+B*40:07     | B*39:22+B*40:106       |                       |                    |                 |
| B*39:01:01G+B*40:09     | B*39:15+B*40:89        |                       |                    |                 |
| B*39:01:01G+B*40:10:02  | B*39:01:14+B*40:10:01  |                       |                    |                 |
| B*39:01:01G+B*40:14:01  | B*39:68+B*40:121       |                       |                    |                 |
| B*39:01:01G+B*40:14:02  | B*39:01:05+B*40:14:01  |                       |                    |                 |
| B*39:01:01G+B*40:18     | B*39:15+B*40:02:01G    | B*39:55+B*40:50       |                    |                 |
| B*39:01:01G+B*40:29     | B*39:66+B*40:02:01G    |                       |                    |                 |
| B*39:01:01G+B*40:31     | B*39:03+B*40:33        | B*39:15+B*40:80       | B*39:29+B*40:36    |                 |
| B*39:01:01G+B*40:32     | B*39:04+B*40:98        | B*39:15+B*40:16       |                    |                 |
| B*39:01:01G+B*40:33     | B*39:15+B*40:01:01G    | B*39:55+B*40:43       |                    |                 |
| B*39:01:01G+B*40:42     | B*39:15+B*40:172       |                       |                    |                 |
| B*39:01:01G+B*40:44     | B*39:15+B*40:06:01G    |                       |                    |                 |
| B*39:01:01G+B*40:45     | B*39:03+B*40:114       |                       |                    |                 |
| B*39:01:01G+B*40:49     | B*39:04+B*40:210       |                       |                    |                 |
| B*39:01:01G+B*40:52     | B*39:15+B*40:38        |                       |                    |                 |
| B*39:01:01G+B*40:53     | B*39:04+B*40:06:01G    |                       |                    |                 |
| B*39:01:01G+B*40:63     | B*39:74+B*40:199       |                       |                    |                 |
| B*39:01:01G+B*40:64     | B*39:42+B*40:11:02     |                       |                    |                 |
| B*39:01:01G+B*40:73     | B*39:27+B*40:01:01G    |                       |                    |                 |
| B*39:01:01G+B*40:74     | B*39:31+B*40:210       |                       |                    |                 |
| B*39:01:01G+B*40:80     | B*39:03+B*40:01:01G    | B*39:14+B*40:36       | B*39:37+B*40:43    |                 |
| B*39:01:01G+B*40:113    | B*39:48+B*40:01:01G    |                       |                    |                 |
| B*39:01:01G+B*40:128    | B*39:11+B*40:43        |                       |                    |                 |
| B*39:01:01G+B*40:148    | B*39:35+B*40:06:01G    |                       |                    |                 |
| B*39:01:01G+B*40:159    | B*39:06:02+B*40:20     |                       |                    |                 |
| B*39:01:01G+B*40:160    | B*39:42+B*40:01:01G    |                       |                    |                 |
| B*39:01:01G+B*40:162    | B*39:58+B*40:75        |                       |                    |                 |
| B*39:01:01G+B*40:171    | B*39:53+B*40:01:01G    |                       |                    |                 |

|                         |                        |                       |                    |                 |
|-------------------------|------------------------|-----------------------|--------------------|-----------------|
| B*39:01:01G+B*40:173    | B*39:24:01+B*40:11:01  |                       |                    |                 |
| B*39:01:01G+B*40:174    | B*39:48+B*40:05        |                       |                    |                 |
| B*39:01:01G+B*40:183    | B*39:35+B*40:01:01G    |                       |                    |                 |
| B*39:01:01G+B*40:198    | B*39:35+B*40:128       |                       |                    |                 |
| B*39:01:01G+B*41:02:01  | B*39:03+B*41:03:02     |                       |                    |                 |
| B*39:01:01G+B*41:19     | B*39:47+B*41:02:01     |                       |                    |                 |
| B*39:01:01G+B*41:21     | B*39:15+B*41:01        |                       |                    |                 |
| B*39:01:01G+B*42:01:01  | B*39:68+B*42:10        | B*39:70+B*42:06       |                    |                 |
| B*39:01:01G+B*42:01:02  | B*39:01:13+B*42:01:01  |                       |                    |                 |
| B*39:01:01G+B*42:02     | B*39:31+B*42:01:01     | B*39:68+B*42:17       |                    |                 |
| B*39:01:01G+B*42:16     | B*39:15+B*42:01:01     |                       |                    |                 |
| B*39:01:01G+B*42:17     | B*39:31+B*42:10        |                       |                    |                 |
| B*39:01:01G+B*44:02:01G | B*39:22+B*44:12        | B*39:30+B*44:89       | B*39:42+B*44:41:01 |                 |
| B*39:01:01G+B*44:02:07  | B*39:42+B*44:41:02     |                       |                    |                 |
| B*39:01:01G+B*44:02:09  | B*39:01:05+B*44:02:01G |                       |                    |                 |
| B*39:01:01G+B*44:02:24  | B*39:01:08+B*44:02:01G |                       |                    |                 |
| B*39:01:01G+B*44:03:01G | B*39:30+B*44:29        | B*39:42+B*44:65       |                    |                 |
| B*39:01:01G+B*44:03:05  | B*39:01:08+B*44:03:01G |                       |                    |                 |
| B*39:01:01G+B*44:05:01  | B*39:70+B*44:117       |                       |                    |                 |
| B*39:01:01G+B*44:16     | B*39:47+B*44:132       |                       |                    |                 |
| B*39:01:01G+B*44:20     | B*39:06:01+B*44:41:02  | B*39:06:02+B*44:41:01 |                    |                 |
| B*39:01:01G+B*44:28:02  | B*39:74+B*44:04        |                       |                    |                 |
| B*39:01:01G+B*44:32     | B*39:66+B*44:03:01G    |                       |                    |                 |
| B*39:01:01G+B*44:47     | B*39:06:02+B*44:65     |                       |                    |                 |
| B*39:01:01G+B*44:51     | B*39:15+B*44:14        |                       |                    |                 |
| B*39:01:01G+B*44:53     | B*39:68+B*44:02:01G    |                       |                    |                 |
| B*39:01:01G+B*44:54     | B*39:03+B*44:65        |                       |                    |                 |
| B*39:01:01G+B*44:55     | B*39:31+B*44:02:01G    |                       |                    |                 |
| B*39:01:01G+B*44:76     | B*39:35+B*44:28:02     |                       |                    |                 |
| B*39:01:01G+B*44:79     | B*39:35+B*44:03:01G    |                       |                    |                 |
| B*39:01:01G+B*44:91     | B*39:74+B*44:132       |                       |                    |                 |
| B*39:01:01G+B*44:106    | B*39:03+B*44:41:01     |                       |                    |                 |
| B*39:01:01G+B*44:107    | B*39:15+B*44:77        |                       |                    |                 |
| B*39:01:01G+B*44:110    | B*39:03+B*44:03:01G    | B*39:42+B*44:54       |                    |                 |
| B*39:01:01G+B*44:112    | B*39:26+B*44:02:01G    |                       |                    |                 |
| B*39:01:01G+B*44:146    | B*39:36+B*44:29        |                       |                    |                 |
| B*39:01:01G+B*45:04     | B*39:74+B*45:08        |                       |                    |                 |
| B*39:01:01G+B*45:10     | B*39:47+B*45:08        |                       |                    |                 |
| B*39:01:01G+B*46:01:01G | B*39:01:05+B*46:01:03  | B*39:18+B*46:13:01    | B*39:35+B*46:09    | B*39:36+B*46:19 |
|                         | B*39:74+B*46:29        |                       |                    |                 |
| B*39:01:01G+B*46:07N    | B*39:40N+B*46:01:01G   |                       |                    |                 |
| B*39:01:01G+B*46:08     | B*39:35+B*46:13:03     |                       |                    |                 |
| B*39:01:01G+B*46:11     | B*39:74+B*46:18        |                       |                    |                 |
| B*39:01:01G+B*46:12     | B*39:03+B*46:01:01G    |                       |                    |                 |
| B*39:01:01G+B*46:13:01  | B*39:74+B*46:21:02     |                       |                    |                 |
| B*39:01:01G+B*46:13:03  | B*39:01:05+B*46:13:01  | B*39:30+B*46:19       | B*39:74+B*46:21:01 |                 |
| B*39:01:01G+B*46:14     | B*39:31+B*46:01:01G    |                       |                    |                 |
| B*39:01:01G+B*46:21:01  | B*39:01:05+B*46:21:02  |                       |                    |                 |
| B*39:01:01G+B*46:29     | B*39:18+B*46:21:02     |                       |                    |                 |
| B*39:01:01G+B*46:30     | B*39:47+B*46:29        |                       |                    |                 |
| B*39:01:01G+B*46:32     | B*39:06:02+B*46:01:01G |                       |                    |                 |
| B*39:01:01G+B*47:01:01G | B*39:47+B*47:08        |                       |                    |                 |
| B*39:01:01G+B*48:01:01G | B*39:03+B*48:03:01     | B*39:70+B*48:07       |                    |                 |
| B*39:01:01G+B*48:15     | B*39:35+B*48:01:01G    |                       |                    |                 |
| B*39:01:01G+B*48:25     | B*39:35+B*48:02:01     |                       |                    |                 |
| B*39:01:01G+B*49:09     | B*39:48+B*49:01:01     |                       |                    |                 |
| B*39:01:01G+B*49:16     | B*39:67+B*49:01:01     |                       |                    |                 |
| B*39:01:01G+B*50:01:01  | B*39:22+B*50:15        | B*39:31+B*50:13       |                    |                 |
| B*39:01:01G+B*51:01:04  | B*39:48+B*51:02:04     | B*39:70+B*51:13:01    |                    |                 |
| B*39:01:01G+B*51:01:16  | B*39:06:01+B*51:06:01  |                       |                    |                 |
| B*39:01:01G+B*51:01:25  | B*39:01:05+B*51:01:21  |                       |                    |                 |
| B*39:01:01G+B*51:01:26  | B*39:01:08+B*51:01:01G |                       |                    |                 |
| B*39:01:01G+B*51:02:01  | B*39:06:02+B*51:59     |                       |                    |                 |
| B*39:01:01G+B*51:02:05  | B*39:01:05+B*51:02:01  | B*39:35+B*51:40       |                    |                 |
| B*39:01:01G+B*51:04     | B*39:42+B*51:06:02     |                       |                    |                 |
| B*39:01:01G+B*51:06:01  | B*39:48+B*51:59        |                       |                    |                 |
| B*39:01:01G+B*51:07:01  | B*39:39:01+B*51:22     |                       |                    |                 |
| B*39:01:01G+B*51:08     | B*39:05:01+B*51:20     |                       |                    |                 |
| B*39:01:01G+B*51:09:01  | B*39:30+B*51:19        |                       |                    |                 |
| B*39:01:01G+B*51:16     | B*39:35+B*51:31        | B*39:47+B*51:21       | B*39:48+B*51:34    |                 |
| B*39:01:01G+B*51:23     | B*39:35+B*51:108       |                       |                    |                 |
| B*39:01:01G+B*51:24:01  | B*39:68+B*51:01:04     |                       |                    |                 |
| B*39:01:01G+B*51:24:03  | B*39:01:05+B*51:24:04  | B*39:68+B*51:01:25    |                    |                 |
| B*39:01:01G+B*51:24:04  | B*39:68+B*51:01:21     |                       |                    |                 |
| B*39:01:01G+B*51:37     | B*39:15+B*51:63        |                       |                    |                 |
| B*39:01:01G+B*51:46     | B*39:28+B*51:04        |                       |                    |                 |
| B*39:01:01G+B*51:61:01  | B*39:01:05+B*51:61:02  | B*39:18+B*51:09:01    |                    |                 |
| B*39:01:01G+B*51:61:02  | B*39:36+B*51:19        |                       |                    |                 |
| B*39:01:01G+B*51:64     | B*39:03+B*51:06:01     |                       |                    |                 |
| B*39:01:01G+B*51:90     | B*39:06:02+B*51:135    | B*39:15+B*51:01:01G   |                    |                 |
| B*39:01:01G+B*51:92     | B*39:15+B*51:13:01     |                       |                    |                 |
| B*39:01:01G+B*51:95     | B*39:53+B*51:01:01G    | B*39:57+B*51:06:01    |                    |                 |
| B*39:01:01G+B*51:115    | B*39:60+B*51:09:01     |                       |                    |                 |
| B*39:01:01G+B*51:135    | B*39:15+B*51:06:01     |                       |                    |                 |
| B*39:01:01G+B*52:01:02  | B*39:02:01+B*51:22     | B*39:22+B*51:07:01    |                    |                 |
| B*39:01:01G+B*52:01:05  | B*39:70+B*52:14        |                       |                    |                 |
| B*39:01:01G+B*52:01:07  | B*39:01:05+B*52:01:01G | B*39:35+B*52:10:02    |                    |                 |
| B*39:01:01G+B*52:01:12  | B*39:01:10+B*52:01:01G |                       |                    |                 |
| B*39:01:01G+B*52:06:01  | B*39:22+B*51:01:33     |                       |                    |                 |
| B*39:01:01G+B*52:06:02  | B*39:22+B*51:01:01G    |                       |                    |                 |
| B*39:01:01G+B*52:10:02  | B*39:01:05+B*52:10:01  |                       |                    |                 |
| B*39:01:01G+B*52:12     | B*39:15+B*52:01:01G    |                       |                    |                 |
| B*39:01:01G+B*52:23     | B*39:52+B*52:01:01G    |                       |                    |                 |
| B*39:01:01G+B*53:18     | B*39:61+B*53:01:01     |                       |                    |                 |
| B*39:01:01G+B*54:03     | B*39:74+B*54:01:01G    |                       |                    |                 |
| B*39:01:01G+B*54:16     | B*39:15+B*54:01:01G    |                       |                    |                 |
| B*39:01:01G+B*54:20     | B*39:35+B*54:10        |                       |                    |                 |
| B*39:01:01G+B*54:26     | B*39:47+B*54:01:01G    |                       |                    |                 |
| B*39:01:01G+B*55:01:01G | B*39:35+B*55:02:01G    |                       |                    |                 |
| B*39:01:01G+B*55:01:06  | B*39:01:08+B*55:01:01G |                       |                    |                 |
| B*39:01:01G+B*55:02:01G | B*39:06:02+B*56:10     |                       |                    |                 |
| B*39:01:01G+B*55:02:04  | B*39:06:01+B*56:10     |                       |                    |                 |
| B*39:01:01G+B*55:03     | B*39:27+B*55:01:01G    |                       |                    |                 |
| B*39:01:01G+B*55:09     | B*39:47+B*55:52        |                       |                    |                 |
| B*39:01:01G+B*55:16     | B*39:31+B*55:02:01G    |                       |                    |                 |

|                         |                        |                     |
|-------------------------|------------------------|---------------------|
| B*39:01:01G+B*55:22     | B*39:47+B*55:02:01G    | B*39:50+B*56:10     |
| B*39:01:01G+B*55:23     | B*39:15+B*55:32        |                     |
| B*39:01:01G+B*55:24     | B*39:35+B*55:22        | B*39:47+B*55:01:01G |
| B*39:01:01G+B*55:31     | B*39:05:01+B*55:01:01G |                     |
| B*39:01:01G+B*55:34     | B*39:22+B*55:47        |                     |
| B*39:01:01G+B*55:36     | B*39:54+B*55:01:01G    |                     |
| B*39:01:01G+B*55:40     | B*39:22+B*55:01:01G    |                     |
| B*39:01:01G+B*55:46     | B*39:15+B*55:02:01G    |                     |
| B*39:01:01G+B*55:49     | B*39:27+B*55:04        |                     |
| B*39:01:01G+B*55:52     | B*39:35+B*55:37        |                     |
| B*39:01:01G+B*56:01:01G | B*39:06:02+B*56:02     | B*39:74+B*55:02:01G |
| B*39:01:01G+B*56:01:03  | B*39:01:05+B*56:01:01G | B*56:33+B*67:01:01  |
| B*39:01:01G+B*56:02     | B*39:74+B*56:10        |                     |
| B*39:01:01G+B*56:06     | B*67:01:01+B*78:03     |                     |
| B*39:01:01G+B*56:15     | B*39:70+B*56:22        |                     |
| B*39:01:01G+B*56:19N    | B*39:40N+B*56:01:01G   |                     |
| B*39:01:01G+B*56:20:01  | B*39:68+B*56:01:01G    |                     |
| B*39:01:01G+B*56:22     | B*39:74+B*55:13        |                     |
| B*39:01:01G+B*56:25     | B*39:35+B*56:01:01G    | B*39:74+B*55:01:01G |
| B*39:01:01G+B*56:27     | B*39:06:02+B*56:04     |                     |
| B*39:01:01G+B*56:31     | B*39:48+B*56:18        |                     |
| B*39:01:01G+B*56:32     | B*39:35+B*56:18        |                     |
| B*39:01:01G+B*56:34     | B*39:32+B*55:02:01G    | B*39:48+B*56:01:01G |
| B*39:01:01G+B*57:01:01G | B*39:01:14+B*57:01:09  | B*39:04+B*57:10     |
| B*39:01:01G+B*57:22     | B*39:35+B*57:01:01G    | B*39:74+B*57:26     |
| B*39:01:01G+B*57:25     | B*39:47+B*57:26        |                     |
| B*39:01:01G+B*57:30     | B*39:60+B*57:19        |                     |
| B*39:01:01G+B*57:31     | B*39:68+B*57:01:01G    |                     |
| B*39:01:01G+B*57:39     | B*39:31+B*57:03:01     |                     |
| B*39:01:01G+B*57:57     | B*39:35+B*57:03:01     |                     |
| B*39:01:01G+B*58:01:01G | B*39:74+B*58:35        |                     |
| B*39:01:01G+B*58:01:05  | B*39:01:05+B*58:01:01G |                     |
| B*39:01:01G+B*58:06     | B*39:35+B*58:02        |                     |
| B*39:01:01G+B*58:09     | B*39:32+B*56:35        | B*39:48+B*58:01:01G |
| B*39:01:01G+B*58:18     | B*39:03+B*58:16        |                     |
| B*39:01:01G+B*58:19     | B*39:35+B*58:01:01G    |                     |
| B*39:01:01G+B*58:33     | B*39:61+B*58:01:01G    |                     |
| B*39:01:01G+B*58:37     | B*39:47+B*58:35        |                     |
| B*39:01:01G+B*59:04     | B*39:74+B*59:01:01G    |                     |
| B*39:01:01G+B*67:01:02  | B*39:01:09+B*67:01:01  |                     |
| B*39:01:01G+B*78:01:01  | B*39:58+B*78:03        | B*39:74+B*78:07     |
| B*39:01:01G+B*78:02:02  | B*39:05:01+B*78:01:01  |                     |
| B*39:01:05+B*39:36      | B*39:18+B*39:30        |                     |
| B*39:01:05+B*44:02:24   | B*39:01:08+B*44:02:09  |                     |
| B*39:01:05+B*44:53      | B*39:68+B*44:02:09     |                     |
| B*39:01:05+B*44:55      | B*39:31+B*44:02:09     |                     |
| B*39:01:05+B*44:112     | B*39:26+B*44:02:09     |                     |
| B*39:01:05+B*44:146     | B*39:18+B*44:03:01G    |                     |
| B*39:01:05+B*46:01:01G  | B*39:18+B*46:13:03     |                     |
| B*39:01:05+B*46:29      | B*39:18+B*46:21:01     |                     |
| B*39:01:05+B*51:09:01   | B*39:48+B*51:40        |                     |
| B*39:01:05+B*52:01:12   | B*39:01:10+B*52:01:07  |                     |
| B*39:01:05+B*52:12      | B*39:15+B*52:01:07     |                     |
| B*39:01:05+B*52:23      | B*39:52+B*52:01:07     |                     |
| B*39:01:05+B*53:02      | B*39:48+B*53:01:03     |                     |
| B*39:01:05+B*53:18      | B*39:61+B*53:01:03     |                     |
| B*39:01:05+B*55:21      | B*39:18+B*55:02:01G    |                     |
| B*39:01:05+B*56:19N     | B*39:40N+B*56:01:03    |                     |
| B*39:01:05+B*56:20:01   | B*39:68+B*56:01:03     |                     |
| B*39:01:05+B*56:25      | B*39:35+B*56:01:03     |                     |
| B*39:01:05+B*56:34      | B*39:48+B*56:01:03     |                     |
| B*39:01:05+B*57:14      | B*39:32+B*57:26        | B*39:48+B*57:01:01G |
| B*39:01:05+B*58:09      | B*39:48+B*58:01:05     |                     |
| B*39:01:05+B*58:19      | B*39:35+B*58:01:05     |                     |
| B*39:01:05+B*58:33      | B*39:61+B*58:01:05     |                     |
| B*39:01:08+B*44:32      | B*39:66+B*44:03:05     |                     |
| B*39:01:08+B*44:53      | B*39:68+B*44:02:24     |                     |
| B*39:01:08+B*44:55      | B*39:31+B*44:02:24     |                     |
| B*39:01:08+B*44:79      | B*39:35+B*44:03:05     |                     |
| B*39:01:08+B*44:110     | B*39:03+B*44:03:05     |                     |
| B*39:01:08+B*44:112     | B*39:26+B*44:02:24     |                     |
| B*39:01:08+B*51:90      | B*39:15+B*51:01:26     |                     |
| B*39:01:08+B*51:95      | B*39:53+B*51:01:26     |                     |
| B*39:01:08+B*52:06:02   | B*39:22+B*51:01:26     |                     |
| B*39:01:08+B*55:03      | B*39:27+B*55:01:06     |                     |
| B*39:01:08+B*55:24      | B*39:47+B*55:01:06     |                     |
| B*39:01:08+B*55:31      | B*39:05:01+B*55:01:06  |                     |
| B*39:01:08+B*55:36      | B*39:54+B*55:01:06     |                     |
| B*39:01:08+B*55:40      | B*39:22+B*55:01:06     |                     |
| B*39:01:08+B*56:25      | B*39:74+B*55:01:06     |                     |
| B*39:01:09+B*39:08      | B*39:02:02+B*39:11     |                     |
| B*39:01:09+B*52:01:02   | B*39:02:02+B*51:22     |                     |
| B*39:01:09+B*52:27      | B*39:19:01+B*52:16     |                     |
| B*39:01:09+B*56:01:01G  | B*56:33+B*67:01:02     |                     |
| B*39:01:09+B*56:06      | B*67:01:02+B*78:03     |                     |
| B*39:01:10+B*52:12      | B*39:15+B*52:01:12     |                     |
| B*39:01:10+B*52:23      | B*39:52+B*52:01:12     |                     |
| B*39:01:13+B*42:02      | B*39:31+B*42:01:02     |                     |
| B*39:01:13+B*42:16      | B*39:15+B*42:01:02     |                     |
| B*39:01:14+B*39:49      | B*39:13:02+B*39:15     |                     |
| B*39:01:14+B*40:18      | B*39:15+B*40:02:04     |                     |
| B*39:01:14+B*40:29      | B*39:66+B*40:02:04     |                     |
| B*39:02:01+B*40:08      | B*39:58+B*40:02:01G    |                     |
| B*39:02:01+B*40:25      | B*39:39:01+B*40:01:01G |                     |
| B*39:02:01+B*40:68      | B*39:58+B*40:04        |                     |
| B*39:02:01+B*40:75      | B*39:22+B*40:06:01G    |                     |
| B*39:02:01+B*40:106     | B*39:39:01+B*40:07     | B*39:58+B*40:01:01G |
| B*39:02:01+B*40:128     | B*39:08+B*40:43        |                     |
| B*39:02:01+B*40:166     | B*40:43+B*67:01:01     |                     |
| B*39:02:01+B*44:12      | B*39:39:01+B*44:02:01G |                     |
| B*39:02:01+B*48:06      | B*39:58+B*48:01:01G    |                     |
| B*39:02:01+B*50:15      | B*39:39:01+B*50:01:01  |                     |
| B*39:02:01+B*51:01:01G  | B*39:39:01+B*52:06:02  | B*39:58+B*52:01:02  |
| B*39:02:01+B*51:01:02   | B*39:58+B*52:01:01G    |                     |
| B*39:02:01+B*51:01:03   | B*39:58+B*52:01:09     |                     |

|                        |                        |                        |                 |                 |
|------------------------|------------------------|------------------------|-----------------|-----------------|
| B*39:02:01+B*51:01:33  | B*39:39:01+B*52:06:01  |                        |                 |                 |
| B*39:02:01+B*51:02:02  | B*39:58+B*52:11        |                        |                 |                 |
| B*39:02:01+B*51:07:01  | B*39:39:01+B*52:01:02  |                        |                 |                 |
| B*39:02:01+B*51:07:02  | B*39:39:01+B*52:01:01G |                        |                 |                 |
| B*39:02:01+B*51:09:02  | B*39:58+B*52:10:01     |                        |                 |                 |
| B*39:02:01+B*51:61:02  | B*39:58+B*52:21        |                        |                 |                 |
| B*39:02:01+B*51:78:02  | B*39:58+B*52:20        |                        |                 |                 |
| B*39:02:01+B*51:104    | B*39:58+B*52:02        |                        |                 |                 |
| B*39:02:01+B*52:01:01G | B*39:02:02+B*52:01:10  |                        |                 |                 |
| B*39:02:01+B*53:01:01  | B*39:58+B*53:17:02     |                        |                 |                 |
| B*39:02:01+B*53:24     | B*39:08+B*53:23        |                        |                 |                 |
| B*39:02:01+B*55:01:01G | B*39:39:01+B*55:40     |                        |                 |                 |
| B*39:02:01+B*55:47     | B*39:39:01+B*55:34     |                        |                 |                 |
| B*39:02:01+B*67:01:02  | B*39:02:02+B*67:01:01  |                        |                 |                 |
| B*39:02:01+B*78:02:01  | B*39:58+B*78:05        |                        |                 |                 |
| B*39:02:02+B*39:37     | B*39:03+B*39:13:01     |                        |                 |                 |
| B*39:02:02+B*40:01:01G | B*39:13:01+B*40:43     |                        |                 |                 |
| B*39:02:02+B*40:02:01G | B*39:13:01+B*40:50     |                        |                 |                 |
| B*39:02:02+B*40:02:04  | B*39:13:02+B*40:50     |                        |                 |                 |
| B*39:02:02+B*40:18     | B*39:49+B*40:50        |                        |                 |                 |
| B*39:02:02+B*40:33     | B*39:49+B*40:43        |                        |                 |                 |
| B*39:02:02+B*40:166    | B*40:43+B*67:01:02     |                        |                 |                 |
| B*39:02:02+B*51:08     | B*39:13:01+B*51:20     |                        |                 |                 |
| B*39:02:02+B*53:01:01  | B*39:13:01+B*53:23     |                        |                 |                 |
| B*39:02:02+B*55:02:01G | B*39:10:01+B*55:34     |                        |                 |                 |
| B*39:02:02+B*55:31     | B*39:13:01+B*55:01:01G |                        |                 |                 |
| B*39:02:02+B*78:02:02  | B*39:13:01+B*78:01:01  |                        |                 |                 |
| B*39:03+B*39:55        | B*39:15+B*39:37        |                        |                 |                 |
| B*39:03+B*40:02:01G    | B*39:37+B*40:50        |                        |                 |                 |
| B*39:03+B*40:06:01G    | B*39:06:01+B*40:02:09  | B*39:06:02+B*40:02:01G | B*39:14+B*40:86 | B*39:50+B*40:39 |
| B*39:03+B*40:06:02     | B*39:06:02+B*40:02:07  |                        |                 |                 |
| B*39:03+B*40:44        | B*39:06:02+B*40:18     | B*39:29+B*40:86        |                 |                 |
| B*39:03+B*40:64        | B*39:42+B*40:02:09     |                        |                 |                 |
| B*39:03+B*40:73        | B*39:27+B*40:80        |                        |                 |                 |
| B*39:03+B*40:96        | B*39:06:02+B*40:157    |                        |                 |                 |
| B*39:03+B*40:113       | B*39:48+B*40:80        |                        |                 |                 |
| B*39:03+B*40:159       | B*39:06:02+B*40:03     |                        |                 |                 |
| B*39:03+B*40:160       | B*39:42+B*40:80        |                        |                 |                 |
| B*39:03+B*40:171       | B*39:53+B*40:80        |                        |                 |                 |
| B*39:03+B*40:173       | B*39:24:01+B*40:02:01G |                        |                 |                 |
| B*39:03+B*40:183       | B*39:35+B*40:80        |                        |                 |                 |
| B*39:03+B*42:01:01     | B*39:14+B*42:06        |                        |                 |                 |
| B*39:03+B*42:04        | B*39:06:02+B*42:01:01  |                        |                 |                 |
| B*39:03+B*42:16        | B*39:29+B*42:06        |                        |                 |                 |
| B*39:03+B*44:02:01G    | B*39:42+B*44:106       |                        |                 |                 |
| B*39:03+B*44:05:01     | B*39:14+B*44:117       |                        |                 |                 |
| B*39:03+B*44:20        | B*39:06:02+B*44:106    |                        |                 |                 |
| B*39:03+B*44:32        | B*39:66+B*44:110       |                        |                 |                 |
| B*39:03+B*44:45        | B*39:42+B*44:135       |                        |                 |                 |
| B*39:03+B*44:47        | B*39:06:02+B*44:54     |                        |                 |                 |
| B*39:03+B*44:79        | B*39:35+B*44:110       |                        |                 |                 |
| B*39:03+B*46:07N       | B*39:40N+B*46:12       |                        |                 |                 |
| B*39:03+B*46:14        | B*39:31+B*46:12        |                        |                 |                 |
| B*39:03+B*46:32        | B*39:06:02+B*46:12     |                        |                 |                 |
| B*39:03+B*48:01:01G    | B*39:14+B*48:07        |                        |                 |                 |
| B*39:03+B*51:01:04     | B*39:14+B*51:13:01     |                        |                 |                 |
| B*39:03+B*51:01:16     | B*39:06:01+B*51:64     |                        |                 |                 |
| B*39:03+B*51:08        | B*39:37+B*51:20        |                        |                 |                 |
| B*39:03+B*51:10        | B*39:06:02+B*51:81     |                        |                 |                 |
| B*39:03+B*51:90        | B*39:29+B*51:13:02     |                        |                 |                 |
| B*39:03+B*51:95        | B*39:57+B*51:64        |                        |                 |                 |
| B*39:03+B*51:135       | B*39:15+B*51:64        |                        |                 |                 |
| B*39:03+B*52:01:05     | B*39:14+B*52:14        |                        |                 |                 |
| B*39:03+B*55:08        | B*39:74+B*55:04        |                        |                 |                 |
| B*39:03+B*55:31        | B*39:37+B*55:01:01G    |                        |                 |                 |
| B*39:03+B*56:15        | B*39:14+B*56:22        |                        |                 |                 |
| B*39:03+B*78:02:02     | B*39:37+B*78:01:01     |                        |                 |                 |
| B*39:04+B*40:04        | B*39:31+B*40:129       |                        |                 |                 |
| B*39:04+B*40:44        | B*39:15+B*40:53        |                        |                 |                 |
| B*39:04+B*40:96        | B*39:31+B*40:110       |                        |                 |                 |
| B*39:04+B*40:148       | B*39:35+B*40:53        |                        |                 |                 |
| B*39:04+B*44:103       | B*39:31+B*44:03:01G    |                        |                 |                 |
| B*39:04+B*44:131       | B*39:31+B*44:09        |                        |                 |                 |
| B*39:04+B*54:02        | B*39:31+B*54:01:01G    |                        |                 |                 |
| B*39:04+B*56:35        | B*39:31+B*56:01:01G    | B*39:74+B*55:16        |                 |                 |
| B*39:05:01+B*39:14     | B*39:37+B*39:70        |                        |                 |                 |
| B*39:05:01+B*39:23     | B*39:13:01+B*39:44     |                        |                 |                 |
| B*39:05:01+B*39:29     | B*39:14+B*39:55        |                        |                 |                 |
| B*39:05:01+B*39:49     | B*39:13:01+B*39:55     |                        |                 |                 |
| B*39:05:01+B*40:02:01G | B*39:37+B*40:11:01     |                        |                 |                 |
| B*39:05:01+B*40:02:09  | B*39:37+B*40:11:02     |                        |                 |                 |
| B*39:05:01+B*40:03     | B*39:37+B*40:20        | B*39:55+B*40:105       |                 |                 |
| B*39:05:01+B*40:09     | B*39:55+B*40:89        |                        |                 |                 |
| B*39:05:01+B*40:18     | B*39:55+B*40:02:01G    |                        |                 |                 |
| B*39:05:01+B*40:31     | B*39:37+B*40:33        | B*39:55+B*40:80        |                 |                 |
| B*39:05:01+B*40:32     | B*39:55+B*40:16        |                        |                 |                 |
| B*39:05:01+B*40:33     | B*39:55+B*40:01:01G    |                        |                 |                 |
| B*39:05:01+B*40:42     | B*39:55+B*40:172       |                        |                 |                 |
| B*39:05:01+B*40:44     | B*39:55+B*40:06:01G    |                        |                 |                 |
| B*39:05:01+B*40:45     | B*39:37+B*40:114       |                        |                 |                 |
| B*39:05:01+B*40:52     | B*39:07+B*40:36        | B*39:55+B*40:38        |                 |                 |
| B*39:05:01+B*40:80     | B*39:37+B*40:01:01G    |                        |                 |                 |
| B*39:05:01+B*40:128    | B*39:11+B*40:01:01G    |                        |                 |                 |
| B*39:05:01+B*40:159    | B*39:07+B*40:86        |                        |                 |                 |
| B*39:05:01+B*40:161    | B*39:11+B*40:148       |                        |                 |                 |
| B*39:05:01+B*40:198    | B*39:11+B*40:183       |                        |                 |                 |
| B*39:05:01+B*41:02:01  | B*39:37+B*41:03:02     |                        |                 |                 |
| B*39:05:01+B*41:21     | B*39:55+B*41:01        |                        |                 |                 |
| B*39:05:01+B*42:16     | B*39:55+B*42:01:01     |                        |                 |                 |
| B*39:05:01+B*44:28:01  | B*39:11+B*44:03:02     |                        |                 |                 |
| B*39:05:01+B*44:28:02  | B*39:11+B*44:03:01G    |                        |                 |                 |
| B*39:05:01+B*44:51     | B*39:55+B*44:14        |                        |                 |                 |
| B*39:05:01+B*44:54     | B*39:37+B*44:65        |                        |                 |                 |
| B*39:05:01+B*44:76     | B*39:11+B*44:79        |                        |                 |                 |
| B*39:05:01+B*44:106    | B*39:37+B*44:41:01     |                        |                 |                 |

|                        |                        |                  |                 |
|------------------------|------------------------|------------------|-----------------|
| B*39:05:01+B*44:107    | B*39:55+B*44:77        |                  |                 |
| B*39:05:01+B*44:110    | B*39:37+B*44:03:01G    |                  |                 |
| B*39:05:01+B*46:12     | B*39:37+B*46:01:01G    |                  |                 |
| B*39:05:01+B*48:01:01G | B*39:37+B*48:03:01     |                  |                 |
| B*39:05:01+B*51:29     | B*39:11+B*51:01:01G    |                  |                 |
| B*39:05:01+B*51:37     | B*39:07+B*51:13:02     | B*39:55+B*51:63  |                 |
| B*39:05:01+B*51:64     | B*39:37+B*51:06:01     |                  |                 |
| B*39:05:01+B*51:82     | B*39:11+B*51:16        |                  |                 |
| B*39:05:01+B*51:90     | B*39:55+B*51:01:01G    |                  |                 |
| B*39:05:01+B*51:92     | B*39:55+B*51:13:01     |                  |                 |
| B*39:05:01+B*51:135    | B*39:55+B*51:06:01     |                  |                 |
| B*39:05:01+B*52:12     | B*39:55+B*52:01:01G    |                  |                 |
| B*39:05:01+B*52:24     | B*39:11+B*52:01:01G    |                  |                 |
| B*39:05:01+B*53:16     | B*39:11+B*53:05        |                  |                 |
| B*39:05:01+B*54:10     | B*39:11+B*54:01:01G    |                  |                 |
| B*39:05:01+B*54:16     | B*39:55+B*54:01:01G    |                  |                 |
| B*39:05:01+B*55:03     | B*39:27+B*55:31        |                  |                 |
| B*39:05:01+B*55:09     | B*39:11+B*55:24        |                  |                 |
| B*39:05:01+B*55:23     | B*39:07+B*55:13        | B*39:55+B*55:32  |                 |
| B*39:05:01+B*55:24     | B*39:47+B*55:31        |                  |                 |
| B*39:05:01+B*55:36     | B*39:54+B*55:31        |                  |                 |
| B*39:05:01+B*55:37     | B*39:11+B*55:02:01G    |                  |                 |
| B*39:05:01+B*55:40     | B*39:22+B*55:31        |                  |                 |
| B*39:05:01+B*55:46     | B*39:55+B*55:02:01G    |                  |                 |
| B*39:05:01+B*55:52     | B*39:11+B*55:01:01G    |                  |                 |
| B*39:05:01+B*56:17     | B*39:74+B*56:23        |                  |                 |
| B*39:05:01+B*56:25     | B*39:74+B*55:31        |                  |                 |
| B*39:05:01+B*57:19     | B*39:11+B*57:01:01G    |                  |                 |
| B*39:05:01+B*58:18     | B*39:37+B*58:16        |                  |                 |
| B*39:05:01+B*58:22     | B*39:11+B*58:01:01G    |                  |                 |
| B*39:06:01+B*40:01:04  | B*39:06:02+B*40:01:01G | B*39:50+B*40:199 |                 |
| B*39:06:01+B*40:04     | B*39:42+B*40:70        |                  |                 |
| B*39:06:01+B*40:64     | B*39:42+B*40:06:01G    |                  |                 |
| B*39:06:01+B*40:124:01 | B*39:06:02+B*40:124:02 |                  |                 |
| B*39:06:01+B*42:13     | B*39:42+B*42:04        |                  |                 |
| B*39:06:01+B*44:02:07  | B*39:06:02+B*44:02:01G | B*39:34+B*44:89  | B*39:42+B*44:20 |
| B*39:06:01+B*44:03:02  | B*39:06:02+B*44:03:01G | B*39:34+B*44:29  | B*39:42+B*44:47 |
| B*39:06:01+B*44:28:01  | B*39:06:02+B*44:28:02  |                  |                 |
| B*39:06:01+B*44:37:02  | B*39:06:02+B*44:37:01  |                  |                 |
| B*39:06:01+B*44:41:01  | B*39:28+B*44:100       |                  |                 |
| B*39:06:01+B*44:64:01  | B*39:06:02+B*44:64:02  |                  |                 |
| B*39:06:01+B*48:03:02  | B*39:06:02+B*48:03:01  |                  |                 |
| B*39:06:01+B*51:01:01G | B*39:06:02+B*51:01:16  |                  |                 |
| B*39:06:01+B*51:95     | B*39:57+B*51:01:16     |                  |                 |
| B*39:06:01+B*51:135    | B*39:15+B*51:01:16     |                  |                 |
| B*39:06:01+B*55:02:01G | B*39:06:02+B*55:02:04  |                  |                 |
| B*39:06:01+B*55:22     | B*39:50+B*55:02:04     |                  |                 |
| B*39:06:01+B*56:02     | B*39:74+B*55:02:04     |                  |                 |
| B*39:06:02+B*40:171    | B*39:57+B*40:01:01G    |                  |                 |
| B*39:06:02+B*40:173    | B*39:24:01+B*40:06:01G |                  |                 |
| B*39:06:02+B*40:202    | B*39:62+B*40:02:01G    |                  |                 |
| B*39:06:02+B*41:03:02  | B*39:28+B*41:01        |                  |                 |
| B*39:06:02+B*41:19     | B*39:50+B*41:02:01     |                  |                 |
| B*39:06:02+B*44:16     | B*39:50+B*44:132       |                  |                 |
| B*39:06:02+B*44:98     | B*39:62+B*44:03:01G    |                  |                 |
| B*39:06:02+B*45:10     | B*39:50+B*45:08        |                  |                 |
| B*39:06:02+B*46:07N    | B*39:40N+B*46:32       |                  |                 |
| B*39:06:02+B*46:13:03  | B*39:34+B*46:19        |                  |                 |
| B*39:06:02+B*46:14     | B*39:31+B*46:32        |                  |                 |
| B*39:06:02+B*46:27     | B*39:62+B*46:01:01G    |                  |                 |
| B*39:06:02+B*46:30     | B*39:50+B*46:29        |                  |                 |
| B*39:06:02+B*47:01:01G | B*39:50+B*47:08        |                  |                 |
| B*39:06:02+B*51:09:01  | B*39:34+B*51:19        |                  |                 |
| B*39:06:02+B*51:16     | B*39:50+B*51:21        |                  |                 |
| B*39:06:02+B*51:21     | B*39:34+B*51:101       |                  |                 |
| B*39:06:02+B*51:29     | B*39:33+B*51:101       |                  |                 |
| B*39:06:02+B*51:95     | B*39:57+B*51:01:01G    |                  |                 |
| B*39:06:02+B*54:26     | B*39:50+B*54:01:01G    |                  |                 |
| B*39:06:02+B*55:09     | B*39:50+B*55:52        |                  |                 |
| B*39:06:02+B*55:22     | B*39:50+B*55:02:01G    |                  |                 |
| B*39:06:02+B*55:24     | B*39:50+B*55:01:01G    |                  |                 |
| B*39:06:02+B*57:25     | B*39:50+B*57:26        |                  |                 |
| B*39:06:02+B*58:37     | B*39:50+B*58:35        |                  |                 |
| B*39:07+B*40:43        | B*39:70+B*40:52        |                  |                 |
| B*39:07+B*40:50        | B*39:14+B*40:20        | B*39:70+B*40:03  |                 |
| B*39:07+B*48:07        | B*39:37+B*48:23        |                  |                 |
| B*39:07+B*53:04        | B*39:55+B*53:01:01     |                  |                 |
| B*39:07+B*56:11        | B*39:55+B*56:09        |                  |                 |
| B*39:07+B*58:34        | B*39:55+B*58:01:01G    |                  |                 |
| B*39:08+B*40:166       | B*40:128+B*67:01:01    |                  |                 |
| B*39:08+B*51:22        | B*39:11+B*52:01:02     |                  |                 |
| B*39:10:01+B*40:37     | B*39:20+B*40:50        |                  |                 |
| B*39:10:01+B*42:01:01  | B*42:07+B*67:01:02     |                  |                 |
| B*39:10:01+B*42:11     | B*39:13:01+B*42:07     |                  |                 |
| B*39:10:01+B*55:41     | B*39:17+B*55:13        |                  |                 |
| B*39:11+B*40:33        | B*39:55+B*40:128       |                  |                 |
| B*39:11+B*40:80        | B*39:37+B*40:128       |                  |                 |
| B*39:11+B*44:110       | B*39:37+B*44:28:02     |                  |                 |
| B*39:11+B*51:90        | B*39:55+B*51:29        |                  |                 |
| B*39:11+B*52:12        | B*39:55+B*52:24        |                  |                 |
| B*39:11+B*54:16        | B*39:55+B*54:10        |                  |                 |
| B*39:11+B*55:46        | B*39:55+B*55:37        |                  |                 |
| B*39:13:01+B*39:29     | B*39:14+B*39:49        |                  |                 |
| B*39:13:01+B*40:02:04  | B*39:13:02+B*40:02:01G | B*40:184+B*48:13 |                 |
| B*39:13:01+B*40:03     | B*39:49+B*40:105       |                  |                 |
| B*39:13:01+B*40:09     | B*39:49+B*40:89        |                  |                 |
| B*39:13:01+B*40:10:02  | B*39:13:02+B*40:10:01  |                  |                 |
| B*39:13:01+B*40:18     | B*39:49+B*40:02:01G    |                  |                 |
| B*39:13:01+B*40:31     | B*39:49+B*40:80        |                  |                 |
| B*39:13:01+B*40:32     | B*39:49+B*40:16        |                  |                 |
| B*39:13:01+B*40:33     | B*39:49+B*40:01:01G    |                  |                 |
| B*39:13:01+B*40:42     | B*39:49+B*40:172       |                  |                 |
| B*39:13:01+B*40:44     | B*39:49+B*40:06:01G    |                  |                 |
| B*39:13:01+B*40:52     | B*39:49+B*40:38        |                  |                 |
| B*39:13:01+B*40:166    | B*40:01:01G+B*67:01:02 |                  |                 |

|                        |                        |                  |
|------------------------|------------------------|------------------|
| B*39:13:01+B*41:21     | B*39:49+B*41:01        |                  |
| B*39:13:01+B*42:01:01  | B*42:11+B*67:01:02     |                  |
| B*39:13:01+B*42:16     | B*39:49+B*42:01:01     |                  |
| B*39:13:01+B*44:51     | B*39:49+B*44:14        |                  |
| B*39:13:01+B*44:107    | B*39:49+B*44:77        |                  |
| B*39:13:01+B*51:37     | B*39:49+B*51:63        |                  |
| B*39:13:01+B*51:90     | B*39:49+B*51:01:01G    |                  |
| B*39:13:01+B*51:92     | B*39:49+B*51:13:01     |                  |
| B*39:13:01+B*51:135    | B*39:49+B*51:06:01     |                  |
| B*39:13:01+B*52:12     | B*39:49+B*52:01:01G    |                  |
| B*39:13:01+B*54:16     | B*39:49+B*54:01:01G    |                  |
| B*39:13:01+B*55:12     | B*39:20+B*55:34        |                  |
| B*39:13:01+B*55:23     | B*39:49+B*55:32        |                  |
| B*39:13:01+B*55:46     | B*39:49+B*55:02:01G    |                  |
| B*39:13:01+B*57:01:01G | B*39:13:02+B*57:01:09  |                  |
| B*39:13:01+B*81:01:01G | B*48:01:01G+B*67:01:02 |                  |
| B*39:13:02+B*40:18     | B*39:49+B*40:02:04     |                  |
| B*39:13:02+B*40:74     | B*40:184+B*48:03:01    |                  |
| B*39:13:02+B*40:98     | B*40:184+B*48:08       |                  |
| B*39:13:02+B*58:01:01G | B*48:02:01+B*58:20     |                  |
| B*39:13:02+B*58:19     | B*48:25+B*58:20        |                  |
| B*39:13:02+B*58:27     | B*48:13+B*58:20        |                  |
| B*39:14+B*40:01:01G    | B*39:70+B*40:80        |                  |
| B*39:14+B*40:03        | B*39:29+B*40:105       |                  |
| B*39:14+B*40:09        | B*39:29+B*40:89        |                  |
| B*39:14+B*40:11:01     | B*39:70+B*40:02:01G    |                  |
| B*39:14+B*40:11:02     | B*39:70+B*40:02:09     |                  |
| B*39:14+B*40:18        | B*39:29+B*40:02:01G    |                  |
| B*39:14+B*40:31        | B*39:29+B*40:80        |                  |
| B*39:14+B*40:32        | B*39:29+B*40:16        | B*39:70+B*40:31  |
| B*39:14+B*40:33        | B*39:29+B*40:01:01G    |                  |
| B*39:14+B*40:42        | B*39:29+B*40:172       |                  |
| B*39:14+B*40:44        | B*39:29+B*40:06:01G    |                  |
| B*39:14+B*40:52        | B*39:29+B*40:38        |                  |
| B*39:14+B*40:114       | B*39:70+B*40:45        |                  |
| B*39:14+B*41:03:02     | B*39:70+B*41:02:01     |                  |
| B*39:14+B*41:21        | B*39:29+B*41:01        |                  |
| B*39:14+B*42:16        | B*39:29+B*42:01:01     |                  |
| B*39:14+B*44:03:01G    | B*39:70+B*44:110       |                  |
| B*39:14+B*44:41:01     | B*39:70+B*44:106       |                  |
| B*39:14+B*44:51        | B*39:29+B*44:14        |                  |
| B*39:14+B*44:65        | B*39:70+B*44:54        |                  |
| B*39:14+B*44:107       | B*39:29+B*44:77        |                  |
| B*39:14+B*46:01:01G    | B*39:70+B*46:12        |                  |
| B*39:14+B*48:03:01     | B*39:70+B*48:01:01G    |                  |
| B*39:14+B*51:06:01     | B*39:70+B*51:64        |                  |
| B*39:14+B*51:37        | B*39:29+B*51:63        |                  |
| B*39:14+B*51:90        | B*39:29+B*51:01:01G    |                  |
| B*39:14+B*51:92        | B*39:29+B*51:13:01     |                  |
| B*39:14+B*51:135       | B*39:29+B*51:06:01     |                  |
| B*39:14+B*52:12        | B*39:29+B*52:01:01G    |                  |
| B*39:14+B*54:16        | B*39:29+B*54:01:01G    |                  |
| B*39:14+B*55:23        | B*39:29+B*55:32        |                  |
| B*39:14+B*55:46        | B*39:29+B*55:02:01G    |                  |
| B*39:14+B*58:16        | B*39:70+B*58:18        |                  |
| B*39:15+B*40:29        | B*39:66+B*40:18        |                  |
| B*39:15+B*40:73        | B*39:27+B*40:33        |                  |
| B*39:15+B*40:113       | B*39:48+B*40:33        |                  |
| B*39:15+B*40:148       | B*39:35+B*40:44        |                  |
| B*39:15+B*40:160       | B*39:42+B*40:33        |                  |
| B*39:15+B*40:171       | B*39:53+B*40:33        |                  |
| B*39:15+B*40:183       | B*39:35+B*40:33        |                  |
| B*39:15+B*41:02:01     | B*39:70+B*41:18        |                  |
| B*39:15+B*42:02        | B*39:31+B*42:16        |                  |
| B*39:15+B*51:01:04     | B*39:70+B*51:92        |                  |
| B*39:15+B*51:08        | B*39:55+B*51:20        |                  |
| B*39:15+B*51:95        | B*39:53+B*51:90        | B*39:57+B*51:135 |
| B*39:15+B*52:06:02     | B*39:22+B*51:90        |                  |
| B*39:15+B*52:23        | B*39:52+B*52:12        |                  |
| B*39:15+B*53:01:01     | B*39:55+B*53:23        |                  |
| B*39:15+B*54:03        | B*39:74+B*54:16        |                  |
| B*39:15+B*54:26        | B*39:47+B*54:16        |                  |
| B*39:15+B*55:01:01G    | B*39:35+B*55:46        |                  |
| B*39:15+B*55:16        | B*39:31+B*55:46        |                  |
| B*39:15+B*55:22        | B*39:47+B*55:46        |                  |
| B*39:15+B*55:31        | B*39:55+B*55:01:01G    |                  |
| B*39:15+B*56:01:01G    | B*39:74+B*55:46        |                  |
| B*39:15+B*56:34        | B*39:32+B*55:46        |                  |
| B*39:15+B*78:02:02     | B*39:55+B*78:01:01     |                  |
| B*39:18+B*51:01:01G    | B*39:35+B*51:61:01     |                  |
| B*39:18+B*51:115       | B*39:60+B*51:61:01     |                  |
| B*39:22+B*51:95        | B*39:53+B*52:06:02     |                  |
| B*39:22+B*55:03        | B*39:27+B*55:40        |                  |
| B*39:22+B*55:24        | B*39:47+B*55:40        |                  |
| B*39:22+B*55:36        | B*39:54+B*55:40        |                  |
| B*39:22+B*56:25        | B*39:74+B*55:40        |                  |
| B*39:23+B*39:55        | B*39:44+B*39:49        |                  |
| B*39:26+B*44:53        | B*39:68+B*44:112       |                  |
| B*39:26+B*44:55        | B*39:31+B*44:112       |                  |
| B*39:27+B*40:113       | B*39:48+B*40:73        |                  |
| B*39:27+B*40:160       | B*39:42+B*40:73        |                  |
| B*39:27+B*40:171       | B*39:53+B*40:73        |                  |
| B*39:27+B*40:183       | B*39:35+B*40:73        |                  |
| B*39:27+B*55:24        | B*39:47+B*55:03        |                  |
| B*39:27+B*55:36        | B*39:54+B*55:03        |                  |
| B*39:27+B*56:25        | B*39:74+B*55:03        |                  |
| B*39:29+B*40:11:01     | B*39:70+B*40:18        |                  |
| B*39:30+B*39:50        | B*39:34+B*39:47        |                  |
| B*39:30+B*39:57        | B*39:34+B*39:53        |                  |
| B*39:30+B*40:06:01G    | B*39:34+B*40:11:01     |                  |
| B*39:30+B*40:159       | B*39:34+B*40:20        |                  |
| B*39:30+B*44:20        | B*39:34+B*44:41:01     |                  |
| B*39:30+B*44:47        | B*39:34+B*44:65        |                  |
| B*39:30+B*44:146       | B*39:36+B*44:03:01G    |                  |
| B*39:30+B*46:01:01G    | B*39:36+B*46:13:03     |                  |



|                        |                     |                    |                 |
|------------------------|---------------------|--------------------|-----------------|
| B*39:30+B*46:01:03     | B*39:36+B*46:13:01  |                    |                 |
| B*39:30+B*46:29        | B*39:36+B*46:21:01  |                    |                 |
| B*39:30+B*46:32        | B*39:34+B*46:01:01G |                    |                 |
| B*39:30+B*51:02:01     | B*39:34+B*51:59     |                    |                 |
| B*39:30+B*51:61:02     | B*39:36+B*51:09:01  |                    |                 |
| B*39:30+B*51:90        | B*39:34+B*51:135    |                    |                 |
| B*39:30+B*55:02:01G    | B*39:34+B*56:10     |                    |                 |
| B*39:30+B*55:21        | B*39:36+B*55:02:01G |                    |                 |
| B*39:30+B*56:01:01G    | B*39:34+B*56:02     |                    |                 |
| B*39:30+B*56:27        | B*39:34+B*56:04     |                    |                 |
| B*39:31+B*44:53        | B*39:68+B*44:55     |                    |                 |
| B*39:31+B*46:07N       | B*39:40N+B*46:14    |                    |                 |
| B*39:31+B*55:01:01G    | B*39:35+B*55:16     |                    |                 |
| B*39:31+B*55:22        | B*39:47+B*55:16     |                    |                 |
| B*39:31+B*56:34        | B*39:32+B*55:16     |                    |                 |
| B*39:31+B*57:57        | B*39:35+B*57:39     |                    |                 |
| B*39:32+B*40:01:01G    | B*39:74+B*40:113    |                    |                 |
| B*39:32+B*40:05        | B*39:74+B*40:174    |                    |                 |
| B*39:32+B*40:199       | B*39:48+B*40:63     |                    |                 |
| B*39:32+B*44:04        | B*39:48+B*44:28:02  |                    |                 |
| B*39:32+B*44:132       | B*39:48+B*44:91     |                    |                 |
| B*39:32+B*45:08        | B*39:48+B*45:04     |                    |                 |
| B*39:32+B*46:18        | B*39:48+B*46:11     |                    |                 |
| B*39:32+B*46:21:01     | B*39:48+B*46:13:03  |                    |                 |
| B*39:32+B*46:21:02     | B*39:48+B*46:13:01  |                    |                 |
| B*39:32+B*46:29        | B*39:48+B*46:01:01G |                    |                 |
| B*39:32+B*49:01:01     | B*39:74+B*49:09     |                    |                 |
| B*39:32+B*49:07        | B*39:47+B*49:09     |                    |                 |
| B*39:32+B*51:02:01     | B*39:74+B*51:01:01G |                    |                 |
| B*39:32+B*51:02:02     | B*39:74+B*51:01:02  |                    |                 |
| B*39:32+B*51:02:03     | B*39:74+B*51:01:31  |                    |                 |
| B*39:32+B*51:02:04     | B*39:74+B*51:01:04  |                    |                 |
| B*39:32+B*51:21        | B*39:48+B*51:01:01G |                    |                 |
| B*39:32+B*51:34        | B*39:47+B*51:01:01G | B*39:50+B*51:06:01 | B*39:74+B*51:16 |
| B*39:32+B*51:36        | B*39:35+B*51:08     |                    |                 |
| B*39:32+B*51:59        | B*39:74+B*51:06:01  |                    |                 |
| B*39:32+B*52:11        | B*39:74+B*52:01:01G |                    |                 |
| B*39:32+B*53:01:01     | B*39:74+B*53:02     |                    |                 |
| B*39:32+B*54:01:01G    | B*39:48+B*54:03     |                    |                 |
| B*39:32+B*55:01:01G    | B*39:35+B*56:34     | B*39:48+B*56:25    |                 |
| B*39:32+B*55:13        | B*39:48+B*56:22     |                    |                 |
| B*39:32+B*55:22        | B*39:47+B*56:34     |                    |                 |
| B*39:32+B*56:01:01G    | B*39:74+B*56:34     |                    |                 |
| B*39:32+B*56:10        | B*39:48+B*56:02     |                    |                 |
| B*39:32+B*56:18        | B*39:74+B*56:31     |                    |                 |
| B*39:32+B*58:01:01G    | B*39:74+B*58:09     |                    |                 |
| B*39:32+B*58:37        | B*39:47+B*58:09     |                    |                 |
| B*39:32+B*59:01:01G    | B*39:48+B*59:04     |                    |                 |
| B*39:32+B*78:07        | B*39:48+B*78:01:01  |                    |                 |
| B*39:33+B*51:21        | B*39:34+B*51:29     |                    |                 |
| B*39:33+B*57:26        | B*39:34+B*57:19     |                    |                 |
| B*39:33+B*58:35        | B*39:34+B*58:22     |                    |                 |
| B*39:35+B*40:113       | B*39:48+B*40:183    |                    |                 |
| B*39:35+B*40:160       | B*39:42+B*40:183    |                    |                 |
| B*39:35+B*40:171       | B*39:53+B*40:183    |                    |                 |
| B*39:35+B*44:32        | B*39:66+B*44:79     |                    |                 |
| B*39:35+B*51:19        | B*39:74+B*51:101    |                    |                 |
| B*39:35+B*51:115       | B*39:60+B*51:01:01G |                    |                 |
| B*39:35+B*53:18        | B*39:61+B*53:08:01  |                    |                 |
| B*39:35+B*56:13        | B*39:74+B*55:56     |                    |                 |
| B*39:35+B*56:15        | B*39:74+B*55:28     |                    |                 |
| B*39:35+B*56:19N       | B*39:40N+B*56:25    |                    |                 |
| B*39:35+B*56:20:01     | B*39:68+B*56:25     |                    |                 |
| B*39:35+B*56:27        | B*39:74+B*55:38     |                    |                 |
| B*39:35+B*56:31        | B*39:48+B*56:32     |                    |                 |
| B*39:35+B*57:31        | B*39:68+B*57:22     |                    |                 |
| B*39:35+B*58:09        | B*39:48+B*58:19     |                    |                 |
| B*39:35+B*58:33        | B*39:61+B*58:19     |                    |                 |
| B*39:37+B*51:135       | B*39:55+B*51:64     |                    |                 |
| B*39:39:01+B*40:13     | B*39:58+B*40:19     |                    |                 |
| B*39:39:01+B*40:106    | B*39:58+B*40:25     |                    |                 |
| B*39:39:01+B*40:162    | B*39:58+B*40:06:01G |                    |                 |
| B*39:39:01+B*51:01:01G | B*39:58+B*51:07:01  |                    |                 |
| B*39:39:01+B*51:01:02  | B*39:58+B*51:07:02  |                    |                 |
| B*39:39:01+B*53:13     | B*39:58+B*53:09     |                    |                 |
| B*39:40N+B*56:20:01    | B*39:68+B*56:19N    |                    |                 |
| B*39:40N+B*56:34       | B*39:48+B*56:19N    |                    |                 |
| B*39:42+B*40:113       | B*39:48+B*40:160    |                    |                 |
| B*39:42+B*40:171       | B*39:53+B*40:160    |                    |                 |
| B*39:47+B*39:57        | B*39:50+B*39:53     |                    |                 |
| B*39:47+B*40:06:01G    | B*39:50+B*40:11:01  |                    |                 |
| B*39:47+B*40:63        | B*39:74+B*40:01:01G |                    |                 |
| B*39:47+B*40:159       | B*39:50+B*40:20     |                    |                 |
| B*39:47+B*44:02:01G    | B*39:74+B*44:21     |                    |                 |
| B*39:47+B*44:03:02     | B*39:74+B*44:124    |                    |                 |
| B*39:47+B*44:20        | B*39:50+B*44:41:01  |                    |                 |
| B*39:47+B*44:37:01     | B*39:74+B*44:64:02  |                    |                 |
| B*39:47+B*44:37:02     | B*39:74+B*44:64:01  |                    |                 |
| B*39:47+B*44:47        | B*39:50+B*44:65     |                    |                 |
| B*39:47+B*44:91        | B*39:74+B*44:16     |                    |                 |
| B*39:47+B*45:04        | B*39:74+B*45:10     |                    |                 |
| B*39:47+B*46:01:01G    | B*39:74+B*46:30     |                    |                 |
| B*39:47+B*46:32        | B*39:50+B*46:01:01G |                    |                 |
| B*39:47+B*49:01:01     | B*39:74+B*49:07     |                    |                 |
| B*39:47+B*51:02:01     | B*39:50+B*51:59     | B*39:74+B*51:34    |                 |
| B*39:47+B*51:09:01     | B*39:74+B*51:31     |                    |                 |
| B*39:47+B*51:29        | B*39:74+B*51:82     |                    |                 |
| B*39:47+B*51:90        | B*39:50+B*51:135    |                    |                 |
| B*39:47+B*52:01:01G    | B*39:74+B*52:08     |                    |                 |
| B*39:47+B*54:03        | B*39:74+B*54:26     |                    |                 |
| B*39:47+B*55:36        | B*39:54+B*55:24     |                    |                 |
| B*39:47+B*56:01:01G    | B*39:50+B*56:02     | B*39:74+B*55:22    |                 |
| B*39:47+B*56:25        | B*39:74+B*55:24     |                    |                 |
| B*39:47+B*56:27        | B*39:50+B*56:04     |                    |                 |
| B*39:47+B*57:01:01G    | B*39:74+B*57:25     |                    |                 |

|                         |                         |                        |                        |                  |
|-------------------------|-------------------------|------------------------|------------------------|------------------|
| B*39:47+B*58:01:01G     | B*39:74+B*58:37         |                        |                        |                  |
| B*39:48+B*40:92         | B*39:74+B*40:163        |                        |                        |                  |
| B*39:48+B*40:171        | B*39:53+B*40:113        |                        |                        |                  |
| B*39:48+B*49:16         | B*39:67+B*49:09         |                        |                        |                  |
| B*39:48+B*53:18         | B*39:61+B*53:02         |                        |                        |                  |
| B*39:48+B*56:20:01      | B*39:68+B*56:34         |                        |                        |                  |
| B*39:48+B*58:33         | B*39:61+B*58:09         |                        |                        |                  |
| B*39:49+B*40:166        | B*40:33+B*67:01:02      |                        |                        |                  |
| B*39:53+B*40:06:01G     | B*39:57+B*40:11:01      |                        |                        |                  |
| B*39:53+B*40:159        | B*39:57+B*40:20         |                        |                        |                  |
| B*39:53+B*44:20         | B*39:57+B*44:41:01      |                        |                        |                  |
| B*39:53+B*44:47         | B*39:57+B*44:65         |                        |                        |                  |
| B*39:53+B*46:32         | B*39:57+B*46:01:01G     |                        |                        |                  |
| B*39:53+B*51:02:01      | B*39:57+B*51:59         |                        |                        |                  |
| B*39:53+B*55:02:01G     | B*39:57+B*56:10         |                        |                        |                  |
| B*39:53+B*56:01:01G     | B*39:57+B*56:02         |                        |                        |                  |
| B*39:53+B*56:27         | B*39:57+B*56:04         |                        |                        |                  |
| B*39:54+B*56:25         | B*39:74+B*55:36         |                        |                        |                  |
| B*39:58+B*56:06         | B*67:01:01+B*78:01:01   |                        |                        |                  |
| B*40:01:01G+B*40:02:01G | B*40:11:01+B*40:80      |                        |                        |                  |
| B*40:01:01G+B*40:02:08  | B*40:01:17+B*40:02:01G  |                        |                        |                  |
| B*40:01:01G+B*40:02:09  | B*40:01:04+B*40:02:01G  | B*40:11:02+B*40:80     |                        |                  |
| B*40:01:01G+B*40:02:11  | B*40:01:10+B*40:02:01G  |                        |                        |                  |
| B*40:01:01G+B*40:03     | B*40:02:01G+B*40:52     | B*40:18+B*40:38        | B*40:20+B*40:80        | B*40:33+B*40:105 |
| B*40:01:01G+B*40:06:01G | B*40:53+B*40:74         |                        |                        |                  |
| B*40:01:01G+B*40:08     | B*40:02:01G+B*40:106    |                        |                        |                  |
| B*40:01:01G+B*40:09     | B*40:02:01G+B*40:42     | B*40:18+B*40:172       | B*40:33+B*40:89        |                  |
| B*40:01:01G+B*40:11:02  | B*40:01:04+B*40:11:01   |                        |                        |                  |
| B*40:01:01G+B*40:13     | B*40:07+B*40:19         |                        |                        |                  |
| B*40:01:01G+B*40:14:01  | B*40:72:01+B*40:114     |                        |                        |                  |
| B*40:01:01G+B*40:14:02  | B*40:01:14+B*40:14:03   |                        |                        |                  |
| B*40:01:01G+B*40:14:03  | B*40:72:02+B*40:114     |                        |                        |                  |
| B*40:01:01G+B*40:18     | B*40:02:01G+B*40:33     | B*40:11:01+B*40:31     |                        |                  |
| B*40:01:01G+B*40:19     | B*40:02:01G+B*40:117    |                        |                        |                  |
| B*40:01:01G+B*40:20     | B*40:11:01+B*40:52      |                        |                        |                  |
| B*40:01:01G+B*40:23     | B*40:114+B*40:198       |                        |                        |                  |
| B*40:01:01G+B*40:31     | B*40:33+B*40:80         |                        |                        |                  |
| B*40:01:01G+B*40:32     | B*40:16+B*40:33         |                        |                        |                  |
| B*40:01:01G+B*40:35     | B*40:02:01G+B*40:87:02  |                        |                        |                  |
| B*40:01:01G+B*40:39     | B*40:02:01G+B*40:199    |                        |                        |                  |
| B*40:01:01G+B*40:40     | B*40:02:01G+B*40:49     |                        |                        |                  |
| B*40:01:01G+B*40:42     | B*40:33+B*40:172        |                        |                        |                  |
| B*40:01:01G+B*40:44     | B*40:06:01G+B*40:33     |                        |                        |                  |
| B*40:01:01G+B*40:45     | B*40:80+B*40:114        |                        |                        |                  |
| B*40:01:01G+B*40:50     | B*40:02:01G+B*40:43     |                        |                        |                  |
| B*40:01:01G+B*40:52     | B*40:33+B*40:38         |                        |                        |                  |
| B*40:01:01G+B*40:64     | B*40:11:02+B*40:160     |                        |                        |                  |
| B*40:01:01G+B*40:68     | B*40:04+B*40:106        |                        |                        |                  |
| B*40:01:01G+B*40:86     | B*40:06:01G+B*40:36     |                        |                        |                  |
| B*40:01:01G+B*40:87:01  | B*40:01:14+B*40:87:02   |                        |                        |                  |
| B*40:01:01G+B*40:89     | B*40:02:01G+B*40:172    |                        |                        |                  |
| B*40:01:01G+B*40:93     | B*40:06:01G+B*40:46     |                        |                        |                  |
| B*40:01:01G+B*40:96     | B*40:06:01G+B*40:47     |                        |                        |                  |
| B*40:01:01G+B*40:98     | B*40:32+B*40:74         |                        |                        |                  |
| B*40:01:01G+B*40:105    | B*40:02:01G+B*40:38     |                        |                        |                  |
| B*40:01:01G+B*40:106    | B*40:07+B*40:25         |                        |                        |                  |
| B*40:01:01G+B*40:121    | B*40:14:01+B*40:87:02   |                        |                        |                  |
| B*40:01:01G+B*40:124:01 | B*40:01:04+B*40:124:02  |                        |                        |                  |
| B*40:01:01G+B*40:148    | B*40:06:01G+B*40:183    |                        |                        |                  |
| B*40:01:01G+B*40:157    | B*40:02:01G+B*40:47     |                        |                        |                  |
| B*40:01:01G+B*40:159    | B*40:06:01G+B*40:52     | B*40:38+B*40:44        |                        |                  |
| B*40:01:01G+B*40:161    | B*40:06:01G+B*40:198    | B*40:128+B*40:148      |                        |                  |
| B*40:01:01G+B*40:162    | B*40:06:01G+B*40:07     |                        |                        |                  |
| B*40:01:01G+B*40:174    | B*40:05+B*40:113        |                        |                        |                  |
| B*40:01:01G+B*40:180    | B*40:02:01G+B*40:124:02 |                        |                        |                  |
| B*40:01:01G+B*40:190    | B*40:06:01G+B*40:79     |                        |                        |                  |
| B*40:01:01G+B*40:198    | B*40:128+B*40:183       |                        |                        |                  |
| B*40:01:01G+B*40:205    | B*40:02:01G+B*40:182    |                        |                        |                  |
| B*40:01:01G+B*40:210    | B*40:49+B*40:74         |                        |                        |                  |
| B*40:01:01G+B*41:02:01  | B*40:80+B*41:03:02      | B*40:199+B*41:19       |                        |                  |
| B*40:01:01G+B*41:14     | B*40:79+B*41:01         |                        |                        |                  |
| B*40:01:01G+B*41:21     | B*40:33+B*41:01         |                        |                        |                  |
| B*40:01:01G+B*42:01:01  | B*40:49+B*42:02         | B*40:166+B*42:11       | B*41:03:02+B*81:01:01G |                  |
| B*40:01:01G+B*42:05:02  | B*40:01:24+B*42:05:01   |                        |                        |                  |
| B*40:01:01G+B*42:06     | B*40:36+B*42:01:01      |                        |                        |                  |
| B*40:01:01G+B*42:08     | B*40:130+B*42:05:02     |                        |                        |                  |
| B*40:01:01G+B*42:09     | B*40:52+B*42:02         |                        |                        |                  |
| B*40:01:01G+B*42:10     | B*40:49+B*42:17         | B*40:87:02+B*42:01:01  |                        |                  |
| B*40:01:01G+B*42:11     | B*41:02:01+B*48:03:01   | B*41:03:02+B*48:01:01G |                        |                  |
| B*40:01:01G+B*42:16     | B*40:33+B*42:01:01      |                        |                        |                  |
| B*40:01:01G+B*42:17     | B*40:87:02+B*42:02      |                        |                        |                  |
| B*40:01:01G+B*44:02:01G | B*40:42+B*44:14         | B*40:47+B*44:09        | B*40:49+B*44:55        | B*40:63+B*44:21  |
|                         | B*40:87:02+B*44:53      | B*40:132+B*44:91       | B*40:160+B*44:41:01    | B*40:172+B*44:51 |
| B*40:01:01G+B*44:02:07  | B*40:01:04+B*44:02:01G  | B*40:160+B*44:41:02    |                        |                  |
| B*40:01:01G+B*44:02:10  | B*40:01:11+B*44:02:01G  |                        |                        |                  |
| B*40:01:01G+B*44:03:01G | B*40:47+B*44:46         | B*40:132+B*44:37:01    | B*40:160+B*44:65       | B*40:172+B*44:45 |
| B*40:01:01G+B*44:03:02  | B*40:01:04+B*44:03:01G  | B*40:63+B*44:124       | B*40:132+B*44:37:02    |                  |
| B*40:01:01G+B*44:03:08  | B*40:01:10+B*44:03:01G  |                        |                        |                  |
| B*40:01:01G+B*44:03:15  | B*40:01:18+B*44:03:01G  |                        |                        |                  |
| B*40:01:01G+B*44:05:01  | B*40:132+B*44:42        | B*40:172+B*44:123      |                        |                  |
| B*40:01:01G+B*44:12     | B*40:25+B*44:02:01G     |                        |                        |                  |
| B*40:01:01G+B*44:17     | B*40:38+B*44:123        |                        |                        |                  |
| B*40:01:01G+B*44:18     | B*40:117+B*45:01:01G    |                        |                        |                  |
| B*40:01:01G+B*44:21     | B*40:132+B*44:16        |                        |                        |                  |
| B*40:01:01G+B*44:28:01  | B*40:01:04+B*44:28:02   | B*40:128+B*44:03:02    |                        |                  |
| B*40:01:01G+B*44:28:02  | B*40:128+B*44:03:01G    |                        |                        |                  |
| B*40:01:01G+B*44:30     | B*40:101+B*44:03:01G    |                        |                        |                  |
| B*40:01:01G+B*44:37:01  | B*40:63+B*44:64:02      |                        |                        |                  |
| B*40:01:01G+B*44:37:02  | B*40:01:04+B*44:37:01   | B*40:63+B*44:64:01     |                        |                  |
| B*40:01:01G+B*44:41:02  | B*40:01:04+B*44:41:01   |                        |                        |                  |
| B*40:01:01G+B*44:43:01  | B*40:38+B*44:107        | B*40:52+B*44:77        |                        |                  |
| B*40:01:01G+B*44:48     | B*40:125+B*44:02:01G    |                        |                        |                  |
| B*40:01:01G+B*44:50     | B*40:117+B*44:46        |                        |                        |                  |
| B*40:01:01G+B*44:51     | B*40:33+B*44:14         |                        |                        |                  |
| B*40:01:01G+B*44:54     | B*40:80+B*44:65         | B*40:172+B*44:135      |                        |                  |

|                         |                        |                         |                       |                       |
|-------------------------|------------------------|-------------------------|-----------------------|-----------------------|
| B*40:01:01G+B*44:64:01  | B*40:01:04+B*44:64:02  |                         |                       |                       |
| B*40:01:01G+B*44:68     | B*40:192+B*44:02:01G   |                         |                       |                       |
| B*40:01:01G+B*44:76     | B*40:128+B*44:79       | B*40:183+B*44:28:02     | B*40:198+B*44:03:01G  |                       |
| B*40:01:01G+B*44:79     | B*40:183+B*44:03:01G   |                         |                       |                       |
| B*40:01:01G+B*44:91     | B*40:63+B*44:16        |                         |                       |                       |
| B*40:01:01G+B*44:95     | B*40:117+B*44:09       |                         |                       |                       |
| B*40:01:01G+B*44:106    | B*40:80+B*44:41:01     |                         |                       |                       |
| B*40:01:01G+B*44:107    | B*40:33+B*44:77        |                         |                       |                       |
| B*40:01:01G+B*44:110    | B*40:80+B*44:03:01G    | B*40:160+B*44:54        |                       |                       |
| B*40:01:01G+B*44:117    | B*40:36+B*44:05:01     |                         |                       |                       |
| B*40:01:01G+B*44:122    | B*40:187+B*44:03:01G   |                         |                       |                       |
| B*40:01:01G+B*44:124    | B*40:132+B*44:64:01    |                         |                       |                       |
| B*40:01:01G+B*44:127    | B*40:207+B*44:02:01G   |                         |                       |                       |
| B*40:01:01G+B*44:130    | B*40:149+B*44:40       |                         |                       |                       |
| B*40:01:01G+B*44:132    | B*40:199+B*44:16       |                         |                       |                       |
| B*40:01:01G+B*44:144    | B*40:172+B*44:43:01    |                         |                       |                       |
| B*40:01:01G+B*44:148    | B*40:140+B*44:02:01G   |                         |                       |                       |
| B*40:01:01G+B*44:153    | B*40:30+B*44:65        |                         |                       |                       |
| B*40:01:01G+B*44:154    | B*40:147+B*44:03:01G   |                         |                       |                       |
| B*40:01:01G+B*45:01:01G | B*40:132+B*45:04       |                         |                       |                       |
| B*40:01:01G+B*45:04     | B*40:63+B*45:10        |                         |                       |                       |
| B*40:01:01G+B*45:08     | B*40:199+B*45:10       |                         |                       |                       |
| B*40:01:01G+B*46:01:01G | B*40:49+B*46:14        | B*40:63+B*46:30         | B*40:183+B*46:09      |                       |
| B*40:01:01G+B*46:01:06  | B*40:01:09+B*46:01:01G |                         |                       |                       |
| B*40:01:01G+B*46:01:07  | B*40:01:17+B*46:01:01G |                         |                       |                       |
| B*40:01:01G+B*46:03     | B*40:198+B*46:21:01    |                         |                       |                       |
| B*40:01:01G+B*46:08     | B*40:183+B*46:13:03    |                         |                       |                       |
| B*40:01:01G+B*46:12     | B*40:80+B*46:01:01G    |                         |                       |                       |
| B*40:01:01G+B*46:17     | B*40:132+B*46:01:01G   |                         |                       |                       |
| B*40:01:01G+B*46:29     | B*40:199+B*46:30       |                         |                       |                       |
| B*40:01:01G+B*47:01:01G | B*40:188+B*47:02       |                         |                       |                       |
| B*40:01:01G+B*47:06     | B*40:67+B*47:01:01G    |                         |                       |                       |
| B*40:01:01G+B*47:08     | B*40:199+B*47:01:01G   |                         |                       |                       |
| B*40:01:01G+B*48:01:01G | B*40:80+B*46:03:01     | B*40:210+B*48:22        |                       |                       |
| B*40:01:01G+B*48:03:02  | B*40:01:04+B*48:03:01  |                         |                       |                       |
| B*40:01:01G+B*48:06     | B*40:106+B*48:01:01G   |                         |                       |                       |
| B*40:01:01G+B*48:07     | B*40:36+B*48:01:01G    |                         |                       |                       |
| B*40:01:01G+B*48:08     | B*40:32+B*48:03:01     |                         |                       |                       |
| B*40:01:01G+B*48:10     | B*40:14:03+B*48:01:01G |                         |                       |                       |
| B*40:01:01G+B*48:12     | B*40:121+B*48:01:01G   |                         |                       |                       |
| B*40:01:01G+B*48:13     | B*40:14:03+B*48:04     |                         |                       |                       |
| B*40:01:01G+B*48:15     | B*40:183+B*48:01:01G   |                         |                       |                       |
| B*40:01:01G+B*48:23     | B*40:52+B*48:03:01     |                         |                       |                       |
| B*40:01:01G+B*48:25     | B*40:183+B*48:02:01    |                         |                       |                       |
| B*40:01:01G+B*49:01:01  | B*40:63+B*49:07        | B*40:117+B*50:01:01     | B*40:183+B*49:11      |                       |
| B*40:01:01G+B*49:02     | B*40:47+B*50:01:01     |                         |                       |                       |
| B*40:01:01G+B*49:09     | B*40:113+B*49:01:01    |                         |                       |                       |
| B*40:01:01G+B*49:10     | B*40:49+B*49:01:01     | B*40:117+B*50:13        |                       |                       |
| B*40:01:01G+B*49:17     | B*40:192+B*49:01:01    |                         |                       |                       |
| B*40:01:01G+B*49:18     | B*40:117+B*50:14       |                         |                       |                       |
| B*40:01:01G+B*49:20     | B*40:117+B*50:02       | B*40:132+B*49:01:01     |                       |                       |
| B*40:01:01G+B*50:01:01  | B*40:125+B*50:04       |                         |                       |                       |
| B*40:01:01G+B*50:02     | B*40:132+B*50:01:01    |                         |                       |                       |
| B*40:01:01G+B*50:06     | B*40:208+B*50:01:01    |                         |                       |                       |
| B*40:01:01G+B*50:13     | B*40:49+B*50:01:01     |                         |                       |                       |
| B*40:01:01G+B*50:15     | B*40:25+B*50:01:01     |                         |                       |                       |
| B*40:01:01G+B*51:01:01G | B*40:01:04+B*51:01:16  | B*40:01:06+B*51:01:04   | B*40:01:11+B*51:01:02 | B*40:01:14+B*51:01:21 |
|                         | B*40:07+B*51:07:01     | B*40:25+B*52:06:02      | B*40:63+B*51:16       | B*40:87:01+B*51:24:04 |
|                         | B*40:106+B*52:01:02    | B*40:113+B*51:02:01     | B*40:117+B*78:02:02   | B*40:183+B*51:09:01   |
| B*40:01:01G+B*51:01:02  | B*40:01:14+B*51:01:09  | B*40:07+B*51:07:02      | B*40:106+B*52:01:01G  | B*40:113+B*51:02:02   |
|                         | B*40:117+B*78:02:01    | B*40:183+B*51:09:02     |                       |                       |
| B*40:01:01G+B*51:01:03  | B*40:01:03+B*51:01:01G | B*40:106+B*52:01:09     |                       |                       |
| B*40:01:01G+B*51:01:04  | B*40:87:02+B*51:24:01  | B*40:113+B*51:02:04     |                       |                       |
| B*40:01:01G+B*51:01:12  | B*40:01:19+B*51:01:01G |                         |                       |                       |
| B*40:01:01G+B*51:01:13  | B*40:01:22+B*51:01:01G |                         |                       |                       |
| B*40:01:01G+B*51:01:21  | B*40:01:11+B*51:01:09  | B*40:87:02+B*51:24:04   |                       |                       |
| B*40:01:01G+B*51:01:24  | B*40:01:10+B*51:01:01G |                         |                       |                       |
| B*40:01:01G+B*51:01:25  | B*40:87:02+B*51:24:03  |                         |                       |                       |
| B*40:01:01G+B*51:01:31  | B*40:113+B*51:02:03    |                         |                       |                       |
| B*40:01:01G+B*51:01:33  | B*40:25+B*52:06:01     |                         |                       |                       |
| B*40:01:01G+B*51:02:01  | B*40:01:06+B*51:02:04  | B*40:01:11+B*51:02:02   | B*40:63+B*51:34       |                       |
| B*40:01:01G+B*51:02:02  | B*40:106+B*52:11       |                         |                       |                       |
| B*40:01:01G+B*51:02:05  | B*40:183+B*51:40       |                         |                       |                       |
| B*40:01:01G+B*51:04     | B*40:160+B*51:06:02    |                         |                       |                       |
| B*40:01:01G+B*51:06:01  | B*40:113+B*51:59       |                         |                       |                       |
| B*40:01:01G+B*51:06:02  | B*40:01:04+B*51:06:01  |                         |                       |                       |
| B*40:01:01G+B*51:07:01  | B*40:01:11+B*51:07:02  | B*40:25+B*52:01:02      |                       |                       |
| B*40:01:01G+B*51:07:02  | B*40:25+B*52:01:01G    |                         |                       |                       |
| B*40:01:01G+B*51:09:01  | B*40:01:11+B*51:09:02  | B*40:63+B*51:31         |                       |                       |
| B*40:01:01G+B*51:09:02  | B*40:106+B*52:10:01    |                         |                       |                       |
| B*40:01:01G+B*51:13:01  | B*40:36+B*51:01:04     |                         |                       |                       |
| B*40:01:01G+B*51:13:02  | B*40:01:06+B*51:13:01  | B*40:36+B*51:01:01G     |                       |                       |
| B*40:01:01G+B*51:16     | B*40:113+B*51:34       | B*40:183+B*51:31        |                       |                       |
| B*40:01:01G+B*51:20     | B*40:43+B*51:08        |                         |                       |                       |
| B*40:01:01G+B*51:21     | B*40:199+B*51:16       |                         |                       |                       |
| B*40:01:01G+B*51:23     | B*40:132+B*51:02:01    | B*40:183+B*51:108       |                       |                       |
| B*40:01:01G+B*51:24:03  | B*40:01:06+B*51:24:02  |                         |                       |                       |
| B*40:01:01G+B*51:29     | B*40:63+B*51:82        |                         |                       |                       |
| B*40:01:01G+B*51:37     | B*40:33+B*51:63        | B*40:128+B*51:01:01G    | B*40:198+B*51:09:01   |                       |
| B*40:01:01G+B*51:57     | B*40:74+B*51:01:01G    | B*40:38+B*51:90         | B*40:52+B*51:01:01G   |                       |
| B*40:01:01G+B*51:61:02  | B*40:106+B*52:21       |                         |                       |                       |
| B*40:01:01G+B*51:63     | B*40:38+B*51:01:01G    |                         |                       |                       |
| B*40:01:01G+B*51:64     | B*40:80+B*51:06:01     |                         |                       |                       |
| B*40:01:01G+B*51:67     | B*40:156+B*51:01:01G   |                         |                       |                       |
| B*40:01:01G+B*51:78:01  | B*40:01:11+B*51:78:02  | B*40:47+B*78:02:02      |                       |                       |
| B*40:01:01G+B*51:78:02  | B*40:47+B*78:02:01     | B*40:106+B*52:20        |                       |                       |
| B*40:01:01G+B*51:82     | B*40:128+B*51:16       | B*40:198+B*51:31        |                       |                       |
| B*40:01:01G+B*51:85     | B*40:124:01+B*51:01:16 | B*40:124:02+B*51:01:01G |                       |                       |
| B*40:01:01G+B*51:90     | B*40:33+B*51:01:01G    |                         |                       |                       |
| B*40:01:01G+B*51:92     | B*40:33+B*51:13:01     |                         |                       |                       |
| B*40:01:01G+B*51:95     | B*40:171+B*51:01:01G   |                         |                       |                       |
| B*40:01:01G+B*51:97     | B*40:38+B*51:08        |                         |                       |                       |
| B*40:01:01G+B*51:104    | B*40:106+B*52:02       |                         |                       |                       |
| B*40:01:01G+B*51:106    | B*40:48+B*51:01:01G    |                         |                       |                       |
| B*40:01:01G+B*51:109    | B*40:65+B*51:01:01G    |                         |                       |                       |

|                         |                        |                      |                       |                      |
|-------------------------|------------------------|----------------------|-----------------------|----------------------|
| B*40:01:01G+B*51:135    | B*40:33+B*51:06:01     |                      |                       |                      |
| B*40:01:01G+B*52:01:01G | B*40:01:06+B*52:01:05  | B*40:63+B*52:08      | B*40:113+B*52:11      | B*40:117+B*78:05     |
|                         | B*40:183+B*52:10:01    |                      |                       |                      |
| B*40:01:01G+B*52:01:02  | B*40:01:11+B*52:01:01G |                      |                       |                      |
| B*40:01:01G+B*52:01:04  | B*40:01:05+B*52:01:02  |                      |                       |                      |
| B*40:01:01G+B*52:01:07  | B*40:183+B*52:10:02    |                      |                       |                      |
| B*40:01:01G+B*52:01:09  | B*40:01:03+B*52:01:02  |                      |                       |                      |
| B*40:01:01G+B*52:06:02  | B*40:07+B*52:01:02     |                      |                       |                      |
| B*40:01:01G+B*52:12     | B*40:33+B*52:01:01G    |                      |                       |                      |
| B*40:01:01G+B*52:14     | B*40:36+B*52:01:05     |                      |                       |                      |
| B*40:01:01G+B*52:15     | B*40:132+B*52:01:01G   |                      |                       |                      |
| B*40:01:01G+B*52:20     | B*40:47+B*78:05        |                      |                       |                      |
| B*40:01:01G+B*52:24     | B*40:128+B*52:01:01G   | B*40:198+B*52:10:01  |                       |                      |
| B*40:01:01G+B*52:25     | B*40:48+B*52:01:05     |                      |                       |                      |
| B*40:01:01G+B*52:28     | B*40:67+B*52:01:01G    |                      |                       |                      |
| B*40:01:01G+B*53:16     | B*40:128+B*53:05       |                      |                       |                      |
| B*40:01:01G+B*54:01:01G | B*40:48+B*54:04        | B*40:199+B*54:26     |                       |                      |
| B*40:01:01G+B*54:03     | B*40:63+B*54:26        |                      |                       |                      |
| B*40:01:01G+B*54:10     | B*40:128+B*54:01:01G   |                      |                       |                      |
| B*40:01:01G+B*54:12     | B*40:117+B*54:01:01G   |                      |                       |                      |
| B*40:01:01G+B*54:14     | B*40:52+B*54:04        |                      |                       |                      |
| B*40:01:01G+B*54:16     | B*40:33+B*54:01:01G    |                      |                       |                      |
| B*40:01:01G+B*54:20     | B*40:183+B*54:10       | B*40:198+B*54:01:01G |                       |                      |
| B*40:01:01G+B*55:01:01G | B*40:25+B*55:40        | B*40:43+B*55:31      | B*40:48+B*55:28       | B*40:183+B*55:02:01G |
|                         | B*40:199+B*55:24       |                      |                       |                      |
| B*40:01:01G+B*55:01:04  | B*40:01:06+B*55:01:01G |                      |                       |                      |
| B*40:01:01G+B*55:02:01G | B*40:01:04+B*55:02:04  | B*40:49+B*55:16      | B*40:61+B*55:47       | B*40:199+B*55:22     |
| B*40:01:01G+B*55:03     | B*40:73+B*55:01:01G    |                      |                       |                      |
| B*40:01:01G+B*55:07     | B*40:208+B*55:02:01G   |                      |                       |                      |
| B*40:01:01G+B*55:09     | B*40:128+B*55:24       | B*40:198+B*55:22     |                       |                      |
| B*40:01:01G+B*55:14     | B*40:30+B*56:32        |                      |                       |                      |
| B*40:01:01G+B*55:23     | B*40:33+B*55:32        |                      |                       |                      |
| B*40:01:01G+B*55:24     | B*40:183+B*55:22       |                      |                       |                      |
| B*40:01:01G+B*55:37     | B*40:128+B*55:02:01G   |                      |                       |                      |
| B*40:01:01G+B*55:38     | B*40:48+B*55:17        |                      |                       |                      |
| B*40:01:01G+B*55:41     | B*40:172+B*55:02:01G   |                      |                       |                      |
| B*40:01:01G+B*55:46     | B*40:33+B*55:02:01G    |                      |                       |                      |
| B*40:01:01G+B*55:47     | B*40:25+B*55:34        |                      |                       |                      |
| B*40:01:01G+B*55:49     | B*40:73+B*55:04        |                      |                       |                      |
| B*40:01:01G+B*55:52     | B*40:128+B*55:01:01G   | B*40:183+B*55:37     | B*40:198+B*55:02:01G  | B*40:199+B*55:09     |
| B*40:01:01G+B*56:01:01G | B*40:48+B*56:15        | B*40:63+B*55:22      | B*40:87:02+B*56:20:01 |                      |
| B*40:01:01G+B*56:01:03  | B*40:87:01+B*56:20:02  |                      |                       |                      |
| B*40:01:01G+B*56:05:01  | B*40:01:11+B*56:05:02  |                      |                       |                      |
| B*40:01:01G+B*56:07     | B*40:47+B*56:01:01G    |                      |                       |                      |
| B*40:01:01G+B*56:21     | B*40:117+B*56:05:02    |                      |                       |                      |
| B*40:01:01G+B*56:22     | B*40:36+B*56:15        |                      |                       |                      |
| B*40:01:01G+B*56:25     | B*40:63+B*55:24        | B*40:183+B*56:01:01G |                       |                      |
| B*40:01:01G+B*56:31     | B*40:113+B*56:18       |                      |                       |                      |
| B*40:01:01G+B*56:32     | B*40:183+B*56:18       |                      |                       |                      |
| B*40:01:01G+B*56:34     | B*40:113+B*56:01:01G   |                      |                       |                      |
| B*40:01:01G+B*57:01:01G | B*40:01:14+B*57:01:07  | B*40:21+B*57:51      | B*40:52+B*57:03:01    | B*40:63+B*57:25      |
|                         | B*40:87:02+B*57:31     |                      |                       |                      |
| B*40:01:01G+B*57:01:05  | B*40:01:09+B*57:01:01G |                      |                       |                      |
| B*40:01:01G+B*57:01:06  | B*40:01:23+B*57:01:01G |                      |                       |                      |
| B*40:01:01G+B*57:02:01  | B*40:117+B*57:12       | B*40:128+B*57:03:01  |                       |                      |
| B*40:01:01G+B*57:03:01  | B*40:49+B*57:39        |                      |                       |                      |
| B*40:01:01G+B*57:07     | B*40:132+B*57:03:01    |                      |                       |                      |
| B*40:01:01G+B*57:10     | B*40:74+B*57:01:01G    |                      |                       |                      |
| B*40:01:01G+B*57:19     | B*40:52+B*57:02:01     | B*40:128+B*57:01:01G |                       |                      |
| B*40:01:01G+B*57:21     | B*40:139+B*57:01:01G   |                      |                       |                      |
| B*40:01:01G+B*57:22     | B*40:52+B*57:57        | B*40:183+B*57:01:01G |                       |                      |
| B*40:01:01G+B*57:23     | B*40:123+B*57:01:01G   |                      |                       |                      |
| B*40:01:01G+B*57:26     | B*40:199+B*57:25       |                      |                       |                      |
| B*40:01:01G+B*57:32     | B*40:124:02+B*57:03:01 |                      |                       |                      |
| B*40:01:01G+B*57:34     | B*40:156+B*57:01:01G   |                      |                       |                      |
| B*40:01:01G+B*57:41     | B*40:172+B*57:01:01G   |                      |                       |                      |
| B*40:01:01G+B*57:45     | B*40:10:02+B*57:51     |                      |                       |                      |
| B*40:01:01G+B*57:57     | B*40:183+B*57:03:01    |                      |                       |                      |
| B*40:01:01G+B*58:01:01G | B*40:63+B*58:37        |                      |                       |                      |
| B*40:01:01G+B*58:01:11  | B*40:01:23+B*58:01:01G |                      |                       |                      |
| B*40:01:01G+B*58:06     | B*40:183+B*58:02       |                      |                       |                      |
| B*40:01:01G+B*58:07     | B*40:132+B*58:02       |                      |                       |                      |
| B*40:01:01G+B*58:08:01  | B*40:01:11+B*58:08:02  |                      |                       |                      |
| B*40:01:01G+B*58:09     | B*40:113+B*58:01:01G   |                      |                       |                      |
| B*40:01:01G+B*58:14     | B*40:30+B*58:16        |                      |                       |                      |
| B*40:01:01G+B*58:18     | B*40:80+B*58:16        |                      |                       |                      |
| B*40:01:01G+B*58:19     | B*40:183+B*58:01:01G   |                      |                       |                      |
| B*40:01:01G+B*58:22     | B*40:128+B*58:01:01G   |                      |                       |                      |
| B*40:01:01G+B*58:35     | B*40:199+B*58:37       |                      |                       |                      |
| B*40:01:01G+B*67:01:01  | B*40:87:01+B*67:03     |                      |                       |                      |
| B*40:01:01G+B*73:02     | B*40:112+B*73:01       |                      |                       |                      |
| B*40:01:01G+B*78:01:01  | B*40:43+B*78:02:02     |                      |                       |                      |
| B*40:01:01G+B*78:02:01  | B*40:106+B*78:05       |                      |                       |                      |
| B*40:01:01G+B*78:02:02  | B*40:01:11+B*78:02:01  |                      |                       |                      |
| B*40:01:01G+B*81:01:01G | B*40:166+B*48:01:01G   |                      |                       |                      |
| B*40:01:03+B*51:01:12   | B*40:01:19+B*51:01:03  |                      |                       |                      |
| B*40:01:03+B*51:01:13   | B*40:01:22+B*51:01:03  |                      |                       |                      |
| B*40:01:03+B*51:01:24   | B*40:01:10+B*51:01:03  |                      |                       |                      |
| B*40:01:03+B*51:07:01   | B*40:25+B*52:01:09     |                      |                       |                      |
| B*40:01:03+B*51:13:02   | B*40:36+B*51:01:03     |                      |                       |                      |
| B*40:01:03+B*51:29      | B*40:128+B*51:01:03    |                      |                       |                      |
| B*40:01:03+B*51:37      | B*40:52+B*51:01:03     |                      |                       |                      |
| B*40:01:03+B*51:57      | B*40:74+B*51:01:03     |                      |                       |                      |
| B*40:01:03+B*51:63      | B*40:38+B*51:01:03     |                      |                       |                      |
| B*40:01:03+B*51:67      | B*40:156+B*51:01:03    |                      |                       |                      |
| B*40:01:03+B*51:85      | B*40:124:02+B*51:01:03 |                      |                       |                      |
| B*40:01:03+B*51:90      | B*40:33+B*51:01:03     |                      |                       |                      |
| B*40:01:03+B*51:95      | B*40:171+B*51:01:03    |                      |                       |                      |
| B*40:01:03+B*51:106     | B*40:48+B*51:01:03     |                      |                       |                      |
| B*40:01:03+B*51:109     | B*40:65+B*51:01:03     |                      |                       |                      |
| B*40:01:03+B*52:01:04   | B*40:01:05+B*52:01:09  |                      |                       |                      |
| B*40:01:03+B*52:06:02   | B*40:07+B*52:01:09     |                      |                       |                      |
| B*40:01:04+B*40:02:08   | B*40:01:17+B*40:02:09  |                      |                       |                      |
| B*40:01:04+B*40:02:11   | B*40:01:10+B*40:02:09  |                      |                       |                      |
| B*40:01:04+B*40:03      | B*40:02:09+B*40:52     |                      |                       |                      |

|                        |                         |                        |
|------------------------|-------------------------|------------------------|
| B*40:01:04+B*40:04     | B*40:64+B*40:125        |                        |
| B*40:01:04+B*40:08     | B*40:02:09+B*40:106     |                        |
| B*40:01:04+B*40:09     | B*40:02:09+B*40:42      |                        |
| B*40:01:04+B*40:18     | B*40:02:09+B*40:33      | B*40:11:02+B*40:31     |
| B*40:01:04+B*40:19     | B*40:02:09+B*40:117     |                        |
| B*40:01:04+B*40:20     | B*40:11:02+B*40:52      |                        |
| B*40:01:04+B*40:35     | B*40:02:09+B*40:87:02   |                        |
| B*40:01:04+B*40:39     | B*40:02:09+B*40:199     |                        |
| B*40:01:04+B*40:40     | B*40:02:09+B*40:49      |                        |
| B*40:01:04+B*40:50     | B*40:02:09+B*40:43      |                        |
| B*40:01:04+B*40:70     | B*40:06:01G+B*40:125    |                        |
| B*40:01:04+B*40:89     | B*40:02:09+B*40:172     |                        |
| B*40:01:04+B*40:105    | B*40:02:09+B*40:38      |                        |
| B*40:01:04+B*40:143    | B*40:02:01G+B*40:100    |                        |
| B*40:01:04+B*40:157    | B*40:02:09+B*40:47      |                        |
| B*40:01:04+B*40:180    | B*40:02:01G+B*40:124:01 | B*40:02:09+B*40:124:02 |
| B*40:01:04+B*40:205    | B*40:02:09+B*40:182     |                        |
| B*40:01:04+B*41:07     | B*40:125+B*41:01        |                        |
| B*40:01:04+B*42:11     | B*41:02:01+B*48:03:02   |                        |
| B*40:01:04+B*44:02:10  | B*40:01:11+B*44:02:07   |                        |
| B*40:01:04+B*44:03:08  | B*40:01:10+B*44:03:02   |                        |
| B*40:01:04+B*44:03:15  | B*40:01:18+B*44:03:02   |                        |
| B*40:01:04+B*44:12     | B*40:25+B*44:02:07      |                        |
| B*40:01:04+B*44:30     | B*40:101+B*44:03:02     |                        |
| B*40:01:04+B*44:48     | B*40:125+B*44:02:07     |                        |
| B*40:01:04+B*44:68     | B*40:192+B*44:02:07     |                        |
| B*40:01:04+B*44:76     | B*40:183+B*44:28:01     | B*40:198+B*44:03:02    |
| B*40:01:04+B*44:79     | B*40:183+B*44:03:02     |                        |
| B*40:01:04+B*44:106    | B*40:80+B*44:41:02      |                        |
| B*40:01:04+B*44:110    | B*40:80+B*44:03:02      |                        |
| B*40:01:04+B*44:122    | B*40:187+B*44:03:02     |                        |
| B*40:01:04+B*44:127    | B*40:207+B*44:02:07     |                        |
| B*40:01:04+B*44:148    | B*40:140+B*44:02:07     |                        |
| B*40:01:04+B*44:154    | B*40:147+B*44:03:02     |                        |
| B*40:01:04+B*48:01:01G | B*40:80+B*48:03:02      |                        |
| B*40:01:04+B*48:08     | B*40:32+B*48:03:02      |                        |
| B*40:01:04+B*48:23     | B*40:52+B*48:03:02      |                        |
| B*40:01:04+B*51:64     | B*40:80+B*51:06:02      |                        |
| B*40:01:04+B*51:85     | B*40:124:01+B*51:01:01G |                        |
| B*40:01:04+B*51:135    | B*40:33+B*51:06:02      |                        |
| B*40:01:04+B*55:01:01G | B*40:125+B*55:38        |                        |
| B*40:01:04+B*55:28     | B*40:125+B*55:17        |                        |
| B*40:01:04+B*56:01:01G | B*40:125+B*56:27        |                        |
| B*40:01:04+B*56:02     | B*40:125+B*56:04        |                        |
| B*40:01:04+B*57:32     | B*40:124:01+B*57:03:01  |                        |
| B*40:01:05+B*51:01:01G | B*40:106+B*52:01:04     |                        |
| B*40:01:05+B*51:07:01  | B*40:25+B*52:01:04      |                        |
| B*40:01:05+B*52:06:02  | B*40:07+B*52:01:04      |                        |
| B*40:01:06+B*44:05:01  | B*40:42+B*44:62         |                        |
| B*40:01:06+B*44:17     | B*40:52+B*44:62         |                        |
| B*40:01:06+B*44:123    | B*40:33+B*44:62         |                        |
| B*40:01:06+B*49:01:01  | B*40:48+B*49:18         |                        |
| B*40:01:06+B*50:01:01  | B*40:48+B*50:14         |                        |
| B*40:01:06+B*50:09     | B*40:36+B*50:14         |                        |
| B*40:01:06+B*51:24:01  | B*40:01:14+B*51:24:04   |                        |
| B*40:01:06+B*51:45     | B*40:38+B*51:135        | B*40:52+B*51:06:01     |
| B*40:01:06+B*51:62     | B*40:48+B*51:06:01      |                        |
| B*40:01:06+B*51:92     | B*40:33+B*51:13:02      | B*40:36+B*51:90        |
| B*40:01:06+B*52:14     | B*40:36+B*52:01:01G     |                        |
| B*40:01:06+B*52:25     | B*40:48+B*52:01:01G     |                        |
| B*40:01:06+B*53:06     | B*40:52+B*51:56:02      | B*40:59+B*51:06:01     |
| B*40:01:06+B*55:03     | B*40:73+B*55:01:04      |                        |
| B*40:01:06+B*55:52     | B*40:128+B*55:01:04     |                        |
| B*40:01:09+B*46:01:07  | B*40:01:17+B*46:01:06   |                        |
| B*40:01:09+B*46:12     | B*40:80+B*46:01:06      |                        |
| B*40:01:09+B*46:17     | B*40:132+B*46:01:06     |                        |
| B*40:01:09+B*57:01:06  | B*40:01:23+B*57:01:05   |                        |
| B*40:01:09+B*57:10     | B*40:74+B*57:01:05      |                        |
| B*40:01:09+B*57:19     | B*40:128+B*57:01:05     |                        |
| B*40:01:09+B*57:21     | B*40:139+B*57:01:05     |                        |
| B*40:01:09+B*57:22     | B*40:183+B*57:01:05     |                        |
| B*40:01:09+B*57:23     | B*40:123+B*57:01:05     |                        |
| B*40:01:09+B*57:34     | B*40:156+B*57:01:05     |                        |
| B*40:01:09+B*57:41     | B*40:172+B*57:01:05     |                        |
| B*40:01:10+B*40:02:08  | B*40:01:17+B*40:02:11   |                        |
| B*40:01:10+B*40:03     | B*40:02:11+B*40:52      |                        |
| B*40:01:10+B*40:08     | B*40:02:11+B*40:106     |                        |
| B*40:01:10+B*40:09     | B*40:02:11+B*40:42      |                        |
| B*40:01:10+B*40:18     | B*40:02:11+B*40:33      |                        |
| B*40:01:10+B*40:19     | B*40:02:11+B*40:117     |                        |
| B*40:01:10+B*40:35     | B*40:02:11+B*40:87:02   |                        |
| B*40:01:10+B*40:39     | B*40:02:11+B*40:199     |                        |
| B*40:01:10+B*40:40     | B*40:02:11+B*40:49      |                        |
| B*40:01:10+B*40:50     | B*40:02:11+B*40:43      |                        |
| B*40:01:10+B*40:89     | B*40:02:11+B*40:172     |                        |
| B*40:01:10+B*40:105    | B*40:02:11+B*40:38      |                        |
| B*40:01:10+B*40:157    | B*40:02:11+B*40:47      |                        |
| B*40:01:10+B*40:180    | B*40:02:11+B*40:124:02  |                        |
| B*40:01:10+B*40:205    | B*40:02:11+B*40:182     |                        |
| B*40:01:10+B*44:03:15  | B*40:01:18+B*44:03:08   |                        |
| B*40:01:10+B*44:28:02  | B*40:128+B*44:03:08     |                        |
| B*40:01:10+B*44:30     | B*40:101+B*44:03:08     |                        |
| B*40:01:10+B*44:76     | B*40:198+B*44:03:08     |                        |
| B*40:01:10+B*44:79     | B*40:183+B*44:03:08     |                        |
| B*40:01:10+B*44:110    | B*40:80+B*44:03:08      |                        |
| B*40:01:10+B*44:122    | B*40:187+B*44:03:08     |                        |
| B*40:01:10+B*44:154    | B*40:147+B*44:03:08     |                        |
| B*40:01:10+B*51:01:12  | B*40:01:19+B*51:01:24   |                        |
| B*40:01:10+B*51:01:13  | B*40:01:22+B*51:01:24   |                        |
| B*40:01:10+B*51:13:02  | B*40:36+B*51:01:24      |                        |
| B*40:01:10+B*51:29     | B*40:128+B*51:01:24     |                        |
| B*40:01:10+B*51:37     | B*40:52+B*51:01:24      |                        |
| B*40:01:10+B*51:57     | B*40:74+B*51:01:24      |                        |
| B*40:01:10+B*51:63     | B*40:38+B*51:01:24      |                        |
| B*40:01:10+B*51:67     | B*40:156+B*51:01:24     |                        |

|                        |                        |                     |
|------------------------|------------------------|---------------------|
| B*40:01:10+B*51:85     | B*40:124:02+B*51:01:24 |                     |
| B*40:01:10+B*51:90     | B*40:33+B*51:01:24     |                     |
| B*40:01:10+B*51:95     | B*40:171+B*51:01:24    |                     |
| B*40:01:10+B*51:106    | B*40:48+B*51:01:24     |                     |
| B*40:01:10+B*51:109    | B*40:65+B*51:01:24     |                     |
| B*40:01:11+B*44:12     | B*40:25+B*44:02:10     |                     |
| B*40:01:11+B*44:48     | B*40:125+B*44:02:10    |                     |
| B*40:01:11+B*44:68     | B*40:192+B*44:02:10    |                     |
| B*40:01:11+B*44:127    | B*40:207+B*44:02:10    |                     |
| B*40:01:11+B*44:148    | B*40:140+B*44:02:10    |                     |
| B*40:01:11+B*52:10:01  | B*40:113+B*52:03       |                     |
| B*40:01:11+B*52:11     | B*40:183+B*52:03       |                     |
| B*40:01:11+B*52:12     | B*40:33+B*52:01:02     |                     |
| B*40:01:11+B*52:15     | B*40:132+B*52:01:02    |                     |
| B*40:01:11+B*52:24     | B*40:128+B*52:01:02    |                     |
| B*40:01:11+B*52:28     | B*40:67+B*52:01:02     |                     |
| B*40:01:11+B*56:21     | B*40:117+B*56:05:01    |                     |
| B*40:01:14+B*40:35     | B*40:02:01G+B*40:87:01 |                     |
| B*40:01:14+B*40:121    | B*40:14:01+B*40:87:01  |                     |
| B*40:01:14+B*42:10     | B*40:87:01+B*42:01:01  |                     |
| B*40:01:14+B*42:17     | B*40:87:01+B*42:02     |                     |
| B*40:01:14+B*44:02:01G | B*40:87:01+B*44:53     |                     |
| B*40:01:14+B*48:10     | B*40:14:02+B*48:01:01G |                     |
| B*40:01:14+B*48:13     | B*40:14:02+B*48:04     |                     |
| B*40:01:14+B*51:01:04  | B*40:87:01+B*51:24:01  |                     |
| B*40:01:14+B*51:01:25  | B*40:87:01+B*51:24:03  | B*40:113+B*51:02:05 |
| B*40:01:14+B*54:01:01G | B*40:72:01+B*54:22     |                     |
| B*40:01:14+B*56:01:01G | B*40:87:01+B*56:20:01  |                     |
| B*40:01:14+B*57:01:01G | B*40:87:01+B*57:31     |                     |
| B*40:01:17+B*40:03     | B*40:02:08+B*40:52     |                     |
| B*40:01:17+B*40:08     | B*40:02:08+B*40:106    |                     |
| B*40:01:17+B*40:09     | B*40:02:08+B*40:42     |                     |
| B*40:01:17+B*40:18     | B*40:02:08+B*40:33     |                     |
| B*40:01:17+B*40:19     | B*40:02:08+B*40:117    |                     |
| B*40:01:17+B*40:35     | B*40:02:08+B*40:87:02  |                     |
| B*40:01:17+B*40:39     | B*40:02:08+B*40:199    |                     |
| B*40:01:17+B*40:40     | B*40:02:08+B*40:49     |                     |
| B*40:01:17+B*40:50     | B*40:02:08+B*40:43     |                     |
| B*40:01:17+B*40:89     | B*40:02:08+B*40:172    |                     |
| B*40:01:17+B*40:105    | B*40:02:08+B*40:38     |                     |
| B*40:01:17+B*40:157    | B*40:02:08+B*40:47     |                     |
| B*40:01:17+B*40:180    | B*40:02:08+B*40:124:02 |                     |
| B*40:01:17+B*40:205    | B*40:02:08+B*40:182    |                     |
| B*40:01:17+B*46:12     | B*40:80+B*46:01:07     |                     |
| B*40:01:17+B*46:17     | B*40:132+B*46:01:07    |                     |
| B*40:01:17+B*49:05     | B*40:172+B*49:04       |                     |
| B*40:01:17+B*55:23     | B*40:38+B*55:27        |                     |
| B*40:01:17+B*55:46     | B*40:48+B*55:27        |                     |
| B*40:01:18+B*44:28:02  | B*40:128+B*44:03:15    |                     |
| B*40:01:18+B*44:30     | B*40:101+B*44:03:15    |                     |
| B*40:01:18+B*44:76     | B*40:198+B*44:03:15    |                     |
| B*40:01:18+B*44:79     | B*40:183+B*44:03:15    |                     |
| B*40:01:18+B*44:110    | B*40:80+B*44:03:15     |                     |
| B*40:01:18+B*44:122    | B*40:187+B*44:03:15    |                     |
| B*40:01:18+B*44:154    | B*40:147+B*44:03:15    |                     |
| B*40:01:19+B*51:01:13  | B*40:01:22+B*51:01:12  |                     |
| B*40:01:19+B*51:13:02  | B*40:36+B*51:01:12     |                     |
| B*40:01:19+B*51:29     | B*40:128+B*51:01:12    |                     |
| B*40:01:19+B*51:37     | B*40:52+B*51:01:12     |                     |
| B*40:01:19+B*51:57     | B*40:74+B*51:01:12     |                     |
| B*40:01:19+B*51:63     | B*40:38+B*51:01:12     |                     |
| B*40:01:19+B*51:67     | B*40:156+B*51:01:12    |                     |
| B*40:01:19+B*51:85     | B*40:124:02+B*51:01:12 |                     |
| B*40:01:19+B*51:90     | B*40:33+B*51:01:12     |                     |
| B*40:01:19+B*51:95     | B*40:171+B*51:01:12    |                     |
| B*40:01:19+B*51:106    | B*40:48+B*51:01:12     |                     |
| B*40:01:19+B*51:109    | B*40:65+B*51:01:12     |                     |
| B*40:01:22+B*51:13:02  | B*40:36+B*51:01:13     |                     |
| B*40:01:22+B*51:29     | B*40:128+B*51:01:13    |                     |
| B*40:01:22+B*51:37     | B*40:52+B*51:01:13     |                     |
| B*40:01:22+B*51:57     | B*40:74+B*51:01:13     |                     |
| B*40:01:22+B*51:63     | B*40:38+B*51:01:13     |                     |
| B*40:01:22+B*51:67     | B*40:156+B*51:01:13    |                     |
| B*40:01:22+B*51:85     | B*40:124:02+B*51:01:13 |                     |
| B*40:01:22+B*51:90     | B*40:33+B*51:01:13     |                     |
| B*40:01:22+B*51:95     | B*40:171+B*51:01:13    |                     |
| B*40:01:22+B*51:106    | B*40:48+B*51:01:13     |                     |
| B*40:01:22+B*51:109    | B*40:65+B*51:01:13     |                     |
| B*40:01:23+B*57:10     | B*40:74+B*57:01:06     |                     |
| B*40:01:23+B*57:19     | B*40:128+B*57:01:06    |                     |
| B*40:01:23+B*57:21     | B*40:139+B*57:01:06    |                     |
| B*40:01:23+B*57:22     | B*40:183+B*57:01:06    |                     |
| B*40:01:23+B*57:23     | B*40:123+B*57:01:06    |                     |
| B*40:01:23+B*57:34     | B*40:156+B*57:01:06    |                     |
| B*40:01:23+B*57:41     | B*40:172+B*57:01:06    |                     |
| B*40:01:23+B*58:09     | B*40:113+B*58:01:11    |                     |
| B*40:01:23+B*58:19     | B*40:183+B*58:01:11    |                     |
| B*40:01:23+B*58:22     | B*40:128+B*58:01:11    |                     |
| B*40:02:01G+B*40:03    | B*40:18+B*40:105       |                     |
| B*40:02:01G+B*40:06:02 | B*40:02:07+B*40:06:01G |                     |
| B*40:02:01G+B*40:09    | B*40:18+B*40:89        |                     |
| B*40:02:01G+B*40:10:02 | B*40:02:04+B*40:10:01  |                     |
| B*40:02:01G+B*40:11:02 | B*40:02:09+B*40:11:01  |                     |
| B*40:02:01G+B*40:20    | B*40:03+B*40:11:01     |                     |
| B*40:02:01G+B*40:31    | B*40:18+B*40:80        |                     |
| B*40:02:01G+B*40:32    | B*40:16+B*40:18        |                     |
| B*40:02:01G+B*40:44    | B*40:06:01G+B*40:18    |                     |
| B*40:02:01G+B*40:68    | B*40:04+B*40:08        |                     |
| B*40:02:01G+B*40:96    | B*40:06:01G+B*40:157   |                     |
| B*40:02:01G+B*40:114   | B*40:11:01+B*40:45     |                     |
| B*40:02:01G+B*40:120   | B*40:24+B*40:64        |                     |
| B*40:02:01G+B*40:121   | B*40:14:01+B*40:35     |                     |
| B*40:02:01G+B*40:157   | B*40:37+B*40:201       |                     |
| B*40:02:01G+B*40:159   | B*40:03+B*40:06:01G    | B*40:44+B*40:105    |
| B*40:02:01G+B*40:210   | B*40:40+B*40:74        |                     |

|                         |                        |                        |                     |                    |
|-------------------------|------------------------|------------------------|---------------------|--------------------|
| B*40:02:01G+B*41:02:01  | B*40:39+B*41:19        |                        |                     |                    |
| B*40:02:01G+B*41:03:02  | B*40:11:01+B*41:02:01  |                        |                     |                    |
| B*40:02:01G+B*41:04     | B*40:24+B*41:02:01     |                        |                     |                    |
| B*40:02:01G+B*41:21     | B*40:18+B*41:01        |                        |                     |                    |
| B*40:02:01G+B*42:01:01  | B*40:40+B*42:02        |                        |                     |                    |
| B*40:02:01G+B*42:04     | B*40:06:01G+B*42:01:01 |                        |                     |                    |
| B*40:02:01G+B*42:09     | B*40:03+B*42:02        |                        |                     |                    |
| B*40:02:01G+B*42:10     | B*40:35+B*42:01:01     | B*40:40+B*42:17        |                     |                    |
| B*40:02:01G+B*42:13     | B*40:64+B*42:01:01     |                        |                     |                    |
| B*40:02:01G+B*42:15     | B*40:37+B*42:01:01     |                        |                     |                    |
| B*40:02:01G+B*42:16     | B*40:18+B*42:01:01     |                        |                     |                    |
| B*40:02:01G+B*42:17     | B*40:35+B*42:02        |                        |                     |                    |
| B*40:02:01G+B*44:02:01G | B*40:09+B*44:14        | B*40:35+B*44:53        | B*40:40+B*44:55     | B*40:89+B*44:51    |
|                         | B*40:157+B*44:09       |                        |                     |                    |
| B*40:02:01G+B*44:02:02  | B*40:02:03+B*44:02:01G |                        |                     |                    |
| B*40:02:01G+B*44:02:07  | B*40:02:09+B*44:02:01G | B*40:64+B*44:106       |                     |                    |
| B*40:02:01G+B*44:03:01G | B*40:11:01+B*44:110    | B*40:37+B*44:109       | B*40:89+B*44:45     | B*40:157+B*44:46   |
| B*40:02:01G+B*44:03:02  | B*40:02:09+B*44:03:01G | B*40:11:02+B*44:110    | B*40:64+B*44:54     |                    |
| B*40:02:01G+B*44:03:08  | B*40:02:11+B*44:03:01G |                        |                     |                    |
| B*40:02:01G+B*44:03:16  | B*40:02:05+B*44:03:01G |                        |                     |                    |
| B*40:02:01G+B*44:05:01  | B*40:89+B*44:123       | B*40:201+B*44:75       |                     |                    |
| B*40:02:01G+B*44:06     | B*44:131+B*51:81       |                        |                     |                    |
| B*40:02:01G+B*44:15     | B*40:201+B*45:01:01G   |                        |                     |                    |
| B*40:02:01G+B*44:17     | B*40:105+B*44:123      |                        |                     |                    |
| B*40:02:01G+B*44:18     | B*40:19+B*45:01:01G    |                        |                     |                    |
| B*40:02:01G+B*44:20     | B*40:06:01G+B*44:106   |                        |                     |                    |
| B*40:02:01G+B*44:28:01  | B*40:02:09+B*44:28:02  |                        |                     |                    |
| B*40:02:01G+B*44:32     | B*40:29+B*44:03:01G    |                        |                     |                    |
| B*40:02:01G+B*44:37:02  | B*40:02:09+B*44:37:01  |                        |                     |                    |
| B*40:02:01G+B*44:41:01  | B*40:11:01+B*44:106    |                        |                     |                    |
| B*40:02:01G+B*44:41:02  | B*40:02:09+B*44:41:01  | B*40:11:02+B*44:106    |                     |                    |
| B*40:02:01G+B*44:43:01  | B*40:03+B*44:77        | B*40:105+B*44:107      |                     |                    |
| B*40:02:01G+B*44:47     | B*40:06:01G+B*44:54    |                        |                     |                    |
| B*40:02:01G+B*44:48     | B*40:04+B*44:106       |                        |                     |                    |
| B*40:02:01G+B*44:50     | B*40:19+B*44:46        |                        |                     |                    |
| B*40:02:01G+B*44:51     | B*40:18+B*44:14        |                        |                     |                    |
| B*40:02:01G+B*44:54     | B*40:89+B*44:135       |                        |                     |                    |
| B*40:02:01G+B*44:64:01  | B*40:02:09+B*44:64:02  |                        |                     |                    |
| B*40:02:01G+B*44:65     | B*40:11:01+B*44:54     |                        |                     |                    |
| B*40:02:01G+B*44:69     | B*40:115+B*44:03:01G   |                        |                     |                    |
| B*40:02:01G+B*44:78     | B*40:107+B*44:05:01    |                        |                     |                    |
| B*40:02:01G+B*44:95     | B*40:19+B*44:09        |                        |                     |                    |
| B*40:02:01G+B*44:98     | B*40:202+B*44:03:01G   |                        |                     |                    |
| B*40:02:01G+B*44:107    | B*40:18+B*44:77        |                        |                     |                    |
| B*40:02:01G+B*44:109    | B*40:201+B*44:46       |                        |                     |                    |
| B*40:02:01G+B*44:120    | B*40:107+B*44:03:01G   |                        |                     |                    |
| B*40:02:01G+B*44:132    | B*40:39+B*44:16        |                        |                     |                    |
| B*40:02:01G+B*44:144    | B*40:89+B*44:43:01     |                        |                     |                    |
| B*40:02:01G+B*44:147    | B*40:90+B*44:03:01G    |                        |                     |                    |
| B*40:02:01G+B*45:08     | B*40:39+B*45:10        |                        |                     |                    |
| B*40:02:01G+B*46:01:01G | B*40:11:01+B*46:12     | B*40:40+B*46:14        |                     |                    |
| B*40:02:01G+B*46:01:07  | B*40:02:08+B*46:01:01G |                        |                     |                    |
| B*40:02:01G+B*46:27     | B*40:202+B*46:01:01G   |                        |                     |                    |
| B*40:02:01G+B*46:29     | B*40:39+B*46:30        |                        |                     |                    |
| B*40:02:01G+B*46:32     | B*40:06:01G+B*46:12    |                        |                     |                    |
| B*40:02:01G+B*47:08     | B*40:39+B*47:01:01G    |                        |                     |                    |
| B*40:02:01G+B*48:03:01  | B*40:11:01+B*48:01:01G | B*40:74+B*48:13        |                     |                    |
| B*40:02:01G+B*48:03:02  | B*40:02:09+B*48:03:01  | B*40:11:02+B*48:01:01G |                     |                    |
| B*40:02:01G+B*48:06     | B*40:08+B*48:01:01G    |                        |                     |                    |
| B*40:02:01G+B*48:08     | B*40:98+B*48:13        |                        |                     |                    |
| B*40:02:01G+B*48:23     | B*40:03+B*48:03:01     | B*40:20+B*48:01:01G    |                     |                    |
| B*40:02:01G+B*49:01:01  | B*40:19+B*50:01:01     |                        |                     |                    |
| B*40:02:01G+B*49:02     | B*40:157+B*50:01:01    |                        |                     |                    |
| B*40:02:01G+B*49:10     | B*40:19+B*50:13        | B*40:40+B*49:01:01     |                     |                    |
| B*40:02:01G+B*49:18     | B*40:19+B*50:14        |                        |                     |                    |
| B*40:02:01G+B*49:20     | B*40:19+B*50:02        |                        |                     |                    |
| B*40:02:01G+B*50:13     | B*40:40+B*50:01:01     |                        |                     |                    |
| B*40:02:01G+B*51:01:01G | B*40:02:09+B*51:01:16  | B*40:05+B*51:31        | B*40:06:01G+B*51:64 | B*40:08+B*52:01:02 |
|                         | B*40:19+B*78:02:02     |                        |                     |                    |
| B*40:02:01G+B*51:01:02  | B*40:08+B*52:01:01G    | B*40:19+B*78:02:01     |                     |                    |
| B*40:02:01G+B*51:01:03  | B*40:08+B*52:01:09     |                        |                     |                    |
| B*40:02:01G+B*51:01:04  | B*40:35+B*51:24:01     |                        |                     |                    |
| B*40:02:01G+B*51:01:14  | B*40:02:05+B*51:01:01G |                        |                     |                    |
| B*40:02:01G+B*51:01:21  | B*40:35+B*51:24:04     |                        |                     |                    |
| B*40:02:01G+B*51:01:24  | B*40:02:11+B*51:01:01G |                        |                     |                    |
| B*40:02:01G+B*51:01:25  | B*40:35+B*51:24:03     |                        |                     |                    |
| B*40:02:01G+B*51:02:02  | B*40:08+B*52:11        |                        |                     |                    |
| B*40:02:01G+B*51:04     | B*40:64+B*51:64        |                        |                     |                    |
| B*40:02:01G+B*51:06:01  | B*40:11:01+B*51:64     |                        |                     |                    |
| B*40:02:01G+B*51:06:02  | B*40:02:09+B*51:06:01  | B*40:11:02+B*51:64     |                     |                    |
| B*40:02:01G+B*51:09:02  | B*40:08+B*52:10:01     |                        |                     |                    |
| B*40:02:01G+B*51:10     | B*40:06:01G+B*51:81    |                        |                     |                    |
| B*40:02:01G+B*51:13:02  | B*40:86+B*51:64        |                        |                     |                    |
| B*40:02:01G+B*51:20     | B*40:50+B*51:08        |                        |                     |                    |
| B*40:02:01G+B*51:21     | B*40:39+B*51:16        |                        |                     |                    |
| B*40:02:01G+B*51:24:02  | B*40:174+B*51:10       |                        |                     |                    |
| B*40:02:01G+B*51:34     | B*40:95+B*51:81        |                        |                     |                    |
| B*40:02:01G+B*51:37     | B*40:03+B*51:01:01G    | B*40:18+B*51:63        | B*40:105+B*51:90    | B*40:159+B*51:64   |
| B*40:02:01G+B*51:61:02  | B*40:08+B*52:21        |                        |                     |                    |
| B*40:02:01G+B*51:63     | B*40:105+B*51:01:01G   |                        |                     |                    |
| B*40:02:01G+B*51:70     | B*40:107+B*51:01:01G   |                        |                     |                    |
| B*40:02:01G+B*51:78:01  | B*40:157+B*78:02:02    |                        |                     |                    |
| B*40:02:01G+B*51:78:02  | B*40:08+B*52:20        | B*40:157+B*78:02:01    |                     |                    |
| B*40:02:01G+B*51:85     | B*40:180+B*51:01:01G   |                        |                     |                    |
| B*40:02:01G+B*51:90     | B*40:18+B*51:01:01G    | B*40:44+B*51:64        |                     |                    |
| B*40:02:01G+B*51:92     | B*40:18+B*51:13:01     |                        |                     |                    |
| B*40:02:01G+B*51:97     | B*40:105+B*51:08       |                        |                     |                    |
| B*40:02:01G+B*51:104    | B*40:08+B*52:02        |                        |                     |                    |
| B*40:02:01G+B*51:122    | B*40:91+B*51:09:01     |                        |                     |                    |
| B*40:02:01G+B*51:135    | B*40:18+B*51:06:01     |                        |                     |                    |
| B*40:02:01G+B*52:01:01G | B*40:19+B*78:05        |                        |                     |                    |
| B*40:02:01G+B*52:01:02  | B*40:37+B*52:09        |                        |                     |                    |
| B*40:02:01G+B*52:12     | B*40:18+B*52:01:01G    |                        |                     |                    |
| B*40:02:01G+B*52:20     | B*40:157+B*78:05       | B*40:201+B*78:06       |                     |                    |
| B*40:02:01G+B*53:01:04  | B*40:02:10+B*53:01:01  |                        |                     |                    |

|                         |                       |                    |                 |
|-------------------------|-----------------------|--------------------|-----------------|
| B*40:02:01G+B*54:01:01G | B*40:39+B*54:26       |                    |                 |
| B*40:02:01G+B*54:12     | B*40:19+B*54:01:01G   |                    |                 |
| B*40:02:01G+B*54:14     | B*40:03+B*54:04       |                    |                 |
| B*40:02:01G+B*54:16     | B*40:18+B*54:01:01G   |                    |                 |
| B*40:02:01G+B*55:01:01G | B*40:39+B*55:24       | B*40:50+B*55:31    |                 |
| B*40:02:01G+B*55:02:01G | B*40:02:09+B*55:02:04 | B*40:39+B*55:22    | B*40:40+B*55:16 |
| B*40:02:01G+B*55:12     | B*40:37+B*55:02:01G   |                    |                 |
| B*40:02:01G+B*55:23     | B*40:18+B*55:32       |                    |                 |
| B*40:02:01G+B*55:29     | B*40:78+B*55:01:01G   |                    |                 |
| B*40:02:01G+B*55:41     | B*40:89+B*55:02:01G   |                    |                 |
| B*40:02:01G+B*55:46     | B*40:18+B*55:02:01G   |                    |                 |
| B*40:02:01G+B*55:50     | B*40:91+B*55:02:01G   |                    |                 |
| B*40:02:01G+B*55:52     | B*40:39+B*55:09       |                    |                 |
| B*40:02:01G+B*56:01:01G | B*40:35+B*56:20:01    |                    |                 |
| B*40:02:01G+B*56:07     | B*40:157+B*56:01:01G  |                    |                 |
| B*40:02:01G+B*56:21     | B*40:19+B*56:05:02    |                    |                 |
| B*40:02:01G+B*56:25     | B*40:05+B*55:22       |                    |                 |
| B*40:02:01G+B*56:29     | B*40:145+B*56:01:01G  |                    |                 |
| B*40:02:01G+B*57:01:01G | B*40:02:04+B*57:01:09 | B*40:03+B*57:03:01 | B*40:35+B*57:31 |
| B*40:02:01G+B*57:02:01  | B*40:19+B*57:12       |                    |                 |
| B*40:02:01G+B*57:03:01  | B*40:40+B*57:39       |                    |                 |
| B*40:02:01G+B*57:03:02  | B*40:02:07+B*57:03:01 |                    |                 |
| B*40:02:01G+B*57:06     | B*40:85+B*57:01:01G   |                    |                 |
| B*40:02:01G+B*57:19     | B*40:03+B*57:02:01    |                    |                 |
| B*40:02:01G+B*57:22     | B*40:03+B*57:57       | B*40:05+B*57:25    |                 |
| B*40:02:01G+B*57:26     | B*40:39+B*57:25       |                    |                 |
| B*40:02:01G+B*57:32     | B*40:180+B*57:03:01   |                    |                 |
| B*40:02:01G+B*57:41     | B*40:89+B*57:01:01G   |                    |                 |
| B*40:02:01G+B*58:01:01G | B*40:64+B*58:18       |                    |                 |
| B*40:02:01G+B*58:16     | B*40:11:01+B*58:18    |                    |                 |
| B*40:02:01G+B*58:19     | B*40:05+B*58:37       |                    |                 |
| B*40:02:01G+B*58:20     | B*40:184+B*58:27      |                    |                 |
| B*40:02:01G+B*58:23     | B*40:78+B*58:01:01G   |                    |                 |
| B*40:02:01G+B*58:35     | B*40:39+B*58:37       |                    |                 |
| B*40:02:01G+B*78:01:01  | B*40:50+B*78:02:02    |                    |                 |
| B*40:02:01G+B*78:02:01  | B*40:08+B*78:05       |                    |                 |
| B*40:02:01G+B*78:06     | B*40:37+B*78:05       |                    |                 |
| B*40:02:03+B*44:02:07   | B*40:02:09+B*44:02:02 |                    |                 |
| B*40:02:05+B*44:03:02   | B*40:02:09+B*44:03:16 |                    |                 |
| B*40:02:05+B*44:03:08   | B*40:02:11+B*44:03:16 |                    |                 |
| B*40:02:05+B*44:32      | B*40:29+B*44:03:16    |                    |                 |
| B*40:02:05+B*44:69      | B*40:115+B*44:03:16   |                    |                 |
| B*40:02:05+B*44:98      | B*40:202+B*44:03:16   |                    |                 |
| B*40:02:05+B*44:120     | B*40:107+B*44:03:16   |                    |                 |
| B*40:02:05+B*44:147     | B*40:90+B*44:03:16    |                    |                 |
| B*40:02:05+B*51:01:24   | B*40:02:11+B*51:01:14 |                    |                 |
| B*40:02:05+B*51:37      | B*40:03+B*51:01:14    |                    |                 |
| B*40:02:05+B*51:63      | B*40:105+B*51:01:14   |                    |                 |
| B*40:02:05+B*51:70      | B*40:107+B*51:01:14   |                    |                 |
| B*40:02:05+B*51:85      | B*40:180+B*51:01:14   |                    |                 |
| B*40:02:05+B*51:90      | B*40:18+B*51:01:14    |                    |                 |
| B*40:02:07+B*40:44      | B*40:06:02+B*40:18    |                    |                 |
| B*40:02:07+B*40:96      | B*40:06:02+B*40:157   |                    |                 |
| B*40:02:07+B*40:159     | B*40:03+B*40:06:02    |                    |                 |
| B*40:02:07+B*42:04      | B*40:06:02+B*42:01:01 |                    |                 |
| B*40:02:07+B*44:20      | B*40:06:02+B*44:106   |                    |                 |
| B*40:02:07+B*44:47      | B*40:06:02+B*44:54    |                    |                 |
| B*40:02:07+B*46:32      | B*40:06:02+B*46:12    |                    |                 |
| B*40:02:07+B*51:01:01G  | B*40:06:02+B*51:64    |                    |                 |
| B*40:02:07+B*51:10      | B*40:06:02+B*51:81    |                    |                 |
| B*40:02:07+B*57:01:01G  | B*40:03+B*57:03:02    |                    |                 |
| B*40:02:07+B*57:32      | B*40:180+B*57:03:02   |                    |                 |
| B*40:02:08+B*46:27      | B*40:202+B*46:01:07   |                    |                 |
| B*40:02:08+B*49:05      | B*40:89+B*49:04       |                    |                 |
| B*40:02:08+B*55:23      | B*40:105+B*55:27      |                    |                 |
| B*40:02:09+B*40:20      | B*40:03+B*40:11:02    |                    |                 |
| B*40:02:09+B*40:114     | B*40:11:02+B*40:45    |                    |                 |
| B*40:02:09+B*40:160     | B*40:64+B*40:80       |                    |                 |
| B*40:02:09+B*41:03:02   | B*40:11:02+B*41:02:01 |                    |                 |
| B*40:02:09+B*44:03:08   | B*40:02:11+B*44:03:02 |                    |                 |
| B*40:02:09+B*44:32      | B*40:29+B*44:03:02    |                    |                 |
| B*40:02:09+B*44:45      | B*40:64+B*44:135      |                    |                 |
| B*40:02:09+B*44:65      | B*40:11:02+B*44:54    |                    |                 |
| B*40:02:09+B*44:69      | B*40:115+B*44:03:02   |                    |                 |
| B*40:02:09+B*44:79      | B*40:05+B*44:124      |                    |                 |
| B*40:02:09+B*44:98      | B*40:202+B*44:03:02   |                    |                 |
| B*40:02:09+B*44:120     | B*40:107+B*44:03:02   |                    |                 |
| B*40:02:09+B*44:147     | B*40:90+B*44:03:02    |                    |                 |
| B*40:02:09+B*46:01:01G  | B*40:11:02+B*46:12    |                    |                 |
| B*40:02:09+B*48:23      | B*40:03+B*48:03:02    |                    |                 |
| B*40:02:09+B*51:56:01   | B*40:04+B*51:64       | B*40:28+B*51:81    |                 |
| B*40:02:09+B*51:135     | B*40:18+B*51:06:02    |                    |                 |
| B*40:02:09+B*58:16      | B*40:11:02+B*58:18    |                    |                 |
| B*40:02:10+B*53:23      | B*40:50+B*53:01:04    |                    |                 |
| B*40:02:11+B*44:32      | B*40:29+B*44:03:08    |                    |                 |
| B*40:02:11+B*44:69      | B*40:115+B*44:03:08   |                    |                 |
| B*40:02:11+B*44:98      | B*40:202+B*44:03:08   |                    |                 |
| B*40:02:11+B*44:120     | B*40:107+B*44:03:08   |                    |                 |
| B*40:02:11+B*44:147     | B*40:90+B*44:03:08    |                    |                 |
| B*40:02:11+B*51:37      | B*40:03+B*51:01:24    |                    |                 |
| B*40:02:11+B*51:63      | B*40:105+B*51:01:24   |                    |                 |
| B*40:02:11+B*51:70      | B*40:107+B*51:01:24   |                    |                 |
| B*40:02:11+B*51:85      | B*40:180+B*51:01:24   |                    |                 |
| B*40:02:11+B*51:90      | B*40:18+B*51:01:24    |                    |                 |
| B*40:03+B*40:16         | B*40:32+B*40:105      |                    |                 |
| B*40:03+B*40:33         | B*40:18+B*40:52       | B*40:20+B*40:31    |                 |
| B*40:03+B*40:38         | B*40:52+B*40:105      |                    |                 |
| B*40:03+B*40:42         | B*40:09+B*40:52       |                    |                 |
| B*40:03+B*40:43         | B*40:50+B*40:52       |                    |                 |
| B*40:03+B*40:44         | B*40:18+B*40:159      |                    |                 |
| B*40:03+B*40:47         | B*40:52+B*40:157      |                    |                 |
| B*40:03+B*40:49         | B*40:40+B*40:52       |                    |                 |
| B*40:03+B*40:80         | B*40:31+B*40:105      |                    |                 |
| B*40:03+B*40:87:02      | B*40:35+B*40:52       |                    |                 |
| B*40:03+B*40:89         | B*40:09+B*40:105      |                    |                 |



|                        |                        |                    |                 |
|------------------------|------------------------|--------------------|-----------------|
| B*40:03+B*40:96        | B*40:157+B*40:159      |                    |                 |
| B*40:03+B*40:106       | B*40:08+B*40:52        |                    |                 |
| B*40:03+B*40:114       | B*40:20+B*40:45        |                    |                 |
| B*40:03+B*40:117       | B*40:19+B*40:52        |                    |                 |
| B*40:03+B*40:124:02    | B*40:52+B*40:180       |                    |                 |
| B*40:03+B*40:172       | B*40:09+B*40:38        | B*40:42+B*40:105   | B*40:52+B*40:89 |
| B*40:03+B*40:182       | B*40:52+B*40:205       |                    |                 |
| B*40:03+B*40:199       | B*40:39+B*40:52        |                    |                 |
| B*40:03+B*41:01        | B*40:105+B*41:21       |                    |                 |
| B*40:03+B*41:03:02     | B*40:20+B*41:02:01     |                    |                 |
| B*40:03+B*42:01:01     | B*40:40+B*42:09        | B*40:105+B*42:16   |                 |
| B*40:03+B*42:04        | B*40:159+B*42:01:01    |                    |                 |
| B*40:03+B*42:17        | B*40:35+B*42:09        |                    |                 |
| B*40:03+B*44:03:01G    | B*40:20+B*44:110       |                    |                 |
| B*40:03+B*44:05:01     | B*40:09+B*44:17        |                    |                 |
| B*40:03+B*44:14        | B*40:105+B*44:51       |                    |                 |
| B*40:03+B*44:20        | B*40:159+B*44:106      |                    |                 |
| B*40:03+B*44:41:01     | B*40:20+B*44:106       |                    |                 |
| B*40:03+B*44:47        | B*40:159+B*44:54       |                    |                 |
| B*40:03+B*44:65        | B*40:20+B*44:54        |                    |                 |
| B*40:03+B*44:107       | B*40:18+B*44:43:01     |                    |                 |
| B*40:03+B*44:123       | B*40:18+B*44:17        |                    |                 |
| B*40:03+B*46:01:01G    | B*40:20+B*46:12        |                    |                 |
| B*40:03+B*46:32        | B*40:159+B*46:12       |                    |                 |
| B*40:03+B*51:06:01     | B*40:20+B*51:64        | B*40:105+B*51:135  |                 |
| B*40:03+B*51:08        | B*40:18+B*51:97        |                    |                 |
| B*40:03+B*51:10        | B*40:159+B*51:81       |                    |                 |
| B*40:03+B*51:13:01     | B*40:105+B*51:92       |                    |                 |
| B*40:03+B*51:63        | B*40:105+B*51:37       |                    |                 |
| B*40:03+B*51:70        | B*40:107+B*51:37       |                    |                 |
| B*40:03+B*51:85        | B*40:180+B*51:37       |                    |                 |
| B*40:03+B*51:90        | B*40:18+B*51:37        |                    |                 |
| B*40:03+B*52:01:01G    | B*40:105+B*52:12       |                    |                 |
| B*40:03+B*54:01:01G    | B*40:105+B*54:16       |                    |                 |
| B*40:03+B*55:02:01G    | B*40:105+B*55:46       |                    |                 |
| B*40:03+B*55:32        | B*40:105+B*55:23       |                    |                 |
| B*40:03+B*57:32        | B*40:180+B*57:01:01G   |                    |                 |
| B*40:03+B*58:16        | B*40:20+B*58:18        |                    |                 |
| B*40:04+B*40:06:01G    | B*40:64+B*40:70        |                    |                 |
| B*40:04+B*40:49        | B*40:74+B*40:129       |                    |                 |
| B*40:04+B*40:110       | B*40:96+B*40:129       |                    |                 |
| B*40:04+B*41:01        | B*40:64+B*41:07        |                    |                 |
| B*40:04+B*42:04        | B*40:70+B*42:13        |                    |                 |
| B*40:04+B*44:02:07     | B*40:64+B*44:48        |                    |                 |
| B*40:04+B*44:03:01G    | B*40:129+B*44:103      |                    |                 |
| B*40:04+B*44:09        | B*40:129+B*44:131      |                    |                 |
| B*40:04+B*44:20        | B*40:06:01G+B*44:48    | B*40:70+B*44:02:07 |                 |
| B*40:04+B*44:41:01     | B*40:11:01+B*44:48     |                    |                 |
| B*40:04+B*44:41:02     | B*40:11:02+B*44:48     |                    |                 |
| B*40:04+B*44:47        | B*40:70+B*44:03:02     |                    |                 |
| B*40:04+B*48:06        | B*40:68+B*48:01:01G    |                    |                 |
| B*40:04+B*51:01:01G    | B*40:28+B*51:10        | B*40:68+B*52:01:02 | B*40:70+B*51:04 |
| B*40:04+B*51:01:02     | B*40:68+B*52:01:01G    |                    |                 |
| B*40:04+B*51:01:03     | B*40:68+B*52:01:09     |                    |                 |
| B*40:04+B*51:01:16     | B*40:06:01G+B*51:56:01 |                    |                 |
| B*40:04+B*51:02:02     | B*40:68+B*52:11        |                    |                 |
| B*40:04+B*51:06:01     | B*40:11:02+B*51:56:01  |                    |                 |
| B*40:04+B*51:09:02     | B*40:68+B*52:10:01     |                    |                 |
| B*40:04+B*51:61:02     | B*40:68+B*52:21        |                    |                 |
| B*40:04+B*51:78:02     | B*40:68+B*52:20        |                    |                 |
| B*40:04+B*51:104       | B*40:68+B*52:02        |                    |                 |
| B*40:04+B*53:01:01     | B*40:68+B*53:17:02     |                    |                 |
| B*40:04+B*54:01:01G    | B*40:129+B*54:02       |                    |                 |
| B*40:04+B*55:17        | B*40:64+B*55:28        |                    |                 |
| B*40:04+B*55:38        | B*40:64+B*55:01:01G    |                    |                 |
| B*40:04+B*56:01:01G    | B*40:129+B*56:35       |                    |                 |
| B*40:04+B*56:04        | B*40:64+B*56:02        |                    |                 |
| B*40:04+B*56:27        | B*40:64+B*56:01:01G    |                    |                 |
| B*40:04+B*58:16        | B*40:99+B*58:26        |                    |                 |
| B*40:04+B*78:02:01     | B*40:68+B*78:05        |                    |                 |
| B*40:05+B*44:04        | B*40:39+B*44:76        |                    |                 |
| B*40:05+B*46:21:01     | B*40:39+B*46:08        |                    |                 |
| B*40:05+B*49:09        | B*40:174+B*49:01:01    |                    |                 |
| B*40:05+B*51:01:01G    | B*40:174+B*51:02:01    |                    |                 |
| B*40:05+B*51:01:02     | B*40:174+B*51:02:02    |                    |                 |
| B*40:05+B*51:01:04     | B*40:174+B*51:02:04    |                    |                 |
| B*40:05+B*51:01:31     | B*40:174+B*51:02:03    |                    |                 |
| B*40:05+B*51:06:01     | B*40:174+B*51:59       |                    |                 |
| B*40:05+B*51:16        | B*40:148+B*51:64       | B*40:174+B*51:34   |                 |
| B*40:05+B*51:82        | B*40:161+B*51:64       |                    |                 |
| B*40:05+B*51:93        | B*40:91+B*51:02:02     |                    |                 |
| B*40:05+B*52:01:01G    | B*40:174+B*52:11       |                    |                 |
| B*40:05+B*53:02        | B*40:174+B*53:01:01    |                    |                 |
| B*40:05+B*55:02:01G    | B*40:39+B*56:25        |                    |                 |
| B*40:05+B*56:31        | B*40:174+B*56:18       |                    |                 |
| B*40:05+B*56:34        | B*40:174+B*56:01:01G   |                    |                 |
| B*40:05+B*57:26        | B*40:39+B*57:22        |                    |                 |
| B*40:05+B*58:09        | B*40:174+B*58:01:01G   |                    |                 |
| B*40:05+B*58:35        | B*40:39+B*58:19        |                    |                 |
| B*40:06:01G+B*40:09    | B*40:44+B*40:89        |                    |                 |
| B*40:06:01G+B*40:13    | B*40:19+B*40:162       |                    |                 |
| B*40:06:01G+B*40:14:01 | B*40:06:05+B*40:14:03  |                    |                 |
| B*40:06:01G+B*40:19    | B*40:37+B*40:109       |                    |                 |
| B*40:06:01G+B*40:20    | B*40:11:01+B*40:159    |                    |                 |
| B*40:06:01G+B*40:23    | B*40:114+B*40:161      |                    |                 |
| B*40:06:01G+B*40:31    | B*40:44+B*40:80        |                    |                 |
| B*40:06:01G+B*40:32    | B*40:16+B*40:44        | B*40:53+B*40:98    |                 |
| B*40:06:01G+B*40:42    | B*40:44+B*40:172       |                    |                 |
| B*40:06:01G+B*40:49    | B*40:53+B*40:210       |                    |                 |
| B*40:06:01G+B*40:72:01 | B*40:06:05+B*40:72:02  |                    |                 |
| B*40:06:01G+B*40:106   | B*40:25+B*40:162       |                    |                 |
| B*40:06:01G+B*41:07    | B*40:70+B*41:01        |                    |                 |
| B*40:06:01G+B*41:14    | B*40:190+B*41:01       |                    |                 |
| B*40:06:01G+B*41:21    | B*40:44+B*41:01        |                    |                 |
| B*40:06:01G+B*42:06    | B*40:86+B*42:01:01     |                    |                 |

|                         |                        |                       |                     |                     |
|-------------------------|------------------------|-----------------------|---------------------|---------------------|
| B*40:06:01G+B*42:09     | B*40:159+B*42:02       |                       |                     |                     |
| B*40:06:01G+B*42:10     | B*40:35+B*42:04        |                       |                     |                     |
| B*40:06:01G+B*42:13     | B*40:64+B*42:04        |                       |                     |                     |
| B*40:06:01G+B*42:15     | B*40:37+B*42:04        |                       |                     |                     |
| B*40:06:01G+B*42:16     | B*40:18+B*42:04        | B*40:44+B*42:01:01    |                     |                     |
| B*40:06:01G+B*44:02:01G | B*40:96+B*44:09        | B*40:110+B*44:131     |                     |                     |
| B*40:06:01G+B*44:02:07  | B*40:64+B*44:20        |                       |                     |                     |
| B*40:06:01G+B*44:03:01G | B*40:06:05+B*44:03:14  | B*40:96+B*44:46       |                     |                     |
| B*40:06:01G+B*44:03:02  | B*40:64+B*44:47        |                       |                     |                     |
| B*40:06:01G+B*44:06     | B*44:131+B*51:10       |                       |                     |                     |
| B*40:06:01G+B*44:25     | B*40:109+B*44:75       |                       |                     |                     |
| B*40:06:01G+B*44:41:01  | B*40:11:01+B*44:20     |                       |                     |                     |
| B*40:06:01G+B*44:41:02  | B*40:11:02+B*44:20     |                       |                     |                     |
| B*40:06:01G+B*44:43:01  | B*40:159+B*44:77       |                       |                     |                     |
| B*40:06:01G+B*44:51     | B*40:44+B*44:14        |                       |                     |                     |
| B*40:06:01G+B*44:65     | B*40:11:01+B*44:47     |                       |                     |                     |
| B*40:06:01G+B*44:76     | B*40:148+B*44:28:02    | B*40:161+B*44:03:01G  |                     |                     |
| B*40:06:01G+B*44:79     | B*40:148+B*44:03:01G   |                       |                     |                     |
| B*40:06:01G+B*44:107    | B*40:44+B*44:77        |                       |                     |                     |
| B*40:06:01G+B*44:117    | B*40:86+B*44:05:01     |                       |                     |                     |
| B*40:06:01G+B*44:143    | B*40:127+B*44:03:02    |                       |                     |                     |
| B*40:06:01G+B*46:01:01G | B*40:11:01+B*46:32     | B*40:148+B*46:09      |                     |                     |
| B*40:06:01G+B*46:03     | B*40:161+B*46:21:01    |                       |                     |                     |
| B*40:06:01G+B*46:08     | B*40:148+B*46:13:03    |                       |                     |                     |
| B*40:06:01G+B*48:07     | B*40:86+B*48:01:01G    |                       |                     |                     |
| B*40:06:01G+B*48:15     | B*40:148+B*48:01:01G   |                       |                     |                     |
| B*40:06:01G+B*48:18     | B*40:109+B*48:01:01G   |                       |                     |                     |
| B*40:06:01G+B*48:23     | B*40:159+B*48:03:01    |                       |                     |                     |
| B*40:06:01G+B*48:25     | B*40:148+B*48:02:01    |                       |                     |                     |
| B*40:06:01G+B*49:01:01  | B*40:148+B*49:11       |                       |                     |                     |
| B*40:06:01G+B*49:02     | B*40:96+B*50:01:01     |                       |                     |                     |
| B*40:06:01G+B*51:01:01G | B*40:06:05+B*51:01:25  | B*40:53+B*51:57       | B*40:148+B*51:09:01 | B*40:162+B*51:07:01 |
| B*40:06:01G+B*51:01:02  | B*40:148+B*51:09:02    | B*40:162+B*51:07:02   |                     |                     |
| B*40:06:01G+B*51:02:05  | B*40:148+B*51:40       |                       |                     |                     |
| B*40:06:01G+B*51:04     | B*40:64+B*51:01:01G    |                       |                     |                     |
| B*40:06:01G+B*51:06:01  | B*40:11:01+B*51:01:01G | B*40:11:02+B*51:01:16 |                     |                     |
| B*40:06:01G+B*51:06:02  | B*40:11:02+B*51:01:01G |                       |                     |                     |
| B*40:06:01G+B*51:13:01  | B*40:86+B*51:01:04     |                       |                     |                     |
| B*40:06:01G+B*51:13:02  | B*40:86+B*51:01:01G    |                       |                     |                     |
| B*40:06:01G+B*51:16     | B*40:148+B*51:31       |                       |                     |                     |
| B*40:06:01G+B*51:22     | B*40:75+B*51:07:01     |                       |                     |                     |
| B*40:06:01G+B*51:23     | B*40:148+B*51:108      |                       |                     |                     |
| B*40:06:01G+B*51:24:01  | B*40:06:05+B*51:24:02  |                       |                     |                     |
| B*40:06:01G+B*51:29     | B*40:161+B*51:09:01    |                       |                     |                     |
| B*40:06:01G+B*51:34     | B*40:95+B*51:10        |                       |                     |                     |
| B*40:06:01G+B*51:37     | B*40:44+B*51:63        | B*40:159+B*51:01:01G  |                     |                     |
| B*40:06:01G+B*51:45     | B*40:20+B*51:01:04     |                       |                     |                     |
| B*40:06:01G+B*51:59     | B*40:11:01+B*51:02:01  |                       |                     |                     |
| B*40:06:01G+B*51:78:01  | B*40:96+B*78:02:02     |                       |                     |                     |
| B*40:06:01G+B*51:78:02  | B*40:96+B*78:02:01     |                       |                     |                     |
| B*40:06:01G+B*51:82     | B*40:161+B*51:31       |                       |                     |                     |
| B*40:06:01G+B*51:90     | B*40:44+B*51:01:01G    |                       |                     |                     |
| B*40:06:01G+B*51:92     | B*40:44+B*51:13:01     |                       |                     |                     |
| B*40:06:01G+B*51:135    | B*40:11:01+B*51:90     | B*40:44+B*51:06:01    |                     |                     |
| B*40:06:01G+B*52:01:01G | B*40:109+B*78:06       | B*40:148+B*52:10:01   |                     |                     |
| B*40:06:01G+B*52:01:07  | B*40:148+B*52:10:02    |                       |                     |                     |
| B*40:06:01G+B*52:06:02  | B*40:162+B*52:01:02    |                       |                     |                     |
| B*40:06:01G+B*52:12     | B*40:44+B*52:01:01G    |                       |                     |                     |
| B*40:06:01G+B*52:14     | B*40:86+B*52:01:05     |                       |                     |                     |
| B*40:06:01G+B*52:20     | B*40:96+B*78:05        |                       |                     |                     |
| B*40:06:01G+B*52:24     | B*40:161+B*52:10:01    |                       |                     |                     |
| B*40:06:01G+B*53:08:01  | B*40:148+B*53:01:01    |                       |                     |                     |
| B*40:06:01G+B*53:08:02  | B*40:148+B*53:01:03    |                       |                     |                     |
| B*40:06:01G+B*54:14     | B*40:159+B*54:04       |                       |                     |                     |
| B*40:06:01G+B*54:16     | B*40:44+B*54:01:01G    |                       |                     |                     |
| B*40:06:01G+B*54:20     | B*40:148+B*54:10       | B*40:161+B*54:01:01G  |                     |                     |
| B*40:06:01G+B*55:01:01G | B*40:70+B*55:38        | B*40:148+B*55:02:01G  |                     |                     |
| B*40:06:01G+B*55:09     | B*40:161+B*55:22       |                       |                     |                     |
| B*40:06:01G+B*55:23     | B*40:44+B*55:32        |                       |                     |                     |
| B*40:06:01G+B*55:24     | B*40:148+B*55:22       |                       |                     |                     |
| B*40:06:01G+B*55:28     | B*40:70+B*55:17        |                       |                     |                     |
| B*40:06:01G+B*55:46     | B*40:44+B*55:02:01G    |                       |                     |                     |
| B*40:06:01G+B*55:52     | B*40:148+B*55:37       | B*40:161+B*55:02:01G  |                     |                     |
| B*40:06:01G+B*56:01:01G | B*40:70+B*56:27        |                       |                     |                     |
| B*40:06:01G+B*56:02     | B*40:11:01+B*56:01:01G | B*40:70+B*56:04       |                     |                     |
| B*40:06:01G+B*56:04     | B*40:11:01+B*56:27     |                       |                     |                     |
| B*40:06:01G+B*56:07     | B*40:96+B*56:01:01G    | B*40:110+B*56:35      |                     |                     |
| B*40:06:01G+B*56:10     | B*40:11:01+B*55:02:01G | B*40:11:02+B*55:02:04 |                     |                     |
| B*40:06:01G+B*56:20:01  | B*40:06:05+B*56:20:02  |                       |                     |                     |
| B*40:06:01G+B*56:22     | B*40:86+B*56:15        |                       |                     |                     |
| B*40:06:01G+B*56:25     | B*40:148+B*56:01:01G   |                       |                     |                     |
| B*40:06:01G+B*56:32     | B*40:20+B*55:17        | B*40:148+B*56:18      |                     |                     |
| B*40:06:01G+B*57:01:01G | B*40:53+B*57:10        | B*40:159+B*57:03:01   |                     |                     |
| B*40:06:01G+B*57:03:02  | B*40:06:02+B*57:03:01  |                       |                     |                     |
| B*40:06:01G+B*57:19     | B*40:159+B*57:02:01    |                       |                     |                     |
| B*40:06:01G+B*57:22     | B*40:148+B*57:01:01G   | B*40:159+B*57:57      |                     |                     |
| B*40:06:01G+B*57:57     | B*40:148+B*57:03:01    |                       |                     |                     |
| B*40:06:01G+B*58:06     | B*40:148+B*58:02       |                       |                     |                     |
| B*40:06:01G+B*58:19     | B*40:148+B*58:01:01G   |                       |                     |                     |
| B*40:06:02+B*57:01:01G  | B*40:159+B*57:03:02    |                       |                     |                     |
| B*40:06:02+B*57:57      | B*40:148+B*57:03:02    |                       |                     |                     |
| B*40:07+B*40:44         | B*40:33+B*40:162       |                       |                     |                     |
| B*40:07+B*40:86         | B*40:36+B*40:162       |                       |                     |                     |
| B*40:07+B*40:93         | B*40:46+B*40:162       |                       |                     |                     |
| B*40:07+B*40:96         | B*40:47+B*40:162       |                       |                     |                     |
| B*40:07+B*40:148        | B*40:162+B*40:183      |                       |                     |                     |
| B*40:07+B*40:159        | B*40:52+B*40:162       |                       |                     |                     |
| B*40:07+B*40:161        | B*40:162+B*40:198      |                       |                     |                     |
| B*40:07+B*40:190        | B*40:79+B*40:162       |                       |                     |                     |
| B*40:07+B*44:12         | B*40:106+B*44:02:01G   |                       |                     |                     |
| B*40:07+B*46:01:01G     | B*40:61+B*46:16        |                       |                     |                     |
| B*40:07+B*50:15         | B*40:106+B*50:01:01    |                       |                     |                     |
| B*40:07+B*51:01:01G     | B*40:106+B*52:06:02    |                       |                     |                     |
| B*40:07+B*51:01:33      | B*40:106+B*52:06:01    |                       |                     |                     |
| B*40:07+B*54:01:01G     | B*40:61+B*54:24        |                       |                     |                     |

|                        |                        |                      |
|------------------------|------------------------|----------------------|
| B*40:07+B*55:01:01G    | B*40:106+B*55:40       |                      |
| B*40:07+B*55:47        | B*40:106+B*55:34       |                      |
| B*40:07+B*81:01:01G    | B*40:61+B*81:05        |                      |
| B*40:08+B*40:33        | B*40:18+B*40:106       |                      |
| B*40:08+B*40:38        | B*40:105+B*40:106      |                      |
| B*40:08+B*40:42        | B*40:09+B*40:106       |                      |
| B*40:08+B*40:43        | B*40:50+B*40:106       |                      |
| B*40:08+B*40:47        | B*40:106+B*40:157      |                      |
| B*40:08+B*40:49        | B*40:40+B*40:106       |                      |
| B*40:08+B*40:87:02     | B*40:35+B*40:106       |                      |
| B*40:08+B*40:117       | B*40:13+B*40:25        | B*40:19+B*40:106     |
| B*40:08+B*40:124:02    | B*40:106+B*40:180      |                      |
| B*40:08+B*40:172       | B*40:89+B*40:106       |                      |
| B*40:08+B*40:182       | B*40:106+B*40:205      |                      |
| B*40:08+B*40:199       | B*40:39+B*40:106       |                      |
| B*40:08+B*44:48        | B*40:68+B*44:106       |                      |
| B*40:08+B*48:03:01     | B*40:11:01+B*48:06     |                      |
| B*40:08+B*48:03:02     | B*40:11:02+B*48:06     |                      |
| B*40:08+B*48:23        | B*40:20+B*48:06        |                      |
| B*40:08+B*49:01:01     | B*40:13+B*50:15        |                      |
| B*40:08+B*52:06:02     | B*40:13+B*78:02:02     | B*40:162+B*51:64     |
| B*40:08+B*52:12        | B*40:18+B*51:01:02     |                      |
| B*40:08+B*78:06        | B*40:37+B*78:02:01     |                      |
| B*40:09+B*40:16        | B*40:32+B*40:89        |                      |
| B*40:09+B*40:33        | B*40:18+B*40:42        |                      |
| B*40:09+B*40:43        | B*40:42+B*40:50        |                      |
| B*40:09+B*40:47        | B*40:42+B*40:157       |                      |
| B*40:09+B*40:49        | B*40:40+B*40:42        |                      |
| B*40:09+B*40:80        | B*40:31+B*40:89        |                      |
| B*40:09+B*40:87:02     | B*40:35+B*40:42        |                      |
| B*40:09+B*40:117       | B*40:19+B*40:42        |                      |
| B*40:09+B*40:124:02    | B*40:42+B*40:180       |                      |
| B*40:09+B*40:172       | B*40:42+B*40:89        |                      |
| B*40:09+B*40:182       | B*40:42+B*40:205       |                      |
| B*40:09+B*40:199       | B*40:39+B*40:42        |                      |
| B*40:09+B*41:01        | B*40:89+B*41:21        |                      |
| B*40:09+B*42:01:01     | B*40:89+B*42:16        |                      |
| B*40:09+B*44:43:01     | B*40:18+B*44:144       |                      |
| B*40:09+B*44:45        | B*40:18+B*44:03:01G    |                      |
| B*40:09+B*44:51        | B*40:18+B*44:02:01G    |                      |
| B*40:09+B*44:77        | B*40:89+B*44:107       |                      |
| B*40:09+B*44:123       | B*40:18+B*44:05:01     |                      |
| B*40:09+B*44:135       | B*40:18+B*44:54        |                      |
| B*40:09+B*51:01:01G    | B*40:89+B*51:90        |                      |
| B*40:09+B*51:06:01     | B*40:89+B*51:135       |                      |
| B*40:09+B*51:13:01     | B*40:89+B*51:92        |                      |
| B*40:09+B*51:63        | B*40:89+B*51:37        |                      |
| B*40:09+B*52:01:01G    | B*40:89+B*52:12        |                      |
| B*40:09+B*54:01:01G    | B*40:89+B*54:16        |                      |
| B*40:09+B*55:02:01G    | B*40:18+B*55:41        | B*40:89+B*55:46      |
| B*40:09+B*55:32        | B*40:89+B*55:23        |                      |
| B*40:09+B*57:01:01G    | B*40:18+B*57:41        |                      |
| B*40:10:01+B*41:01     | B*40:49+B*41:12        |                      |
| B*40:10:01+B*57:01:01G | B*40:10:02+B*57:01:09  |                      |
| B*40:10:02+B*44:08     | B*40:21+B*44:02:01G    |                      |
| B*40:10:02+B*44:57     | B*40:21+B*44:03:01G    |                      |
| B*40:10:02+B*51:103    | B*40:74+B*51:01:02     |                      |
| B*40:10:02+B*57:01:01G | B*40:21+B*57:45        |                      |
| B*40:11:01+B*40:59     | B*40:38+B*40:120       |                      |
| B*40:11:01+B*40:124:01 | B*40:11:02+B*40:124:02 |                      |
| B*40:11:01+B*40:137    | B*40:21+B*40:64        |                      |
| B*40:11:01+B*41:04     | B*40:24+B*41:03:02     |                      |
| B*40:11:01+B*42:09     | B*40:20+B*42:02        |                      |
| B*40:11:01+B*44:02:07  | B*40:11:02+B*44:02:01G | B*40:64+B*44:41:01   |
| B*40:11:01+B*44:03:02  | B*40:11:02+B*44:03:01G | B*40:64+B*44:65      |
| B*40:11:01+B*44:28:01  | B*40:11:02+B*44:28:02  |                      |
| B*40:11:01+B*44:37:02  | B*40:11:02+B*44:37:01  |                      |
| B*40:11:01+B*44:41:02  | B*40:11:02+B*44:41:01  |                      |
| B*40:11:01+B*44:43:01  | B*40:20+B*44:77        |                      |
| B*40:11:01+B*44:64:01  | B*40:11:02+B*44:64:02  |                      |
| B*40:11:01+B*48:03:02  | B*40:11:02+B*48:03:01  |                      |
| B*40:11:01+B*48:23     | B*40:20+B*48:03:01     |                      |
| B*40:11:01+B*51:02:05  | B*40:26+B*51:10        |                      |
| B*40:11:01+B*51:04     | B*40:64+B*51:06:01     |                      |
| B*40:11:01+B*51:06:02  | B*40:11:02+B*51:06:01  |                      |
| B*40:11:01+B*51:13:02  | B*40:86+B*51:06:01     |                      |
| B*40:11:01+B*51:37     | B*40:20+B*51:01:01G    | B*40:159+B*51:06:01  |
| B*40:11:01+B*54:14     | B*40:20+B*54:04        | B*40:70+B*54:09      |
| B*40:11:01+B*55:01:01G | B*40:148+B*56:10       |                      |
| B*40:11:01+B*55:23     | B*40:70+B*56:18        |                      |
| B*40:11:01+B*55:46     | B*40:44+B*56:10        |                      |
| B*40:11:01+B*55:52     | B*40:161+B*56:10       |                      |
| B*40:11:01+B*56:07     | B*40:96+B*56:02        |                      |
| B*40:11:01+B*56:25     | B*40:148+B*56:02       |                      |
| B*40:11:01+B*57:01:01G | B*40:20+B*57:03:01     |                      |
| B*40:11:01+B*57:19     | B*40:20+B*57:02:01     |                      |
| B*40:11:01+B*57:22     | B*40:20+B*57:57        |                      |
| B*40:11:01+B*58:01:01G | B*40:64+B*58:16        |                      |
| B*40:11:02+B*44:02:07  | B*40:64+B*44:41:02     |                      |
| B*40:11:02+B*48:23     | B*40:20+B*48:03:02     |                      |
| B*40:11:02+B*51:04     | B*40:64+B*51:06:02     |                      |
| B*40:11:02+B*51:13:02  | B*40:86+B*51:06:02     |                      |
| B*40:11:02+B*51:37     | B*40:159+B*51:06:02    |                      |
| B*40:11:02+B*51:90     | B*40:44+B*51:06:02     |                      |
| B*40:13+B*51:07:01     | B*40:19+B*51:01:01G    |                      |
| B*40:13+B*51:07:02     | B*40:19+B*51:01:02     |                      |
| B*40:13+B*52:01:02     | B*40:19+B*52:06:02     |                      |
| B*40:13+B*53:09        | B*40:19+B*53:13        | B*40:157+B*53:01:01  |
| B*40:14:01+B*40:72:02  | B*40:14:03+B*40:72:01  |                      |
| B*40:14:01+B*40:80     | B*40:45+B*40:72:01     |                      |
| B*40:14:01+B*40:198    | B*40:23+B*40:72:01     |                      |
| B*40:14:01+B*42:10     | B*40:121+B*42:01:01    |                      |
| B*40:14:01+B*42:17     | B*40:121+B*42:02       |                      |
| B*40:14:01+B*44:02:01G | B*40:121+B*44:53       | B*40:136+B*44:03:01G |
| B*40:14:01+B*44:02:07  | B*40:136+B*44:03:02    |                      |

|                        |                        |                        |                     |
|------------------------|------------------------|------------------------|---------------------|
| B*40:14:01+B*44:02:09  | B*40:14:02+B*44:02:01G |                        |                     |
| B*40:14:01+B*44:02:24  | B*40:136+B*44:03:05    |                        |                     |
| B*40:14:01+B*44:03:14  | B*40:14:03+B*44:03:01G |                        |                     |
| B*40:14:01+B*44:06     | B*40:136+B*51:42       |                        |                     |
| B*40:14:01+B*44:08     | B*40:136+B*44:57       |                        |                     |
| B*40:14:01+B*44:09     | B*40:136+B*44:46       |                        |                     |
| B*40:14:01+B*44:16     | B*40:136+B*44:64:02    |                        |                     |
| B*40:14:01+B*44:17     | B*40:136+B*44:43:01    |                        |                     |
| B*40:14:01+B*44:20     | B*40:136+B*44:47       |                        |                     |
| B*40:14:01+B*44:22     | B*40:136+B*44:105      |                        |                     |
| B*40:14:01+B*44:41:01  | B*40:136+B*44:65       |                        |                     |
| B*40:14:01+B*44:44     | B*40:136+B*44:40       |                        |                     |
| B*40:14:01+B*44:51     | B*40:136+B*44:45       |                        |                     |
| B*40:14:01+B*44:67     | B*40:136+B*44:13       |                        |                     |
| B*40:14:01+B*44:89     | B*40:136+B*44:29       |                        |                     |
| B*40:14:01+B*44:91     | B*40:136+B*44:37:01    |                        |                     |
| B*40:14:01+B*44:95     | B*40:136+B*44:50       |                        |                     |
| B*40:14:01+B*44:106    | B*40:136+B*44:54       |                        |                     |
| B*40:14:01+B*44:123    | B*40:136+B*44:107      |                        |                     |
| B*40:14:01+B*46:01:01G | B*40:14:02+B*46:01:03  |                        |                     |
| B*40:14:01+B*46:13:03  | B*40:14:02+B*46:13:01  |                        |                     |
| B*40:14:01+B*46:21:01  | B*40:14:02+B*46:21:02  |                        |                     |
| B*40:14:01+B*51:01:04  | B*40:121+B*51:24:01    |                        |                     |
| B*40:14:01+B*51:01:21  | B*40:121+B*51:24:04    |                        |                     |
| B*40:14:01+B*51:01:25  | B*40:14:02+B*51:01:21  | B*40:14:03+B*51:01:01G | B*40:121+B*51:24:03 |
| B*40:14:01+B*51:02:05  | B*40:14:02+B*51:02:01  |                        |                     |
| B*40:14:01+B*51:08     | B*40:136+B*51:09:01    |                        |                     |
| B*40:14:01+B*51:24:02  | B*40:14:03+B*51:24:01  |                        |                     |
| B*40:14:01+B*51:24:03  | B*40:14:02+B*51:24:04  |                        |                     |
| B*40:14:01+B*51:61:01  | B*40:14:02+B*51:61:02  |                        |                     |
| B*40:14:01+B*52:01:07  | B*40:14:02+B*52:01:01G |                        |                     |
| B*40:14:01+B*52:10:02  | B*40:14:02+B*52:10:01  |                        |                     |
| B*40:14:01+B*52:19     | B*40:136+B*52:10:01    |                        |                     |
| B*40:14:01+B*53:01:03  | B*40:14:02+B*53:01:01  |                        |                     |
| B*40:14:01+B*53:08:02  | B*40:14:02+B*53:08:01  |                        |                     |
| B*40:14:01+B*55:56     | B*40:136+B*55:01:01G   |                        |                     |
| B*40:14:01+B*56:01:01G | B*40:121+B*56:20:01    |                        |                     |
| B*40:14:01+B*56:01:03  | B*40:14:02+B*56:01:01G |                        |                     |
| B*40:14:01+B*56:13     | B*40:136+B*56:01:01G   |                        |                     |
| B*40:14:01+B*56:20:02  | B*40:14:03+B*56:20:01  |                        |                     |
| B*40:14:01+B*57:01:01G | B*40:121+B*57:31       |                        |                     |
| B*40:14:01+B*57:09     | B*40:136+B*57:57       |                        |                     |
| B*40:14:01+B*57:24     | B*40:136+B*57:01:01G   |                        |                     |
| B*40:14:01+B*58:01:05  | B*40:14:02+B*58:01:01G |                        |                     |
| B*40:14:02+B*40:87:02  | B*40:14:03+B*40:87:01  |                        |                     |
| B*40:14:02+B*51:01:09  | B*40:14:03+B*51:01:02  |                        |                     |
| B*40:14:02+B*52:19     | B*40:136+B*52:10:02    |                        |                     |
| B*40:14:02+B*56:13     | B*40:136+B*56:01:03    |                        |                     |
| B*40:14:02+B*57:01:07  | B*40:14:03+B*57:01:01G |                        |                     |
| B*40:14:03+B*40:80     | B*40:45+B*40:72:02     |                        |                     |
| B*40:14:03+B*40:198    | B*40:23+B*40:72:02     |                        |                     |
| B*40:14:03+B*42:11     | B*41:03:02+B*48:10     |                        |                     |
| B*40:14:03+B*44:02:01G | B*40:136+B*44:03:14    |                        |                     |
| B*40:14:03+B*44:132    | B*41:08+B*44:64:02     |                        |                     |
| B*40:14:03+B*48:06     | B*40:106+B*48:10       |                        |                     |
| B*40:14:03+B*48:07     | B*40:36+B*48:10        |                        |                     |
| B*40:14:03+B*48:12     | B*40:121+B*48:10       |                        |                     |
| B*40:14:03+B*48:15     | B*40:183+B*48:10       |                        |                     |
| B*40:14:03+B*51:01:04  | B*40:121+B*51:24:02    |                        |                     |
| B*40:14:03+B*51:36     | B*41:08+B*51:34        |                        |                     |
| B*40:14:03+B*55:56     | B*41:08+B*55:24        |                        |                     |
| B*40:14:03+B*56:01:01G | B*40:121+B*56:20:02    |                        |                     |
| B*40:14:03+B*81:01:01G | B*40:166+B*48:10       |                        |                     |
| B*40:16+B*40:31        | B*40:32+B*40:80        |                        |                     |
| B*40:16+B*40:42        | B*40:32+B*40:172       |                        |                     |
| B*40:16+B*40:52        | B*40:32+B*40:38        |                        |                     |
| B*40:16+B*41:21        | B*40:32+B*41:01        |                        |                     |
| B*40:16+B*44:51        | B*40:32+B*44:14        |                        |                     |
| B*40:16+B*44:107       | B*40:32+B*44:77        |                        |                     |
| B*40:16+B*48:03:01     | B*40:198+B*48:10       |                        |                     |
| B*40:16+B*48:23        | B*40:38+B*48:08        |                        |                     |
| B*40:16+B*51:37        | B*40:32+B*51:63        |                        |                     |
| B*40:16+B*51:90        | B*40:32+B*51:01:01G    |                        |                     |
| B*40:16+B*51:92        | B*40:32+B*51:13:01     |                        |                     |
| B*40:16+B*51:135       | B*40:32+B*51:06:01     |                        |                     |
| B*40:16+B*52:12        | B*40:32+B*52:01:01G    |                        |                     |
| B*40:16+B*54:16        | B*40:32+B*54:01:01G    |                        |                     |
| B*40:16+B*55:23        | B*40:32+B*55:32        |                        |                     |
| B*40:16+B*55:46        | B*40:32+B*55:02:01G    |                        |                     |
| B*40:18+B*40:43        | B*40:33+B*40:50        |                        |                     |
| B*40:18+B*40:47        | B*40:33+B*40:157       |                        |                     |
| B*40:18+B*40:49        | B*40:33+B*40:40        |                        |                     |
| B*40:18+B*40:87:02     | B*40:33+B*40:35        |                        |                     |
| B*40:18+B*40:96        | B*40:44+B*40:157       |                        |                     |
| B*40:18+B*40:117       | B*40:19+B*40:33        |                        |                     |
| B*40:18+B*40:124:02    | B*40:33+B*40:180       |                        |                     |
| B*40:18+B*40:182       | B*40:33+B*40:205       |                        |                     |
| B*40:18+B*40:199       | B*40:33+B*40:39        |                        |                     |
| B*40:18+B*42:10        | B*40:35+B*42:16        |                        |                     |
| B*40:18+B*42:13        | B*40:64+B*42:16        |                        |                     |
| B*40:18+B*42:15        | B*40:37+B*42:16        |                        |                     |
| B*40:18+B*44:20        | B*40:44+B*44:106       |                        |                     |
| B*40:18+B*44:47        | B*40:44+B*44:54        |                        |                     |
| B*40:18+B*46:32        | B*40:44+B*46:12        |                        |                     |
| B*40:18+B*51:10        | B*40:44+B*51:81        |                        |                     |
| B*40:18+B*51:56:02     | B*40:24+B*51:04        | B*40:120+B*51:64       |                     |
| B*40:18+B*51:70        | B*40:107+B*51:90       |                        |                     |
| B*40:18+B*51:85        | B*40:180+B*51:90       |                        |                     |
| B*40:18+B*54:12        | B*40:19+B*54:16        |                        |                     |
| B*40:18+B*55:12        | B*40:37+B*55:46        |                        |                     |
| B*40:18+B*55:50        | B*40:91+B*55:46        |                        |                     |
| B*40:19+B*40:38        | B*40:105+B*40:117      |                        |                     |
| B*40:19+B*40:43        | B*40:50+B*40:117       |                        |                     |
| B*40:19+B*40:47        | B*40:117+B*40:157      |                        |                     |
| B*40:19+B*40:49        | B*40:40+B*40:117       |                        |                     |

|                     |                      |                      |
|---------------------|----------------------|----------------------|
| B*40:19+B*40:87:02  | B*40:35+B*40:117     |                      |
| B*40:19+B*40:124:02 | B*40:117+B*40:180    |                      |
| B*40:19+B*40:172    | B*40:89+B*40:117     |                      |
| B*40:19+B*40:182    | B*40:117+B*40:205    |                      |
| B*40:19+B*40:199    | B*40:39+B*40:117     |                      |
| B*40:19+B*42:04     | B*40:109+B*42:15     |                      |
| B*40:19+B*44:02:01G | B*40:157+B*44:95     |                      |
| B*40:19+B*44:03:01G | B*40:157+B*44:50     |                      |
| B*40:19+B*44:05:01  | B*40:157+B*44:25     |                      |
| B*40:19+B*44:15     | B*40:201+B*44:18     |                      |
| B*40:19+B*44:75     | B*40:37+B*44:25      |                      |
| B*40:19+B*44:109    | B*40:201+B*44:50     |                      |
| B*40:19+B*48:01:01G | B*40:37+B*48:18      |                      |
| B*40:19+B*49:02     | B*40:157+B*49:01:01  |                      |
| B*40:19+B*51:54     | B*40:157+B*51:05     |                      |
| B*40:19+B*51:78:01  | B*40:96+B*51:64      | B*40:157+B*51:01:01G |
| B*40:19+B*51:78:02  | B*40:157+B*51:01:02  |                      |
| B*40:19+B*52:20     | B*40:157+B*52:01:01G |                      |
| B*40:19+B*53:11     | B*40:157+B*53:24     |                      |
| B*40:19+B*53:12     | B*40:157+B*53:05     | B*40:201+B*53:01:01  |
| B*40:19+B*78:01:01  | B*40:50+B*51:01:01G  |                      |
| B*40:19+B*78:01:02  | B*40:50+B*51:01:34   |                      |
| B*40:19+B*78:03     | B*40:50+B*51:22      |                      |
| B*40:19+B*78:06     | B*40:37+B*52:01:01G  |                      |
| B*40:19+B*78:07     | B*40:50+B*51:21      |                      |
| B*40:20+B*44:20     | B*40:159+B*44:41:01  |                      |
| B*40:20+B*44:47     | B*40:159+B*44:65     |                      |
| B*40:20+B*46:32     | B*40:159+B*46:01:01G |                      |
| B*40:20+B*51:02:01  | B*40:159+B*51:59     |                      |
| B*40:20+B*51:13:01  | B*40:86+B*51:45      |                      |
| B*40:20+B*51:90     | B*40:159+B*51:135    |                      |
| B*40:20+B*55:02:01G | B*40:159+B*56:10     |                      |
| B*40:20+B*55:28     | B*40:70+B*56:32      |                      |
| B*40:20+B*56:01:01G | B*40:159+B*56:02     |                      |
| B*40:20+B*56:27     | B*40:159+B*56:04     |                      |
| B*40:21+B*44:02:07  | B*40:137+B*44:41:01  |                      |
| B*40:21+B*44:03:02  | B*40:137+B*44:65     |                      |
| B*40:21+B*51:04     | B*40:137+B*51:06:01  |                      |
| B*40:21+B*58:01:01G | B*40:137+B*58:16     |                      |
| B*40:23+B*40:80     | B*40:45+B*40:198     |                      |
| B*40:23+B*44:03:01G | B*40:114+B*44:76     |                      |
| B*40:23+B*44:110    | B*40:45+B*44:76      |                      |
| B*40:23+B*46:21:01  | B*40:114+B*46:03     |                      |
| B*40:23+B*51:09:01  | B*40:114+B*51:29     |                      |
| B*40:23+B*51:31     | B*40:114+B*51:82     |                      |
| B*40:23+B*52:10:01  | B*40:114+B*52:24     |                      |
| B*40:23+B*54:01:01G | B*40:114+B*54:20     |                      |
| B*40:23+B*55:02:01G | B*40:114+B*55:52     |                      |
| B*40:23+B*55:22     | B*40:114+B*55:09     |                      |
| B*40:24+B*42:13     | B*40:120+B*42:01:01  |                      |
| B*40:24+B*44:02:07  | B*40:120+B*44:106    |                      |
| B*40:24+B*44:03:02  | B*40:120+B*44:54     |                      |
| B*40:24+B*53:01:01  | B*40:120+B*53:14     |                      |
| B*40:24+B*58:01:01G | B*40:120+B*58:18     |                      |
| B*40:25+B*44:48     | B*40:125+B*44:12     |                      |
| B*40:25+B*44:68     | B*40:192+B*44:12     |                      |
| B*40:25+B*44:90     | B*40:166+B*44:09     |                      |
| B*40:25+B*44:127    | B*40:207+B*44:12     |                      |
| B*40:25+B*44:148    | B*40:140+B*44:12     |                      |
| B*40:25+B*45:06     | B*40:166+B*45:01:01G |                      |
| B*40:25+B*49:01:01  | B*40:117+B*50:15     |                      |
| B*40:25+B*49:02     | B*40:47+B*50:15      |                      |
| B*40:25+B*50:02     | B*40:132+B*50:15     |                      |
| B*40:25+B*50:06     | B*40:208+B*50:15     |                      |
| B*40:25+B*50:13     | B*40:49+B*50:15      |                      |
| B*40:25+B*51:01:01G | B*40:106+B*51:07:01  |                      |
| B*40:25+B*51:01:02  | B*40:106+B*51:07:02  |                      |
| B*40:25+B*52:12     | B*40:33+B*51:07:02   |                      |
| B*40:25+B*52:15     | B*40:132+B*51:07:02  |                      |
| B*40:25+B*52:24     | B*40:128+B*51:07:02  |                      |
| B*40:25+B*52:28     | B*40:67+B*51:07:02   |                      |
| B*40:25+B*53:13     | B*40:106+B*53:09     |                      |
| B*40:29+B*44:69     | B*40:115+B*44:32     |                      |
| B*40:29+B*44:98     | B*40:202+B*44:32     |                      |
| B*40:29+B*44:120    | B*40:107+B*44:32     |                      |
| B*40:29+B*44:147    | B*40:90+B*44:32      |                      |
| B*40:30+B*44:03:01G | B*40:160+B*44:153    |                      |
| B*40:30+B*44:54     | B*40:80+B*44:153     |                      |
| B*40:30+B*58:18     | B*40:80+B*58:14      |                      |
| B*40:31+B*40:38     | B*40:52+B*40:80      |                      |
| B*40:31+B*40:114    | B*40:33+B*40:45      |                      |
| B*40:31+B*40:172    | B*40:42+B*40:80      |                      |
| B*40:31+B*41:01     | B*40:80+B*41:21      |                      |
| B*40:31+B*41:03:02  | B*40:33+B*41:02:01   |                      |
| B*40:31+B*42:01:01  | B*40:80+B*42:16      |                      |
| B*40:31+B*42:06     | B*41:18+B*81:01:01G  |                      |
| B*40:31+B*44:03:01G | B*40:33+B*44:110     |                      |
| B*40:31+B*44:14     | B*40:80+B*44:51      |                      |
| B*40:31+B*44:41:01  | B*40:33+B*44:106     |                      |
| B*40:31+B*44:65     | B*40:33+B*44:54      | B*40:42+B*44:135     |
| B*40:31+B*44:77     | B*40:80+B*44:107     |                      |
| B*40:31+B*46:01:01G | B*40:33+B*46:12      |                      |
| B*40:31+B*48:03:01  | B*40:33+B*48:01:01G  |                      |
| B*40:31+B*51:01:01G | B*40:80+B*51:90      |                      |
| B*40:31+B*51:06:01  | B*40:33+B*51:64      | B*40:80+B*51:135     |
| B*40:31+B*51:13:01  | B*40:80+B*51:92      |                      |
| B*40:31+B*51:63     | B*40:80+B*51:37      |                      |
| B*40:31+B*52:01:01G | B*40:80+B*52:12      |                      |
| B*40:31+B*54:01:01G | B*40:80+B*54:16      |                      |
| B*40:31+B*55:02:01G | B*40:80+B*55:46      |                      |
| B*40:31+B*55:32     | B*40:80+B*55:23      |                      |
| B*40:31+B*58:16     | B*40:33+B*58:18      |                      |
| B*40:32+B*40:210    | B*40:49+B*40:98      |                      |
| B*40:32+B*42:11     | B*41:02:01+B*48:08   |                      |
| B*40:32+B*48:01:01G | B*40:80+B*48:08      |                      |

|                     |                        |                    |
|---------------------|------------------------|--------------------|
| B*40:32+B*48:23     | B*40:52+B*48:08        |                    |
| B*40:32+B*51:57     | B*40:98+B*51:01:01G    |                    |
| B*40:32+B*53:21     | B*40:98+B*53:01:01     |                    |
| B*40:32+B*57:10     | B*40:98+B*57:01:01G    |                    |
| B*40:33+B*40:86     | B*40:36+B*40:44        |                    |
| B*40:33+B*40:93     | B*40:44+B*40:46        |                    |
| B*40:33+B*40:96     | B*40:44+B*40:47        |                    |
| B*40:33+B*40:148    | B*40:44+B*40:183       |                    |
| B*40:33+B*40:159    | B*40:44+B*40:52        |                    |
| B*40:33+B*40:161    | B*40:44+B*40:198       |                    |
| B*40:33+B*40:190    | B*40:44+B*40:79        |                    |
| B*40:33+B*41:14     | B*40:79+B*41:21        |                    |
| B*40:33+B*42:06     | B*40:36+B*42:16        |                    |
| B*40:33+B*42:10     | B*40:87:02+B*42:16     |                    |
| B*40:33+B*44:02:01G | B*40:42+B*44:51        |                    |
| B*40:33+B*44:03:01G | B*40:42+B*44:45        |                    |
| B*40:33+B*44:05:01  | B*40:42+B*44:123       |                    |
| B*40:33+B*44:17     | B*40:52+B*44:123       |                    |
| B*40:33+B*44:43:01  | B*40:52+B*44:107       |                    |
| B*40:33+B*44:144    | B*40:42+B*44:43:01     |                    |
| B*40:33+B*51:01:02  | B*40:106+B*52:12       |                    |
| B*40:33+B*51:29     | B*40:128+B*51:90       |                    |
| B*40:33+B*51:37     | B*40:52+B*51:90        |                    |
| B*40:33+B*51:57     | B*40:74+B*51:90        |                    |
| B*40:33+B*51:67     | B*40:156+B*51:90       |                    |
| B*40:33+B*51:85     | B*40:124:02+B*51:90    |                    |
| B*40:33+B*51:95     | B*40:171+B*51:90       |                    |
| B*40:33+B*51:97     | B*40:52+B*51:08        |                    |
| B*40:33+B*51:106    | B*40:48+B*51:90        |                    |
| B*40:33+B*51:109    | B*40:65+B*51:90        |                    |
| B*40:33+B*52:15     | B*40:132+B*52:12       |                    |
| B*40:33+B*52:24     | B*40:128+B*52:12       |                    |
| B*40:33+B*52:28     | B*40:67+B*52:12        |                    |
| B*40:33+B*54:10     | B*40:128+B*54:16       |                    |
| B*40:33+B*54:12     | B*40:117+B*54:16       |                    |
| B*40:33+B*54:20     | B*40:198+B*54:16       |                    |
| B*40:33+B*55:01:01G | B*40:183+B*55:46       |                    |
| B*40:33+B*55:07     | B*40:208+B*55:46       |                    |
| B*40:33+B*55:37     | B*40:128+B*55:46       |                    |
| B*40:33+B*55:41     | B*40:42+B*55:02:01G    | B*40:172+B*55:46   |
| B*40:33+B*55:52     | B*40:198+B*55:46       |                    |
| B*40:33+B*57:41     | B*40:42+B*57:01:01G    |                    |
| B*40:35+B*40:38     | B*40:87:02+B*40:105    |                    |
| B*40:35+B*40:43     | B*40:50+B*40:87:02     |                    |
| B*40:35+B*40:47     | B*40:87:02+B*40:157    |                    |
| B*40:35+B*40:49     | B*40:40+B*40:87:02     |                    |
| B*40:35+B*40:124:02 | B*40:87:02+B*40:180    |                    |
| B*40:35+B*40:172    | B*40:87:02+B*40:89     |                    |
| B*40:35+B*40:182    | B*40:87:02+B*40:205    |                    |
| B*40:35+B*40:199    | B*40:39+B*40:87:02     |                    |
| B*40:35+B*42:13     | B*40:64+B*42:10        |                    |
| B*40:35+B*42:15     | B*40:37+B*42:10        |                    |
| B*40:36+B*40:93     | B*40:46+B*40:86        |                    |
| B*40:36+B*40:96     | B*40:47+B*40:86        |                    |
| B*40:36+B*40:121    | B*40:77+B*40:114       |                    |
| B*40:36+B*40:148    | B*40:86+B*40:183       |                    |
| B*40:36+B*40:159    | B*40:52+B*40:86        |                    |
| B*40:36+B*40:161    | B*40:86+B*40:198       |                    |
| B*40:36+B*40:190    | B*40:79+B*40:86        |                    |
| B*40:36+B*42:10     | B*40:87:02+B*42:06     |                    |
| B*40:36+B*42:11     | B*41:03:02+B*48:07     |                    |
| B*40:36+B*45:01:01G | B*40:48+B*45:02        |                    |
| B*40:36+B*48:06     | B*40:106+B*48:07       |                    |
| B*40:36+B*48:12     | B*40:121+B*48:07       |                    |
| B*40:36+B*48:15     | B*40:183+B*48:07       |                    |
| B*40:36+B*50:01:01  | B*40:48+B*50:09        |                    |
| B*40:36+B*51:29     | B*40:128+B*51:13:02    |                    |
| B*40:36+B*51:37     | B*40:52+B*51:13:02     |                    |
| B*40:36+B*51:57     | B*40:74+B*51:13:02     |                    |
| B*40:36+B*51:63     | B*40:38+B*51:13:02     |                    |
| B*40:36+B*51:67     | B*40:156+B*51:13:02    |                    |
| B*40:36+B*51:85     | B*40:124:02+B*51:13:02 |                    |
| B*40:36+B*51:95     | B*40:171+B*51:13:02    |                    |
| B*40:36+B*51:106    | B*40:48+B*51:13:02     |                    |
| B*40:36+B*51:109    | B*40:65+B*51:13:02     |                    |
| B*40:36+B*52:25     | B*40:48+B*52:14        |                    |
| B*40:36+B*53:01:01  | B*40:38+B*53:04        |                    |
| B*40:36+B*54:04     | B*40:77+B*54:11        |                    |
| B*40:36+B*55:02:01G | B*40:48+B*55:13        |                    |
| B*40:36+B*55:23     | B*40:52+B*55:13        |                    |
| B*40:36+B*55:28     | B*40:183+B*55:13       |                    |
| B*40:36+B*55:32     | B*40:38+B*55:13        |                    |
| B*40:36+B*56:01:01G | B*40:48+B*56:22        |                    |
| B*40:36+B*56:09     | B*40:38+B*56:11        |                    |
| B*40:36+B*58:01:01G | B*40:38+B*58:34        |                    |
| B*40:36+B*59:01:01G | B*40:48+B*59:03        |                    |
| B*40:36+B*81:01:01G | B*40:166+B*48:07       |                    |
| B*40:37+B*42:13     | B*40:64+B*42:15        |                    |
| B*40:37+B*44:05:01  | B*40:157+B*44:75       |                    |
| B*40:37+B*44:15     | B*40:157+B*45:01:01G   |                    |
| B*40:37+B*52:20     | B*40:157+B*78:06       |                    |
| B*40:37+B*55:41     | B*40:89+B*55:12        |                    |
| B*40:37+B*55:50     | B*40:91+B*55:12        |                    |
| B*40:38+B*40:39     | B*40:105+B*40:199      |                    |
| B*40:38+B*40:40     | B*40:49+B*40:105       |                    |
| B*40:38+B*40:42     | B*40:52+B*40:172       |                    |
| B*40:38+B*40:50     | B*40:43+B*40:105       |                    |
| B*40:38+B*40:89     | B*40:105+B*40:172      |                    |
| B*40:38+B*40:157    | B*40:47+B*40:105       |                    |
| B*40:38+B*40:180    | B*40:105+B*40:124:02   |                    |
| B*40:38+B*40:205    | B*40:105+B*40:182      |                    |
| B*40:38+B*41:21     | B*40:52+B*41:01        |                    |
| B*40:38+B*42:16     | B*40:49+B*42:09        | B*40:52+B*42:01:01 |
| B*40:38+B*44:05:01  | B*40:172+B*44:17       |                    |
| B*40:38+B*44:51     | B*40:52+B*44:14        |                    |

|                     |                      |                     |
|---------------------|----------------------|---------------------|
| B*40:38+B*51:20     | B*40:43+B*51:97      |                     |
| B*40:38+B*51:29     | B*40:128+B*51:63     |                     |
| B*40:38+B*51:37     | B*40:52+B*51:63      |                     |
| B*40:38+B*51:57     | B*40:74+B*51:63      |                     |
| B*40:38+B*51:67     | B*40:156+B*51:63     |                     |
| B*40:38+B*51:85     | B*40:124:02+B*51:63  |                     |
| B*40:38+B*51:92     | B*40:52+B*51:13:01   |                     |
| B*40:38+B*51:95     | B*40:171+B*51:63     |                     |
| B*40:38+B*51:106    | B*40:48+B*51:63      |                     |
| B*40:38+B*51:109    | B*40:65+B*51:63      |                     |
| B*40:38+B*52:12     | B*40:52+B*52:01:01G  |                     |
| B*40:38+B*54:16     | B*40:48+B*54:14      | B*40:52+B*54:01:01G |
| B*40:38+B*55:02:01G | B*40:48+B*55:32      |                     |
| B*40:38+B*55:23     | B*40:52+B*55:32      |                     |
| B*40:38+B*55:28     | B*40:183+B*55:32     |                     |
| B*40:38+B*55:46     | B*40:48+B*55:23      | B*40:52+B*55:02:01G |
| B*40:39+B*40:43     | B*40:50+B*40:199     |                     |
| B*40:39+B*40:47     | B*40:157+B*40:199    |                     |
| B*40:39+B*40:49     | B*40:40+B*40:199     |                     |
| B*40:39+B*40:124:02 | B*40:180+B*40:199    |                     |
| B*40:39+B*40:172    | B*40:89+B*40:199     |                     |
| B*40:39+B*40:182    | B*40:199+B*40:205    |                     |
| B*40:40+B*40:43     | B*40:49+B*40:50      |                     |
| B*40:40+B*40:47     | B*40:49+B*40:157     |                     |
| B*40:40+B*40:124:02 | B*40:49+B*40:180     |                     |
| B*40:40+B*40:172    | B*40:49+B*40:89      |                     |
| B*40:40+B*40:182    | B*40:49+B*40:205     |                     |
| B*40:40+B*48:03:01  | B*40:210+B*48:13     |                     |
| B*40:40+B*48:22     | B*40:80+B*48:13      |                     |
| B*40:40+B*49:02     | B*40:157+B*50:13     |                     |
| B*40:42+B*41:01     | B*40:172+B*41:21     |                     |
| B*40:42+B*42:01:01  | B*40:172+B*42:16     |                     |
| B*40:42+B*44:17     | B*40:52+B*44:05:01   |                     |
| B*40:42+B*44:77     | B*40:172+B*44:107    |                     |
| B*40:42+B*51:01:01G | B*40:172+B*51:90     |                     |
| B*40:42+B*51:06:01  | B*40:172+B*51:135    |                     |
| B*40:42+B*51:13:01  | B*40:172+B*51:92     |                     |
| B*40:42+B*51:63     | B*40:172+B*51:37     |                     |
| B*40:42+B*52:01:01G | B*40:172+B*52:12     |                     |
| B*40:42+B*54:01:01G | B*40:172+B*54:16     |                     |
| B*40:42+B*55:32     | B*40:172+B*55:23     |                     |
| B*40:43+B*40:89     | B*40:50+B*40:172     |                     |
| B*40:43+B*40:157    | B*40:47+B*40:50      |                     |
| B*40:43+B*40:180    | B*40:50+B*40:124:02  |                     |
| B*40:43+B*40:205    | B*40:50+B*40:182     |                     |
| B*40:43+B*51:01:01G | B*40:117+B*78:01:01  |                     |
| B*40:43+B*51:01:34  | B*40:117+B*78:01:02  |                     |
| B*40:43+B*51:21     | B*40:117+B*78:07     |                     |
| B*40:43+B*51:22     | B*40:117+B*78:03     |                     |
| B*40:43+B*51:78:01  | B*40:47+B*78:01:01   |                     |
| B*40:43+B*53:02     | B*40:113+B*53:23     |                     |
| B*40:43+B*53:08:01  | B*40:183+B*53:23     |                     |
| B*40:43+B*53:21     | B*40:74+B*53:23      |                     |
| B*40:43+B*53:24     | B*40:128+B*53:23     |                     |
| B*40:44+B*41:07     | B*40:70+B*41:21      |                     |
| B*40:44+B*41:14     | B*40:190+B*41:21     |                     |
| B*40:44+B*42:06     | B*40:86+B*42:16      |                     |
| B*40:44+B*44:17     | B*40:159+B*44:123    |                     |
| B*40:44+B*44:43:01  | B*40:159+B*44:107    |                     |
| B*40:44+B*51:04     | B*40:64+B*51:90      |                     |
| B*40:44+B*51:13:02  | B*40:86+B*51:90      |                     |
| B*40:44+B*51:37     | B*40:159+B*51:90     |                     |
| B*40:44+B*51:56:02  | B*40:120+B*51:01:01G |                     |
| B*40:44+B*51:97     | B*40:159+B*51:08     |                     |
| B*40:44+B*54:20     | B*40:161+B*54:16     |                     |
| B*40:44+B*55:01:01G | B*40:148+B*55:46     |                     |
| B*40:44+B*55:52     | B*40:161+B*55:46     |                     |
| B*40:45+B*41:03:02  | B*40:114+B*41:02:01  |                     |
| B*40:45+B*44:03:01G | B*40:114+B*44:110    |                     |
| B*40:45+B*44:41:01  | B*40:114+B*44:106    |                     |
| B*40:45+B*44:65     | B*40:114+B*44:54     |                     |
| B*40:45+B*46:01:01G | B*40:114+B*46:12     |                     |
| B*40:45+B*48:03:01  | B*40:114+B*48:01:01G |                     |
| B*40:45+B*51:06:01  | B*40:114+B*51:64     |                     |
| B*40:45+B*58:16     | B*40:114+B*58:18     |                     |
| B*40:46+B*40:96     | B*40:47+B*40:93      |                     |
| B*40:46+B*40:148    | B*40:93+B*40:183     |                     |
| B*40:46+B*40:159    | B*40:52+B*40:93      |                     |
| B*40:46+B*40:161    | B*40:93+B*40:198     |                     |
| B*40:46+B*40:190    | B*40:79+B*40:93      |                     |
| B*40:47+B*40:89     | B*40:157+B*40:172    |                     |
| B*40:47+B*40:148    | B*40:96+B*40:183     |                     |
| B*40:47+B*40:159    | B*40:52+B*40:96      |                     |
| B*40:47+B*40:161    | B*40:96+B*40:198     |                     |
| B*40:47+B*40:180    | B*40:124:02+B*40:157 |                     |
| B*40:47+B*40:190    | B*40:79+B*40:96      |                     |
| B*40:47+B*40:205    | B*40:157+B*40:182    |                     |
| B*40:47+B*44:25     | B*40:117+B*44:05:01  |                     |
| B*40:47+B*44:50     | B*40:117+B*44:03:01G |                     |
| B*40:47+B*44:95     | B*40:117+B*44:02:01G |                     |
| B*40:47+B*44:131    | B*40:74+B*44:55      |                     |
| B*40:47+B*46:17     | B*44:31+B*46:14      |                     |
| B*40:47+B*47:05     | B*40:188+B*47:04     |                     |
| B*40:47+B*49:01:01  | B*40:117+B*49:02     |                     |
| B*40:47+B*50:02     | B*40:132+B*49:02     |                     |
| B*40:47+B*50:06     | B*40:208+B*49:02     |                     |
| B*40:47+B*50:13     | B*40:49+B*49:02      |                     |
| B*40:47+B*51:01:01G | B*40:117+B*51:78:01  |                     |
| B*40:47+B*51:01:02  | B*40:117+B*51:78:02  |                     |
| B*40:47+B*51:05     | B*40:117+B*51:54     |                     |
| B*40:47+B*52:01:01G | B*40:117+B*52:20     |                     |
| B*40:47+B*53:01:01  | B*40:117+B*53:13     |                     |
| B*40:47+B*53:03     | B*40:188+B*53:13     |                     |
| B*40:47+B*53:05     | B*40:117+B*53:12     |                     |
| B*40:47+B*53:24     | B*40:117+B*53:11     |                     |

|                       |                         |                      |
|-----------------------|-------------------------|----------------------|
| B*40:47+B*56:25       | B*40:183+B*56:07        |                      |
| B*40:47+B*56:34       | B*40:113+B*56:07        |                      |
| B*40:47+B*57:07       | B*44:31+B*57:39         |                      |
| B*40:48+B*51:29       | B*40:128+B*51:106       |                      |
| B*40:48+B*51:37       | B*40:52+B*51:106        |                      |
| B*40:48+B*51:45       | B*40:52+B*51:62         |                      |
| B*40:48+B*51:57       | B*40:74+B*51:106        |                      |
| B*40:48+B*51:67       | B*40:156+B*51:106       |                      |
| B*40:48+B*51:85       | B*40:124:02+B*51:106    |                      |
| B*40:48+B*51:95       | B*40:171+B*51:106       |                      |
| B*40:48+B*51:109      | B*40:65+B*51:106        |                      |
| B*40:48+B*53:06       | B*40:59+B*51:62         |                      |
| B*40:48+B*56:09       | B*40:59+B*56:04         |                      |
| B*40:49+B*40:96       | B*40:74+B*40:110        |                      |
| B*40:49+B*44:103      | B*40:74+B*44:03:01G     |                      |
| B*40:49+B*44:131      | B*40:74+B*44:09         |                      |
| B*40:49+B*49:09       | B*40:113+B*49:10        |                      |
| B*40:49+B*49:17       | B*40:192+B*49:10        |                      |
| B*40:49+B*49:20       | B*40:132+B*49:10        |                      |
| B*40:49+B*50:02       | B*40:132+B*50:13        |                      |
| B*40:49+B*50:06       | B*40:208+B*50:13        |                      |
| B*40:49+B*51:57       | B*40:210+B*51:01:01G    |                      |
| B*40:49+B*51:116      | B*40:149+B*51:119       |                      |
| B*40:49+B*53:21       | B*40:210+B*53:01:01     |                      |
| B*40:49+B*54:02       | B*40:74+B*54:01:01G     |                      |
| B*40:49+B*56:35       | B*40:74+B*56:01:01G     |                      |
| B*40:49+B*57:10       | B*40:210+B*57:01:01G    |                      |
| B*40:50+B*51:78:01    | B*40:157+B*78:01:01     |                      |
| B*40:50+B*51:97       | B*40:105+B*51:20        |                      |
| B*40:52+B*40:148      | B*40:159+B*40:183       |                      |
| B*40:52+B*40:161      | B*40:159+B*40:198       |                      |
| B*40:52+B*40:190      | B*40:79+B*40:159        |                      |
| B*40:52+B*42:11       | B*41:02:01+B*48:23      |                      |
| B*40:52+B*42:17       | B*40:87:02+B*42:09      |                      |
| B*40:52+B*48:01:01G   | B*40:80+B*48:23         |                      |
| B*40:52+B*51:29       | B*40:128+B*51:37        |                      |
| B*40:52+B*51:57       | B*40:74+B*51:37         |                      |
| B*40:52+B*51:67       | B*40:156+B*51:37        |                      |
| B*40:52+B*51:85       | B*40:124:02+B*51:37     |                      |
| B*40:52+B*51:95       | B*40:171+B*51:37        |                      |
| B*40:52+B*51:109      | B*40:65+B*51:37         |                      |
| B*40:52+B*53:06       | B*40:59+B*51:45         |                      |
| B*40:52+B*55:28       | B*40:183+B*55:23        |                      |
| B*40:52+B*56:12       | B*40:160+B*56:18        |                      |
| B*40:52+B*57:07       | B*40:132+B*57:01:01G    |                      |
| B*40:52+B*57:09       | B*40:183+B*57:24        |                      |
| B*40:52+B*57:32       | B*40:124:02+B*57:01:01G |                      |
| B*40:53+B*44:31       | B*40:110+B*40:132       |                      |
| B*40:63+B*40:178      | B*40:92+B*40:132        |                      |
| B*40:63+B*42:08       | B*40:92+B*42:05:01      |                      |
| B*40:63+B*44:04       | B*40:199+B*44:28:02     |                      |
| B*40:63+B*44:132      | B*40:199+B*44:91        |                      |
| B*40:63+B*45:08       | B*40:199+B*45:04        |                      |
| B*40:63+B*46:18       | B*40:199+B*46:11        |                      |
| B*40:63+B*46:21:01    | B*40:199+B*46:13:03     |                      |
| B*40:63+B*46:21:02    | B*40:199+B*46:13:01     |                      |
| B*40:63+B*46:29       | B*40:199+B*46:01:01G    |                      |
| B*40:63+B*48:04       | B*40:92+B*48:01:01G     |                      |
| B*40:63+B*48:13       | B*40:92+B*48:10         |                      |
| B*40:63+B*51:21       | B*40:199+B*51:01:01G    |                      |
| B*40:63+B*54:01:01G   | B*40:199+B*54:03        |                      |
| B*40:63+B*55:01:01G   | B*40:199+B*56:25        |                      |
| B*40:63+B*55:02:01G   | B*40:199+B*56:01:01G    |                      |
| B*40:63+B*55:09       | B*40:128+B*56:25        | B*40:198+B*56:01:01G |
| B*40:63+B*55:13       | B*40:199+B*56:22        |                      |
| B*40:63+B*56:10       | B*40:199+B*56:02        |                      |
| B*40:63+B*57:26       | B*40:199+B*57:01:01G    |                      |
| B*40:63+B*58:35       | B*40:199+B*58:01:01G    |                      |
| B*40:63+B*59:01:01G   | B*40:199+B*59:04        |                      |
| B*40:63+B*78:07       | B*40:199+B*78:01:01     |                      |
| B*40:64+B*41:04       | B*40:120+B*41:02:01     |                      |
| B*40:64+B*51:13:02    | B*40:86+B*51:04         |                      |
| B*40:64+B*51:37       | B*40:159+B*51:04        |                      |
| B*40:65+B*51:29       | B*40:128+B*51:109       |                      |
| B*40:65+B*51:57       | B*40:74+B*51:109        |                      |
| B*40:65+B*51:67       | B*40:156+B*51:109       |                      |
| B*40:65+B*51:85       | B*40:124:02+B*51:109    |                      |
| B*40:65+B*51:95       | B*40:171+B*51:109       |                      |
| B*40:67+B*47:08       | B*40:199+B*47:06        |                      |
| B*40:67+B*51:01:02    | B*40:106+B*52:28        |                      |
| B*40:67+B*52:15       | B*40:132+B*52:28        |                      |
| B*40:67+B*52:24       | B*40:128+B*52:28        |                      |
| B*40:68+B*52:27       | B*40:129+B*51:116       |                      |
| B*40:70+B*41:14       | B*40:190+B*41:07        |                      |
| B*40:70+B*56:11       | B*40:120+B*56:22        |                      |
| B*40:72:01+B*44:03:14 | B*40:72:02+B*44:03:01G  |                      |
| B*40:72:01+B*51:01:25 | B*40:72:02+B*51:01:01G  |                      |
| B*40:72:01+B*51:13:01 | B*40:77+B*51:24:01      |                      |
| B*40:72:01+B*51:24:02 | B*40:72:02+B*51:24:01   |                      |
| B*40:72:01+B*56:20:02 | B*40:72:02+B*56:20:01   |                      |
| B*40:72:01+B*59:03    | B*40:77+B*59:02         |                      |
| B*40:72:02+B*51:13:01 | B*40:77+B*51:24:02      |                      |
| B*40:72:02+B*51:13:02 | B*40:77+B*51:24:03      |                      |
| B*40:73+B*55:52       | B*40:128+B*55:03        |                      |
| B*40:74+B*42:01:01    | B*40:210+B*42:02        |                      |
| B*40:74+B*42:10       | B*40:210+B*42:17        |                      |
| B*40:74+B*44:02:01G   | B*40:210+B*44:55        |                      |
| B*40:74+B*46:01:01G   | B*40:210+B*46:14        |                      |
| B*40:74+B*48:08       | B*40:98+B*48:03:01      |                      |
| B*40:74+B*49:10       | B*40:210+B*49:01:01     |                      |
| B*40:74+B*50:13       | B*40:210+B*50:01:01     |                      |
| B*40:74+B*51:29       | B*40:128+B*51:57        |                      |
| B*40:74+B*51:67       | B*40:156+B*51:57        |                      |
| B*40:74+B*51:85       | B*40:124:02+B*51:57     |                      |
| B*40:74+B*51:95       | B*40:171+B*51:57        |                      |



|                       |                        |  |
|-----------------------|------------------------|--|
| B*40:74+B*53:02       | B*40:113+B*53:21       |  |
| B*40:74+B*53:08:01    | B*40:183+B*53:21       |  |
| B*40:74+B*53:24       | B*40:128+B*53:21       |  |
| B*40:74+B*55:02:01G   | B*40:210+B*55:16       |  |
| B*40:74+B*56:16       | B*40:149+B*56:36       |  |
| B*40:74+B*57:03:01    | B*40:210+B*57:39       |  |
| B*40:74+B*57:19       | B*40:128+B*57:10       |  |
| B*40:74+B*57:21       | B*40:139+B*57:10       |  |
| B*40:74+B*57:22       | B*40:183+B*57:10       |  |
| B*40:74+B*57:23       | B*40:123+B*57:10       |  |
| B*40:74+B*57:34       | B*40:156+B*57:10       |  |
| B*40:74+B*57:41       | B*40:172+B*57:10       |  |
| B*40:75+B*51:01:01G   | B*40:162+B*51:22       |  |
| B*40:75+B*78:01:01    | B*40:162+B*78:03       |  |
| B*40:79+B*40:148      | B*40:183+B*40:190      |  |
| B*40:79+B*40:161      | B*40:190+B*40:198      |  |
| B*40:80+B*42:01:01    | B*41:02:01+B*81:01:01G |  |
| B*40:80+B*42:11       | B*41:02:01+B*48:01:01G |  |
| B*40:80+B*42:14       | B*41:15+B*81:01:01G    |  |
| B*40:80+B*44:02:01G   | B*40:160+B*44:106      |  |
| B*40:80+B*44:28:02    | B*40:128+B*44:110      |  |
| B*40:80+B*44:30       | B*40:101+B*44:110      |  |
| B*40:80+B*44:45       | B*40:160+B*44:135      |  |
| B*40:80+B*44:76       | B*40:198+B*44:110      |  |
| B*40:80+B*44:79       | B*40:183+B*44:110      |  |
| B*40:80+B*44:122      | B*40:187+B*44:110      |  |
| B*40:80+B*44:154      | B*40:147+B*44:110      |  |
| B*40:80+B*46:17       | B*40:132+B*46:12       |  |
| B*40:83+B*44:44       | B*40:93+B*44:84        |  |
| B*40:83+B*51:64       | B*40:209+B*51:112      |  |
| B*40:85+B*57:41       | B*40:89+B*57:06        |  |
| B*40:86+B*48:15       | B*40:148+B*48:07       |  |
| B*40:86+B*48:18       | B*40:109+B*48:07       |  |
| B*40:86+B*51:37       | B*40:159+B*51:13:02    |  |
| B*40:86+B*55:23       | B*40:159+B*55:13       |  |
| B*40:86+B*55:28       | B*40:148+B*55:13       |  |
| B*40:87:01+B*51:01:09 | B*40:87:02+B*51:01:02  |  |
| B*40:87:01+B*51:01:21 | B*40:87:02+B*51:01:01G |  |
| B*40:87:01+B*57:01:07 | B*40:87:02+B*57:01:01G |  |
| B*40:87:01+B*57:13    | B*40:198+B*57:25       |  |
| B*40:89+B*40:124:02   | B*40:172+B*40:180      |  |
| B*40:89+B*40:182      | B*40:172+B*40:205      |  |
| B*40:89+B*44:17       | B*40:105+B*44:05:01    |  |
| B*40:89+B*55:50       | B*40:91+B*55:41        |  |
| B*40:90+B*44:69       | B*40:115+B*44:147      |  |
| B*40:90+B*44:98       | B*40:202+B*44:147      |  |
| B*40:90+B*44:120      | B*40:107+B*44:147      |  |
| B*40:91+B*51:01:02    | B*40:174+B*51:93       |  |
| B*40:92+B*44:21       | B*40:178+B*44:91       |  |
| B*40:92+B*44:124      | B*40:178+B*44:37:02    |  |
| B*40:92+B*51:21       | B*40:163+B*51:02:01    |  |
| B*40:95+B*44:06       | B*44:131+B*51:34       |  |
| B*40:95+B*51:24:02    | B*40:148+B*51:01:01G   |  |
| B*40:96+B*42:01:01    | B*40:157+B*42:04       |  |
| B*40:96+B*44:03:01G   | B*40:110+B*44:103      |  |
| B*40:96+B*44:54       | B*40:157+B*44:47       |  |
| B*40:96+B*44:106      | B*40:157+B*44:20       |  |
| B*40:96+B*46:12       | B*40:157+B*46:32       |  |
| B*40:96+B*51:42       | B*44:103+B*51:10       |  |
| B*40:96+B*51:81       | B*40:157+B*51:10       |  |
| B*40:96+B*53:05       | B*40:109+B*53:13       |  |
| B*40:96+B*53:16       | B*40:109+B*53:11       |  |
| B*40:96+B*54:01:01G   | B*40:110+B*54:02       |  |
| B*40:96+B*56:25       | B*40:148+B*56:07       |  |
| B*40:100+B*40:180     | B*40:124:01+B*40:143   |  |
| B*40:101+B*44:28:02   | B*40:128+B*44:30       |  |
| B*40:101+B*44:76      | B*40:198+B*44:30       |  |
| B*40:101+B*44:79      | B*40:183+B*44:30       |  |
| B*40:101+B*44:122     | B*40:187+B*44:30       |  |
| B*40:101+B*44:154     | B*40:147+B*44:30       |  |
| B*40:105+B*51:70      | B*40:107+B*51:63       |  |
| B*40:105+B*51:85      | B*40:180+B*51:63       |  |
| B*40:106+B*42:11      | B*41:03:02+B*48:06     |  |
| B*40:106+B*48:12      | B*40:121+B*48:06       |  |
| B*40:106+B*48:15      | B*40:183+B*48:06       |  |
| B*40:106+B*52:15      | B*40:132+B*51:01:02    |  |
| B*40:106+B*52:24      | B*40:128+B*51:01:02    |  |
| B*40:106+B*56:06      | B*40:166+B*78:02:02    |  |
| B*40:106+B*81:01:01G  | B*40:166+B*48:06       |  |
| B*40:107+B*44:69      | B*40:115+B*44:120      |  |
| B*40:107+B*44:98      | B*40:202+B*44:120      |  |
| B*40:107+B*51:85      | B*40:180+B*51:70       |  |
| B*40:109+B*48:15      | B*40:148+B*48:18       |  |
| B*40:110+B*44:06      | B*44:02:01G+B*51:10    |  |
| B*40:110+B*51:42      | B*44:03:01G+B*51:10    |  |
| B*40:113+B*49:17      | B*40:192+B*49:09       |  |
| B*40:113+B*49:20      | B*40:132+B*49:09       |  |
| B*40:113+B*51:05      | B*40:128+B*51:09:02    |  |
| B*40:113+B*51:23      | B*40:132+B*51:01:01G   |  |
| B*40:113+B*51:108     | B*40:132+B*51:09:01    |  |
| B*40:113+B*53:24      | B*40:128+B*53:02       |  |
| B*40:113+B*56:25      | B*40:183+B*56:34       |  |
| B*40:113+B*56:32      | B*40:183+B*56:31       |  |
| B*40:113+B*58:19      | B*40:183+B*58:09       |  |
| B*40:113+B*56:22      | B*40:128+B*58:09       |  |
| B*40:114+B*54:04      | B*40:121+B*54:11       |  |
| B*40:115+B*44:98      | B*40:202+B*44:69       |  |
| B*40:117+B*50:06      | B*40:208+B*49:01:01    |  |
| B*40:117+B*53:03      | B*40:188+B*53:01:01    |  |
| B*40:117+B*54:10      | B*40:128+B*54:12       |  |
| B*40:117+B*54:20      | B*40:198+B*54:12       |  |
| B*40:117+B*56:06      | B*40:166+B*52:01:02    |  |
| B*40:120+B*51:63      | B*40:159+B*51:56:02    |  |
| B*40:121+B*42:11      | B*41:03:02+B*48:12     |  |
| B*40:121+B*48:15      | B*40:183+B*48:12       |  |

B\*40:198+B\*51:09:02

|                         |                         |                      |
|-------------------------|-------------------------|----------------------|
| B*40:121+B*81:01:01G    | B*40:166+B*48:12        |                      |
| B*40:123+B*57:19        | B*40:128+B*57:23        |                      |
| B*40:123+B*57:21        | B*40:139+B*57:23        |                      |
| B*40:123+B*57:22        | B*40:183+B*57:23        |                      |
| B*40:123+B*57:34        | B*40:156+B*57:23        |                      |
| B*40:123+B*57:41        | B*40:172+B*57:23        |                      |
| B*40:124:01+B*44:02:01G | B*40:124:02+B*44:02:07  |                      |
| B*40:124:01+B*44:03:01G | B*40:124:02+B*44:03:02  |                      |
| B*40:124:01+B*44:28:02  | B*40:124:02+B*44:28:01  |                      |
| B*40:124:01+B*44:37:01  | B*40:124:02+B*44:37:02  |                      |
| B*40:124:01+B*44:41:01  | B*40:124:02+B*44:41:02  |                      |
| B*40:124:01+B*44:64:02  | B*40:124:02+B*44:64:01  |                      |
| B*40:124:01+B*48:03:01  | B*40:124:02+B*48:03:02  |                      |
| B*40:124:01+B*51:06:01  | B*40:124:02+B*51:06:02  |                      |
| B*40:124:01+B*55:02:04  | B*40:124:02+B*55:02:01G |                      |
| B*40:124:02+B*40:205    | B*40:180+B*40:182       |                      |
| B*40:124:02+B*51:29     | B*40:128+B*51:85        |                      |
| B*40:124:02+B*51:67     | B*40:156+B*51:85        |                      |
| B*40:124:02+B*51:95     | B*40:171+B*51:85        |                      |
| B*40:124:02+B*57:02:01  | B*40:128+B*57:32        |                      |
| B*40:124:02+B*57:07     | B*40:132+B*57:32        |                      |
| B*40:124:02+B*57:57     | B*40:183+B*57:32        |                      |
| B*40:125+B*44:68        | B*40:192+B*44:48        |                      |
| B*40:125+B*44:127       | B*40:207+B*44:48        |                      |
| B*40:125+B*44:148       | B*40:140+B*44:48        |                      |
| B*40:128+B*44:76        | B*40:198+B*44:28:02     |                      |
| B*40:128+B*44:122       | B*40:187+B*44:28:02     |                      |
| B*40:128+B*44:154       | B*40:147+B*44:28:02     |                      |
| B*40:128+B*46:01:01G    | B*40:198+B*46:09        |                      |
| B*40:128+B*46:08        | B*40:198+B*46:13:03     |                      |
| B*40:128+B*48:15        | B*40:198+B*48:01:01G    |                      |
| B*40:128+B*48:25        | B*40:198+B*48:02:01     |                      |
| B*40:128+B*49:01:01     | B*40:198+B*49:11        |                      |
| B*40:128+B*51:02:02     | B*40:183+B*51:05        |                      |
| B*40:128+B*51:02:05     | B*40:198+B*51:40        |                      |
| B*40:128+B*51:21        | B*40:199+B*51:82        |                      |
| B*40:128+B*51:23        | B*40:198+B*51:108       |                      |
| B*40:128+B*51:67        | B*40:156+B*51:29        |                      |
| B*40:128+B*51:95        | B*40:171+B*51:29        |                      |
| B*40:128+B*52:01:07     | B*40:198+B*52:10:02     |                      |
| B*40:128+B*52:15        | B*40:132+B*52:24        |                      |
| B*40:128+B*53:08:01     | B*40:183+B*53:24        | B*40:198+B*53:01:01  |
| B*40:128+B*53:08:02     | B*40:198+B*53:01:03     |                      |
| B*40:128+B*54:20        | B*40:198+B*54:10        |                      |
| B*40:128+B*55:07        | B*40:208+B*55:37        |                      |
| B*40:128+B*55:41        | B*40:172+B*55:37        |                      |
| B*40:128+B*55:52        | B*40:198+B*55:37        |                      |
| B*40:128+B*56:32        | B*40:198+B*56:18        |                      |
| B*40:128+B*57:07        | B*40:132+B*57:02:01     |                      |
| B*40:128+B*57:21        | B*40:139+B*57:19        |                      |
| B*40:128+B*57:22        | B*40:183+B*57:19        | B*40:198+B*57:01:01G |
| B*40:128+B*57:34        | B*40:156+B*57:19        |                      |
| B*40:128+B*57:41        | B*40:172+B*57:19        |                      |
| B*40:128+B*57:57        | B*40:183+B*57:02:01     | B*40:198+B*57:03:01  |
| B*40:128+B*58:06        | B*40:198+B*58:02        |                      |
| B*40:128+B*58:19        | B*40:183+B*58:22        | B*40:198+B*58:01:01G |
| B*40:132+B*42:08        | B*40:178+B*42:05:01     |                      |
| B*40:132+B*44:132       | B*40:199+B*44:21        |                      |
| B*40:132+B*48:04        | B*40:178+B*48:01:01G    |                      |
| B*40:132+B*48:13        | B*40:178+B*48:10        |                      |
| B*40:132+B*49:17        | B*40:192+B*49:20        |                      |
| B*40:132+B*50:06        | B*40:208+B*50:02        |                      |
| B*40:132+B*57:57        | B*40:183+B*57:07        |                      |
| B*40:132+B*58:06        | B*40:183+B*58:07        |                      |
| B*40:139+B*57:22        | B*40:183+B*57:21        |                      |
| B*40:139+B*57:34        | B*40:156+B*57:21        |                      |
| B*40:139+B*57:41        | B*40:172+B*57:21        |                      |
| B*40:140+B*44:68        | B*40:192+B*44:148       |                      |
| B*40:140+B*44:127       | B*40:207+B*44:148       |                      |
| B*40:145+B*56:07        | B*40:157+B*56:29        |                      |
| B*40:147+B*44:76        | B*40:198+B*44:154       |                      |
| B*40:147+B*44:79        | B*40:183+B*44:154       |                      |
| B*40:147+B*44:122       | B*40:187+B*44:154       |                      |
| B*40:148+B*40:198       | B*40:161+B*40:183       |                      |
| B*40:148+B*44:28:01     | B*40:161+B*44:03:02     |                      |
| B*40:148+B*44:76        | B*40:161+B*44:79        |                      |
| B*40:148+B*51:29        | B*40:161+B*51:01:01G    |                      |
| B*40:148+B*51:82        | B*40:161+B*51:16        |                      |
| B*40:148+B*52:24        | B*40:161+B*52:01:01G    |                      |
| B*40:148+B*53:11        | B*40:161+B*53:13        |                      |
| B*40:148+B*53:16        | B*40:161+B*53:05        |                      |
| B*40:148+B*53:24        | B*40:161+B*53:01:01     |                      |
| B*40:148+B*55:09        | B*40:161+B*55:24        |                      |
| B*40:148+B*55:23        | B*40:159+B*55:28        |                      |
| B*40:148+B*55:52        | B*40:161+B*55:01:01G    |                      |
| B*40:148+B*57:02:01     | B*40:161+B*57:03:01     |                      |
| B*40:148+B*57:19        | B*40:161+B*57:01:01G    |                      |
| B*40:148+B*57:24        | B*40:159+B*57:09        |                      |
| B*40:148+B*58:22        | B*40:161+B*58:01:01G    |                      |
| B*40:156+B*51:95        | B*40:171+B*51:67        |                      |
| B*40:156+B*57:22        | B*40:183+B*57:34        |                      |
| B*40:156+B*57:41        | B*40:172+B*57:34        |                      |
| B*40:157+B*42:01:01     | B*40:201+B*42:15        |                      |
| B*40:157+B*44:109       | B*40:201+B*44:03:01G    |                      |
| B*40:157+B*51:42        | B*44:103+B*51:81        |                      |
| B*40:157+B*52:09        | B*40:201+B*52:01:02     |                      |
| B*40:157+B*53:12        | B*40:201+B*53:13        |                      |
| B*40:157+B*53:16        | B*40:201+B*53:24        |                      |
| B*40:157+B*55:02:01G    | B*40:201+B*55:12        |                      |
| B*40:166+B*48:15        | B*40:183+B*81:01:01G    |                      |
| B*40:172+B*55:01:01G    | B*40:183+B*55:41        |                      |
| B*40:172+B*55:07        | B*40:208+B*55:41        |                      |
| B*40:172+B*55:52        | B*40:198+B*55:41        |                      |
| B*40:172+B*57:22        | B*40:183+B*57:41        |                      |
| B*40:183+B*42:11        | B*41:03:02+B*48:15      |                      |

|                        |                       |                 |                 |
|------------------------|-----------------------|-----------------|-----------------|
| B*40:183+B*44:76       | B*40:198+B*44:79      |                 |                 |
| B*40:183+B*44:122      | B*40:187+B*44:79      |                 |                 |
| B*40:183+B*51:29       | B*40:198+B*51:01:01G  |                 |                 |
| B*40:183+B*51:82       | B*40:198+B*51:16      |                 |                 |
| B*40:183+B*52:24       | B*40:198+B*52:01:01G  |                 |                 |
| B*40:183+B*53:11       | B*40:198+B*53:13      |                 |                 |
| B*40:183+B*53:16       | B*40:198+B*53:05      |                 |                 |
| B*40:183+B*55:07       | B*40:208+B*55:01:01G  |                 |                 |
| B*40:183+B*55:09       | B*40:198+B*55:24      |                 |                 |
| B*40:183+B*55:52       | B*40:198+B*55:01:01G  |                 |                 |
| B*40:187+B*44:76       | B*40:198+B*44:122     |                 |                 |
| B*40:192+B*44:127      | B*40:207+B*44:68      |                 |                 |
| B*40:198+B*55:07       | B*40:208+B*55:52      |                 |                 |
| B*41:01+B*41:15        | B*41:02:01+B*41:06    |                 |                 |
| B*41:01+B*42:08        | B*41:09+B*42:01:01    |                 |                 |
| B*41:01+B*42:14        | B*41:06+B*42:01:01    |                 |                 |
| B*41:01+B*42:16        | B*41:21+B*42:01:01    |                 |                 |
| B*41:01+B*44:48        | B*41:07+B*44:02:07    |                 |                 |
| B*41:01+B*44:51        | B*41:21+B*44:14       |                 |                 |
| B*41:01+B*44:107       | B*41:21+B*44:77       |                 |                 |
| B*41:01+B*51:37        | B*41:21+B*51:63       |                 |                 |
| B*41:01+B*51:90        | B*41:21+B*51:01:01G   |                 |                 |
| B*41:01+B*51:92        | B*41:21+B*51:13:01    |                 |                 |
| B*41:01+B*51:135       | B*41:21+B*51:06:01    |                 |                 |
| B*41:01+B*52:12        | B*41:21+B*52:01:01G   |                 |                 |
| B*41:01+B*53:01:01     | B*41:09+B*53:15       |                 |                 |
| B*41:01+B*54:16        | B*41:21+B*54:01:01G   |                 |                 |
| B*41:01+B*55:01:01G    | B*41:07+B*55:38       |                 |                 |
| B*41:01+B*55:23        | B*41:21+B*55:32       |                 |                 |
| B*41:01+B*55:28        | B*41:07+B*55:17       |                 |                 |
| B*41:01+B*55:46        | B*41:21+B*55:02:01G   |                 |                 |
| B*41:01+B*56:01:01G    | B*41:07+B*56:27       |                 |                 |
| B*41:01+B*56:02        | B*41:07+B*56:04       |                 |                 |
| B*41:02:01+B*42:14     | B*41:15+B*42:01:01    |                 |                 |
| B*41:02:01+B*44:03:01G | B*41:03:02+B*44:110   |                 |                 |
| B*41:02:01+B*44:16     | B*41:19+B*44:132      |                 |                 |
| B*41:02:01+B*44:41:01  | B*41:03:02+B*44:106   |                 |                 |
| B*41:02:01+B*44:65     | B*41:03:02+B*44:54    |                 |                 |
| B*41:02:01+B*45:10     | B*41:19+B*45:08       |                 |                 |
| B*41:02:01+B*46:01:01G | B*41:03:02+B*46:12    |                 |                 |
| B*41:02:01+B*46:30     | B*41:19+B*46:29       |                 |                 |
| B*41:02:01+B*47:01:01G | B*41:19+B*47:08       |                 |                 |
| B*41:02:01+B*51:06:01  | B*41:03:02+B*51:64    |                 |                 |
| B*41:02:01+B*51:16     | B*41:19+B*51:21       |                 |                 |
| B*41:02:01+B*51:92     | B*41:18+B*51:01:04    |                 |                 |
| B*41:02:01+B*54:26     | B*41:19+B*54:01:01G   |                 |                 |
| B*41:02:01+B*55:09     | B*41:19+B*55:52       |                 |                 |
| B*41:02:01+B*55:22     | B*41:19+B*55:02:01G   |                 |                 |
| B*41:02:01+B*55:24     | B*41:19+B*55:01:01G   |                 |                 |
| B*41:02:01+B*57:25     | B*41:19+B*57:26       |                 |                 |
| B*41:02:01+B*58:16     | B*41:03:02+B*58:18    |                 |                 |
| B*41:02:01+B*58:37     | B*41:19+B*58:35       |                 |                 |
| B*41:03:01+B*44:03:02  | B*41:03:02+B*44:03:13 |                 |                 |
| B*41:03:01+B*55:02:01G | B*41:03:02+B*55:02:02 |                 |                 |
| B*41:06+B*42:08        | B*41:09+B*42:14       |                 |                 |
| B*41:06+B*42:16        | B*41:21+B*42:14       |                 |                 |
| B*41:09+B*42:16        | B*41:21+B*42:08       |                 |                 |
| B*42:01:01+B*42:17     | B*42:02+B*42:10       |                 |                 |
| B*42:01:01+B*44:02:01G | B*42:10+B*44:53       |                 |                 |
| B*42:01:01+B*44:02:07  | B*42:13+B*44:106      |                 |                 |
| B*42:01:01+B*44:03:01G | B*42:15+B*44:109      |                 |                 |
| B*42:01:01+B*44:03:02  | B*42:13+B*44:54       |                 |                 |
| B*42:01:01+B*44:20     | B*42:04+B*44:106      |                 |                 |
| B*42:01:01+B*44:47     | B*42:04+B*44:54       |                 |                 |
| B*42:01:01+B*44:51     | B*42:16+B*44:14       |                 |                 |
| B*42:01:01+B*44:55     | B*42:02+B*44:02:01G   | B*42:17+B*44:53 |                 |
| B*42:01:01+B*44:107    | B*42:16+B*44:77       |                 |                 |
| B*42:01:01+B*44:117    | B*42:06+B*44:05:01    |                 |                 |
| B*42:01:01+B*46:14     | B*42:02+B*46:01:01G   |                 |                 |
| B*42:01:01+B*46:32     | B*42:04+B*46:12       |                 |                 |
| B*42:01:01+B*48:01:01G | B*42:11+B*81:01:01G   |                 |                 |
| B*42:01:01+B*48:07     | B*42:06+B*48:01:01G   |                 |                 |
| B*42:01:01+B*49:01:01  | B*42:02+B*49:10       |                 |                 |
| B*42:01:01+B*50:01:01  | B*42:02+B*50:13       |                 |                 |
| B*42:01:01+B*51:01:01G | B*42:04+B*51:64       |                 |                 |
| B*42:01:01+B*51:01:04  | B*42:10+B*51:24:01    |                 |                 |
| B*42:01:01+B*51:01:21  | B*42:10+B*51:24:04    |                 |                 |
| B*42:01:01+B*51:01:25  | B*42:10+B*51:24:03    |                 |                 |
| B*42:01:01+B*51:04     | B*42:13+B*51:64       |                 |                 |
| B*42:01:01+B*51:10     | B*42:04+B*51:81       |                 |                 |
| B*42:01:01+B*51:13:01  | B*42:06+B*51:01:04    |                 |                 |
| B*42:01:01+B*51:13:02  | B*42:06+B*51:01:01G   |                 |                 |
| B*42:01:01+B*51:37     | B*42:16+B*51:63       |                 |                 |
| B*42:01:01+B*51:90     | B*42:16+B*51:01:01G   |                 |                 |
| B*42:01:01+B*51:92     | B*42:16+B*51:13:01    |                 |                 |
| B*42:01:01+B*51:135    | B*42:16+B*51:06:01    |                 |                 |
| B*42:01:01+B*52:01:02  | B*42:15+B*52:09       |                 |                 |
| B*42:01:01+B*52:12     | B*42:16+B*52:01:01G   |                 |                 |
| B*42:01:01+B*52:14     | B*42:06+B*52:01:05    |                 |                 |
| B*42:01:01+B*53:01:01  | B*42:08+B*53:15       | B*42:13+B*53:14 | B*42:15+B*53:05 |
| B*42:01:01+B*53:13     | B*42:15+B*53:12       |                 |                 |
| B*42:01:01+B*53:24     | B*42:15+B*53:16       |                 |                 |
| B*42:01:01+B*54:16     | B*42:16+B*54:01:01G   |                 |                 |
| B*42:01:01+B*55:12     | B*42:15+B*55:02:01G   |                 |                 |
| B*42:01:01+B*55:16     | B*42:02+B*55:02:01G   |                 |                 |
| B*42:01:01+B*55:23     | B*42:16+B*55:32       |                 |                 |
| B*42:01:01+B*55:46     | B*42:16+B*55:02:01G   |                 |                 |
| B*42:01:01+B*56:01:01G | B*42:10+B*56:20:01    |                 |                 |
| B*42:01:01+B*56:22     | B*42:06+B*56:15       |                 |                 |
| B*42:01:01+B*57:01:01G | B*42:10+B*57:31       |                 |                 |
| B*42:01:01+B*57:39     | B*42:02+B*57:03:01    |                 |                 |
| B*42:01:01+B*58:01:01G | B*42:13+B*58:18       |                 |                 |
| B*42:01:01+B*78:06     | B*42:15+B*78:05       |                 |                 |
| B*42:02+B*44:43:01     | B*42:09+B*44:77       |                 |                 |
| B*42:02+B*48:23        | B*42:09+B*48:03:01    |                 |                 |

|                         |                        |                       |                    |                  |
|-------------------------|------------------------|-----------------------|--------------------|------------------|
| B*42:02+B*51:01:04      | B*42:17+B*51:24:01     |                       |                    |                  |
| B*42:02+B*51:01:21      | B*42:17+B*51:24:04     |                       |                    |                  |
| B*42:02+B*51:01:25      | B*42:17+B*51:24:03     |                       |                    |                  |
| B*42:02+B*51:37         | B*42:09+B*51:01:01G    |                       |                    |                  |
| B*42:02+B*54:14         | B*42:09+B*54:04        |                       |                    |                  |
| B*42:02+B*55:12         | B*42:15+B*55:16        |                       |                    |                  |
| B*42:02+B*55:46         | B*42:16+B*55:16        |                       |                    |                  |
| B*42:02+B*56:01:01G     | B*42:17+B*56:20:01     |                       |                    |                  |
| B*42:02+B*57:01:01G     | B*42:09+B*57:03:01     | B*42:17+B*57:31       |                    |                  |
| B*42:02+B*57:19         | B*42:09+B*57:02:01     |                       |                    |                  |
| B*42:02+B*57:22         | B*42:09+B*57:57        |                       |                    |                  |
| B*42:04+B*44:02:07      | B*42:13+B*44:20        |                       |                    |                  |
| B*42:04+B*44:03:02      | B*42:13+B*44:47        |                       |                    |                  |
| B*42:04+B*51:04         | B*42:13+B*51:01:01G    |                       |                    |                  |
| B*42:05:01+B*48:04      | B*42:08+B*48:01:01G    |                       |                    |                  |
| B*42:05:01+B*48:13      | B*42:08+B*48:10        |                       |                    |                  |
| B*42:06+B*51:90         | B*42:16+B*51:13:02     |                       |                    |                  |
| B*42:10+B*44:55         | B*42:17+B*44:02:01G    |                       |                    |                  |
| B*42:10+B*46:14         | B*42:17+B*46:01:01G    |                       |                    |                  |
| B*42:10+B*49:01:01      | B*42:17+B*49:10        |                       |                    |                  |
| B*42:10+B*50:01:01      | B*42:17+B*50:13        |                       |                    |                  |
| B*42:10+B*55:16         | B*42:17+B*55:02:01G    |                       |                    |                  |
| B*42:10+B*57:39         | B*42:17+B*57:03:01     |                       |                    |                  |
| B*42:15+B*55:46         | B*42:16+B*55:12        |                       |                    |                  |
| B*44:02:01G+B*44:03:02  | B*44:02:07+B*44:03:01G |                       |                    |                  |
| B*44:02:01G+B*44:03:05  | B*44:02:24+B*44:03:01G |                       |                    |                  |
| B*44:02:01G+B*44:13     | B*44:03:01G+B*44:67    |                       |                    |                  |
| B*44:02:01G+B*44:16     | B*44:21+B*44:91        |                       |                    |                  |
| B*44:02:01G+B*44:25     | B*44:05:01+B*44:95     |                       |                    |                  |
| B*44:02:01G+B*44:28:01  | B*44:02:07+B*44:28:02  |                       |                    |                  |
| B*44:02:01G+B*44:29     | B*44:03:01G+B*44:89    |                       |                    |                  |
| B*44:02:01G+B*44:37:01  | B*44:03:01G+B*44:91    |                       |                    |                  |
| B*44:02:01G+B*44:37:02  | B*44:02:07+B*44:37:01  | B*44:03:02+B*44:91    |                    |                  |
| B*44:02:01G+B*44:40     | B*44:03:01G+B*44:44    |                       |                    |                  |
| B*44:02:01G+B*44:41:02  | B*44:02:07+B*44:41:01  |                       |                    |                  |
| B*44:02:01G+B*44:42     | B*44:05:01+B*44:91     |                       |                    |                  |
| B*44:02:01G+B*44:43:01  | B*44:03:01G+B*44:17    | B*44:51+B*44:144      |                    |                  |
| B*44:02:01G+B*44:45     | B*44:03:01G+B*44:51    |                       |                    |                  |
| B*44:02:01G+B*44:46     | B*44:03:01G+B*44:09    |                       |                    |                  |
| B*44:02:01G+B*44:47     | B*44:03:01G+B*44:20    |                       |                    |                  |
| B*44:02:01G+B*44:50     | B*44:03:01G+B*44:95    |                       |                    |                  |
| B*44:02:01G+B*44:54     | B*44:03:01G+B*44:106   | B*44:41:01+B*44:110   |                    |                  |
| B*44:02:01G+B*44:57     | B*44:03:01G+B*44:08    |                       |                    |                  |
| B*44:02:01G+B*44:64:01  | B*44:02:07+B*44:64:02  | B*44:03:02+B*44:16    | B*44:21+B*44:37:02 | B*44:91+B*44:124 |
| B*44:02:01G+B*44:64:02  | B*44:03:01G+B*44:16    | B*44:21+B*44:37:01    |                    |                  |
| B*44:02:01G+B*44:65     | B*44:03:01G+B*44:41:01 |                       |                    |                  |
| B*44:02:01G+B*44:105    | B*44:03:01G+B*44:22    |                       |                    |                  |
| B*44:02:01G+B*44:107    | B*44:03:01G+B*44:123   | B*44:05:01+B*44:45    |                    |                  |
| B*44:02:01G+B*44:123    | B*44:05:01+B*44:51     |                       |                    |                  |
| B*44:02:01G+B*44:124    | B*44:03:02+B*44:21     |                       |                    |                  |
| B*44:02:01G+B*44:135    | B*44:45+B*44:106       | B*44:51+B*44:54       |                    |                  |
| B*44:02:01G+B*44:139    | B*44:05:01+B*44:93     |                       |                    |                  |
| B*44:02:01G+B*45:03     | B*44:133+B*45:01:01G   |                       |                    |                  |
| B*44:02:01G+B*45:04     | B*44:91+B*45:01:01G    |                       |                    |                  |
| B*44:02:01G+B*45:08     | B*44:132+B*45:01:01G   |                       |                    |                  |
| B*44:02:01G+B*45:10     | B*44:16+B*45:01:01G    | B*44:21+B*45:04       |                    |                  |
| B*44:02:01G+B*45:11     | B*44:102+B*45:01:01G   |                       |                    |                  |
| B*44:02:01G+B*46:01:01G | B*44:02:09+B*46:01:03  | B*44:91+B*46:17       |                    |                  |
| B*44:02:01G+B*46:05     | B*44:22+B*46:01:01G    |                       |                    |                  |
| B*44:02:01G+B*46:13:03  | B*44:02:09+B*46:13:01  |                       |                    |                  |
| B*44:02:01G+B*46:14     | B*44:55+B*46:01:01G    |                       |                    |                  |
| B*44:02:01G+B*46:19     | B*44:89+B*46:13:03     |                       |                    |                  |
| B*44:02:01G+B*46:21:01  | B*44:02:09+B*46:21:02  |                       |                    |                  |
| B*44:02:01G+B*46:29     | B*44:132+B*46:17       |                       |                    |                  |
| B*44:02:01G+B*46:30     | B*44:16+B*46:17        | B*44:21+B*46:01:01G   |                    |                  |
| B*44:02:01G+B*48:03:02  | B*44:02:07+B*48:03:01  |                       |                    |                  |
| B*44:02:01G+B*49:01:01  | B*44:55+B*49:10        | B*44:91+B*49:20       | B*44:95+B*49:02    |                  |
| B*44:02:01G+B*49:07     | B*44:16+B*49:20        | B*44:21+B*49:01:01    |                    |                  |
| B*44:02:01G+B*49:11     | B*44:18+B*44:37:01     |                       |                    |                  |
| B*44:02:01G+B*49:17     | B*44:68+B*49:01:01     |                       |                    |                  |
| B*44:02:01G+B*49:20     | B*44:18+B*44:79        |                       |                    |                  |
| B*44:02:01G+B*50:01:01  | B*44:09+B*49:02        | B*44:48+B*50:04       | B*44:55+B*50:13    | B*44:79+B*45:04  |
|                         | B*44:91+B*50:02        | B*44:100+B*50:17      |                    |                  |
| B*44:02:01G+B*50:01:02  | B*44:02:14+B*50:01:01  |                       |                    |                  |
| B*44:02:01G+B*50:02     | B*44:79+B*45:01:01G    |                       |                    |                  |
| B*44:02:01G+B*50:15     | B*44:12+B*50:01:01     |                       |                    |                  |
| B*44:02:01G+B*51:01:01G | B*44:02:07+B*51:01:16  | B*44:02:10+B*51:01:02 | B*44:12+B*52:06:02 | B*44:34+B*51:119 |
|                         | B*44:79+B*51:08        | B*44:95+B*51:78:01    | B*44:100+B*51:46   |                  |
| B*44:02:01G+B*51:01:02  | B*44:95+B*51:78:02     |                       |                    |                  |
| B*44:02:01G+B*51:01:19  | B*44:02:12+B*51:01:01G |                       |                    |                  |
| B*44:02:01G+B*51:01:21  | B*44:02:10+B*51:01:09  |                       |                    |                  |
| B*44:02:01G+B*51:01:25  | B*44:02:09+B*51:01:21  |                       |                    |                  |
| B*44:02:01G+B*51:01:26  | B*44:02:24+B*51:01:01G |                       |                    |                  |
| B*44:02:01G+B*51:01:33  | B*44:12+B*52:06:01     |                       |                    |                  |
| B*44:02:01G+B*51:02:01  | B*44:02:10+B*51:02:02  | B*44:91+B*51:23       |                    |                  |
| B*44:02:01G+B*51:02:05  | B*44:02:09+B*51:02:01  |                       |                    |                  |
| B*44:02:01G+B*51:05     | B*44:95+B*51:54        |                       |                    |                  |
| B*44:02:01G+B*51:06:02  | B*44:02:07+B*51:06:01  | B*44:41:01+B*51:04    |                    |                  |
| B*44:02:01G+B*51:07:01  | B*44:02:10+B*51:07:02  | B*44:12+B*52:01:02    |                    |                  |
| B*44:02:01G+B*51:07:02  | B*44:12+B*52:01:01G    |                       |                    |                  |
| B*44:02:01G+B*51:09:01  | B*44:02:10+B*51:09:02  | B*44:03:01G+B*51:08   |                    |                  |
| B*44:02:01G+B*51:16     | B*44:21+B*51:01:01G    |                       |                    |                  |
| B*44:02:01G+B*51:19     | B*44:29+B*51:08        | B*44:89+B*51:09:01    |                    |                  |
| B*44:02:01G+B*51:24:01  | B*44:53+B*51:01:04     |                       |                    |                  |
| B*44:02:01G+B*51:24:03  | B*44:02:09+B*51:24:04  | B*44:53+B*51:01:25    |                    |                  |
| B*44:02:01G+B*51:24:04  | B*44:53+B*51:01:21     |                       |                    |                  |
| B*44:02:01G+B*51:29     | B*44:76+B*51:08        |                       |                    |                  |
| B*44:02:01G+B*51:31     | B*44:21+B*51:09:01     |                       |                    |                  |
| B*44:02:01G+B*51:34     | B*44:16+B*51:23        | B*44:21+B*51:02:01    |                    |                  |
| B*44:02:01G+B*51:39     | B*44:24+B*51:01:01G    |                       |                    |                  |
| B*44:02:01G+B*51:42     | B*44:03:01G+B*44:06    |                       |                    |                  |
| B*44:02:01G+B*51:53     | B*44:102+B*51:01:01G   |                       |                    |                  |
| B*44:02:01G+B*51:61:01  | B*44:02:09+B*51:61:02  |                       |                    |                  |
| B*44:02:01G+B*51:61:02  | B*44:146+B*51:08       |                       |                    |                  |
| B*44:02:01G+B*51:63     | B*44:79+B*51:97        |                       |                    |                  |

|                         |                        |                       |                 |
|-------------------------|------------------------|-----------------------|-----------------|
| B*44:02:01G+B*51:68     | B*44:49+B*51:01:01G    |                       |                 |
| B*44:02:01G+B*51:78:01  | B*44:02:10+B*51:78:02  |                       |                 |
| B*44:02:01G+B*51:82     | B*44:21+B*51:29        |                       |                 |
| B*44:02:01G+B*51:101    | B*44:89+B*51:21        |                       |                 |
| B*44:02:01G+B*52:01:01G | B*44:79+B*52:19        | B*44:91+B*52:15       | B*44:95+B*52:20 |
| B*44:02:01G+B*52:01:02  | B*44:02:10+B*52:01:01G |                       |                 |
| B*44:02:01G+B*52:01:07  | B*44:02:09+B*52:01:01G |                       |                 |
| B*44:02:01G+B*52:08     | B*44:16+B*52:15        | B*44:21+B*52:01:01G   |                 |
| B*44:02:01G+B*52:10:01  | B*44:03:01G+B*52:19    |                       |                 |
| B*44:02:01G+B*52:10:02  | B*44:02:09+B*52:10:01  |                       |                 |
| B*44:02:01G+B*52:12     | B*44:123+B*52:26       |                       |                 |
| B*44:02:01G+B*52:24     | B*44:76+B*52:19        |                       |                 |
| B*44:02:01G+B*52:29     | B*44:102+B*52:01:01G   |                       |                 |
| B*44:02:01G+B*53:01:01  | B*44:37:01+B*53:22     | B*44:95+B*53:13       |                 |
| B*44:02:01G+B*53:01:03  | B*44:02:09+B*53:01:01  |                       |                 |
| B*44:02:01G+B*53:01:05  | B*44:02:23+B*53:01:01  |                       |                 |
| B*44:02:01G+B*53:05     | B*44:95+B*53:12        |                       |                 |
| B*44:02:01G+B*53:08:02  | B*44:02:09+B*53:08:01  |                       |                 |
| B*44:02:01G+B*53:24     | B*44:95+B*53:11        |                       |                 |
| B*44:02:01G+B*53:27     | B*44:86+B*53:01:01     |                       |                 |
| B*44:02:01G+B*54:26     | B*44:21+B*54:03        |                       |                 |
| B*44:02:01G+B*55:01:01G | B*44:03:01G+B*55:56    | B*44:12+B*55:40       |                 |
| B*44:02:01G+B*55:01:06  | B*44:02:24+B*55:01:01G | B*44:03:05+B*55:56    |                 |
| B*44:02:01G+B*55:02:01G | B*44:02:07+B*55:02:04  | B*44:51+B*55:41       |                 |
| B*44:02:01G+B*55:02:03  | B*44:27:02+B*55:02:01G |                       |                 |
| B*44:02:01G+B*55:16     | B*44:55+B*55:02:01G    |                       |                 |
| B*44:02:01G+B*55:22     | B*44:21+B*56:01:01G    |                       |                 |
| B*44:02:01G+B*55:24     | B*44:21+B*56:25        |                       |                 |
| B*44:02:01G+B*55:37     | B*44:04+B*56:13        |                       |                 |
| B*44:02:01G+B*55:47     | B*44:12+B*55:34        |                       |                 |
| B*44:02:01G+B*55:52     | B*44:28:02+B*55:56     |                       |                 |
| B*44:02:01G+B*55:54     | B*44:102+B*55:01:01G   |                       |                 |
| B*44:02:01G+B*56:01:01G | B*44:03:01G+B*56:13    | B*44:09+B*56:07       |                 |
| B*44:02:01G+B*56:01:03  | B*44:02:09+B*56:01:01G |                       |                 |
| B*44:02:01G+B*56:05:01  | B*44:02:10+B*56:05:02  |                       |                 |
| B*44:02:01G+B*56:20:01  | B*44:53+B*56:01:01G    |                       |                 |
| B*44:02:01G+B*56:25     | B*44:79+B*56:13        |                       |                 |
| B*44:02:01G+B*56:35     | B*44:103+B*56:13       | B*44:131+B*56:07      |                 |
| B*44:02:01G+B*57:01:01G | B*44:03:01G+B*57:24    | B*44:08+B*57:45       | B*44:51+B*57:41 |
| B*44:02:01G+B*57:01:13  | B*44:02:21+B*57:01:01G |                       |                 |
| B*44:02:01G+B*57:03:01  | B*44:91+B*57:07        |                       |                 |
| B*44:02:01G+B*57:19     | B*44:17+B*57:04        | B*44:28:02+B*57:24    |                 |
| B*44:02:01G+B*57:22     | B*44:79+B*57:24        |                       |                 |
| B*44:02:01G+B*57:25     | B*44:21+B*57:01:01G    |                       |                 |
| B*44:02:01G+B*57:31     | B*44:53+B*57:01:01G    |                       |                 |
| B*44:02:01G+B*57:39     | B*44:55+B*57:03:01     |                       |                 |
| B*44:02:01G+B*57:46     | B*44:102+B*57:03:01    |                       |                 |
| B*44:02:01G+B*57:48     | B*44:151+B*57:01:01G   |                       |                 |
| B*44:02:01G+B*57:49     | B*44:49+B*57:01:01G    |                       |                 |
| B*44:02:01G+B*57:57     | B*44:03:01G+B*57:09    |                       |                 |
| B*44:02:01G+B*58:01:05  | B*44:02:09+B*58:01:01G |                       |                 |
| B*44:02:01G+B*58:02     | B*44:91+B*58:07        |                       |                 |
| B*44:02:01G+B*58:08:01  | B*44:02:10+B*58:08:02  |                       |                 |
| B*44:02:01G+B*58:37     | B*44:21+B*58:01:01G    |                       |                 |
| B*44:02:01G+B*78:02:01  | B*44:09+B*51:78:02     |                       |                 |
| B*44:02:01G+B*78:02:02  | B*44:02:10+B*78:02:01  | B*44:09+B*51:78:01    |                 |
| B*44:02:01G+B*78:05     | B*44:09+B*52:20        |                       |                 |
| B*44:02:07+B*44:03:05   | B*44:02:24+B*44:03:02  |                       |                 |
| B*44:02:07+B*44:13      | B*44:03:02+B*44:67     |                       |                 |
| B*44:02:07+B*44:29      | B*44:03:02+B*44:89     |                       |                 |
| B*44:02:07+B*44:40      | B*44:03:02+B*44:44     |                       |                 |
| B*44:02:07+B*44:43:01   | B*44:03:02+B*44:17     |                       |                 |
| B*44:02:07+B*44:45      | B*44:03:02+B*44:51     |                       |                 |
| B*44:02:07+B*44:46      | B*44:03:02+B*44:09     |                       |                 |
| B*44:02:07+B*44:47      | B*44:03:02+B*44:20     |                       |                 |
| B*44:02:07+B*44:50      | B*44:03:02+B*44:95     |                       |                 |
| B*44:02:07+B*44:54      | B*44:03:02+B*44:106    | B*44:41:02+B*44:110   |                 |
| B*44:02:07+B*44:57      | B*44:03:02+B*44:08     |                       |                 |
| B*44:02:07+B*44:65      | B*44:03:01G+B*44:41:02 | B*44:03:02+B*44:41:01 |                 |
| B*44:02:07+B*44:105     | B*44:03:02+B*44:22     |                       |                 |
| B*44:02:07+B*44:107     | B*44:03:02+B*44:123    |                       |                 |
| B*44:02:07+B*49:11      | B*44:18+B*44:37:02     |                       |                 |
| B*44:02:07+B*51:01:01G  | B*44:20+B*51:04        |                       |                 |
| B*44:02:07+B*51:06:02   | B*44:41:02+B*51:04     |                       |                 |
| B*44:02:07+B*51:09:01   | B*44:03:02+B*51:08     |                       |                 |
| B*44:02:07+B*51:31      | B*44:124+B*51:08       |                       |                 |
| B*44:02:07+B*51:42      | B*44:03:02+B*44:06     |                       |                 |
| B*44:02:07+B*51:64      | B*44:106+B*51:04       |                       |                 |
| B*44:02:07+B*52:10:01   | B*44:03:02+B*52:19     |                       |                 |
| B*44:02:07+B*53:01:01   | B*44:37:02+B*53:22     |                       |                 |
| B*44:02:07+B*53:14      | B*44:106+B*53:01:01    |                       |                 |
| B*44:02:07+B*55:01:01G  | B*44:03:02+B*55:56     | B*44:48+B*55:38       |                 |
| B*44:02:07+B*55:22      | B*44:124+B*56:13       |                       |                 |
| B*44:02:07+B*55:28      | B*44:48+B*55:17        |                       |                 |
| B*44:02:07+B*55:52      | B*44:28:01+B*55:56     |                       |                 |
| B*44:02:07+B*56:01:01G  | B*44:03:02+B*56:13     | B*44:48+B*56:27       |                 |
| B*44:02:07+B*56:02      | B*44:48+B*56:04        |                       |                 |
| B*44:02:07+B*57:01:01G  | B*44:03:02+B*57:24     |                       |                 |
| B*44:02:07+B*57:19      | B*44:28:01+B*57:24     |                       |                 |
| B*44:02:07+B*57:25      | B*44:124+B*57:24       |                       |                 |
| B*44:02:07+B*57:57      | B*44:03:02+B*57:09     |                       |                 |
| B*44:02:07+B*58:16      | B*44:41:01+B*58:01:01G |                       |                 |
| B*44:02:07+B*58:18      | B*44:106+B*58:01:01G   |                       |                 |
| B*44:02:09+B*51:07:02   | B*44:12+B*52:01:07     |                       |                 |
| B*44:02:09+B*51:34      | B*44:21+B*51:02:05     |                       |                 |
| B*44:02:09+B*52:01:02   | B*44:02:10+B*52:01:07  |                       |                 |
| B*44:02:09+B*52:08      | B*44:21+B*52:01:07     |                       |                 |
| B*44:02:09+B*52:29      | B*44:102+B*52:01:07    |                       |                 |
| B*44:02:09+B*53:01:05   | B*44:02:23+B*53:01:03  |                       |                 |
| B*44:02:09+B*53:27      | B*44:86+B*53:01:03     |                       |                 |
| B*44:02:09+B*55:22      | B*44:21+B*56:01:03     |                       |                 |
| B*44:02:09+B*56:20:01   | B*44:53+B*56:01:03     |                       |                 |
| B*44:02:09+B*57:01:07   | B*44:03:14+B*57:24     |                       |                 |
| B*44:02:09+B*58:37      | B*44:21+B*58:01:05     |                       |                 |
| B*44:02:10+B*46:01:01G  | B*44:34+B*46:10        |                       |                 |

|                         |                        |                        |                     |                    |
|-------------------------|------------------------|------------------------|---------------------|--------------------|
| B*44:02:10+B*52:08      | B*44:21+B*52:01:02     |                        |                     |                    |
| B*44:02:10+B*52:29      | B*44:102+B*52:01:02    |                        |                     |                    |
| B*44:02:10+B*56:01:01G  | B*44:34+B*56:36        |                        |                     |                    |
| B*44:02:12+B*51:01:26   | B*44:02:24+B*51:01:19  |                        |                     |                    |
| B*44:02:12+B*51:16      | B*44:21+B*51:01:19     |                        |                     |                    |
| B*44:02:12+B*51:39      | B*44:24+B*51:01:19     |                        |                     |                    |
| B*44:02:12+B*51:53      | B*44:102+B*51:01:19    |                        |                     |                    |
| B*44:02:12+B*51:68      | B*44:49+B*51:01:19     |                        |                     |                    |
| B*44:02:14+B*50:15      | B*44:12+B*50:01:02     |                        |                     |                    |
| B*44:02:21+B*57:25      | B*44:21+B*57:01:13     |                        |                     |                    |
| B*44:02:21+B*57:31      | B*44:53+B*57:01:13     |                        |                     |                    |
| B*44:02:21+B*57:48      | B*44:151+B*57:01:13    |                        |                     |                    |
| B*44:02:21+B*57:49      | B*44:49+B*57:01:13     |                        |                     |                    |
| B*44:02:23+B*53:27      | B*44:86+B*53:01:05     |                        |                     |                    |
| B*44:02:24+B*44:13      | B*44:03:05+B*44:67     |                        |                     |                    |
| B*44:02:24+B*44:29      | B*44:03:05+B*44:89     |                        |                     |                    |
| B*44:02:24+B*44:37:01   | B*44:03:05+B*44:91     |                        |                     |                    |
| B*44:02:24+B*44:40      | B*44:03:05+B*44:44     |                        |                     |                    |
| B*44:02:24+B*44:43:01   | B*44:03:05+B*44:17     |                        |                     |                    |
| B*44:02:24+B*44:45      | B*44:03:05+B*44:51     |                        |                     |                    |
| B*44:02:24+B*44:46      | B*44:03:05+B*44:09     |                        |                     |                    |
| B*44:02:24+B*44:47      | B*44:03:05+B*44:20     |                        |                     |                    |
| B*44:02:24+B*44:50      | B*44:03:05+B*44:95     |                        |                     |                    |
| B*44:02:24+B*44:54      | B*44:03:05+B*44:106    |                        |                     |                    |
| B*44:02:24+B*44:57      | B*44:03:05+B*44:08     |                        |                     |                    |
| B*44:02:24+B*44:64:02   | B*44:03:05+B*44:16     |                        |                     |                    |
| B*44:02:24+B*44:65      | B*44:03:05+B*44:41:01  |                        |                     |                    |
| B*44:02:24+B*44:105     | B*44:03:05+B*44:22     |                        |                     |                    |
| B*44:02:24+B*44:107     | B*44:03:05+B*44:123    |                        |                     |                    |
| B*44:02:24+B*51:09:01   | B*44:03:05+B*51:08     |                        |                     |                    |
| B*44:02:24+B*51:16      | B*44:21+B*51:01:26     |                        |                     |                    |
| B*44:02:24+B*51:39      | B*44:24+B*51:01:26     |                        |                     |                    |
| B*44:02:24+B*51:42      | B*44:03:05+B*44:06     |                        |                     |                    |
| B*44:02:24+B*51:53      | B*44:102+B*51:01:26    |                        |                     |                    |
| B*44:02:24+B*51:68      | B*44:49+B*51:01:26     |                        |                     |                    |
| B*44:02:24+B*52:10:01   | B*44:03:05+B*52:19     |                        |                     |                    |
| B*44:02:24+B*55:54      | B*44:102+B*55:01:06    |                        |                     |                    |
| B*44:02:24+B*56:01:01G  | B*44:03:05+B*56:13     |                        |                     |                    |
| B*44:02:24+B*57:01:01G  | B*44:03:05+B*57:24     |                        |                     |                    |
| B*44:02:24+B*57:57      | B*44:03:05+B*57:09     |                        |                     |                    |
| B*44:03:01G+B*44:25     | B*44:05:01+B*44:50     |                        |                     |                    |
| B*44:03:01G+B*44:28:01  | B*44:03:02+B*44:28:02  |                        |                     |                    |
| B*44:03:01G+B*44:37:02  | B*44:03:02+B*44:37:01  |                        |                     |                    |
| B*44:03:01G+B*44:42     | B*44:05:01+B*44:37:01  |                        |                     |                    |
| B*44:03:01G+B*44:43:01  | B*44:45+B*44:144       |                        |                     |                    |
| B*44:03:01G+B*44:54     | B*44:65+B*44:110       |                        |                     |                    |
| B*44:03:01G+B*44:64:01  | B*44:03:02+B*44:64:02  | B*44:37:01+B*44:124    |                     |                    |
| B*44:03:01G+B*44:76     | B*44:28:02+B*44:79     |                        |                     |                    |
| B*44:03:01G+B*44:78     | B*44:05:01+B*44:120    |                        |                     |                    |
| B*44:03:01G+B*44:131    | B*44:09+B*44:103       |                        |                     |                    |
| B*44:03:01G+B*44:135    | B*44:45+B*44:54        |                        |                     |                    |
| B*44:03:01G+B*45:04     | B*44:37:01+B*45:01:01G |                        |                     |                    |
| B*44:03:01G+B*45:10     | B*44:64:02+B*45:01:01G |                        |                     |                    |
| B*44:03:01G+B*46:01:01G | B*44:37:01+B*46:17     | B*44:79+B*46:09        | B*44:146+B*46:13:03 |                    |
| B*44:03:01G+B*46:01:03  | B*44:146+B*46:13:01    |                        |                     |                    |
| B*44:03:01G+B*46:03     | B*44:04+B*46:08        | B*44:76+B*46:21:01     |                     |                    |
| B*44:03:01G+B*46:05     | B*44:105+B*46:01:01G   |                        |                     |                    |
| B*44:03:01G+B*46:08     | B*44:79+B*46:13:03     |                        |                     |                    |
| B*44:03:01G+B*46:12     | B*44:110+B*46:01:01G   |                        |                     |                    |
| B*44:03:01G+B*46:19     | B*44:29+B*46:13:03     |                        |                     |                    |
| B*44:03:01G+B*46:27     | B*44:98+B*46:01:01G    |                        |                     |                    |
| B*44:03:01G+B*46:29     | B*44:146+B*46:21:01    |                        |                     |                    |
| B*44:03:01G+B*46:30     | B*44:64:02+B*46:17     |                        |                     |                    |
| B*44:03:01G+B*47:07     | B*44:26+B*47:01:01G    |                        |                     |                    |
| B*44:03:01G+B*48:01:01G | B*44:110+B*48:03:01    |                        |                     |                    |
| B*44:03:01G+B*48:03:02  | B*44:03:02+B*48:03:01  |                        |                     |                    |
| B*44:03:01G+B*48:15     | B*44:79+B*48:01:01G    |                        |                     |                    |
| B*44:03:01G+B*48:25     | B*44:79+B*48:02:01     |                        |                     |                    |
| B*44:03:01G+B*49:01:01  | B*44:37:01+B*49:20     | B*44:50+B*49:02        | B*44:79+B*49:11     |                    |
| B*44:03:01G+B*49:07     | B*44:64:02+B*49:20     |                        |                     |                    |
| B*44:03:01G+B*50:01:01  | B*44:37:01+B*50:02     | B*44:46+B*49:02        |                     |                    |
| B*44:03:01G+B*51:01:01G | B*44:03:02+B*51:01:16  | B*44:50+B*51:78:01     | B*44:79+B*51:09:01  |                    |
| B*44:03:01G+B*51:01:02  | B*44:50+B*51:78:02     | B*44:79+B*51:09:02     |                     |                    |
| B*44:03:01G+B*51:01:14  | B*44:03:16+B*51:01:01G |                        |                     |                    |
| B*44:03:01G+B*51:01:24  | B*44:03:08+B*51:01:01G |                        |                     |                    |
| B*44:03:01G+B*51:01:25  | B*44:03:14+B*51:01:01G |                        |                     |                    |
| B*44:03:01G+B*51:01:26  | B*44:03:05+B*51:01:01G |                        |                     |                    |
| B*44:03:01G+B*51:02:01  | B*44:37:01+B*51:23     |                        |                     |                    |
| B*44:03:01G+B*51:02:05  | B*44:79+B*51:40        |                        |                     |                    |
| B*44:03:01G+B*51:05     | B*44:50+B*51:54        |                        |                     |                    |
| B*44:03:01G+B*51:06:02  | B*44:03:02+B*51:06:01  | B*44:65+B*51:04        |                     |                    |
| B*44:03:01G+B*51:16     | B*44:79+B*51:31        | B*44:124+B*51:01:16    |                     |                    |
| B*44:03:01G+B*51:19     | B*44:29+B*51:09:01     |                        |                     |                    |
| B*44:03:01G+B*51:23     | B*44:79+B*51:108       |                        |                     |                    |
| B*44:03:01G+B*51:24:02  | B*44:03:14+B*51:24:01  |                        |                     |                    |
| B*44:03:01G+B*51:29     | B*44:28:01+B*51:01:16  | B*44:28:02+B*51:01:01G | B*44:76+B*51:09:01  |                    |
| B*44:03:01G+B*51:34     | B*44:64:02+B*51:23     |                        |                     |                    |
| B*44:03:01G+B*51:36     | B*44:132+B*51:23       |                        |                     |                    |
| B*44:03:01G+B*51:61:02  | B*44:146+B*51:09:01    |                        |                     |                    |
| B*44:03:01G+B*51:64     | B*44:110+B*51:06:01    |                        |                     |                    |
| B*44:03:01G+B*51:70     | B*44:120+B*51:01:01G   |                        |                     |                    |
| B*44:03:01G+B*51:82     | B*44:28:02+B*51:16     | B*44:76+B*51:31        |                     |                    |
| B*44:03:01G+B*51:101    | B*44:29+B*51:21        |                        |                     |                    |
| B*44:03:01G+B*51:120    | B*44:92+B*51:01:01G    |                        |                     |                    |
| B*44:03:01G+B*52:01:01G | B*44:37:01+B*52:15     | B*44:50+B*52:20        | B*44:77+B*52:26     | B*44:79+B*52:10:01 |
| B*44:03:01G+B*52:01:07  | B*44:79+B*52:10:02     |                        |                     |                    |
| B*44:03:01G+B*52:08     | B*44:64:02+B*52:15     |                        |                     |                    |
| B*44:03:01G+B*52:09     | B*44:109+B*52:01:02    |                        |                     |                    |
| B*44:03:01G+B*52:12     | B*44:107+B*52:26       |                        |                     |                    |
| B*44:03:01G+B*52:24     | B*44:28:02+B*52:01:01G | B*44:76+B*52:10:01     |                     |                    |
| B*44:03:01G+B*53:01:01  | B*44:50+B*53:13        |                        |                     |                    |
| B*44:03:01G+B*53:01:02  | B*44:81+B*53:01:01     |                        |                     |                    |
| B*44:03:01G+B*53:05     | B*44:50+B*53:12        | B*44:109+B*53:01:01    |                     |                    |
| B*44:03:01G+B*53:08:01  | B*44:79+B*53:01:01     |                        |                     |                    |
| B*44:03:01G+B*53:08:02  | B*44:79+B*53:01:03     |                        |                     |                    |

|                         |                        |                        |                        |                 |
|-------------------------|------------------------|------------------------|------------------------|-----------------|
| B*44:03:01G+B*53:11     | B*44:28:02+B*53:13     |                        |                        |                 |
| B*44:03:01G+B*53:12     | B*44:109+B*53:13       |                        |                        |                 |
| B*44:03:01G+B*53:16     | B*44:28:02+B*53:05     | B*44:109+B*53:24       |                        |                 |
| B*44:03:01G+B*53:24     | B*44:28:02+B*53:01:01  | B*44:50+B*53:11        |                        |                 |
| B*44:03:01G+B*54:02     | B*44:103+B*54:01:01G   |                        |                        |                 |
| B*44:03:01G+B*54:10     | B*44:04+B*54:03        | B*44:28:02+B*54:01:01G |                        |                 |
| B*44:03:01G+B*54:20     | B*44:76+B*54:01:01G    | B*44:79+B*54:10        |                        |                 |
| B*44:03:01G+B*55:01:01G | B*44:79+B*55:02:01G    |                        |                        |                 |
| B*44:03:01G+B*55:01:06  | B*44:03:05+B*55:01:01G |                        |                        |                 |
| B*44:03:01G+B*55:02:01G | B*44:03:02+B*55:02:04  | B*44:45+B*55:41        | B*44:109+B*55:12       |                 |
| B*44:03:01G+B*55:02:02  | B*44:03:13+B*55:02:04  |                        |                        |                 |
| B*44:03:01G+B*55:09     | B*44:28:02+B*55:24     | B*44:76+B*55:22        |                        |                 |
| B*44:03:01G+B*55:21     | B*44:146+B*55:02:01G   |                        |                        |                 |
| B*44:03:01G+B*55:24     | B*44:79+B*55:22        |                        |                        |                 |
| B*44:03:01G+B*55:30     | B*44:85+B*55:02:01G    |                        |                        |                 |
| B*44:03:01G+B*55:37     | B*44:04+B*56:01:01G    | B*44:28:01+B*55:02:04  | B*44:28:02+B*55:02:01G |                 |
| B*44:03:01G+B*55:52     | B*44:04+B*56:25        | B*44:28:02+B*55:01:01G | B*44:76+B*55:02:01G    | B*44:79+B*55:37 |
| B*44:03:01G+B*56:01:01G | B*44:46+B*56:07        |                        |                        |                 |
| B*44:03:01G+B*56:20:02  | B*44:03:14+B*56:20:01  |                        |                        |                 |
| B*44:03:01G+B*56:25     | B*44:79+B*56:01:01G    |                        |                        |                 |
| B*44:03:01G+B*56:32     | B*44:79+B*56:18        |                        |                        |                 |
| B*44:03:01G+B*56:35     | B*44:103+B*56:01:01G   |                        |                        |                 |
| B*44:03:01G+B*57:01:01G | B*44:45+B*57:41        | B*44:57+B*57:45        |                        |                 |
| B*44:03:01G+B*57:02:01  | B*44:28:02+B*57:03:01  | B*44:77+B*57:04        |                        |                 |
| B*44:03:01G+B*57:03:01  | B*44:37:01+B*57:07     |                        |                        |                 |
| B*44:03:01G+B*57:19     | B*44:28:02+B*57:01:01G | B*44:43:01+B*57:04     |                        |                 |
| B*44:03:01G+B*57:22     | B*44:79+B*57:01:01G    |                        |                        |                 |
| B*44:03:01G+B*57:57     | B*44:79+B*57:03:01     |                        |                        |                 |
| B*44:03:01G+B*58:02     | B*44:37:01+B*58:07     |                        |                        |                 |
| B*44:03:01G+B*58:06     | B*44:79+B*58:02        |                        |                        |                 |
| B*44:03:01G+B*58:18     | B*44:110+B*58:16       |                        |                        |                 |
| B*44:03:01G+B*58:19     | B*44:79+B*58:01:01G    |                        |                        |                 |
| B*44:03:01G+B*58:22     | B*44:28:02+B*58:01:01G |                        |                        |                 |
| B*44:03:01G+B*78:02:01  | B*44:46+B*51:78:02     |                        |                        |                 |
| B*44:03:01G+B*78:02:02  | B*44:46+B*51:78:01     |                        |                        |                 |
| B*44:03:01G+B*78:05     | B*44:46+B*52:20        | B*44:109+B*78:06       |                        |                 |
| B*44:03:02+B*44:42      | B*44:05:01+B*44:37:02  |                        |                        |                 |
| B*44:03:02+B*44:64:01   | B*44:37:02+B*44:124    |                        |                        |                 |
| B*44:03:02+B*44:76      | B*44:28:01+B*44:79     |                        |                        |                 |
| B*44:03:02+B*45:04      | B*44:37:02+B*45:01:01G |                        |                        |                 |
| B*44:03:02+B*45:10      | B*44:64:01+B*45:01:01G | B*44:124+B*45:04       |                        |                 |
| B*44:03:02+B*46:01:01G  | B*44:37:02+B*46:17     |                        |                        |                 |
| B*44:03:02+B*46:30      | B*44:64:01+B*46:17     | B*44:124+B*46:01:01G   |                        |                 |
| B*44:03:02+B*48:01:01G  | B*44:110+B*48:03:02    |                        |                        |                 |
| B*44:03:02+B*49:01:01   | B*44:37:02+B*49:20     |                        |                        |                 |
| B*44:03:02+B*49:07      | B*44:64:01+B*49:20     | B*44:124+B*49:01:01    |                        |                 |
| B*44:03:02+B*50:01:01   | B*44:37:02+B*50:02     |                        |                        |                 |
| B*44:03:02+B*50:07      | B*44:07+B*50:01:01     |                        |                        |                 |
| B*44:03:02+B*51:01:01G  | B*44:07+B*51:74        | B*44:47+B*51:04        |                        |                 |
| B*44:03:02+B*51:02:01   | B*44:37:02+B*51:23     |                        |                        |                 |
| B*44:03:02+B*51:16      | B*44:124+B*51:01:01G   |                        |                        |                 |
| B*44:03:02+B*51:29      | B*44:28:01+B*51:01:01G |                        |                        |                 |
| B*44:03:02+B*51:31      | B*44:124+B*51:09:01    |                        |                        |                 |
| B*44:03:02+B*51:34      | B*44:64:01+B*51:23     | B*44:124+B*51:02:01    |                        |                 |
| B*44:03:02+B*51:64      | B*44:54+B*51:04        | B*44:110+B*51:06:02    |                        |                 |
| B*44:03:02+B*51:82      | B*44:28:01+B*51:16     | B*44:124+B*51:29       |                        |                 |
| B*44:03:02+B*52:01:01G  | B*44:37:02+B*52:15     |                        |                        |                 |
| B*44:03:02+B*52:08      | B*44:64:01+B*52:15     | B*44:124+B*52:01:01G   |                        |                 |
| B*44:03:02+B*52:24      | B*44:28:01+B*52:01:01G |                        |                        |                 |
| B*44:03:02+B*53:11      | B*44:28:01+B*53:13     |                        |                        |                 |
| B*44:03:02+B*53:14      | B*44:54+B*53:01:01     |                        |                        |                 |
| B*44:03:02+B*53:16      | B*44:28:01+B*53:05     |                        |                        |                 |
| B*44:03:02+B*53:24      | B*44:28:01+B*53:01:01  |                        |                        |                 |
| B*44:03:02+B*54:10      | B*44:28:01+B*54:01:01G |                        |                        |                 |
| B*44:03:02+B*54:26      | B*44:124+B*54:03       |                        |                        |                 |
| B*44:03:02+B*55:02:02   | B*44:03:13+B*55:02:01G |                        |                        |                 |
| B*44:03:02+B*55:09      | B*44:28:01+B*55:24     |                        |                        |                 |
| B*44:03:02+B*55:22      | B*44:124+B*56:01:01G   |                        |                        |                 |
| B*44:03:02+B*55:24      | B*44:124+B*56:25       |                        |                        |                 |
| B*44:03:02+B*55:37      | B*44:28:01+B*55:02:01G |                        |                        |                 |
| B*44:03:02+B*55:52      | B*44:28:01+B*55:01:01G |                        |                        |                 |
| B*44:03:02+B*57:02:01   | B*44:28:01+B*57:03:01  |                        |                        |                 |
| B*44:03:02+B*57:03:01   | B*44:37:02+B*57:07     |                        |                        |                 |
| B*44:03:02+B*57:19      | B*44:28:01+B*57:01:01G |                        |                        |                 |
| B*44:03:02+B*57:25      | B*44:124+B*57:01:01G   |                        |                        |                 |
| B*44:03:02+B*58:02      | B*44:37:02+B*58:07     |                        |                        |                 |
| B*44:03:02+B*58:14      | B*44:153+B*58:01:01G   |                        |                        |                 |
| B*44:03:02+B*58:16      | B*44:65+B*58:01:01G    |                        |                        |                 |
| B*44:03:02+B*58:18      | B*44:54+B*58:01:01G    |                        |                        |                 |
| B*44:03:02+B*58:22      | B*44:28:01+B*58:01:01G |                        |                        |                 |
| B*44:03:02+B*58:37      | B*44:124+B*58:01:01G   |                        |                        |                 |
| B*44:03:05+B*51:01:14   | B*44:03:16+B*51:01:26  |                        |                        |                 |
| B*44:03:05+B*51:01:24   | B*44:03:08+B*51:01:26  |                        |                        |                 |
| B*44:03:05+B*51:01:25   | B*44:03:14+B*51:01:26  |                        |                        |                 |
| B*44:03:05+B*51:29      | B*44:28:02+B*51:01:26  |                        |                        |                 |
| B*44:03:05+B*51:70      | B*44:120+B*51:01:26    |                        |                        |                 |
| B*44:03:05+B*51:120     | B*44:92+B*51:01:26     |                        |                        |                 |
| B*44:03:05+B*55:52      | B*44:28:02+B*55:01:06  |                        |                        |                 |
| B*44:03:08+B*51:01:14   | B*44:03:16+B*51:01:24  |                        |                        |                 |
| B*44:03:08+B*51:01:25   | B*44:03:14+B*51:01:24  |                        |                        |                 |
| B*44:03:08+B*51:29      | B*44:28:02+B*51:01:24  |                        |                        |                 |
| B*44:03:08+B*51:70      | B*44:120+B*51:01:24    |                        |                        |                 |
| B*44:03:08+B*51:120     | B*44:92+B*51:01:24     |                        |                        |                 |
| B*44:03:13+B*55:37      | B*44:28:01+B*55:02:02  |                        |                        |                 |
| B*44:03:14+B*51:01:14   | B*44:03:16+B*51:01:25  |                        |                        |                 |
| B*44:03:14+B*51:29      | B*44:28:02+B*51:01:25  |                        |                        |                 |
| B*44:03:14+B*51:70      | B*44:120+B*51:01:25    |                        |                        |                 |
| B*44:03:14+B*51:120     | B*44:92+B*51:01:25     |                        |                        |                 |
| B*44:03:16+B*51:29      | B*44:28:02+B*51:01:14  |                        |                        |                 |
| B*44:03:16+B*51:70      | B*44:120+B*51:01:14    |                        |                        |                 |
| B*44:03:16+B*51:120     | B*44:92+B*51:01:14     |                        |                        |                 |
| B*44:04+B*44:91         | B*44:28:02+B*44:132    |                        |                        |                 |
| B*44:04+B*45:04         | B*44:28:02+B*45:08     |                        |                        |                 |
| B*44:04+B*46:01:01G     | B*44:28:02+B*46:29     |                        |                        |                 |
| B*44:04+B*46:11         | B*44:28:02+B*46:18     |                        |                        |                 |

|                        |                        |                   |
|------------------------|------------------------|-------------------|
| B*44:04+B*46:13:01     | B*44:28:02+B*46:21:02  |                   |
| B*44:04+B*46:13:03     | B*44:28:02+B*46:21:01  |                   |
| B*44:04+B*51:01:01G    | B*44:28:02+B*51:21     |                   |
| B*44:04+B*56:02        | B*44:28:02+B*56:10     |                   |
| B*44:04+B*56:22        | B*44:28:02+B*55:13     |                   |
| B*44:04+B*56:35        | B*44:103+B*55:37       |                   |
| B*44:04+B*57:01:01G    | B*44:28:02+B*57:26     |                   |
| B*44:04+B*57:22        | B*44:76+B*57:26        |                   |
| B*44:04+B*58:01:01G    | B*44:28:02+B*58:35     |                   |
| B*44:04+B*58:19        | B*44:76+B*58:35        |                   |
| B*44:04+B*59:04        | B*44:28:02+B*59:01:01G |                   |
| B*44:04+B*78:01:01     | B*44:28:02+B*78:07     |                   |
| B*44:05:01+B*44:16     | B*44:21+B*44:42        |                   |
| B*44:05:01+B*44:43:01  | B*44:123+B*44:144      |                   |
| B*44:05:01+B*44:46     | B*44:75+B*44:109       |                   |
| B*44:05:01+B*44:64:01  | B*44:42+B*44:124       |                   |
| B*44:05:01+B*44:135    | B*44:54+B*44:123       | B*44:106+B*44:107 |
| B*44:05:01+B*45:01:01G | B*44:15+B*44:75        |                   |
| B*44:05:01+B*45:04     | B*44:42+B*45:01:01G    |                   |
| B*44:05:01+B*46:01:01G | B*44:42+B*46:17        |                   |
| B*44:05:01+B*48:07     | B*44:117+B*48:01:01G   |                   |
| B*44:05:01+B*49:01:01  | B*44:25+B*49:02        | B*44:42+B*49:20   |
| B*44:05:01+B*50:01:01  | B*44:42+B*50:02        |                   |
| B*44:05:01+B*51:01:01G | B*44:25+B*51:78:01     | B*44:134+B*51:112 |
| B*44:05:01+B*51:01:02  | B*44:25+B*51:78:02     |                   |
| B*44:05:01+B*51:01:08  | B*44:05:03+B*51:01:01G |                   |
| B*44:05:01+B*51:02:01  | B*44:42+B*51:23        |                   |
| B*44:05:01+B*51:05     | B*44:25+B*51:54        |                   |
| B*44:05:01+B*51:13:01  | B*44:117+B*51:01:04    |                   |
| B*44:05:01+B*51:13:02  | B*44:117+B*51:01:01G   |                   |
| B*44:05:01+B*51:41N    | B*44:58N+B*51:01:01G   |                   |
| B*44:05:01+B*51:70     | B*44:78+B*51:01:01G    |                   |
| B*44:05:01+B*51:136    | B*44:136+B*51:01:01G   |                   |
| B*44:05:01+B*52:01:01G | B*44:25+B*52:20        | B*44:42+B*52:15   |
| B*44:05:01+B*52:14     | B*44:117+B*52:01:05    |                   |
| B*44:05:01+B*53:01:01  | B*44:25+B*53:13        |                   |
| B*44:05:01+B*53:05     | B*44:25+B*53:12        |                   |
| B*44:05:01+B*53:24     | B*44:25+B*53:11        |                   |
| B*44:05:01+B*55:02:01G | B*44:123+B*55:41       |                   |
| B*44:05:01+B*56:22     | B*44:117+B*56:15       |                   |
| B*44:05:01+B*57:01:01G | B*44:123+B*57:41       |                   |
| B*44:05:01+B*57:03:01  | B*44:42+B*57:07        |                   |
| B*44:05:01+B*58:02     | B*44:42+B*58:07        |                   |
| B*44:05:01+B*78:06     | B*44:75+B*52:20        |                   |
| B*44:05:03+B*51:13:02  | B*44:117+B*51:01:08    |                   |
| B*44:05:03+B*51:41N    | B*44:58N+B*51:01:08    |                   |
| B*44:05:03+B*51:70     | B*44:78+B*51:01:08     |                   |
| B*44:05:03+B*51:136    | B*44:136+B*51:01:08    |                   |
| B*44:06+B*44:13        | B*44:67+B*51:42        |                   |
| B*44:06+B*44:29        | B*44:89+B*51:42        |                   |
| B*44:06+B*44:37:01     | B*44:91+B*51:42        |                   |
| B*44:06+B*44:40        | B*44:44+B*51:42        |                   |
| B*44:06+B*44:43:01     | B*44:17+B*51:42        |                   |
| B*44:06+B*44:45        | B*44:51+B*51:42        |                   |
| B*44:06+B*44:46        | B*44:09+B*51:42        |                   |
| B*44:06+B*44:47        | B*44:20+B*51:42        |                   |
| B*44:06+B*44:50        | B*44:95+B*51:42        |                   |
| B*44:06+B*44:54        | B*44:106+B*51:42       |                   |
| B*44:06+B*44:57        | B*44:08+B*51:42        |                   |
| B*44:06+B*44:64:02     | B*44:16+B*51:42        |                   |
| B*44:06+B*44:65        | B*44:41:01+B*51:42     |                   |
| B*44:06+B*44:105       | B*44:22+B*51:42        |                   |
| B*44:06+B*44:107       | B*44:123+B*51:42       |                   |
| B*44:06+B*51:09:01     | B*51:08+B*51:42        |                   |
| B*44:06+B*52:10:01     | B*51:42+B*52:19        |                   |
| B*44:06+B*52:20        | B*44:83+B*51:01:01G    |                   |
| B*44:06+B*55:01:01G    | B*51:42+B*55:56        |                   |
| B*44:06+B*56:01:01G    | B*51:42+B*56:13        |                   |
| B*44:06+B*57:01:01G    | B*51:42+B*57:24        |                   |
| B*44:06+B*57:57        | B*51:42+B*57:09        |                   |
| B*44:08+B*44:13        | B*44:57+B*44:67        |                   |
| B*44:08+B*44:29        | B*44:57+B*44:89        |                   |
| B*44:08+B*44:37:01     | B*44:57+B*44:91        |                   |
| B*44:08+B*44:40        | B*44:44+B*44:57        |                   |
| B*44:08+B*44:43:01     | B*44:17+B*44:57        |                   |
| B*44:08+B*44:45        | B*44:51+B*44:57        |                   |
| B*44:08+B*44:46        | B*44:09+B*44:57        |                   |
| B*44:08+B*44:47        | B*44:20+B*44:57        |                   |
| B*44:08+B*44:50        | B*44:57+B*44:95        |                   |
| B*44:08+B*44:54        | B*44:57+B*44:106       |                   |
| B*44:08+B*44:64:02     | B*44:16+B*44:57        |                   |
| B*44:08+B*44:65        | B*44:41:01+B*44:57     |                   |
| B*44:08+B*44:105       | B*44:22+B*44:57        |                   |
| B*44:08+B*44:107       | B*44:57+B*44:123       |                   |
| B*44:08+B*51:09:01     | B*44:57+B*51:08        |                   |
| B*44:08+B*52:10:01     | B*44:57+B*52:19        |                   |
| B*44:08+B*55:01:01G    | B*44:57+B*55:56        |                   |
| B*44:08+B*56:01:01G    | B*44:57+B*56:13        |                   |
| B*44:08+B*57:01:01G    | B*44:57+B*57:24        |                   |
| B*44:08+B*57:57        | B*44:57+B*57:09        |                   |
| B*44:09+B*44:13        | B*44:46+B*44:67        |                   |
| B*44:09+B*44:18        | B*44:95+B*45:01:01G    |                   |
| B*44:09+B*44:29        | B*44:46+B*44:89        |                   |
| B*44:09+B*44:37:01     | B*44:46+B*44:91        |                   |
| B*44:09+B*44:40        | B*44:44+B*44:46        |                   |
| B*44:09+B*44:43:01     | B*44:17+B*44:46        |                   |
| B*44:09+B*44:45        | B*44:46+B*44:51        |                   |
| B*44:09+B*44:47        | B*44:20+B*44:46        |                   |
| B*44:09+B*44:50        | B*44:46+B*44:95        |                   |
| B*44:09+B*44:54        | B*44:46+B*44:106       |                   |
| B*44:09+B*44:64:02     | B*44:16+B*44:46        |                   |
| B*44:09+B*44:65        | B*44:41:01+B*44:46     |                   |
| B*44:09+B*44:105       | B*44:22+B*44:46        |                   |
| B*44:09+B*44:107       | B*44:46+B*44:123       |                   |
| B*44:09+B*45:06        | B*44:90+B*45:01:01G    |                   |



|                     |                       |                  |
|---------------------|-----------------------|------------------|
| B*44:09+B*49:01:01  | B*44:95+B*50:01:01    |                  |
| B*44:09+B*49:10     | B*44:95+B*50:13       |                  |
| B*44:09+B*49:11     | B*44:50+B*45:04       |                  |
| B*44:09+B*49:18     | B*44:95+B*50:14       |                  |
| B*44:09+B*49:20     | B*44:95+B*50:02       |                  |
| B*44:09+B*51:01:01G | B*44:95+B*78:02:02    |                  |
| B*44:09+B*51:01:02  | B*44:95+B*78:02:01    |                  |
| B*44:09+B*51:09:01  | B*44:46+B*51:08       |                  |
| B*44:09+B*52:01:01G | B*44:95+B*78:05       |                  |
| B*44:09+B*52:10:01  | B*44:46+B*52:19       |                  |
| B*44:09+B*54:02     | B*44:131+B*54:01:01G  |                  |
| B*44:09+B*54:12     | B*44:95+B*54:01:01G   |                  |
| B*44:09+B*55:01:01G | B*44:46+B*55:56       |                  |
| B*44:09+B*56:01:01G | B*44:46+B*56:13       |                  |
| B*44:09+B*56:21     | B*44:95+B*56:05:02    |                  |
| B*44:09+B*56:35     | B*44:131+B*56:01:01G  |                  |
| B*44:09+B*57:01:01G | B*44:46+B*57:24       |                  |
| B*44:09+B*57:02:01  | B*44:95+B*57:12       |                  |
| B*44:09+B*57:57     | B*44:46+B*57:09       |                  |
| B*44:12+B*52:08     | B*44:21+B*51:07:02    |                  |
| B*44:12+B*52:29     | B*44:102+B*51:07:02   |                  |
| B*44:12+B*53:17:02  | B*44:95+B*53:09       |                  |
| B*44:13+B*44:16     | B*44:64:02+B*44:67    |                  |
| B*44:13+B*44:17     | B*44:43:01+B*44:67    |                  |
| B*44:13+B*44:20     | B*44:47+B*44:67       |                  |
| B*44:13+B*44:22     | B*44:67+B*44:105      |                  |
| B*44:13+B*44:41:01  | B*44:65+B*44:67       |                  |
| B*44:13+B*44:44     | B*44:40+B*44:67       |                  |
| B*44:13+B*44:51     | B*44:45+B*44:67       |                  |
| B*44:13+B*44:89     | B*44:29+B*44:67       |                  |
| B*44:13+B*44:91     | B*44:37:01+B*44:67    |                  |
| B*44:13+B*44:95     | B*44:50+B*44:67       |                  |
| B*44:13+B*44:106    | B*44:54+B*44:67       |                  |
| B*44:13+B*44:123    | B*44:67+B*44:107      |                  |
| B*44:13+B*51:08     | B*44:67+B*51:09:01    |                  |
| B*44:13+B*52:19     | B*44:67+B*52:10:01    |                  |
| B*44:13+B*55:56     | B*44:67+B*55:01:01G   |                  |
| B*44:13+B*56:13     | B*44:67+B*56:01:01G   |                  |
| B*44:13+B*57:09     | B*44:67+B*57:57       |                  |
| B*44:13+B*57:24     | B*44:67+B*57:01:01G   |                  |
| B*44:14+B*44:107    | B*44:51+B*44:77       |                  |
| B*44:14+B*51:37     | B*44:51+B*51:63       |                  |
| B*44:14+B*51:90     | B*44:51+B*51:01:01G   |                  |
| B*44:14+B*51:92     | B*44:51+B*51:13:01    |                  |
| B*44:14+B*51:135    | B*44:51+B*51:06:01    |                  |
| B*44:14+B*52:12     | B*44:51+B*52:01:01G   |                  |
| B*44:14+B*54:16     | B*44:51+B*54:01:01G   |                  |
| B*44:14+B*55:23     | B*44:51+B*55:32       |                  |
| B*44:14+B*55:46     | B*44:51+B*55:02:01G   |                  |
| B*44:15+B*44:46     | B*44:109+B*45:01:01G  |                  |
| B*44:15+B*44:50     | B*44:18+B*44:109      |                  |
| B*44:15+B*53:01:01  | B*44:18+B*53:12       |                  |
| B*44:15+B*78:06     | B*45:01:01G+B*52:20   |                  |
| B*44:16+B*44:29     | B*44:64:02+B*44:89    |                  |
| B*44:16+B*44:37:01  | B*44:64:02+B*44:91    |                  |
| B*44:16+B*44:37:02  | B*44:64:01+B*44:91    |                  |
| B*44:16+B*44:40     | B*44:44+B*44:64:02    |                  |
| B*44:16+B*44:43:01  | B*44:17+B*44:64:02    |                  |
| B*44:16+B*44:45     | B*44:51+B*44:64:02    |                  |
| B*44:16+B*44:47     | B*44:20+B*44:64:02    |                  |
| B*44:16+B*44:50     | B*44:64:02+B*44:95    |                  |
| B*44:16+B*44:54     | B*44:64:02+B*44:106   |                  |
| B*44:16+B*44:65     | B*44:41:01+B*44:64:02 |                  |
| B*44:16+B*44:105    | B*44:22+B*44:64:02    |                  |
| B*44:16+B*44:107    | B*44:64:02+B*44:123   |                  |
| B*44:16+B*44:124    | B*44:21+B*44:64:01    |                  |
| B*44:16+B*45:03     | B*44:133+B*45:10      |                  |
| B*44:16+B*45:04     | B*44:91+B*45:10       |                  |
| B*44:16+B*45:08     | B*44:132+B*45:10      |                  |
| B*44:16+B*45:11     | B*44:102+B*45:10      |                  |
| B*44:16+B*46:01:01G | B*44:91+B*46:30       |                  |
| B*44:16+B*46:29     | B*44:132+B*46:30      |                  |
| B*44:16+B*47:08     | B*44:132+B*47:01:01G  |                  |
| B*44:16+B*49:01:01  | B*44:91+B*49:07       |                  |
| B*44:16+B*50:02     | B*44:21+B*50:01:01    | B*44:79+B*45:10  |
| B*44:16+B*51:01:01G | B*44:91+B*51:16       |                  |
| B*44:16+B*51:02:01  | B*44:91+B*51:34       |                  |
| B*44:16+B*51:09:01  | B*44:64:02+B*51:08    | B*44:91+B*51:31  |
| B*44:16+B*51:21     | B*44:132+B*51:16      |                  |
| B*44:16+B*51:29     | B*44:91+B*51:82       |                  |
| B*44:16+B*52:01:01G | B*44:91+B*52:08       |                  |
| B*44:16+B*52:10:01  | B*44:64:02+B*52:19    |                  |
| B*44:16+B*54:01:01G | B*44:132+B*54:26      |                  |
| B*44:16+B*54:03     | B*44:91+B*54:26       |                  |
| B*44:16+B*55:01:01G | B*44:64:02+B*55:56    | B*44:132+B*55:24 |
| B*44:16+B*55:02:01G | B*44:132+B*55:22      |                  |
| B*44:16+B*55:52     | B*44:132+B*55:09      |                  |
| B*44:16+B*56:01:01G | B*44:64:02+B*56:13    | B*44:91+B*55:22  |
| B*44:16+B*56:25     | B*44:91+B*55:24       |                  |
| B*44:16+B*57:01:01G | B*44:64:02+B*57:24    | B*44:91+B*57:25  |
| B*44:16+B*57:07     | B*44:21+B*57:03:01    |                  |
| B*44:16+B*57:26     | B*44:132+B*57:25      |                  |
| B*44:16+B*57:57     | B*44:64:02+B*57:09    |                  |
| B*44:16+B*58:01:01G | B*44:91+B*58:37       |                  |
| B*44:16+B*58:07     | B*44:21+B*58:02       |                  |
| B*44:16+B*58:35     | B*44:132+B*58:37      |                  |
| B*44:17+B*44:29     | B*44:43:01+B*44:89    |                  |
| B*44:17+B*44:37:01  | B*44:43:01+B*44:91    |                  |
| B*44:17+B*44:40     | B*44:43:01+B*44:44    |                  |
| B*44:17+B*44:45     | B*44:43:01+B*44:51    |                  |
| B*44:17+B*44:47     | B*44:20+B*44:43:01    |                  |
| B*44:17+B*44:50     | B*44:43:01+B*44:95    |                  |
| B*44:17+B*44:54     | B*44:43:01+B*44:106   |                  |
| B*44:17+B*44:65     | B*44:41:01+B*44:43:01 |                  |
| B*44:17+B*44:105    | B*44:22+B*44:43:01    |                  |

|                       |                         |                       |                 |
|-----------------------|-------------------------|-----------------------|-----------------|
| B*44:17+B*44:107      | B*44:43:01+B*44:123     |                       |                 |
| B*44:17+B*51:01:01G   | B*44:123+B*51:63        |                       |                 |
| B*44:17+B*51:06:01    | B*44:62+B*51:45         |                       |                 |
| B*44:17+B*51:08       | B*44:123+B*51:97        |                       |                 |
| B*44:17+B*51:09:01    | B*44:43:01+B*51:08      | B*44:107+B*51:97      |                 |
| B*44:17+B*51:56:02    | B*44:62+B*53:06         |                       |                 |
| B*44:17+B*51:90       | B*44:123+B*51:37        |                       |                 |
| B*44:17+B*52:10:01    | B*44:43:01+B*52:19      |                       |                 |
| B*44:17+B*55:01:01G   | B*44:43:01+B*55:56      |                       |                 |
| B*44:17+B*56:01:01G   | B*44:43:01+B*56:13      |                       |                 |
| B*44:17+B*57:01:01G   | B*44:43:01+B*57:24      |                       |                 |
| B*44:17+B*57:03:01    | B*44:77+B*57:24         |                       |                 |
| B*44:17+B*57:41       | B*44:144+B*57:24        |                       |                 |
| B*44:17+B*57:57       | B*44:43:01+B*57:09      |                       |                 |
| B*44:18+B*44:46       | B*44:50+B*45:01:01G     |                       |                 |
| B*44:18+B*44:64:02    | B*44:21+B*49:11         |                       |                 |
| B*44:18+B*44:90       | B*44:95+B*45:06         |                       |                 |
| B*44:18+B*50:01:01    | B*45:01:01G+B*49:01:01  | B*45:04+B*49:20       |                 |
| B*44:18+B*50:02       | B*45:01:01G+B*49:20     |                       |                 |
| B*44:18+B*50:09       | B*45:02+B*49:01:01      |                       |                 |
| B*44:18+B*50:13       | B*45:01:01G+B*49:10     |                       |                 |
| B*44:18+B*50:14       | B*45:01:01G+B*49:18     |                       |                 |
| B*44:18+B*51:01:01G   | B*49:20+B*51:08         |                       |                 |
| B*44:18+B*51:63       | B*49:20+B*51:97         |                       |                 |
| B*44:18+B*52:01:01G   | B*49:20+B*52:19         |                       |                 |
| B*44:18+B*53:01:01    | B*49:11+B*53:22         |                       |                 |
| B*44:18+B*53:08:01    | B*49:01:01+B*53:22      |                       |                 |
| B*44:18+B*54:01:01G   | B*45:01:01G+B*54:12     |                       |                 |
| B*44:18+B*56:05:02    | B*45:01:01G+B*56:21     |                       |                 |
| B*44:18+B*56:06       | B*45:06+B*51:07:01      |                       |                 |
| B*44:18+B*56:25       | B*49:20+B*56:13         |                       |                 |
| B*44:18+B*57:12       | B*45:01:01G+B*57:02:01  |                       |                 |
| B*44:18+B*57:22       | B*49:20+B*57:24         |                       |                 |
| B*44:18+B*78:01:01    | B*50:02+B*51:20         |                       |                 |
| B*44:18+B*78:02:01    | B*45:01:01G+B*51:01:02  |                       |                 |
| B*44:18+B*78:02:02    | B*45:01:01G+B*51:01:01G | B*50:02+B*51:08       |                 |
| B*44:18+B*78:05       | B*45:01:01G+B*52:01:01G | B*45:04+B*52:15       | B*50:02+B*52:19 |
| B*44:20+B*44:29       | B*44:47+B*44:89         |                       |                 |
| B*44:20+B*44:37:01    | B*44:47+B*44:91         |                       |                 |
| B*44:20+B*44:40       | B*44:44+B*44:47         |                       |                 |
| B*44:20+B*44:45       | B*44:47+B*44:51         |                       |                 |
| B*44:20+B*44:50       | B*44:47+B*44:95         |                       |                 |
| B*44:20+B*44:54       | B*44:47+B*44:106        |                       |                 |
| B*44:20+B*44:65       | B*44:41:01+B*44:47      |                       |                 |
| B*44:20+B*44:105      | B*44:22+B*44:47         |                       |                 |
| B*44:20+B*44:107      | B*44:47+B*44:123        |                       |                 |
| B*44:20+B*46:01:01G   | B*44:41:01+B*46:32      |                       |                 |
| B*44:20+B*46:12       | B*44:106+B*46:32        |                       |                 |
| B*44:20+B*51:06:01    | B*44:41:01+B*51:01:01G  | B*44:41:02+B*51:01:16 |                 |
| B*44:20+B*51:06:02    | B*44:41:02+B*51:01:01G  |                       |                 |
| B*44:20+B*51:09:01    | B*44:47+B*51:08         |                       |                 |
| B*44:20+B*51:56:01    | B*44:48+B*51:01:16      |                       |                 |
| B*44:20+B*51:59       | B*44:41:01+B*51:02:01   |                       |                 |
| B*44:20+B*51:64       | B*44:106+B*51:01:01G    |                       |                 |
| B*44:20+B*51:81       | B*44:106+B*51:10        |                       |                 |
| B*44:20+B*51:135      | B*44:41:01+B*51:90      |                       |                 |
| B*44:20+B*52:10:01    | B*44:47+B*52:19         |                       |                 |
| B*44:20+B*55:01:01G   | B*44:47+B*55:56         |                       |                 |
| B*44:20+B*56:01:01G   | B*44:47+B*56:13         |                       |                 |
| B*44:20+B*56:02       | B*44:41:01+B*56:01:01G  | B*44:65+B*56:13       |                 |
| B*44:20+B*56:04       | B*44:41:01+B*56:27      |                       |                 |
| B*44:20+B*56:10       | B*44:41:01+B*55:02:01G  | B*44:41:02+B*55:02:04 |                 |
| B*44:20+B*57:01:01G   | B*44:47+B*57:24         |                       |                 |
| B*44:20+B*57:57       | B*44:47+B*57:09         |                       |                 |
| B*44:21+B*46:05       | B*44:22+B*46:30         |                       |                 |
| B*44:21+B*46:14       | B*44:55+B*46:30         |                       |                 |
| B*44:21+B*49:17       | B*44:68+B*49:07         |                       |                 |
| B*44:21+B*51:19       | B*44:89+B*51:31         |                       |                 |
| B*44:21+B*51:39       | B*44:24+B*51:16         |                       |                 |
| B*44:21+B*51:53       | B*44:102+B*51:16        |                       |                 |
| B*44:21+B*51:68       | B*44:49+B*51:16         |                       |                 |
| B*44:21+B*52:29       | B*44:102+B*52:08        |                       |                 |
| B*44:21+B*53:01:01    | B*44:64:02+B*53:22      |                       |                 |
| B*44:21+B*56:20:01    | B*44:53+B*55:22         |                       |                 |
| B*44:21+B*57:31       | B*44:53+B*57:25         |                       |                 |
| B*44:21+B*57:48       | B*44:151+B*57:25        |                       |                 |
| B*44:21+B*57:49       | B*44:49+B*57:25         |                       |                 |
| B*44:22+B*44:29       | B*44:89+B*44:105        |                       |                 |
| B*44:22+B*44:37:01    | B*44:91+B*44:105        |                       |                 |
| B*44:22+B*44:40       | B*44:44+B*44:105        |                       |                 |
| B*44:22+B*44:45       | B*44:51+B*44:105        |                       |                 |
| B*44:22+B*44:50       | B*44:95+B*44:105        |                       |                 |
| B*44:22+B*44:54       | B*44:105+B*44:106       |                       |                 |
| B*44:22+B*44:65       | B*44:41:01+B*44:105     |                       |                 |
| B*44:22+B*44:107      | B*44:105+B*44:123       |                       |                 |
| B*44:22+B*46:14       | B*44:55+B*46:05         |                       |                 |
| B*44:22+B*51:09:01    | B*44:105+B*51:08        |                       |                 |
| B*44:22+B*52:10:01    | B*44:105+B*52:19        |                       |                 |
| B*44:22+B*55:01:01G   | B*44:105+B*55:56        |                       |                 |
| B*44:22+B*56:01:01G   | B*44:105+B*56:13        |                       |                 |
| B*44:22+B*57:01:01G   | B*44:105+B*57:24        |                       |                 |
| B*44:22+B*57:57       | B*44:105+B*57:09        |                       |                 |
| B*44:24+B*51:53       | B*44:102+B*51:39        |                       |                 |
| B*44:24+B*51:68       | B*44:49+B*51:39         |                       |                 |
| B*44:25+B*44:37:01    | B*44:42+B*44:50         |                       |                 |
| B*44:25+B*44:45       | B*44:50+B*44:123        | B*44:95+B*44:107      |                 |
| B*44:25+B*44:51       | B*44:95+B*44:123        |                       |                 |
| B*44:25+B*44:91       | B*44:42+B*44:95         |                       |                 |
| B*44:25+B*44:93       | B*44:95+B*44:139        |                       |                 |
| B*44:25+B*44:120      | B*44:50+B*44:78         |                       |                 |
| B*44:25+B*48:01:01G   | B*44:75+B*48:18         |                       |                 |
| B*44:25+B*78:06       | B*44:75+B*52:01:01G     |                       |                 |
| B*44:27:02+B*55:16    | B*44:55+B*55:02:03      |                       |                 |
| B*44:28:01+B*44:37:01 | B*44:28:02+B*44:37:02   |                       |                 |
| B*44:28:01+B*44:41:01 | B*44:28:02+B*44:41:02   |                       |                 |

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| B*44:28:01+B*44:64:02  | B*44:28:02+B*44:64:01  |                        |
| B*44:28:01+B*48:03:01  | B*44:28:02+B*48:03:02  |                        |
| B*44:28:01+B*51:06:01  | B*44:28:02+B*51:06:02  |                        |
| B*44:28:01+B*52:08     | B*44:124+B*52:24       |                        |
| B*44:28:01+B*53:14     | B*44:54+B*53:24        |                        |
| B*44:28:01+B*57:25     | B*44:124+B*57:19       |                        |
| B*44:28:01+B*58:14     | B*44:153+B*58:22       |                        |
| B*44:28:01+B*58:16     | B*44:65+B*58:22        |                        |
| B*44:28:01+B*58:18     | B*44:54+B*58:22        |                        |
| B*44:28:01+B*58:37     | B*44:124+B*58:22       |                        |
| B*44:28:02+B*46:01:01G | B*44:76+B*46:09        |                        |
| B*44:28:02+B*46:08     | B*44:76+B*46:13:03     |                        |
| B*44:28:02+B*48:15     | B*44:76+B*48:01:01G    |                        |
| B*44:28:02+B*48:25     | B*44:76+B*48:02:01     |                        |
| B*44:28:02+B*49:01:01  | B*44:76+B*49:11        |                        |
| B*44:28:02+B*51:01:02  | B*44:76+B*51:09:02     |                        |
| B*44:28:02+B*51:02:02  | B*44:79+B*51:05        |                        |
| B*44:28:02+B*51:02:05  | B*44:76+B*51:40        |                        |
| B*44:28:02+B*51:23     | B*44:76+B*51:108       |                        |
| B*44:28:02+B*51:70     | B*44:120+B*51:29       |                        |
| B*44:28:02+B*51:120    | B*44:92+B*51:29        |                        |
| B*44:28:02+B*52:01:07  | B*44:76+B*52:10:02     |                        |
| B*44:28:02+B*53:01:02  | B*44:81+B*53:24        |                        |
| B*44:28:02+B*53:08:01  | B*44:76+B*53:01:01     | B*44:79+B*53:24        |
| B*44:28:02+B*53:08:02  | B*44:76+B*53:01:03     |                        |
| B*44:28:02+B*53:12     | B*44:109+B*53:11       |                        |
| B*44:28:02+B*54:02     | B*44:103+B*54:10       |                        |
| B*44:28:02+B*54:20     | B*44:76+B*54:10        |                        |
| B*44:28:02+B*55:21     | B*44:146+B*55:37       |                        |
| B*44:28:02+B*55:30     | B*44:85+B*55:37        |                        |
| B*44:28:02+B*55:52     | B*44:76+B*55:37        |                        |
| B*44:28:02+B*56:25     | B*44:76+B*56:01:01G    |                        |
| B*44:28:02+B*56:32     | B*44:76+B*56:18        |                        |
| B*44:28:02+B*57:22     | B*44:76+B*57:01:01G    | B*44:79+B*57:19        |
| B*44:28:02+B*57:41     | B*44:144+B*57:04       |                        |
| B*44:28:02+B*57:57     | B*44:76+B*57:03:01     | B*44:79+B*57:02:01     |
| B*44:28:02+B*58:06     | B*44:76+B*58:02        |                        |
| B*44:28:02+B*58:19     | B*44:76+B*58:01:01G    | B*44:79+B*58:22        |
| B*44:28:02+B*78:04     | B*44:46+B*51:54        |                        |
| B*44:29+B*44:41:01     | B*44:65+B*44:89        |                        |
| B*44:29+B*44:44        | B*44:40+B*44:89        |                        |
| B*44:29+B*44:51        | B*44:45+B*44:89        |                        |
| B*44:29+B*44:91        | B*44:37:01+B*44:89     |                        |
| B*44:29+B*44:95        | B*44:50+B*44:89        |                        |
| B*44:29+B*44:106       | B*44:54+B*44:89        |                        |
| B*44:29+B*44:123       | B*44:89+B*44:107       |                        |
| B*44:29+B*46:01:01G    | B*44:146+B*46:19       |                        |
| B*44:29+B*46:08        | B*44:79+B*46:19        |                        |
| B*44:29+B*51:01:01G    | B*44:79+B*51:19        |                        |
| B*44:29+B*51:29        | B*44:76+B*51:19        |                        |
| B*44:29+B*51:61:02     | B*44:146+B*51:19       |                        |
| B*44:29+B*52:19        | B*44:89+B*52:10:01     |                        |
| B*44:29+B*55:56        | B*44:89+B*55:01:01G    |                        |
| B*44:29+B*56:13        | B*44:89+B*56:01:01G    |                        |
| B*44:29+B*57:09        | B*44:89+B*57:57        |                        |
| B*44:29+B*57:24        | B*44:89+B*57:01:01G    |                        |
| B*44:37:01+B*44:41:01  | B*44:65+B*44:91        |                        |
| B*44:37:01+B*44:41:02  | B*44:37:02+B*44:41:01  |                        |
| B*44:37:01+B*44:44     | B*44:40+B*44:91        |                        |
| B*44:37:01+B*44:51     | B*44:45+B*44:91        |                        |
| B*44:37:01+B*44:64:01  | B*44:37:02+B*44:64:02  |                        |
| B*44:37:01+B*44:78     | B*44:42+B*44:120       |                        |
| B*44:37:01+B*44:95     | B*44:50+B*44:91        |                        |
| B*44:37:01+B*44:106    | B*44:54+B*44:91        |                        |
| B*44:37:01+B*44:123    | B*44:42+B*44:45        | B*44:91+B*44:107       |
| B*44:37:01+B*45:10     | B*44:64:02+B*45:04     |                        |
| B*44:37:01+B*46:30     | B*44:64:02+B*46:01:01G |                        |
| B*44:37:01+B*48:03:02  | B*44:37:02+B*48:03:01  |                        |
| B*44:37:01+B*49:07     | B*44:64:02+B*49:01:01  |                        |
| B*44:37:01+B*51:01:01G | B*44:37:02+B*51:01:16  |                        |
| B*44:37:01+B*51:06:02  | B*44:37:02+B*51:06:01  |                        |
| B*44:37:01+B*51:08     | B*44:91+B*51:09:01     |                        |
| B*44:37:01+B*51:16     | B*44:64:01+B*51:01:16  | B*44:64:02+B*51:01:01G |
| B*44:37:01+B*51:31     | B*44:64:02+B*51:09:01  |                        |
| B*44:37:01+B*51:34     | B*44:64:02+B*51:02:01  |                        |
| B*44:37:01+B*51:36     | B*44:132+B*51:02:01    |                        |
| B*44:37:01+B*51:82     | B*44:64:02+B*51:29     |                        |
| B*44:37:01+B*52:08     | B*44:64:02+B*52:01:01G |                        |
| B*44:37:01+B*52:19     | B*44:91+B*52:10:01     |                        |
| B*44:37:01+B*54:26     | B*44:64:02+B*54:03     |                        |
| B*44:37:01+B*55:02:01G | B*44:37:02+B*55:02:04  |                        |
| B*44:37:01+B*55:22     | B*44:64:02+B*56:01:01G |                        |
| B*44:37:01+B*55:24     | B*44:64:02+B*56:25     |                        |
| B*44:37:01+B*55:56     | B*44:91+B*55:01:01G    | B*44:132+B*56:25       |
| B*44:37:01+B*56:13     | B*44:91+B*56:01:01G    |                        |
| B*44:37:01+B*57:09     | B*44:91+B*57:57        |                        |
| B*44:37:01+B*57:24     | B*44:91+B*57:01:01G    |                        |
| B*44:37:01+B*57:25     | B*44:64:02+B*57:01:01G |                        |
| B*44:37:01+B*58:37     | B*44:64:02+B*58:01:01G |                        |
| B*44:37:02+B*45:10     | B*44:64:01+B*45:04     |                        |
| B*44:37:02+B*46:30     | B*44:64:01+B*46:01:01G |                        |
| B*44:37:02+B*49:07     | B*44:64:01+B*49:01:01  |                        |
| B*44:37:02+B*51:16     | B*44:64:01+B*51:01:01G |                        |
| B*44:37:02+B*51:31     | B*44:64:01+B*51:09:01  |                        |
| B*44:37:02+B*51:34     | B*44:64:01+B*51:02:01  |                        |
| B*44:37:02+B*51:82     | B*44:64:01+B*51:29     |                        |
| B*44:37:02+B*52:08     | B*44:64:01+B*52:01:01G |                        |
| B*44:37:02+B*54:26     | B*44:64:01+B*54:03     |                        |
| B*44:37:02+B*55:22     | B*44:64:01+B*56:01:01G |                        |
| B*44:37:02+B*55:24     | B*44:64:01+B*56:25     |                        |
| B*44:37:02+B*57:25     | B*44:64:01+B*57:01:01G |                        |
| B*44:37:02+B*58:37     | B*44:64:01+B*58:01:01G |                        |
| B*44:40+B*44:41:01     | B*44:44+B*44:65        |                        |
| B*44:40+B*44:51        | B*44:44+B*44:45        |                        |
| B*44:40+B*44:95        | B*44:44+B*44:50        |                        |

|                        |                        |                  |
|------------------------|------------------------|------------------|
| B*44:40+B*44:106       | B*44:44+B*44:54        |                  |
| B*44:40+B*44:123       | B*44:44+B*44:107       |                  |
| B*44:40+B*51:08        | B*44:44+B*51:09:01     |                  |
| B*44:40+B*52:19        | B*44:44+B*52:10:01     |                  |
| B*44:40+B*55:56        | B*44:44+B*55:01:01G    |                  |
| B*44:40+B*56:13        | B*44:44+B*56:01:01G    |                  |
| B*44:40+B*57:09        | B*44:44+B*57:57        |                  |
| B*44:40+B*57:24        | B*44:44+B*57:01:01G    |                  |
| B*44:41:01+B*44:45     | B*44:51+B*44:65        |                  |
| B*44:41:01+B*44:50     | B*44:65+B*44:95        |                  |
| B*44:41:01+B*44:54     | B*44:65+B*44:106       |                  |
| B*44:41:01+B*44:64:01  | B*44:41:02+B*44:64:02  |                  |
| B*44:41:01+B*44:107    | B*44:65+B*44:123       |                  |
| B*44:41:01+B*46:12     | B*44:106+B*46:01:01G   |                  |
| B*44:41:01+B*48:01:01G | B*44:106+B*48:03:01    |                  |
| B*44:41:01+B*48:03:02  | B*44:41:02+B*48:03:01  |                  |
| B*44:41:01+B*51:06:02  | B*44:41:02+B*51:06:01  |                  |
| B*44:41:01+B*51:09:01  | B*44:65+B*51:08        |                  |
| B*44:41:01+B*51:64     | B*44:106+B*51:06:01    |                  |
| B*44:41:01+B*52:10:01  | B*44:65+B*52:19        |                  |
| B*44:41:01+B*55:01:01G | B*44:65+B*55:56        |                  |
| B*44:41:01+B*57:01:01G | B*44:65+B*57:24        |                  |
| B*44:41:01+B*57:57     | B*44:65+B*57:09        |                  |
| B*44:41:01+B*58:18     | B*44:106+B*58:16       |                  |
| B*44:41:02+B*48:01:01G | B*44:106+B*48:03:02    |                  |
| B*44:41:02+B*51:56:01  | B*44:48+B*51:06:01     |                  |
| B*44:41:02+B*51:64     | B*44:106+B*51:06:02    |                  |
| B*44:42+B*44:51        | B*44:91+B*44:123       |                  |
| B*44:42+B*44:93        | B*44:91+B*44:139       |                  |
| B*44:43:01+B*44:54     | B*44:135+B*44:144      |                  |
| B*44:43:01+B*48:03:01  | B*44:77+B*48:23        |                  |
| B*44:43:01+B*51:01:01G | B*44:77+B*51:37        | B*44:107+B*51:63 |
| B*44:43:01+B*51:90     | B*44:107+B*51:37       |                  |
| B*44:43:01+B*54:04     | B*44:77+B*54:14        |                  |
| B*44:43:01+B*55:41     | B*44:144+B*55:02:01G   |                  |
| B*44:43:01+B*57:02:01  | B*44:77+B*57:19        |                  |
| B*44:43:01+B*57:03:01  | B*44:77+B*57:01:01G    |                  |
| B*44:43:01+B*57:41     | B*44:144+B*57:01:01G   |                  |
| B*44:43:01+B*57:57     | B*44:77+B*57:22        |                  |
| B*44:45+B*44:78        | B*44:120+B*44:123      |                  |
| B*44:45+B*44:95        | B*44:50+B*44:51        |                  |
| B*44:45+B*44:123       | B*44:51+B*44:107       |                  |
| B*44:45+B*44:139       | B*44:93+B*44:107       |                  |
| B*44:45+B*51:08        | B*44:51+B*51:09:01     |                  |
| B*44:45+B*52:19        | B*44:51+B*52:10:01     |                  |
| B*44:45+B*55:56        | B*44:51+B*55:01:01G    |                  |
| B*44:45+B*56:13        | B*44:51+B*56:01:01G    |                  |
| B*44:45+B*57:09        | B*44:51+B*57:57        |                  |
| B*44:45+B*57:24        | B*44:51+B*57:01:01G    |                  |
| B*44:46+B*49:01:01     | B*44:50+B*50:01:01     |                  |
| B*44:46+B*49:10        | B*44:50+B*50:13        |                  |
| B*44:46+B*49:18        | B*44:50+B*50:14        |                  |
| B*44:46+B*49:20        | B*44:50+B*50:02        |                  |
| B*44:46+B*51:01:01G    | B*44:50+B*78:02:02     |                  |
| B*44:46+B*51:01:02     | B*44:50+B*78:02:01     |                  |
| B*44:46+B*52:01:01G    | B*44:50+B*78:05        |                  |
| B*44:46+B*54:12        | B*44:50+B*54:01:01G    |                  |
| B*44:46+B*56:21        | B*44:50+B*56:05:02     |                  |
| B*44:46+B*57:02:01     | B*44:50+B*57:12        |                  |
| B*44:47+B*46:01:01G    | B*44:65+B*46:32        |                  |
| B*44:47+B*46:12        | B*44:54+B*46:32        |                  |
| B*44:47+B*51:06:01     | B*44:65+B*51:01:01G    |                  |
| B*44:47+B*51:59        | B*44:65+B*51:02:01     |                  |
| B*44:47+B*51:64        | B*44:54+B*51:01:01G    |                  |
| B*44:47+B*51:81        | B*44:54+B*51:10        |                  |
| B*44:47+B*51:135       | B*44:65+B*51:90        |                  |
| B*44:47+B*56:02        | B*44:65+B*56:01:01G    |                  |
| B*44:47+B*56:04        | B*44:65+B*56:27        |                  |
| B*44:47+B*56:10        | B*44:65+B*55:02:01G    |                  |
| B*44:49+B*51:53        | B*44:102+B*51:68       |                  |
| B*44:49+B*57:31        | B*44:53+B*57:49        |                  |
| B*44:49+B*57:48        | B*44:151+B*57:49       |                  |
| B*44:50+B*44:106       | B*44:54+B*44:95        |                  |
| B*44:50+B*51:08        | B*44:95+B*51:09:01     |                  |
| B*44:50+B*52:19        | B*44:95+B*52:10:01     |                  |
| B*44:50+B*55:56        | B*44:95+B*55:01:01G    |                  |
| B*44:50+B*56:13        | B*44:95+B*56:01:01G    |                  |
| B*44:50+B*57:09        | B*44:95+B*57:57        |                  |
| B*44:50+B*57:24        | B*44:95+B*57:01:01G    |                  |
| B*44:51+B*44:139       | B*44:93+B*44:123       |                  |
| B*44:53+B*57:48        | B*44:151+B*57:31       |                  |
| B*44:54+B*46:01:01G    | B*44:65+B*46:12        |                  |
| B*44:54+B*48:03:01     | B*44:65+B*48:01:01G    |                  |
| B*44:54+B*51:06:01     | B*44:65+B*51:64        |                  |
| B*44:54+B*51:08        | B*44:106+B*51:09:01    |                  |
| B*44:54+B*52:19        | B*44:106+B*52:10:01    |                  |
| B*44:54+B*55:02:01G    | B*44:135+B*55:41       |                  |
| B*44:54+B*55:56        | B*44:106+B*55:01:01G   |                  |
| B*44:54+B*56:13        | B*44:106+B*56:01:01G   |                  |
| B*44:54+B*57:01:01G    | B*44:135+B*57:41       |                  |
| B*44:54+B*57:09        | B*44:106+B*57:57       |                  |
| B*44:54+B*57:24        | B*44:106+B*57:01:01G   |                  |
| B*44:54+B*58:14        | B*44:153+B*58:18       |                  |
| B*44:54+B*58:16        | B*44:65+B*58:18        |                  |
| B*44:54+B*58:37        | B*44:124+B*58:18       |                  |
| B*44:55+B*57:10        | B*44:103+B*57:24       |                  |
| B*44:55+B*57:46        | B*44:102+B*57:39       |                  |
| B*44:58N+B*51:13:02    | B*44:117+B*51:41N      |                  |
| B*44:58N+B*51:70       | B*44:78+B*51:41N       |                  |
| B*44:58N+B*51:136      | B*44:136+B*51:41N      |                  |
| B*44:62+B*51:92        | B*44:123+B*51:13:02    |                  |
| B*44:64:01+B*48:03:01  | B*44:64:02+B*48:03:02  |                  |
| B*44:64:01+B*50:02     | B*44:124+B*50:01:01    |                  |
| B*44:64:01+B*51:06:01  | B*44:64:02+B*51:06:02  |                  |
| B*44:64:01+B*55:02:04  | B*44:64:02+B*55:02:01G |                  |

|                         |                      |
|-------------------------|----------------------|
| B*44:64:01+B*57:07      | B*44:124+B*57:03:01  |
| B*44:64:01+B*58:07      | B*44:124+B*58:02     |
| B*44:64:02+B*51:36      | B*44:132+B*51:34     |
| B*44:65+B*55:14         | B*44:153+B*56:32     |
| B*44:65+B*58:14         | B*44:153+B*58:16     |
| B*44:65+B*58:37         | B*44:124+B*58:16     |
| B*44:76+B*46:29         | B*44:146+B*46:03     |
| B*44:76+B*51:01:01G     | B*44:79+B*51:29      |
| B*44:76+B*51:16         | B*44:79+B*51:82      |
| B*44:76+B*51:61:02      | B*44:146+B*51:29     |
| B*44:76+B*52:01:01G     | B*44:79+B*52:24      |
| B*44:76+B*53:05         | B*44:79+B*53:16      |
| B*44:76+B*53:13         | B*44:79+B*53:11      |
| B*44:76+B*54:02         | B*44:103+B*54:20     |
| B*44:76+B*55:01:01G     | B*44:79+B*55:52      |
| B*44:76+B*55:21         | B*44:146+B*55:52     |
| B*44:76+B*55:24         | B*44:79+B*55:09      |
| B*44:76+B*55:30         | B*44:85+B*55:52      |
| B*44:77+B*51:90         | B*44:107+B*51:01:01G |
| B*44:77+B*51:92         | B*44:107+B*51:13:01  |
| B*44:77+B*51:135        | B*44:107+B*51:06:01  |
| B*44:77+B*52:12         | B*44:107+B*52:01:01G |
| B*44:77+B*54:16         | B*44:107+B*54:01:01G |
| B*44:77+B*55:23         | B*44:107+B*55:32     |
| B*44:77+B*55:46         | B*44:107+B*55:02:01G |
| B*44:77+B*57:41         | B*44:144+B*57:03:01  |
| B*44:78+B*51:13:02      | B*44:117+B*51:70     |
| B*44:78+B*51:136        | B*44:136+B*51:70     |
| B*44:79+B*45:03         | B*44:133+B*50:02     |
| B*44:79+B*45:08         | B*44:132+B*50:02     |
| B*44:79+B*45:11         | B*44:102+B*50:02     |
| B*44:79+B*46:01:01G     | B*44:146+B*46:08     |
| B*44:79+B*48:19         | B*44:146+B*48:01:01G |
| B*44:79+B*51:61:02      | B*44:146+B*51:01:01G |
| B*44:79+B*52:21         | B*44:146+B*52:01:02  |
| B*44:79+B*53:01:02      | B*44:81+B*53:08:01   |
| B*44:79+B*53:05         | B*44:109+B*53:08:01  |
| B*44:79+B*55:21         | B*44:146+B*55:01:01G |
| B*44:79+B*55:30         | B*44:85+B*55:01:01G  |
| B*44:79+B*56:35         | B*44:103+B*56:25     |
| B*44:81+B*53:05         | B*44:109+B*53:01:02  |
| B*44:85+B*55:21         | B*44:146+B*55:30     |
| B*44:90+B*51:07:01      | B*44:95+B*56:06      |
| B*44:91+B*45:03         | B*44:133+B*45:04     |
| B*44:91+B*45:08         | B*44:132+B*45:04     |
| B*44:91+B*45:11         | B*44:102+B*45:04     |
| B*44:91+B*46:18         | B*44:132+B*46:11     |
| B*44:91+B*46:21:01      | B*44:132+B*46:13:03  |
| B*44:91+B*46:21:02      | B*44:132+B*46:13:01  |
| B*44:91+B*46:29         | B*44:132+B*46:01:01G |
| B*44:91+B*51:21         | B*44:132+B*51:01:01G |
| B*44:91+B*54:01:01G     | B*44:132+B*54:03     |
| B*44:91+B*55:02:01G     | B*44:132+B*56:01:01G |
| B*44:91+B*55:13         | B*44:132+B*56:22     |
| B*44:91+B*56:10         | B*44:132+B*56:02     |
| B*44:91+B*57:26         | B*44:132+B*57:01:01G |
| B*44:91+B*58:35         | B*44:132+B*58:01:01G |
| B*44:91+B*59:01:01G     | B*44:132+B*59:04     |
| B*44:91+B*78:07         | B*44:132+B*78:01:01  |
| B*44:92+B*51:70         | B*44:120+B*51:120    |
| B*44:95+B*54:02         | B*44:131+B*54:12     |
| B*44:98+B*46:05         | B*44:105+B*46:27     |
| B*44:98+B*46:12         | B*44:110+B*46:27     |
| B*44:102+B*45:03        | B*44:133+B*45:11     |
| B*44:102+B*45:08        | B*44:132+B*45:11     |
| B*44:105+B*46:12        | B*44:110+B*46:05     |
| B*44:107+B*51:08        | B*44:123+B*51:09:01  |
| B*44:107+B*52:19        | B*44:123+B*52:10:01  |
| B*44:107+B*55:56        | B*44:123+B*55:01:01G |
| B*44:107+B*56:13        | B*44:123+B*56:01:01G |
| B*44:107+B*57:09        | B*44:123+B*57:57     |
| B*44:107+B*57:24        | B*44:123+B*57:01:01G |
| B*44:117+B*51:136       | B*44:136+B*51:13:02  |
| B*44:124+B*58:14        | B*44:153+B*58:37     |
| B*44:132+B*45:03        | B*44:133+B*45:08     |
| B*45:01:01G+B*46:01:01G | B*45:04+B*46:17      |
| B*45:01:01G+B*46:29     | B*45:08+B*46:17      |
| B*45:01:01G+B*46:30     | B*45:10+B*46:17      |
| B*45:01:01G+B*49:04     | B*45:09+B*49:01:01   |
| B*45:01:01G+B*49:07     | B*45:10+B*49:20      |
| B*45:01:01G+B*50:01:01  | B*45:04+B*50:02      |
| B*45:01:01G+B*50:09     | B*45:02+B*50:01:01   |
| B*45:01:01G+B*51:02:01  | B*45:04+B*51:23      |
| B*45:01:01G+B*51:13:02  | B*45:02+B*51:106     |
| B*45:01:01G+B*51:34     | B*45:10+B*51:23      |
| B*45:01:01G+B*51:53     | B*45:11+B*51:01:01G  |
| B*45:01:01G+B*51:63     | B*50:02+B*51:97      |
| B*45:01:01G+B*52:08     | B*45:10+B*52:15      |
| B*45:01:01G+B*52:14     | B*45:02+B*52:25      |
| B*45:01:01G+B*52:29     | B*45:11+B*52:01:01G  |
| B*45:01:01G+B*55:13     | B*45:02+B*55:02:01G  |
| B*45:01:01G+B*55:23     | B*45:09+B*55:41      |
| B*45:01:01G+B*55:54     | B*45:11+B*55:01:01G  |
| B*45:01:01G+B*56:22     | B*45:02+B*56:01:01G  |
| B*45:01:01G+B*56:25     | B*50:02+B*56:13      |
| B*45:01:01G+B*57:03:01  | B*45:04+B*57:07      |
| B*45:01:01G+B*57:22     | B*50:02+B*57:24      |
| B*45:01:01G+B*57:46     | B*45:11+B*57:03:01   |
| B*45:01:01G+B*58:02     | B*45:04+B*58:07      |
| B*45:01:01G+B*59:03     | B*45:02+B*59:01:01G  |
| B*45:02+B*53:08:01      | B*50:09+B*53:22      |
| B*45:04+B*46:18         | B*45:08+B*46:11      |
| B*45:04+B*46:21:01      | B*45:08+B*46:13:03   |
| B*45:04+B*46:21:02      | B*45:08+B*46:13:01   |
| B*45:04+B*46:29         | B*45:08+B*46:01:01G  |

|                         |                        |                       |                       |                 |
|-------------------------|------------------------|-----------------------|-----------------------|-----------------|
| B*45:04+B*46:30         | B*45:10+B*46:01:01G    |                       |                       |                 |
| B*45:04+B*49:07         | B*45:10+B*49:01:01     |                       |                       |                 |
| B*45:04+B*51:01:01G     | B*50:01:01+B*51:08     |                       |                       |                 |
| B*45:04+B*51:07:02      | B*50:15+B*52:19        |                       |                       |                 |
| B*45:04+B*51:16         | B*45:10+B*51:01:01G    |                       |                       |                 |
| B*45:04+B*51:21         | B*45:08+B*51:01:01G    |                       |                       |                 |
| B*45:04+B*51:31         | B*45:10+B*51:09:01     |                       |                       |                 |
| B*45:04+B*51:34         | B*45:10+B*51:02:01     |                       |                       |                 |
| B*45:04+B*51:46         | B*50:17+B*51:08        |                       |                       |                 |
| B*45:04+B*51:63         | B*50:01:01+B*51:97     |                       |                       |                 |
| B*45:04+B*51:82         | B*45:10+B*51:29        |                       |                       |                 |
| B*45:04+B*52:01:01G     | B*50:01:01+B*52:19     |                       |                       |                 |
| B*45:04+B*52:08         | B*45:10+B*52:01:01G    |                       |                       |                 |
| B*45:04+B*54:01:01G     | B*45:08+B*54:03        |                       |                       |                 |
| B*45:04+B*54:26         | B*45:10+B*54:03        |                       |                       |                 |
| B*45:04+B*55:01:01G     | B*45:08+B*56:25        |                       |                       |                 |
| B*45:04+B*55:02:01G     | B*45:08+B*56:01:01G    |                       |                       |                 |
| B*45:04+B*55:13         | B*45:08+B*56:22        |                       |                       |                 |
| B*45:04+B*55:22         | B*45:10+B*56:01:01G    |                       |                       |                 |
| B*45:04+B*55:24         | B*45:10+B*56:25        |                       |                       |                 |
| B*45:04+B*56:10         | B*45:08+B*56:02        |                       |                       |                 |
| B*45:04+B*56:25         | B*50:01:01+B*56:13     |                       |                       |                 |
| B*45:04+B*57:22         | B*50:01:01+B*57:24     |                       |                       |                 |
| B*45:04+B*57:25         | B*45:10+B*57:01:01G    |                       |                       |                 |
| B*45:04+B*57:26         | B*45:08+B*57:01:01G    |                       |                       |                 |
| B*45:04+B*58:35         | B*45:08+B*58:01:01G    |                       |                       |                 |
| B*45:04+B*58:37         | B*45:10+B*58:01:01G    |                       |                       |                 |
| B*45:04+B*59:01:01G     | B*45:08+B*59:04        |                       |                       |                 |
| B*45:04+B*78:07         | B*45:08+B*78:01:01     |                       |                       |                 |
| B*45:08+B*46:30         | B*45:10+B*46:29        |                       |                       |                 |
| B*45:08+B*47:01:01G     | B*45:10+B*47:08        |                       |                       |                 |
| B*45:08+B*51:16         | B*45:10+B*51:21        |                       |                       |                 |
| B*45:08+B*54:26         | B*45:10+B*54:01:01G    |                       |                       |                 |
| B*45:08+B*55:09         | B*45:10+B*55:52        |                       |                       |                 |
| B*45:08+B*55:22         | B*45:10+B*55:02:01G    |                       |                       |                 |
| B*45:08+B*55:24         | B*45:10+B*55:01:01G    |                       |                       |                 |
| B*45:08+B*57:25         | B*45:10+B*57:26        |                       |                       |                 |
| B*45:08+B*58:37         | B*45:10+B*58:35        |                       |                       |                 |
| B*46:01:01G+B*46:13:01  | B*46:01:03+B*46:13:03  |                       |                       |                 |
| B*46:01:01G+B*46:13:03  | B*46:08+B*46:09        |                       |                       |                 |
| B*46:01:01G+B*46:18     | B*46:11+B*46:29        |                       |                       |                 |
| B*46:01:01G+B*46:21:01  | B*46:13:03+B*46:29     |                       |                       |                 |
| B*46:01:01G+B*46:21:02  | B*46:01:03+B*46:21:01  | B*46:13:01+B*46:29    |                       |                 |
| B*46:01:01G+B*48:01:01G | B*46:08+B*48:19        | B*46:09+B*48:15       | B*46:12+B*48:03:01    |                 |
| B*46:01:01G+B*48:02:01  | B*46:09+B*48:25        |                       |                       |                 |
| B*46:01:01G+B*49:01:01  | B*46:14+B*49:10        |                       |                       |                 |
| B*46:01:01G+B*49:07     | B*46:30+B*49:01:01     |                       |                       |                 |
| B*46:01:01G+B*49:11     | B*46:09+B*49:01:01     |                       |                       |                 |
| B*46:01:01G+B*49:20     | B*46:17+B*49:01:01     |                       |                       |                 |
| B*46:01:01G+B*50:01:01  | B*46:14+B*50:13        |                       |                       |                 |
| B*46:01:01G+B*50:02     | B*46:17+B*50:01:01     |                       |                       |                 |
| B*46:01:01G+B*51:01:01G | B*46:08+B*51:61:02     | B*46:32+B*51:06:01    |                       |                 |
| B*46:01:01G+B*51:01:17  | B*46:01:05+B*51:01:01G |                       |                       |                 |
| B*46:01:01G+B*51:01:21  | B*46:01:03+B*51:01:25  |                       |                       |                 |
| B*46:01:01G+B*51:02:01  | B*46:01:03+B*51:02:05  | B*46:32+B*51:59       |                       |                 |
| B*46:01:01G+B*51:09:01  | B*46:09+B*51:01:01G    | B*46:13:01+B*51:61:01 | B*46:13:03+B*51:61:02 |                 |
| B*46:01:01G+B*51:09:02  | B*46:09+B*51:01:02     |                       |                       |                 |
| B*46:01:01G+B*51:16     | B*46:30+B*51:01:01G    |                       |                       |                 |
| B*46:01:01G+B*51:19     | B*46:19+B*51:61:02     |                       |                       |                 |
| B*46:01:01G+B*51:21     | B*46:29+B*51:01:01G    |                       |                       |                 |
| B*46:01:01G+B*51:23     | B*46:17+B*51:02:01     |                       |                       |                 |
| B*46:01:01G+B*51:24:04  | B*46:01:03+B*51:24:03  |                       |                       |                 |
| B*46:01:01G+B*51:31     | B*46:09+B*51:16        | B*46:30+B*51:09:01    |                       |                 |
| B*46:01:01G+B*51:34     | B*46:30+B*51:02:01     |                       |                       |                 |
| B*46:01:01G+B*51:40     | B*46:09+B*51:02:05     |                       |                       |                 |
| B*46:01:01G+B*51:58     | B*46:28+B*51:01:01G    |                       |                       |                 |
| B*46:01:01G+B*51:61:02  | B*46:01:03+B*51:61:01  |                       |                       |                 |
| B*46:01:01G+B*51:64     | B*46:12+B*51:06:01     |                       |                       |                 |
| B*46:01:01G+B*51:82     | B*46:30+B*51:29        |                       |                       |                 |
| B*46:01:01G+B*51:90     | B*46:32+B*51:135       |                       |                       |                 |
| B*46:01:01G+B*51:108    | B*46:09+B*51:23        |                       |                       |                 |
| B*46:01:01G+B*51:119    | B*46:10+B*51:01:02     |                       |                       |                 |
| B*46:01:01G+B*52:01:01G | B*46:01:03+B*52:01:07  |                       |                       |                 |
| B*46:01:01G+B*52:01:02  | B*46:08+B*52:21        |                       |                       |                 |
| B*46:01:01G+B*52:08     | B*46:30+B*52:01:01G    |                       |                       |                 |
| B*46:01:01G+B*52:10:01  | B*46:01:03+B*52:10:02  | B*46:09+B*52:01:01G   |                       |                 |
| B*46:01:01G+B*52:10:02  | B*46:09+B*52:01:07     |                       |                       |                 |
| B*46:01:01G+B*52:15     | B*46:17+B*52:01:01G    |                       |                       |                 |
| B*46:01:01G+B*53:01:01  | B*46:01:03+B*53:01:03  | B*46:09+B*53:08:01    |                       |                 |
| B*46:01:01G+B*53:01:03  | B*46:09+B*53:08:02     |                       |                       |                 |
| B*46:01:01G+B*53:08:01  | B*46:01:03+B*53:08:02  |                       |                       |                 |
| B*46:01:01G+B*54:01:01G | B*46:18+B*54:06        | B*46:29+B*54:03       |                       |                 |
| B*46:01:01G+B*54:03     | B*46:11+B*54:06        |                       |                       |                 |
| B*46:01:01G+B*54:09     | B*46:21:02+B*54:06     |                       |                       |                 |
| B*46:01:01G+B*54:10     | B*46:09+B*54:20        |                       |                       |                 |
| B*46:01:01G+B*54:24     | B*46:16+B*54:01:01G    |                       |                       |                 |
| B*46:01:01G+B*54:26     | B*46:30+B*54:03        |                       |                       |                 |
| B*46:01:01G+B*55:01:01G | B*46:08+B*55:21        | B*46:29+B*56:25       |                       |                 |
| B*46:01:01G+B*55:02:01G | B*46:09+B*55:01:01G    | B*46:13:03+B*55:21    | B*46:29+B*56:01:01G   | B*46:32+B*56:10 |
| B*46:01:01G+B*55:13     | B*46:29+B*56:22        |                       |                       |                 |
| B*46:01:01G+B*55:16     | B*46:14+B*55:02:01G    |                       |                       |                 |
| B*46:01:01G+B*55:19     | B*46:20+B*55:02:01G    |                       |                       |                 |
| B*46:01:01G+B*55:22     | B*46:09+B*55:24        | B*46:30+B*56:01:01G   |                       |                 |
| B*46:01:01G+B*55:24     | B*46:30+B*56:25        |                       |                       |                 |
| B*46:01:01G+B*55:37     | B*46:09+B*55:52        |                       |                       |                 |
| B*46:01:01G+B*56:01:01G | B*46:01:03+B*56:01:03  | B*46:09+B*56:25       | B*46:32+B*56:02       |                 |
| B*46:01:01G+B*56:10     | B*46:29+B*56:02        |                       |                       |                 |
| B*46:01:01G+B*56:18     | B*46:09+B*56:32        |                       |                       |                 |
| B*46:01:01G+B*56:19N    | B*46:07N+B*56:01:01G   |                       |                       |                 |
| B*46:01:01G+B*56:27     | B*46:32+B*56:04        |                       |                       |                 |
| B*46:01:01G+B*56:36     | B*46:10+B*56:01:01G    |                       |                       |                 |
| B*46:01:01G+B*57:01:01G | B*46:09+B*57:22        |                       |                       |                 |
| B*46:01:01G+B*57:01:05  | B*46:01:06+B*57:01:01G |                       |                       |                 |
| B*46:01:01G+B*57:03:01  | B*46:09+B*57:57        |                       |                       |                 |
| B*46:01:01G+B*57:07     | B*46:17+B*57:03:01     |                       |                       |                 |

|                         |                        |                        |                    |
|-------------------------|------------------------|------------------------|--------------------|
| B*46:01:01G+B*57:25     | B*46:30+B*57:01:01G    |                        |                    |
| B*46:01:01G+B*57:26     | B*46:29+B*57:01:01G    |                        |                    |
| B*46:01:01G+B*57:39     | B*46:14+B*57:03:01     |                        |                    |
| B*46:01:01G+B*58:01:01G | B*46:01:03+B*58:01:05  | B*46:09+B*58:19        |                    |
| B*46:01:01G+B*58:02     | B*46:09+B*58:06        |                        |                    |
| B*46:01:01G+B*58:07     | B*46:17+B*58:02        |                        |                    |
| B*46:01:01G+B*58:18     | B*46:12+B*58:16        |                        |                    |
| B*46:01:01G+B*58:35     | B*46:29+B*58:01:01G    |                        |                    |
| B*46:01:01G+B*58:37     | B*46:30+B*58:01:01G    |                        |                    |
| B*46:01:01G+B*59:01:01G | B*46:29+B*59:04        |                        |                    |
| B*46:01:01G+B*78:07     | B*46:29+B*78:01:01     |                        |                    |
| B*46:01:01G+B*81:05     | B*46:16+B*81:01:01G    |                        |                    |
| B*46:01:03+B*51:09:01   | B*46:13:01+B*51:61:02  |                        |                    |
| B*46:01:03+B*51:40      | B*46:09+B*51:02:01     |                        |                    |
| B*46:01:03+B*55:02:01G  | B*46:13:01+B*55:21     |                        |                    |
| B*46:01:05+B*51:09:01   | B*46:09+B*51:01:17     |                        |                    |
| B*46:01:05+B*51:16      | B*46:30+B*51:01:17     |                        |                    |
| B*46:01:05+B*51:21      | B*46:29+B*51:01:17     |                        |                    |
| B*46:01:05+B*51:58      | B*46:28+B*51:01:17     |                        |                    |
| B*46:01:06+B*57:25      | B*46:30+B*57:01:05     |                        |                    |
| B*46:01:06+B*57:26      | B*46:29+B*57:01:05     |                        |                    |
| B*46:03+B*51:09:01      | B*46:21:01+B*51:29     |                        |                    |
| B*46:03+B*51:31         | B*46:21:01+B*51:82     |                        |                    |
| B*46:03+B*51:61:02      | B*46:29+B*51:29        |                        |                    |
| B*46:03+B*52:10:01      | B*46:21:01+B*52:24     |                        |                    |
| B*46:03+B*54:01:01G     | B*46:21:01+B*54:20     |                        |                    |
| B*46:03+B*54:03         | B*46:08+B*54:10        | B*46:13:03+B*54:20     |                    |
| B*46:03+B*55:02:01G     | B*46:21:01+B*55:52     |                        |                    |
| B*46:03+B*55:21         | B*46:29+B*55:52        |                        |                    |
| B*46:03+B*55:22         | B*46:21:01+B*55:09     |                        |                    |
| B*46:03+B*56:01:01G     | B*46:08+B*55:37        | B*46:13:03+B*55:52     |                    |
| B*46:03+B*56:25         | B*46:08+B*55:52        |                        |                    |
| B*46:06+B*48:02:01      | B*46:33+B*48:23        |                        |                    |
| B*46:07N+B*55:02:01G    | B*46:29+B*56:19N       |                        |                    |
| B*46:07N+B*55:22        | B*46:30+B*56:19N       |                        |                    |
| B*46:07N+B*56:36        | B*46:10+B*56:19N       |                        |                    |
| B*46:08+B*48:01:01G     | B*46:13:03+B*48:15     |                        |                    |
| B*46:08+B*48:02:01      | B*46:13:03+B*48:25     |                        |                    |
| B*46:08+B*49:11         | B*46:13:03+B*49:01:01  |                        |                    |
| B*46:08+B*51:09:01      | B*46:13:03+B*51:01:01G |                        |                    |
| B*46:08+B*51:09:02      | B*46:13:03+B*51:01:02  |                        |                    |
| B*46:08+B*51:19         | B*46:19+B*51:01:01G    |                        |                    |
| B*46:08+B*51:31         | B*46:13:03+B*51:16     |                        |                    |
| B*46:08+B*51:40         | B*46:13:03+B*51:02:05  |                        |                    |
| B*46:08+B*51:108        | B*46:13:03+B*51:23     |                        |                    |
| B*46:08+B*52:10:01      | B*46:13:01+B*52:01:07  | B*46:13:03+B*52:01:01G |                    |
| B*46:08+B*52:10:02      | B*46:13:03+B*52:01:07  |                        |                    |
| B*46:08+B*53:01:01      | B*46:13:01+B*53:08:02  | B*46:13:03+B*53:08:01  |                    |
| B*46:08+B*53:01:03      | B*46:13:03+B*53:08:02  |                        |                    |
| B*46:08+B*55:02:01G     | B*46:13:03+B*55:01:01G | B*46:21:01+B*56:25     |                    |
| B*46:08+B*55:22         | B*46:13:03+B*55:24     |                        |                    |
| B*46:08+B*56:01:01G     | B*46:13:03+B*56:25     |                        |                    |
| B*46:08+B*56:18         | B*46:13:03+B*56:32     |                        |                    |
| B*46:08+B*57:01:01G     | B*46:13:03+B*57:22     |                        |                    |
| B*46:08+B*57:03:01      | B*46:13:03+B*57:57     |                        |                    |
| B*46:08+B*57:26         | B*46:21:01+B*57:22     |                        |                    |
| B*46:08+B*58:01:01G     | B*46:13:03+B*58:19     |                        |                    |
| B*46:08+B*58:02         | B*46:13:03+B*58:06     |                        |                    |
| B*46:08+B*58:35         | B*46:21:01+B*58:19     |                        |                    |
| B*46:09+B*48:01:01G     | B*46:13:03+B*48:19     |                        |                    |
| B*46:09+B*49:07         | B*46:30+B*49:11        |                        |                    |
| B*46:09+B*49:20         | B*46:17+B*49:11        |                        |                    |
| B*46:09+B*51:01:29      | B*46:13:02+B*51:61:02  |                        |                    |
| B*46:09+B*51:21         | B*46:21:01+B*51:61:02  | B*46:21:02+B*51:61:01  | B*46:29+B*51:09:01 |
| B*46:09+B*51:58         | B*46:28+B*51:09:01     |                        |                    |
| B*46:09+B*51:101        | B*46:29+B*51:19        |                        |                    |
| B*46:09+B*51:119        | B*46:10+B*51:09:02     |                        |                    |
| B*46:09+B*52:01:02      | B*46:13:03+B*52:21     |                        |                    |
| B*46:09+B*52:08         | B*46:30+B*52:10:01     |                        |                    |
| B*46:09+B*52:15         | B*46:17+B*52:10:01     |                        |                    |
| B*46:09+B*55:28         | B*46:29+B*56:15        |                        |                    |
| B*46:09+B*55:38         | B*46:29+B*56:27        |                        |                    |
| B*46:09+B*55:56         | B*46:29+B*56:13        |                        |                    |
| B*46:10+B*55:02:01G     | B*46:29+B*56:36        |                        |                    |
| B*46:10+B*55:22         | B*46:30+B*56:36        |                        |                    |
| B*46:11+B*46:21:01      | B*46:13:03+B*46:18     |                        |                    |
| B*46:11+B*46:21:02      | B*46:13:01+B*46:18     |                        |                    |
| B*46:11+B*51:21         | B*46:18+B*51:01:01G    |                        |                    |
| B*46:11+B*53:01:01      | B*46:33+B*51:15        |                        |                    |
| B*46:11+B*54:01:01G     | B*46:18+B*54:03        |                        |                    |
| B*46:11+B*54:09         | B*46:13:01+B*54:01:01G | B*46:21:02+B*54:03     |                    |
| B*46:11+B*55:01:01G     | B*46:18+B*56:25        |                        |                    |
| B*46:11+B*55:02:01G     | B*46:18+B*56:01:01G    |                        |                    |
| B*46:11+B*55:13         | B*46:18+B*56:22        |                        |                    |
| B*46:11+B*56:09         | B*46:33+B*56:01:01G    |                        |                    |
| B*46:11+B*56:10         | B*46:18+B*56:02        |                        |                    |
| B*46:11+B*56:18         | B*46:13:01+B*55:02:01G | B*46:21:02+B*56:01:01G |                    |
| B*46:11+B*56:31         | B*46:21:02+B*56:34     |                        |                    |
| B*46:11+B*56:32         | B*46:13:01+B*55:01:01G | B*46:21:02+B*56:25     |                    |
| B*46:11+B*57:26         | B*46:18+B*57:01:01G    |                        |                    |
| B*46:11+B*58:35         | B*46:18+B*58:01:01G    |                        |                    |
| B*46:11+B*59:01:01G     | B*46:18+B*59:04        |                        |                    |
| B*46:11+B*78:07         | B*46:18+B*78:01:01     |                        |                    |
| B*46:12+B*51:01:01G     | B*46:32+B*51:64        |                        |                    |
| B*46:12+B*51:10         | B*46:32+B*51:81        |                        |                    |
| B*46:13:01+B*46:21:01   | B*46:13:03+B*46:21:02  |                        |                    |
| B*46:13:01+B*51:01:25   | B*46:13:03+B*51:01:21  |                        |                    |
| B*46:13:01+B*51:02:05   | B*46:13:03+B*51:02:01  |                        |                    |
| B*46:13:01+B*51:21      | B*46:21:02+B*51:01:01G |                        |                    |
| B*46:13:01+B*51:24:03   | B*46:13:03+B*51:24:04  |                        |                    |
| B*46:13:01+B*51:56:02   | B*46:33+B*51:06:01     |                        |                    |
| B*46:13:01+B*52:10:02   | B*46:13:03+B*52:10:01  |                        |                    |
| B*46:13:01+B*53:01:03   | B*46:13:03+B*53:01:01  |                        |                    |
| B*46:13:01+B*53:06      | B*46:33+B*51:45        |                        |                    |
| B*46:13:01+B*55:13      | B*46:21:02+B*56:22     |                        |                    |

|                         |                        |                       |
|-------------------------|------------------------|-----------------------|
| B*46:13:01+B*56:01:03   | B*46:13:03+B*56:01:01G |                       |
| B*46:13:01+B*56:10      | B*46:21:02+B*56:02     |                       |
| B*46:13:01+B*57:26      | B*46:21:02+B*57:01:01G |                       |
| B*46:13:01+B*58:01:05   | B*46:13:03+B*58:01:01G |                       |
| B*46:13:01+B*58:35      | B*46:21:02+B*58:01:01G |                       |
| B*46:13:01+B*59:01:01G  | B*46:21:02+B*59:04     |                       |
| B*46:13:01+B*78:07      | B*46:21:02+B*78:01:01  |                       |
| B*46:13:02+B*51:01:01G  | B*46:13:03+B*51:01:29  |                       |
| B*46:13:02+B*51:21      | B*46:21:01+B*51:01:29  |                       |
| B*46:13:03+B*51:19      | B*46:19+B*51:09:01     |                       |
| B*46:13:03+B*51:21      | B*46:21:01+B*51:01:01G |                       |
| B*46:13:03+B*51:101     | B*46:19+B*51:21        |                       |
| B*46:13:03+B*54:01:01G  | B*46:21:01+B*54:03     |                       |
| B*46:13:03+B*55:02:01G  | B*46:21:01+B*56:01:01G | B*46:21:02+B*56:01:03 |
| B*46:13:03+B*55:13      | B*46:21:01+B*56:22     |                       |
| B*46:13:03+B*56:10      | B*46:21:01+B*56:02     |                       |
| B*46:13:03+B*57:26      | B*46:21:01+B*57:01:01G |                       |
| B*46:13:03+B*58:35      | B*46:21:01+B*58:01:01G | B*46:21:02+B*58:01:05 |
| B*46:13:03+B*59:01:01G  | B*46:21:01+B*59:04     |                       |
| B*46:13:03+B*78:07      | B*46:21:01+B*78:01:01  |                       |
| B*46:14+B*55:19         | B*46:20+B*55:16        |                       |
| B*46:14+B*57:07         | B*46:17+B*57:39        |                       |
| B*46:17+B*49:07         | B*46:30+B*49:20        |                       |
| B*46:17+B*51:34         | B*46:30+B*51:23        |                       |
| B*46:17+B*52:08         | B*46:30+B*52:15        |                       |
| B*46:18+B*54:09         | B*46:21:02+B*54:01:01G |                       |
| B*46:18+B*56:09         | B*46:33+B*55:02:01G    |                       |
| B*46:18+B*56:18         | B*46:21:02+B*55:02:01G |                       |
| B*46:18+B*56:32         | B*46:21:02+B*55:01:01G |                       |
| B*46:21:01+B*51:01:21   | B*46:21:02+B*51:01:25  |                       |
| B*46:21:01+B*51:02:01   | B*46:21:02+B*51:02:05  |                       |
| B*46:21:01+B*51:24:04   | B*46:21:02+B*51:24:03  |                       |
| B*46:21:01+B*52:01:01G  | B*46:21:02+B*52:01:07  |                       |
| B*46:21:01+B*52:10:01   | B*46:21:02+B*52:10:02  |                       |
| B*46:21:01+B*53:01:01   | B*46:21:02+B*53:01:03  |                       |
| B*46:21:01+B*53:08:01   | B*46:21:02+B*53:08:02  |                       |
| B*46:21:01+B*55:21      | B*46:29+B*55:02:01G    |                       |
| B*46:21:02+B*56:09      | B*46:33+B*56:18        |                       |
| B*46:28+B*51:16         | B*46:30+B*51:58        |                       |
| B*46:28+B*51:21         | B*46:29+B*51:58        |                       |
| B*46:29+B*47:01:01G     | B*46:30+B*47:08        |                       |
| B*46:29+B*51:16         | B*46:30+B*51:21        |                       |
| B*46:29+B*54:26         | B*46:30+B*54:01:01G    |                       |
| B*46:29+B*55:09         | B*46:30+B*55:52        |                       |
| B*46:29+B*55:22         | B*46:30+B*55:02:01G    |                       |
| B*46:29+B*55:24         | B*46:30+B*55:01:01G    |                       |
| B*46:29+B*57:25         | B*46:30+B*57:26        |                       |
| B*46:29+B*58:37         | B*46:30+B*58:35        |                       |
| B*47:01:01G+B*51:21     | B*47:08+B*51:16        |                       |
| B*47:01:01G+B*52:28     | B*47:06+B*52:01:01G    |                       |
| B*47:01:01G+B*54:01:01G | B*47:08+B*54:26        |                       |
| B*47:01:01G+B*55:01:01G | B*47:08+B*55:24        |                       |
| B*47:01:01G+B*55:02:01G | B*47:08+B*55:22        |                       |
| B*47:01:01G+B*55:52     | B*47:08+B*55:09        |                       |
| B*47:01:01G+B*57:26     | B*47:08+B*57:25        |                       |
| B*47:01:01G+B*58:35     | B*47:08+B*58:37        |                       |
| B*47:04+B*53:03         | B*47:05+B*53:13        |                       |
| B*48:01:01G+B*48:13     | B*48:04+B*48:10        |                       |
| B*48:01:01G+B*48:25     | B*48:02:01+B*48:15     |                       |
| B*48:01:01G+B*49:01:01  | B*48:15+B*49:11        |                       |
| B*48:01:01G+B*51:01:01G | B*48:06+B*52:01:02     | B*48:15+B*51:09:01    |
| B*48:01:01G+B*51:01:02  | B*48:06+B*52:01:01G    | B*48:15+B*51:09:02    |
| B*48:01:01G+B*51:01:03  | B*48:06+B*52:01:09     |                       |
| B*48:01:01G+B*51:02:02  | B*48:06+B*52:11        |                       |
| B*48:01:01G+B*51:02:05  | B*48:15+B*51:40        |                       |
| B*48:01:01G+B*51:06:01  | B*48:03:01+B*51:64     |                       |
| B*48:01:01G+B*51:06:02  | B*48:03:02+B*51:64     |                       |
| B*48:01:01G+B*51:09:02  | B*48:06+B*52:10:01     |                       |
| B*48:01:01G+B*51:13:01  | B*48:07+B*51:01:04     |                       |
| B*48:01:01G+B*51:13:02  | B*48:07+B*51:01:01G    |                       |
| B*48:01:01G+B*51:16     | B*48:15+B*51:31        |                       |
| B*48:01:01G+B*51:23     | B*48:15+B*51:108       |                       |
| B*48:01:01G+B*51:61:02  | B*48:06+B*52:21        | B*48:19+B*51:01:01G   |
| B*48:01:01G+B*51:78:02  | B*48:06+B*52:20        |                       |
| B*48:01:01G+B*51:104    | B*48:06+B*52:02        |                       |
| B*48:01:01G+B*52:01:01G | B*48:15+B*52:10:01     | B*48:18+B*78:06       |
| B*48:01:01G+B*52:01:07  | B*48:15+B*52:10:02     |                       |
| B*48:01:01G+B*52:14     | B*48:07+B*52:01:05     |                       |
| B*48:01:01G+B*52:21     | B*48:19+B*52:01:02     |                       |
| B*48:01:01G+B*53:08:01  | B*48:15+B*53:01:01     |                       |
| B*48:01:01G+B*53:08:02  | B*48:15+B*53:01:03     |                       |
| B*48:01:01G+B*54:20     | B*48:15+B*54:10        |                       |
| B*48:01:01G+B*55:01:01G | B*48:15+B*55:02:01G    |                       |
| B*48:01:01G+B*55:21     | B*48:19+B*55:01:01G    |                       |
| B*48:01:01G+B*55:24     | B*48:15+B*55:22        |                       |
| B*48:01:01G+B*55:52     | B*48:15+B*55:37        |                       |
| B*48:01:01G+B*56:22     | B*48:07+B*56:15        |                       |
| B*48:01:01G+B*56:25     | B*48:15+B*56:01:01G    |                       |
| B*48:01:01G+B*56:32     | B*48:15+B*56:18        |                       |
| B*48:01:01G+B*57:22     | B*48:15+B*57:01:01G    |                       |
| B*48:01:01G+B*57:57     | B*48:15+B*57:03:01     |                       |
| B*48:01:01G+B*58:06     | B*48:15+B*58:02        |                       |
| B*48:01:01G+B*58:16     | B*48:03:01+B*58:18     |                       |
| B*48:01:01G+B*58:19     | B*48:15+B*58:01:01G    |                       |
| B*48:01:01G+B*78:02:01  | B*48:06+B*78:05        |                       |
| B*48:02:01+B*49:01:01   | B*48:25+B*49:11        |                       |
| B*48:02:01+B*51:01:01G  | B*48:25+B*51:09:01     |                       |
| B*48:02:01+B*51:02:05   | B*48:25+B*51:40        |                       |
| B*48:02:01+B*51:16      | B*48:25+B*51:31        |                       |
| B*48:02:01+B*51:23      | B*48:25+B*51:108       |                       |
| B*48:02:01+B*52:01:01G  | B*48:25+B*52:10:01     |                       |
| B*48:02:01+B*52:01:07   | B*48:25+B*52:10:02     |                       |
| B*48:02:01+B*53:08:01   | B*48:25+B*53:01:01     |                       |
| B*48:02:01+B*53:08:02   | B*48:25+B*53:01:03     |                       |
| B*48:02:01+B*54:20      | B*48:25+B*54:10        |                       |



|                        |                        |                     |                    |
|------------------------|------------------------|---------------------|--------------------|
| B*48:02:01+B*55:01:01G | B*48:25+B*55:02:01G    |                     |                    |
| B*48:02:01+B*55:24     | B*48:25+B*55:22        |                     |                    |
| B*48:02:01+B*55:52     | B*48:25+B*55:37        |                     |                    |
| B*48:02:01+B*56:25     | B*48:25+B*56:01:01G    |                     |                    |
| B*48:02:01+B*56:32     | B*48:25+B*56:18        |                     |                    |
| B*48:02:01+B*57:22     | B*48:25+B*57:01:01G    |                     |                    |
| B*48:02:01+B*57:57     | B*48:25+B*57:03:01     |                     |                    |
| B*48:02:01+B*58:06     | B*48:25+B*58:02        |                     |                    |
| B*48:02:01+B*58:19     | B*48:25+B*58:01:01G    |                     |                    |
| B*48:02:01+B*58:27     | B*48:13+B*58:01:01G    |                     |                    |
| B*48:03:01+B*51:01:01G | B*48:03:02+B*51:01:16  |                     |                    |
| B*48:03:01+B*51:06:02  | B*48:03:02+B*51:06:01  |                     |                    |
| B*48:03:01+B*51:37     | B*48:23+B*51:01:01G    |                     |                    |
| B*48:03:01+B*54:14     | B*48:23+B*54:04        |                     |                    |
| B*48:03:01+B*55:02:01G | B*48:03:02+B*55:02:04  |                     |                    |
| B*48:03:01+B*57:01:01G | B*48:23+B*57:03:01     |                     |                    |
| B*48:03:01+B*57:19     | B*48:23+B*57:02:01     |                     |                    |
| B*48:03:01+B*57:22     | B*48:23+B*57:57        |                     |                    |
| B*48:04+B*57:27        | B*48:24+B*57:01:01G    |                     |                    |
| B*48:06+B*52:09        | B*48:18+B*78:02:02     |                     |                    |
| B*48:06+B*56:06        | B*78:02:02+B*81:01:01G |                     |                    |
| B*48:07+B*51:61:02     | B*48:19+B*51:13:02     |                     |                    |
| B*48:07+B*55:28        | B*48:15+B*55:13        |                     |                    |
| B*48:10+B*51:01:01G    | B*48:12+B*51:24:03     |                     |                    |
| B*48:10+B*51:01:04     | B*48:12+B*51:24:02     |                     |                    |
| B*48:10+B*56:01:01G    | B*48:12+B*56:20:02     |                     |                    |
| B*48:13+B*58:19        | B*48:25+B*56:27        |                     |                    |
| B*48:18+B*56:06        | B*52:09+B*81:01:01G    |                     |                    |
| B*49:01:01+B*50:02     | B*49:20+B*50:01:01     |                     |                    |
| B*49:01:01+B*50:13     | B*49:10+B*50:01:01     |                     |                    |
| B*49:01:01+B*50:14     | B*49:18+B*50:01:01     |                     |                    |
| B*49:01:01+B*51:01:01G | B*49:09+B*51:02:01     |                     |                    |
| B*49:01:01+B*51:01:02  | B*49:09+B*51:02:02     |                     |                    |
| B*49:01:01+B*51:01:04  | B*49:09+B*51:02:04     |                     |                    |
| B*49:01:01+B*51:01:31  | B*49:09+B*51:02:03     |                     |                    |
| B*49:01:01+B*51:06:01  | B*49:09+B*51:59        | B*49:18+B*51:62     |                    |
| B*49:01:01+B*51:09:01  | B*49:11+B*51:01:01G    |                     |                    |
| B*49:01:01+B*51:09:02  | B*49:11+B*51:01:02     |                     |                    |
| B*49:01:01+B*51:16     | B*49:07+B*51:01:01G    | B*49:09+B*51:34     |                    |
| B*49:01:01+B*51:23     | B*49:20+B*51:02:01     |                     |                    |
| B*49:01:01+B*51:31     | B*49:07+B*51:09:01     | B*49:11+B*51:16     |                    |
| B*49:01:01+B*51:34     | B*49:07+B*51:02:01     |                     |                    |
| B*49:01:01+B*51:40     | B*49:11+B*51:02:05     |                     |                    |
| B*49:01:01+B*51:54     | B*49:02+B*51:05        |                     |                    |
| B*49:01:01+B*51:78:01  | B*49:02+B*51:01:01G    |                     |                    |
| B*49:01:01+B*51:78:02  | B*49:02+B*51:01:02     |                     |                    |
| B*49:01:01+B*51:82     | B*49:07+B*51:29        |                     |                    |
| B*49:01:01+B*51:108    | B*49:11+B*51:23        |                     |                    |
| B*49:01:01+B*51:126    | B*49:22+B*51:01:01G    |                     |                    |
| B*49:01:01+B*51:130    | B*49:12+B*51:01:01G    |                     |                    |
| B*49:01:01+B*52:01:01G | B*49:09+B*52:11        | B*49:18+B*52:25     |                    |
| B*49:01:01+B*52:08     | B*49:07+B*52:01:01G    |                     |                    |
| B*49:01:01+B*52:10:01  | B*49:11+B*52:01:01G    |                     |                    |
| B*49:01:01+B*52:10:02  | B*49:11+B*52:01:07     |                     |                    |
| B*49:01:01+B*52:15     | B*49:20+B*52:01:01G    |                     |                    |
| B*49:01:01+B*52:20     | B*49:02+B*52:01:01G    |                     |                    |
| B*49:01:01+B*53:01:01  | B*49:11+B*53:08:01     |                     |                    |
| B*49:01:01+B*53:01:03  | B*49:11+B*53:08:02     |                     |                    |
| B*49:01:01+B*53:02     | B*49:09+B*53:01:01     |                     |                    |
| B*49:01:01+B*53:11     | B*49:02+B*53:24        |                     |                    |
| B*49:01:01+B*53:12     | B*49:02+B*53:05        |                     |                    |
| B*49:01:01+B*53:13     | B*49:02+B*53:01:01     |                     |                    |
| B*49:01:01+B*54:01:01G | B*50:01:01+B*54:12     |                     |                    |
| B*49:01:01+B*54:10     | B*49:11+B*54:20        |                     |                    |
| B*49:01:01+B*54:26     | B*49:07+B*54:03        |                     |                    |
| B*49:01:01+B*55:02:01G | B*49:10+B*55:16        | B*49:11+B*55:01:01G |                    |
| B*49:01:01+B*55:22     | B*49:07+B*56:01:01G    | B*49:11+B*55:24     |                    |
| B*49:01:01+B*55:23     | B*49:04+B*55:41        |                     |                    |
| B*49:01:01+B*55:24     | B*49:07+B*56:25        |                     |                    |
| B*49:01:01+B*55:37     | B*49:11+B*55:52        |                     |                    |
| B*49:01:01+B*56:01:01G | B*49:11+B*56:25        |                     |                    |
| B*49:01:01+B*56:05:02  | B*50:01:01+B*56:21     |                     |                    |
| B*49:01:01+B*56:18     | B*49:11+B*56:32        |                     |                    |
| B*49:01:01+B*56:31     | B*49:09+B*56:18        |                     |                    |
| B*49:01:01+B*56:34     | B*49:09+B*56:01:01G    |                     |                    |
| B*49:01:01+B*57:01:01G | B*49:11+B*57:22        |                     |                    |
| B*49:01:01+B*57:03:01  | B*49:10+B*57:39        | B*49:11+B*57:57     |                    |
| B*49:01:01+B*57:07     | B*49:20+B*57:03:01     |                     |                    |
| B*49:01:01+B*57:12     | B*50:01:01+B*57:02:01  |                     |                    |
| B*49:01:01+B*57:25     | B*49:07+B*57:01:01G    |                     |                    |
| B*49:01:01+B*57:54     | B*49:22+B*57:01:01G    |                     |                    |
| B*49:01:01+B*58:01:01G | B*49:11+B*58:19        |                     |                    |
| B*49:01:01+B*58:02     | B*49:11+B*58:06        |                     |                    |
| B*49:01:01+B*58:07     | B*49:20+B*58:02        |                     |                    |
| B*49:01:01+B*58:09     | B*49:09+B*58:01:01G    |                     |                    |
| B*49:01:01+B*58:13     | B*49:06+B*58:01:01G    |                     |                    |
| B*49:01:01+B*58:37     | B*49:07+B*58:01:01G    |                     |                    |
| B*49:01:01+B*78:02:01  | B*50:01:01+B*51:01:02  |                     |                    |
| B*49:01:01+B*78:02:02  | B*50:01:01+B*51:01:01G | B*50:07+B*51:74     | B*50:15+B*52:06:02 |
| B*49:01:01+B*78:05     | B*50:01:01+B*52:01:01G | B*50:14+B*52:25     |                    |
| B*49:02+B*51:09:01     | B*49:11+B*51:78:01     |                     |                    |
| B*49:02+B*51:09:02     | B*49:11+B*51:78:02     |                     |                    |
| B*49:02+B*51:16        | B*49:07+B*51:78:01     |                     |                    |
| B*49:02+B*51:126       | B*49:22+B*51:78:01     |                     |                    |
| B*49:02+B*51:130       | B*49:12+B*51:78:01     |                     |                    |
| B*49:02+B*52:08        | B*49:07+B*52:20        |                     |                    |
| B*49:02+B*52:10:01     | B*49:11+B*52:20        |                     |                    |
| B*49:02+B*52:15        | B*49:20+B*52:20        |                     |                    |
| B*49:02+B*53:02        | B*49:09+B*53:13        |                     |                    |
| B*49:02+B*56:01:01G    | B*50:01:01+B*56:07     |                     |                    |
| B*49:02+B*56:22        | B*50:09+B*56:07        |                     |                    |
| B*49:02+B*78:02:01     | B*50:01:01+B*51:78:02  |                     |                    |
| B*49:02+B*78:02:02     | B*50:01:01+B*51:78:01  |                     |                    |
| B*49:02+B*78:05        | B*50:01:01+B*52:20     |                     |                    |
| B*49:06+B*58:09        | B*49:09+B*58:13        |                     |                    |

|                         |                        |                       |
|-------------------------|------------------------|-----------------------|
| B*49:06+B*58:37         | B*49:07+B*58:13        |                       |
| B*49:07+B*51:23         | B*49:20+B*51:34        |                       |
| B*49:07+B*51:126        | B*49:22+B*51:16        |                       |
| B*49:07+B*51:130        | B*49:12+B*51:16        |                       |
| B*49:07+B*52:10:01      | B*49:11+B*52:08        |                       |
| B*49:07+B*52:15         | B*49:20+B*52:08        |                       |
| B*49:07+B*56:34         | B*49:09+B*55:22        |                       |
| B*49:07+B*57:54         | B*49:22+B*57:25        |                       |
| B*49:07+B*58:09         | B*49:09+B*58:37        |                       |
| B*49:07+B*78:02:02      | B*50:01:01+B*51:16     |                       |
| B*49:07+B*78:05         | B*50:01:01+B*52:08     |                       |
| B*49:09+B*51:23         | B*49:20+B*51:01:01G    |                       |
| B*49:09+B*51:108        | B*49:20+B*51:09:01     |                       |
| B*49:09+B*52:03         | B*49:11+B*52:01:02     |                       |
| B*49:09+B*78:04         | B*49:11+B*78:02:01     | B*50:01:01+B*51:09:02 |
| B*49:10+B*50:02         | B*49:20+B*50:13        |                       |
| B*49:10+B*50:14         | B*49:18+B*50:13        |                       |
| B*49:10+B*54:01:01G     | B*50:13+B*54:12        |                       |
| B*49:10+B*56:05:02      | B*50:13+B*56:21        |                       |
| B*49:10+B*57:12         | B*50:13+B*57:02:01     |                       |
| B*49:10+B*78:02:01      | B*50:13+B*51:01:02     |                       |
| B*49:10+B*78:02:02      | B*50:13+B*51:01:01G    |                       |
| B*49:10+B*78:05         | B*50:13+B*52:01:01G    |                       |
| B*49:11+B*51:126        | B*49:22+B*51:09:01     |                       |
| B*49:11+B*51:130        | B*49:12+B*51:09:01     |                       |
| B*49:11+B*52:15         | B*49:20+B*52:10:01     |                       |
| B*49:11+B*78:02:02      | B*50:01:01+B*51:09:01  |                       |
| B*49:11+B*78:05         | B*50:01:01+B*52:10:01  |                       |
| B*49:12+B*51:126        | B*49:22+B*51:130       |                       |
| B*49:12+B*78:02:02      | B*50:01:01+B*51:130    |                       |
| B*49:18+B*50:02         | B*49:20+B*50:14        |                       |
| B*49:18+B*54:01:01G     | B*50:14+B*54:12        |                       |
| B*49:18+B*56:05:02      | B*50:14+B*56:21        |                       |
| B*49:18+B*57:12         | B*50:14+B*57:02:01     |                       |
| B*49:18+B*78:02:01      | B*50:14+B*51:01:02     |                       |
| B*49:18+B*78:02:02      | B*50:14+B*51:01:01G    |                       |
| B*49:18+B*78:05         | B*50:14+B*52:01:01G    |                       |
| B*49:20+B*54:01:01G     | B*50:02+B*54:12        |                       |
| B*49:20+B*56:05:02      | B*50:02+B*56:21        |                       |
| B*49:20+B*57:12         | B*50:02+B*57:02:01     |                       |
| B*49:20+B*78:02:01      | B*50:02+B*51:01:02     |                       |
| B*49:20+B*78:02:02      | B*50:02+B*51:01:01G    |                       |
| B*49:20+B*78:05         | B*50:01:01+B*52:15     | B*50:02+B*52:01:01G   |
| B*49:22+B*78:02:02      | B*50:01:01+B*51:126    |                       |
| B*50:01:01+B*51:01:33   | B*50:15+B*52:06:01     |                       |
| B*50:01:01+B*51:06:01   | B*50:14+B*51:62        |                       |
| B*50:01:01+B*51:07:01   | B*50:15+B*52:01:02     |                       |
| B*50:01:01+B*51:07:02   | B*50:15+B*52:01:01G    |                       |
| B*50:01:01+B*51:13:02   | B*50:09+B*51:106       |                       |
| B*50:01:01+B*51:23      | B*50:02+B*51:02:01     |                       |
| B*50:01:01+B*51:46      | B*50:17+B*51:01:01G    |                       |
| B*50:01:01+B*52:14      | B*50:09+B*52:25        |                       |
| B*50:01:01+B*55:01:01G  | B*50:15+B*55:40        |                       |
| B*50:01:01+B*55:02:01G  | B*50:13+B*55:16        |                       |
| B*50:01:01+B*55:07      | B*50:06+B*55:02:01G    |                       |
| B*50:01:01+B*55:13      | B*50:09+B*55:02:01G    |                       |
| B*50:01:01+B*55:47      | B*50:15+B*55:34        |                       |
| B*50:01:01+B*56:22      | B*50:09+B*56:01:01G    |                       |
| B*50:01:01+B*57:03:01   | B*50:13+B*57:39        |                       |
| B*50:01:01+B*57:07      | B*50:02+B*57:03:01     |                       |
| B*50:01:01+B*58:07      | B*50:02+B*58:02        |                       |
| B*50:01:01+B*59:03      | B*50:09+B*59:01:01G    |                       |
| B*50:02+B*51:07:02      | B*50:15+B*52:15        |                       |
| B*50:06+B*55:13         | B*50:09+B*55:07        |                       |
| B*50:09+B*51:01:01G     | B*50:14+B*51:13:01     |                       |
| B*50:09+B*51:90         | B*50:14+B*51:92        |                       |
| B*50:09+B*52:01:01G     | B*50:14+B*52:14        |                       |
| B*51:01:01G+B*51:01:09  | B*51:01:02+B*51:01:21  |                       |
| B*51:01:01G+B*51:02:02  | B*51:01:02+B*51:02:01  |                       |
| B*51:01:01G+B*51:02:03  | B*51:01:31+B*51:02:01  |                       |
| B*51:01:01G+B*51:02:04  | B*51:01:04+B*51:02:01  |                       |
| B*51:01:01G+B*51:06:01  | B*51:01:16+B*51:06:02  |                       |
| B*51:01:01G+B*51:07:02  | B*51:01:02+B*51:07:01  |                       |
| B*51:01:01G+B*51:09:02  | B*51:01:02+B*51:09:01  |                       |
| B*51:01:01G+B*51:13:01  | B*51:01:04+B*51:13:02  |                       |
| B*51:01:01G+B*51:24:02  | B*51:01:04+B*51:24:03  | B*51:01:25+B*51:24:01 |
| B*51:01:01G+B*51:31     | B*51:09:01+B*51:16     |                       |
| B*51:01:01G+B*51:34     | B*51:02:01+B*51:16     |                       |
| B*51:01:01G+B*51:37     | B*51:63+B*51:90        |                       |
| B*51:01:01G+B*51:40     | B*51:02:05+B*51:09:01  |                       |
| B*51:01:01G+B*51:54     | B*51:05+B*51:78:01     |                       |
| B*51:01:01G+B*51:59     | B*51:02:01+B*51:06:01  |                       |
| B*51:01:01G+B*51:78:02  | B*51:01:02+B*51:78:01  |                       |
| B*51:01:01G+B*51:81     | B*51:10+B*51:64        |                       |
| B*51:01:01G+B*51:82     | B*51:16+B*51:29        |                       |
| B*51:01:01G+B*51:92     | B*51:13:01+B*51:90     |                       |
| B*51:01:01G+B*51:97     | B*51:08+B*51:63        |                       |
| B*51:01:01G+B*51:108    | B*51:09:01+B*51:23     |                       |
| B*51:01:01G+B*51:135    | B*51:06:01+B*51:90     |                       |
| B*51:01:01G+B*52:01:01G | B*51:01:02+B*52:01:02  | B*51:07:02+B*52:06:02 |
| B*51:01:01G+B*52:01:02  | B*51:07:01+B*52:06:02  |                       |
| B*51:01:01G+B*52:01:03  | B*51:01:33+B*52:01:01G | B*51:07:02+B*52:06:01 |
| B*51:01:01G+B*52:01:05  | B*51:01:04+B*52:01:01G |                       |
| B*51:01:01G+B*52:01:06  | B*51:01:22+B*52:01:01G |                       |
| B*51:01:01G+B*52:01:09  | B*51:01:03+B*52:01:02  |                       |
| B*51:01:01G+B*52:02     | B*51:104+B*52:01:02    |                       |
| B*51:01:01G+B*52:06:01  | B*51:01:33+B*52:06:02  |                       |
| B*51:01:01G+B*52:08     | B*51:16+B*52:01:01G    |                       |
| B*51:01:01G+B*52:10:01  | B*51:09:01+B*52:01:01G | B*51:09:02+B*52:01:02 |
| B*51:01:01G+B*52:10:02  | B*51:09:01+B*52:01:07  |                       |
| B*51:01:01G+B*52:11     | B*51:02:01+B*52:01:01G | B*51:02:02+B*52:01:02 |
| B*51:01:01G+B*52:12     | B*51:90+B*52:01:01G    |                       |
| B*51:01:01G+B*52:14     | B*51:13:01+B*52:01:01G | B*51:13:02+B*52:01:05 |
| B*51:01:01G+B*52:19     | B*51:08+B*52:01:01G    |                       |
| B*51:01:01G+B*52:20     | B*51:78:01+B*52:01:01G | B*51:78:02+B*52:01:02 |

|                         |                        |                        |                       |                  |
|-------------------------|------------------------|------------------------|-----------------------|------------------|
| B*51:01:01G+B*52:21     | B*51:61:02+B*52:01:02  |                        |                       |                  |
| B*51:01:01G+B*52:24     | B*51:29+B*52:01:01G    |                        |                       |                  |
| B*51:01:01G+B*52:25     | B*51:106+B*52:01:05    |                        |                       |                  |
| B*51:01:01G+B*52:29     | B*51:53+B*52:01:01G    |                        |                       |                  |
| B*51:01:01G+B*52:30     | B*51:69+B*52:01:01G    |                        |                       |                  |
| B*51:01:01G+B*53:01:01  | B*51:02:01+B*53:02     | B*51:09:01+B*53:08:01  |                       |                  |
| B*51:01:01G+B*53:01:03  | B*51:02:05+B*53:02     | B*51:09:01+B*53:08:02  |                       |                  |
| B*51:01:01G+B*53:02     | B*51:09:02+B*53:06     |                        |                       |                  |
| B*51:01:01G+B*53:08:01  | B*51:02:02+B*53:06     |                        |                       |                  |
| B*51:01:01G+B*53:09     | B*51:07:01+B*53:13     |                        |                       |                  |
| B*51:01:01G+B*53:11     | B*51:29+B*53:13        | B*51:54+B*53:06        | B*51:78:01+B*53:24    |                  |
| B*51:01:01G+B*53:12     | B*51:78:01+B*53:05     |                        |                       |                  |
| B*51:01:01G+B*53:13     | B*51:78:01+B*53:01:01  |                        |                       |                  |
| B*51:01:01G+B*53:16     | B*51:29+B*53:05        |                        |                       |                  |
| B*51:01:01G+B*53:17:02  | B*52:01:02+B*53:01:01  |                        |                       |                  |
| B*51:01:01G+B*53:21     | B*51:57+B*53:01:01     |                        |                       |                  |
| B*51:01:01G+B*53:24     | B*51:05+B*53:06        | B*51:29+B*53:01:01     |                       |                  |
| B*51:01:01G+B*54:01:01G | B*51:21+B*54:03        | B*51:106+B*54:04       | B*54:12+B*78:02:02    |                  |
| B*51:01:01G+B*54:10     | B*51:09:01+B*54:20     | B*51:29+B*54:01:01G    |                       |                  |
| B*51:01:01G+B*54:13     | B*51:43+B*54:01:01G    |                        |                       |                  |
| B*51:01:01G+B*54:14     | B*51:37+B*54:04        |                        |                       |                  |
| B*51:01:01G+B*54:16     | B*51:90+B*54:01:01G    |                        |                       |                  |
| B*51:01:01G+B*54:18     | B*51:129+B*54:01:01G   |                        |                       |                  |
| B*51:01:01G+B*54:26     | B*51:16+B*54:03        |                        |                       |                  |
| B*51:01:01G+B*55:01:01G | B*51:01:04+B*55:01:04  | B*51:21+B*56:25        | B*51:106+B*55:28      |                  |
| B*51:01:01G+B*55:01:06  | B*51:01:26+B*55:01:01G |                        |                       |                  |
| B*51:01:01G+B*55:02:01G | B*51:09:01+B*55:01:01G | B*51:21+B*56:01:01G    | B*56:06+B*59:01:01G   |                  |
| B*51:01:01G+B*55:02:04  | B*51:01:16+B*55:02:01G |                        |                       |                  |
| B*51:01:01G+B*55:09     | B*51:29+B*55:24        | B*51:82+B*56:25        |                       |                  |
| B*51:01:01G+B*55:13     | B*51:21+B*56:22        | B*56:06+B*59:03        |                       |                  |
| B*51:01:01G+B*55:21     | B*51:61:02+B*55:01:01G |                        |                       |                  |
| B*51:01:01G+B*55:22     | B*51:09:01+B*55:24     | B*51:16+B*56:01:01G    | B*51:31+B*56:25       | B*51:34+B*56:34  |
| B*51:01:01G+B*55:23     | B*51:90+B*55:32        |                        |                       |                  |
| B*51:01:01G+B*55:24     | B*51:16+B*56:25        |                        |                       |                  |
| B*51:01:01G+B*55:26     | B*51:73+B*55:01:01G    |                        |                       |                  |
| B*51:01:01G+B*55:34     | B*52:06:02+B*55:47     |                        |                       |                  |
| B*51:01:01G+B*55:37     | B*51:09:01+B*55:52     | B*51:29+B*55:02:01G    |                       |                  |
| B*51:01:01G+B*55:38     | B*51:106+B*55:17       |                        |                       |                  |
| B*51:01:01G+B*55:39     | B*51:133+B*55:02:01G   |                        |                       |                  |
| B*51:01:01G+B*55:40     | B*52:06:02+B*55:01:01G |                        |                       |                  |
| B*51:01:01G+B*55:42     | B*51:35+B*55:02:01G    |                        |                       |                  |
| B*51:01:01G+B*55:43     | B*51:127+B*55:02:01G   |                        |                       |                  |
| B*51:01:01G+B*55:46     | B*51:90+B*55:02:01G    |                        |                       |                  |
| B*51:01:01G+B*55:50     | B*51:122+B*55:01:01G   |                        |                       |                  |
| B*51:01:01G+B*55:52     | B*51:29+B*55:01:01G    |                        |                       |                  |
| B*51:01:01G+B*55:54     | B*51:53+B*55:01:01G    |                        |                       |                  |
| B*51:01:01G+B*56:01:01G | B*51:02:01+B*56:34     | B*51:09:01+B*56:25     | B*51:15+B*56:05:01    | B*51:106+B*56:15 |
|                         | B*56:06+B*59:04        |                        |                       |                  |
| B*51:01:01G+B*56:01:03  | B*51:02:05+B*56:34     |                        |                       |                  |
| B*51:01:01G+B*56:02     | B*51:06:01+B*56:01:01G | B*51:59+B*56:34        |                       |                  |
| B*51:01:01G+B*56:04     | B*51:06:01+B*56:27     |                        |                       |                  |
| B*51:01:01G+B*56:05:02  | B*51:01:02+B*56:05:01  | B*56:21+B*78:02:02     |                       |                  |
| B*51:01:01G+B*56:10     | B*51:06:01+B*55:02:01G | B*51:06:02+B*55:02:04  | B*51:21+B*56:02       |                  |
| B*51:01:01G+B*56:11     | B*53:04+B*56:05:01     |                        |                       |                  |
| B*51:01:01G+B*56:13     | B*51:08+B*56:25        |                        |                       |                  |
| B*51:01:01G+B*56:18     | B*51:02:01+B*56:31     | B*51:09:01+B*56:32     |                       |                  |
| B*51:01:01G+B*56:20:02  | B*51:01:25+B*56:20:01  | B*51:24:03+B*56:01:01G | B*51:24:04+B*56:01:03 |                  |
| B*51:01:01G+B*56:22     | B*51:13:02+B*56:15     |                        |                       |                  |
| B*51:01:01G+B*56:33     | B*59:04+B*78:03        |                        |                       |                  |
| B*51:01:01G+B*57:01:01G | B*51:02:05+B*57:14     | B*51:09:01+B*57:22     | B*51:37+B*57:03:01    |                  |
| B*51:01:01G+B*57:01:03  | B*51:01:32+B*57:01:01G |                        |                       |                  |
| B*51:01:01G+B*57:01:07  | B*51:01:21+B*57:01:01G |                        |                       |                  |
| B*51:01:01G+B*57:02:01  | B*51:29+B*57:03:01     |                        |                       |                  |
| B*51:01:01G+B*57:03:01  | B*51:09:01+B*57:57     |                        |                       |                  |
| B*51:01:01G+B*57:10     | B*51:57+B*57:01:01G    |                        |                       |                  |
| B*51:01:01G+B*57:12     | B*57:02:01+B*78:02:02  |                        |                       |                  |
| B*51:01:01G+B*57:19     | B*51:29+B*57:01:01G    | B*51:37+B*57:02:01     |                       |                  |
| B*51:01:01G+B*57:22     | B*51:37+B*57:57        |                        |                       |                  |
| B*51:01:01G+B*57:24     | B*51:08+B*57:22        |                        |                       |                  |
| B*51:01:01G+B*57:25     | B*51:16+B*57:01:01G    | B*51:31+B*57:22        |                       |                  |
| B*51:01:01G+B*57:26     | B*51:21+B*57:01:01G    |                        |                       |                  |
| B*51:01:01G+B*57:32     | B*51:85+B*57:03:01     |                        |                       |                  |
| B*51:01:01G+B*57:34     | B*51:67+B*57:01:01G    |                        |                       |                  |
| B*51:01:01G+B*57:46     | B*51:53+B*57:03:01     |                        |                       |                  |
| B*51:01:01G+B*57:49     | B*51:68+B*57:01:01G    |                        |                       |                  |
| B*51:01:01G+B*57:50     | B*51:84+B*57:01:01G    |                        |                       |                  |
| B*51:01:01G+B*57:54     | B*51:126+B*57:01:01G   |                        |                       |                  |
| B*51:01:01G+B*58:01:01G | B*51:02:01+B*58:09     | B*51:09:01+B*58:19     | B*53:01:01+B*58:08:01 |                  |
| B*51:01:01G+B*58:01:05  | B*51:02:05+B*58:09     | B*53:01:03+B*58:08:01  |                       |                  |
| B*51:01:01G+B*58:01:08  | B*51:01:18+B*58:01:01G |                        |                       |                  |
| B*51:01:01G+B*58:02     | B*51:09:01+B*58:06     |                        |                       |                  |
| B*51:01:01G+B*58:08:02  | B*51:01:02+B*58:08:01  |                        |                       |                  |
| B*51:01:01G+B*58:09     | B*53:02+B*58:08:01     |                        |                       |                  |
| B*51:01:01G+B*58:18     | B*53:14+B*58:08:01     |                        |                       |                  |
| B*51:01:01G+B*58:19     | B*53:08:01+B*58:08:01  |                        |                       |                  |
| B*51:01:01G+B*58:22     | B*51:29+B*58:01:01G    | B*53:24+B*58:08:01     |                       |                  |
| B*51:01:01G+B*58:27     | B*51:81+B*58:08:02     |                        |                       |                  |
| B*51:01:01G+B*58:33     | B*53:18+B*58:08:01     |                        |                       |                  |
| B*51:01:01G+B*58:34     | B*53:04+B*58:08:01     |                        |                       |                  |
| B*51:01:01G+B*58:35     | B*51:21+B*58:01:01G    |                        |                       |                  |
| B*51:01:01G+B*58:36     | B*51:104+B*58:01:01G   |                        |                       |                  |
| B*51:01:01G+B*58:37     | B*51:16+B*58:01:01G    | B*51:31+B*58:19        | B*51:34+B*58:09       |                  |
| B*51:01:01G+B*59:01:01G | B*51:21+B*59:04        |                        |                       |                  |
| B*51:01:01G+B*67:03     | B*51:24:04+B*67:01:01  |                        |                       |                  |
| B*51:01:01G+B*78:01:02  | B*51:01:34+B*78:01:01  |                        |                       |                  |
| B*51:01:01G+B*78:02:01  | B*51:01:02+B*78:02:02  |                        |                       |                  |
| B*51:01:01G+B*78:03     | B*51:22+B*78:01:01     |                        |                       |                  |
| B*51:01:01G+B*78:05     | B*52:01:01G+B*78:02:02 | B*52:01:02+B*78:02:01  |                       |                  |
| B*51:01:01G+B*78:07     | B*51:21+B*78:01:01     |                        |                       |                  |
| B*51:01:02+B*51:02:03   | B*51:01:31+B*51:02:02  |                        |                       |                  |
| B*51:01:02+B*51:02:04   | B*51:01:04+B*51:02:02  |                        |                       |                  |
| B*51:01:02+B*51:31      | B*51:09:02+B*51:16     |                        |                       |                  |
| B*51:01:02+B*51:34      | B*51:02:02+B*51:16     |                        |                       |                  |
| B*51:01:02+B*51:40      | B*51:02:05+B*51:09:02  |                        |                       |                  |
| B*51:01:02+B*51:54      | B*51:05+B*51:78:02     |                        |                       |                  |

|                        |                        |                        |                       |
|------------------------|------------------------|------------------------|-----------------------|
| B*51:01:02+B*51:59     | B*51:02:02+B*51:06:01  |                        |                       |
| B*51:01:02+B*51:108    | B*51:09:02+B*51:23     |                        |                       |
| B*51:01:02+B*52:01:09  | B*51:01:03+B*52:01:01G |                        |                       |
| B*51:01:02+B*52:02     | B*51:104+B*52:01:01G   |                        |                       |
| B*51:01:02+B*52:03     | B*51:02:01+B*52:10:01  | B*51:09:01+B*52:11     |                       |
| B*51:01:02+B*52:10:01  | B*51:09:02+B*52:01:01G |                        |                       |
| B*51:01:02+B*52:10:02  | B*51:09:02+B*52:01:07  |                        |                       |
| B*51:01:02+B*52:11     | B*51:02:02+B*52:01:01G |                        |                       |
| B*51:01:02+B*52:20     | B*51:78:02+B*52:01:01G |                        |                       |
| B*51:01:02+B*52:21     | B*51:61:02+B*52:01:01G |                        |                       |
| B*51:01:02+B*53:01:01  | B*51:02:02+B*53:02     | B*51:09:02+B*53:08:01  |                       |
| B*51:01:02+B*53:01:03  | B*51:09:02+B*53:08:02  |                        |                       |
| B*51:01:02+B*53:09     | B*51:07:02+B*53:13     |                        |                       |
| B*51:01:02+B*53:11     | B*51:78:02+B*53:24     |                        |                       |
| B*51:01:02+B*53:12     | B*51:78:02+B*53:05     |                        |                       |
| B*51:01:02+B*53:13     | B*51:78:02+B*53:01:01  |                        |                       |
| B*51:01:02+B*53:17:02  | B*52:01:01G+B*53:01:01 | B*52:10:01+B*53:08:01  | B*52:11+B*53:02       |
| B*51:01:02+B*54:01:01G | B*54:12+B*78:02:01     |                        |                       |
| B*51:01:02+B*54:10     | B*51:09:02+B*54:20     |                        |                       |
| B*51:01:02+B*55:22     | B*51:09:02+B*55:24     |                        |                       |
| B*51:01:02+B*55:37     | B*51:09:02+B*55:52     |                        |                       |
| B*51:01:02+B*56:01:01G | B*51:02:02+B*56:34     | B*51:09:02+B*56:25     | B*51:15+B*56:05:02    |
| B*51:01:02+B*56:05:02  | B*56:21+B*78:02:01     |                        |                       |
| B*51:01:02+B*56:18     | B*51:02:02+B*56:31     | B*51:09:02+B*56:32     |                       |
| B*51:01:02+B*56:36     | B*51:119+B*56:01:01G   |                        |                       |
| B*51:01:02+B*57:01:01G | B*51:09:02+B*57:22     |                        |                       |
| B*51:01:02+B*57:01:07  | B*51:01:09+B*57:01:01G |                        |                       |
| B*51:01:02+B*57:03:01  | B*51:09:02+B*57:57     |                        |                       |
| B*51:01:02+B*57:12     | B*57:02:01+B*78:02:01  |                        |                       |
| B*51:01:02+B*58:01:01G | B*51:02:02+B*58:09     | B*51:09:02+B*58:19     | B*53:01:01+B*58:08:02 |
| B*51:01:02+B*58:01:05  | B*53:01:03+B*58:08:02  |                        |                       |
| B*51:01:02+B*58:02     | B*51:09:02+B*58:06     |                        |                       |
| B*51:01:02+B*58:09     | B*53:02+B*58:08:02     |                        |                       |
| B*51:01:02+B*58:18     | B*53:14+B*58:08:02     |                        |                       |
| B*51:01:02+B*58:19     | B*53:08:01+B*58:08:02  |                        |                       |
| B*51:01:02+B*58:22     | B*53:24+B*58:08:02     |                        |                       |
| B*51:01:02+B*58:33     | B*53:18+B*58:08:02     |                        |                       |
| B*51:01:02+B*58:34     | B*53:04+B*58:08:02     |                        |                       |
| B*51:01:02+B*78:05     | B*52:01:01G+B*78:02:01 |                        |                       |
| B*51:01:03+B*52:02     | B*51:104+B*52:01:09    |                        |                       |
| B*51:01:03+B*52:10:01  | B*51:09:02+B*52:01:09  |                        |                       |
| B*51:01:03+B*52:11     | B*51:02:02+B*52:01:09  |                        |                       |
| B*51:01:03+B*52:20     | B*51:78:02+B*52:01:09  |                        |                       |
| B*51:01:03+B*52:21     | B*51:61:02+B*52:01:09  |                        |                       |
| B*51:01:03+B*53:17:02  | B*52:01:09+B*53:01:01  |                        |                       |
| B*51:01:03+B*78:05     | B*52:01:09+B*78:02:01  |                        |                       |
| B*51:01:04+B*51:02:03  | B*51:01:31+B*51:02:04  |                        |                       |
| B*51:01:04+B*51:24:04  | B*51:01:21+B*51:24:01  |                        |                       |
| B*51:01:04+B*51:34     | B*51:02:04+B*51:16     |                        |                       |
| B*51:01:04+B*51:59     | B*51:02:04+B*51:06:01  |                        |                       |
| B*51:01:04+B*52:01:03  | B*51:01:33+B*52:01:05  |                        |                       |
| B*51:01:04+B*52:01:06  | B*51:01:22+B*52:01:05  |                        |                       |
| B*51:01:04+B*52:08     | B*51:16+B*52:01:05     |                        |                       |
| B*51:01:04+B*52:10:01  | B*51:09:01+B*52:01:05  |                        |                       |
| B*51:01:04+B*52:11     | B*51:02:01+B*52:01:05  | B*51:02:04+B*52:01:01G |                       |
| B*51:01:04+B*52:12     | B*51:90+B*52:01:05     |                        |                       |
| B*51:01:04+B*52:14     | B*51:13:01+B*52:01:05  |                        |                       |
| B*51:01:04+B*52:19     | B*51:08+B*52:01:05     |                        |                       |
| B*51:01:04+B*52:20     | B*51:78:01+B*52:01:05  |                        |                       |
| B*51:01:04+B*52:24     | B*51:29+B*52:01:05     |                        |                       |
| B*51:01:04+B*52:29     | B*51:53+B*52:01:05     |                        |                       |
| B*51:01:04+B*52:30     | B*51:69+B*52:01:05     |                        |                       |
| B*51:01:04+B*53:01:01  | B*51:02:04+B*53:02     |                        |                       |
| B*51:01:04+B*53:28     | B*52:01:01G+B*53:06    |                        |                       |
| B*51:01:04+B*56:01:01G | B*51:02:04+B*56:34     |                        |                       |
| B*51:01:04+B*56:02     | B*51:62+B*56:15        |                        |                       |
| B*51:01:04+B*56:18     | B*51:02:04+B*56:31     |                        |                       |
| B*51:01:04+B*56:20:01  | B*51:24:01+B*56:01:01G |                        |                       |
| B*51:01:04+B*56:20:02  | B*51:24:02+B*56:01:01G |                        |                       |
| B*51:01:04+B*56:22     | B*51:13:01+B*56:15     |                        |                       |
| B*51:01:04+B*56:32     | B*51:45+B*55:17        |                        |                       |
| B*51:01:04+B*57:31     | B*51:24:01+B*57:01:01G |                        |                       |
| B*51:01:04+B*58:01:01G | B*51:02:04+B*58:09     |                        |                       |
| B*51:01:04+B*78:05     | B*52:01:05+B*78:02:02  |                        |                       |
| B*51:01:09+B*51:02:01  | B*51:01:21+B*51:02:02  |                        |                       |
| B*51:01:09+B*51:02:05  | B*51:01:25+B*51:02:02  |                        |                       |
| B*51:01:09+B*51:07:01  | B*51:01:21+B*51:07:02  |                        |                       |
| B*51:01:09+B*51:09:01  | B*51:01:21+B*51:09:02  |                        |                       |
| B*51:01:09+B*51:78:01  | B*51:01:21+B*51:78:02  |                        |                       |
| B*51:01:09+B*52:01:02  | B*51:01:21+B*52:01:01G |                        |                       |
| B*51:01:09+B*56:05:01  | B*51:01:21+B*56:05:02  |                        |                       |
| B*51:01:09+B*58:08:01  | B*51:01:21+B*58:08:02  |                        |                       |
| B*51:01:09+B*78:02:02  | B*51:01:21+B*78:02:01  |                        |                       |
| B*51:01:16+B*55:37     | B*51:29+B*55:02:04     |                        |                       |
| B*51:01:16+B*55:39     | B*51:133+B*55:02:04    |                        |                       |
| B*51:01:16+B*55:42     | B*51:35+B*55:02:04     |                        |                       |
| B*51:01:16+B*55:43     | B*51:127+B*55:02:04    |                        |                       |
| B*51:01:16+B*55:46     | B*51:90+B*55:02:04     |                        |                       |
| B*51:01:16+B*56:10     | B*51:06:01+B*55:02:04  |                        |                       |
| B*51:01:18+B*58:22     | B*51:29+B*58:01:08     |                        |                       |
| B*51:01:18+B*58:35     | B*51:21+B*58:01:08     |                        |                       |
| B*51:01:18+B*58:36     | B*51:104+B*58:01:08    |                        |                       |
| B*51:01:18+B*58:37     | B*51:16+B*58:01:08     |                        |                       |
| B*51:01:21+B*51:02:05  | B*51:01:25+B*51:02:01  |                        |                       |
| B*51:01:21+B*51:24:03  | B*51:01:25+B*51:24:04  |                        |                       |
| B*51:01:21+B*51:61:01  | B*51:01:25+B*51:61:02  |                        |                       |
| B*51:01:21+B*52:01:07  | B*51:01:25+B*52:01:01G |                        |                       |
| B*51:01:21+B*52:10:02  | B*51:01:25+B*52:10:01  |                        |                       |
| B*51:01:21+B*53:01:03  | B*51:01:25+B*53:01:01  |                        |                       |
| B*51:01:21+B*53:08:02  | B*51:01:25+B*53:08:01  |                        |                       |
| B*51:01:21+B*56:01:03  | B*51:01:25+B*56:01:01G |                        |                       |
| B*51:01:21+B*56:20:01  | B*51:24:04+B*56:01:01G |                        |                       |
| B*51:01:21+B*57:01:03  | B*51:01:32+B*57:01:07  |                        |                       |
| B*51:01:21+B*57:10     | B*51:57+B*57:01:07     |                        |                       |
| B*51:01:21+B*57:19     | B*51:29+B*57:01:07     |                        |                       |

|                        |                        |                     |
|------------------------|------------------------|---------------------|
| B*51:01:21+B*57:25     | B*51:16+B*57:01:07     |                     |
| B*51:01:21+B*57:26     | B*51:21+B*57:01:07     |                     |
| B*51:01:21+B*57:31     | B*51:24:04+B*57:01:01G |                     |
| B*51:01:21+B*57:34     | B*51:67+B*57:01:07     |                     |
| B*51:01:21+B*57:49     | B*51:68+B*57:01:07     |                     |
| B*51:01:21+B*57:50     | B*51:84+B*57:01:07     |                     |
| B*51:01:21+B*57:54     | B*51:126+B*57:01:07    |                     |
| B*51:01:21+B*58:01:05  | B*51:01:25+B*58:01:01G |                     |
| B*51:01:22+B*52:01:03  | B*51:01:33+B*52:01:06  |                     |
| B*51:01:22+B*52:08     | B*51:16+B*52:01:06     |                     |
| B*51:01:22+B*52:10:01  | B*51:09:01+B*52:01:06  |                     |
| B*51:01:22+B*52:11     | B*51:02:01+B*52:01:06  |                     |
| B*51:01:22+B*52:12     | B*51:90+B*52:01:06     |                     |
| B*51:01:22+B*52:14     | B*51:13:01+B*52:01:06  |                     |
| B*51:01:22+B*52:19     | B*51:08+B*52:01:06     |                     |
| B*51:01:22+B*52:20     | B*51:78:01+B*52:01:06  |                     |
| B*51:01:22+B*52:24     | B*51:29+B*52:01:06     |                     |
| B*51:01:22+B*52:29     | B*51:53+B*52:01:06     |                     |
| B*51:01:22+B*52:30     | B*51:69+B*52:01:06     |                     |
| B*51:01:22+B*78:05     | B*52:01:06+B*78:02:02  |                     |
| B*51:01:25+B*57:31     | B*51:24:03+B*57:01:01G |                     |
| B*51:01:26+B*55:02:01G | B*51:09:01+B*55:01:06  |                     |
| B*51:01:26+B*55:21     | B*51:61:02+B*55:01:06  |                     |
| B*51:01:26+B*55:26     | B*51:73+B*55:01:06     |                     |
| B*51:01:26+B*55:40     | B*52:06:02+B*55:01:06  |                     |
| B*51:01:26+B*55:50     | B*51:122+B*55:01:06    |                     |
| B*51:01:26+B*55:52     | B*51:29+B*55:01:06     |                     |
| B*51:01:26+B*55:54     | B*51:53+B*55:01:06     |                     |
| B*51:01:31+B*51:34     | B*51:02:03+B*51:16     |                     |
| B*51:01:31+B*51:59     | B*51:02:03+B*51:06:01  |                     |
| B*51:01:31+B*52:11     | B*51:02:03+B*52:01:01G |                     |
| B*51:01:31+B*53:01:01  | B*51:02:03+B*53:02     |                     |
| B*51:01:31+B*56:01:01G | B*51:02:03+B*56:34     |                     |
| B*51:01:31+B*56:18     | B*51:02:03+B*56:31     |                     |
| B*51:01:31+B*58:01:01G | B*51:02:03+B*58:09     |                     |
| B*51:01:32+B*57:10     | B*51:57+B*57:01:03     |                     |
| B*51:01:32+B*57:19     | B*51:29+B*57:01:03     |                     |
| B*51:01:32+B*57:25     | B*51:16+B*57:01:03     |                     |
| B*51:01:32+B*57:26     | B*51:21+B*57:01:03     |                     |
| B*51:01:32+B*57:34     | B*51:67+B*57:01:03     |                     |
| B*51:01:32+B*57:49     | B*51:68+B*57:01:03     |                     |
| B*51:01:32+B*57:50     | B*51:84+B*57:01:03     |                     |
| B*51:01:32+B*57:54     | B*51:126+B*57:01:03    |                     |
| B*51:01:33+B*52:01:02  | B*51:07:01+B*52:06:01  |                     |
| B*51:01:33+B*52:08     | B*51:16+B*52:01:03     |                     |
| B*51:01:33+B*52:10:01  | B*51:09:01+B*52:01:03  |                     |
| B*51:01:33+B*52:11     | B*51:02:01+B*52:01:03  |                     |
| B*51:01:33+B*52:12     | B*51:90+B*52:01:03     |                     |
| B*51:01:33+B*52:14     | B*51:13:01+B*52:01:03  |                     |
| B*51:01:33+B*52:19     | B*51:08+B*52:01:03     |                     |
| B*51:01:33+B*52:20     | B*51:78:01+B*52:01:03  |                     |
| B*51:01:33+B*52:24     | B*51:29+B*52:01:03     |                     |
| B*51:01:33+B*52:29     | B*51:53+B*52:01:03     |                     |
| B*51:01:33+B*52:30     | B*51:69+B*52:01:03     |                     |
| B*51:01:33+B*55:34     | B*52:06:01+B*55:47     |                     |
| B*51:01:33+B*55:40     | B*52:06:01+B*55:01:01G |                     |
| B*51:01:33+B*78:05     | B*52:01:03+B*78:02:02  |                     |
| B*51:01:34+B*78:03     | B*51:22+B*78:01:02     |                     |
| B*51:01:34+B*78:07     | B*51:21+B*78:01:02     |                     |
| B*51:02:01+B*51:07:02  | B*51:02:02+B*51:07:01  |                     |
| B*51:02:01+B*51:09:02  | B*51:02:02+B*51:09:01  |                     |
| B*51:02:01+B*51:13:01  | B*51:02:04+B*51:13:02  |                     |
| B*51:02:01+B*51:24:02  | B*51:02:04+B*51:24:03  |                     |
| B*51:02:01+B*51:24:03  | B*51:02:05+B*51:24:04  |                     |
| B*51:02:01+B*51:31     | B*51:09:01+B*51:34     |                     |
| B*51:02:01+B*51:61:01  | B*51:02:05+B*51:61:02  |                     |
| B*51:02:01+B*51:78:02  | B*51:02:02+B*51:78:01  |                     |
| B*51:02:01+B*51:82     | B*51:29+B*51:34        |                     |
| B*51:02:01+B*51:135    | B*51:59+B*51:90        |                     |
| B*51:02:01+B*52:01:07  | B*51:02:05+B*52:01:01G |                     |
| B*51:02:01+B*52:08     | B*51:16+B*52:11        | B*51:34+B*52:01:01G |
| B*51:02:01+B*52:10:02  | B*51:02:05+B*52:10:01  | B*51:40+B*52:01:01G |
| B*51:02:01+B*52:12     | B*51:90+B*52:11        |                     |
| B*51:02:01+B*52:14     | B*51:13:01+B*52:11     |                     |
| B*51:02:01+B*52:15     | B*51:23+B*52:01:01G    |                     |
| B*51:02:01+B*52:19     | B*51:08+B*52:11        |                     |
| B*51:02:01+B*52:20     | B*51:78:01+B*52:11     |                     |
| B*51:02:01+B*52:24     | B*51:29+B*52:11        |                     |
| B*51:02:01+B*52:29     | B*51:53+B*52:11        |                     |
| B*51:02:01+B*52:30     | B*51:69+B*52:11        |                     |
| B*51:02:01+B*53:01:03  | B*51:02:05+B*53:01:01  | B*51:40+B*53:08:01  |
| B*51:02:01+B*53:08:02  | B*51:02:05+B*53:08:01  |                     |
| B*51:02:01+B*53:17:02  | B*52:03+B*53:08:01     |                     |
| B*51:02:01+B*54:26     | B*51:34+B*54:03        |                     |
| B*51:02:01+B*55:01:01G | B*51:02:04+B*55:01:04  |                     |
| B*51:02:01+B*55:22     | B*51:34+B*56:01:01G    |                     |
| B*51:02:01+B*55:24     | B*51:34+B*56:25        |                     |
| B*51:02:01+B*55:56     | B*51:36+B*56:25        |                     |
| B*51:02:01+B*56:01:03  | B*51:02:05+B*56:01:01G | B*51:40+B*56:25     |
| B*51:02:01+B*56:02     | B*51:59+B*56:01:01G    |                     |
| B*51:02:01+B*56:04     | B*51:59+B*56:27        |                     |
| B*51:02:01+B*56:05:02  | B*51:02:02+B*56:05:01  |                     |
| B*51:02:01+B*56:10     | B*51:59+B*55:02:01G    |                     |
| B*51:02:01+B*57:07     | B*51:23+B*57:03:01     | B*51:108+B*57:57    |
| B*51:02:01+B*57:25     | B*51:34+B*57:01:01G    |                     |
| B*51:02:01+B*58:01:05  | B*51:02:05+B*58:01:01G | B*51:40+B*58:19     |
| B*51:02:01+B*58:07     | B*51:23+B*58:02        | B*51:108+B*58:06    |
| B*51:02:01+B*58:08:02  | B*51:02:02+B*58:08:01  |                     |
| B*51:02:01+B*58:37     | B*51:34+B*58:01:01G    |                     |
| B*51:02:01+B*78:02:01  | B*51:02:02+B*78:02:02  |                     |
| B*51:02:01+B*78:05     | B*52:11+B*78:02:02     |                     |
| B*51:02:02+B*51:31     | B*51:09:02+B*51:34     |                     |
| B*51:02:02+B*52:02     | B*51:104+B*52:11       |                     |
| B*51:02:02+B*52:10:01  | B*51:09:02+B*52:11     |                     |
| B*51:02:02+B*52:20     | B*51:78:02+B*52:11     |                     |

|                        |                         |                       |                 |                 |
|------------------------|-------------------------|-----------------------|-----------------|-----------------|
| B*51:02:02+B*52:21     | B*51:61:02+B*52:11      |                       |                 |                 |
| B*51:02:02+B*53:11     | B*51:54+B*53:08:01      |                       |                 |                 |
| B*51:02:02+B*53:17:02  | B*52:11+B*53:01:01      |                       |                 |                 |
| B*51:02:02+B*53:24     | B*51:05+B*53:08:01      |                       |                 |                 |
| B*51:02:02+B*55:37     | B*51:05+B*55:01:01G     |                       |                 |                 |
| B*51:02:02+B*57:02:01  | B*51:05+B*57:57         |                       |                 |                 |
| B*51:02:02+B*57:19     | B*51:05+B*57:22         |                       |                 |                 |
| B*51:02:02+B*58:22     | B*51:05+B*58:19         |                       |                 |                 |
| B*51:02:02+B*78:05     | B*52:11+B*78:02:01      |                       |                 |                 |
| B*51:02:04+B*52:01:07  | B*51:02:05+B*52:01:05   |                       |                 |                 |
| B*51:02:04+B*52:08     | B*51:34+B*52:01:05      |                       |                 |                 |
| B*51:02:04+B*52:10:02  | B*51:40+B*52:01:05      |                       |                 |                 |
| B*51:02:04+B*52:15     | B*51:23+B*52:01:05      |                       |                 |                 |
| B*51:02:04+B*53:28     | B*52:01:02+B*53:08:01   | B*52:11+B*53:06       |                 |                 |
| B*51:02:05+B*51:31     | B*51:16+B*51:40         |                       |                 |                 |
| B*51:02:05+B*51:108    | B*51:23+B*51:40         |                       |                 |                 |
| B*51:02:05+B*52:08     | B*51:34+B*52:01:07      |                       |                 |                 |
| B*51:02:05+B*52:10:02  | B*51:40+B*52:01:07      |                       |                 |                 |
| B*51:02:05+B*52:15     | B*51:23+B*52:01:07      |                       |                 |                 |
| B*51:02:05+B*53:01:03  | B*51:40+B*53:08:02      |                       |                 |                 |
| B*51:02:05+B*53:17:02  | B*52:03+B*53:08:02      |                       |                 |                 |
| B*51:02:05+B*54:10     | B*51:40+B*54:20         |                       |                 |                 |
| B*51:02:05+B*55:02:01G | B*51:40+B*55:01:01G     |                       |                 |                 |
| B*51:02:05+B*55:22     | B*51:34+B*56:01:03      | B*51:40+B*55:24       |                 |                 |
| B*51:02:05+B*55:37     | B*51:40+B*55:52         |                       |                 |                 |
| B*51:02:05+B*56:02     | B*51:59+B*56:01:03      |                       |                 |                 |
| B*51:02:05+B*56:18     | B*51:40+B*56:32         |                       |                 |                 |
| B*51:02:05+B*57:01:01G | B*51:40+B*57:22         |                       |                 |                 |
| B*51:02:05+B*57:03:01  | B*51:40+B*57:57         |                       |                 |                 |
| B*51:02:05+B*58:02     | B*51:40+B*58:06         |                       |                 |                 |
| B*51:02:05+B*58:37     | B*51:34+B*58:01:05      |                       |                 |                 |
| B*51:04+B*53:14        | B*51:64+B*53:01:01      |                       |                 |                 |
| B*51:04+B*58:16        | B*51:06:01+B*58:01:01G  | B*51:59+B*58:09       |                 |                 |
| B*51:04+B*58:18        | B*51:64+B*56:01:01G     |                       |                 |                 |
| B*51:05+B*52:20        | B*51:54+B*52:01:01G     |                       |                 |                 |
| B*51:05+B*53:02        | B*51:09:02+B*53:24      |                       |                 |                 |
| B*51:05+B*53:11        | B*51:54+B*53:24         |                       |                 |                 |
| B*51:05+B*53:12        | B*51:54+B*53:05         |                       |                 |                 |
| B*51:05+B*53:13        | B*51:54+B*53:01:01      |                       |                 |                 |
| B*51:05+B*58:09        | B*51:09:02+B*58:22      |                       |                 |                 |
| B*51:05+B*78:02:02     | B*51:29+B*78:04         |                       |                 |                 |
| B*51:05+B*78:05        | B*52:24+B*78:04         |                       |                 |                 |
| B*51:06:01+B*51:34     | B*51:16+B*51:59         |                       |                 |                 |
| B*51:06:01+B*51:37     | B*51:63+B*51:135        |                       |                 |                 |
| B*51:06:01+B*51:92     | B*51:13:01+B*51:135     |                       |                 |                 |
| B*51:06:01+B*52:11     | B*51:59+B*52:01:01G     |                       |                 |                 |
| B*51:06:01+B*52:12     | B*51:135+B*52:01:01G    |                       |                 |                 |
| B*51:06:01+B*52:25     | B*51:62+B*52:01:01G     |                       |                 |                 |
| B*51:06:01+B*53:01:01  | B*51:59+B*53:02         |                       |                 |                 |
| B*51:06:01+B*53:06     | B*51:45+B*51:56:02      |                       |                 |                 |
| B*51:06:01+B*54:16     | B*51:135+B*54:01:01G    |                       |                 |                 |
| B*51:06:01+B*55:22     | B*51:16+B*56:02         |                       |                 |                 |
| B*51:06:01+B*55:23     | B*51:135+B*55:32        |                       |                 |                 |
| B*51:06:01+B*55:37     | B*51:29+B*56:10         |                       |                 |                 |
| B*51:06:01+B*55:39     | B*51:133+B*56:10        |                       |                 |                 |
| B*51:06:01+B*55:42     | B*51:35+B*56:10         |                       |                 |                 |
| B*51:06:01+B*55:43     | B*51:127+B*56:10        |                       |                 |                 |
| B*51:06:01+B*55:46     | B*51:90+B*56:10         | B*51:135+B*55:02:01G  |                 |                 |
| B*51:06:01+B*56:18     | B*51:59+B*56:31         |                       |                 |                 |
| B*51:06:01+B*56:20:02  | B*51:24:03+B*56:02      |                       |                 |                 |
| B*51:06:01+B*58:18     | B*51:64+B*58:16         |                       |                 |                 |
| B*51:07:01+B*51:09:02  | B*51:07:02+B*51:09:01   |                       |                 |                 |
| B*51:07:01+B*51:78:02  | B*51:07:02+B*51:78:01   |                       |                 |                 |
| B*51:07:01+B*52:01:01G | B*51:07:02+B*52:01:02   |                       |                 |                 |
| B*51:07:01+B*53:11     | B*51:29+B*53:09         |                       |                 |                 |
| B*51:07:01+B*55:34     | B*52:01:02+B*55:47      |                       |                 |                 |
| B*51:07:01+B*55:40     | B*52:01:02+B*55:01:01G  |                       |                 |                 |
| B*51:07:01+B*56:05:02  | B*51:07:02+B*56:05:01   |                       |                 |                 |
| B*51:07:01+B*58:08:02  | B*51:07:02+B*58:08:01   |                       |                 |                 |
| B*51:07:01+B*78:02:01  | B*51:07:02+B*78:02:02   |                       |                 |                 |
| B*51:07:02+B*55:34     | B*52:01:01G+B*55:47     |                       |                 |                 |
| B*51:07:02+B*55:40     | B*52:01:01G+B*55:01:01G | B*52:01:05+B*55:01:04 |                 |                 |
| B*51:08+B*51:37        | B*51:90+B*51:97         |                       |                 |                 |
| B*51:08+B*52:08        | B*51:16+B*52:19         |                       |                 |                 |
| B*51:08+B*52:10:01     | B*51:09:01+B*52:19      |                       |                 |                 |
| B*51:08+B*52:12        | B*51:90+B*52:19         |                       |                 |                 |
| B*51:08+B*52:14        | B*51:13:01+B*52:19      |                       |                 |                 |
| B*51:08+B*52:20        | B*51:78:01+B*52:19      |                       |                 |                 |
| B*51:08+B*52:24        | B*51:29+B*52:19         |                       |                 |                 |
| B*51:08+B*52:29        | B*51:53+B*52:19         |                       |                 |                 |
| B*51:08+B*52:30        | B*51:69+B*52:19         |                       |                 |                 |
| B*51:08+B*53:23        | B*51:20+B*53:01:01      |                       |                 |                 |
| B*51:08+B*55:01:01G    | B*51:09:01+B*55:56      | B*51:20+B*55:31       | B*51:21+B*56:13 | B*51:36+B*56:34 |
| B*51:08+B*55:09        | B*51:82+B*56:13         |                       |                 |                 |
| B*51:08+B*55:22        | B*51:31+B*56:13         |                       |                 |                 |
| B*51:08+B*55:24        | B*51:16+B*56:13         |                       |                 |                 |
| B*51:08+B*56:01:01G    | B*51:09:01+B*56:13      |                       |                 |                 |
| B*51:08+B*57:01:01G    | B*51:09:01+B*57:24      |                       |                 |                 |
| B*51:08+B*57:25        | B*51:31+B*57:24         |                       |                 |                 |
| B*51:08+B*57:57        | B*51:09:01+B*57:09      |                       |                 |                 |
| B*51:08+B*78:01:01     | B*51:20+B*78:02:02      |                       |                 |                 |
| B*51:08+B*78:05        | B*52:19+B*78:02:02      |                       |                 |                 |
| B*51:09:01+B*51:78:02  | B*51:09:02+B*51:78:01   |                       |                 |                 |
| B*51:09:01+B*51:82     | B*51:29+B*51:31         |                       |                 |                 |
| B*51:09:01+B*51:101    | B*51:19+B*51:21         |                       |                 |                 |
| B*51:09:01+B*52:08     | B*51:16+B*52:10:01      | B*51:31+B*52:01:01G   |                 |                 |
| B*51:09:01+B*52:12     | B*51:90+B*52:10:01      |                       |                 |                 |
| B*51:09:01+B*52:14     | B*51:13:01+B*52:10:01   |                       |                 |                 |
| B*51:09:01+B*52:20     | B*51:78:01+B*52:10:01   |                       |                 |                 |
| B*51:09:01+B*52:24     | B*51:29+B*52:10:01      |                       |                 |                 |
| B*51:09:01+B*52:29     | B*51:53+B*52:10:01      |                       |                 |                 |
| B*51:09:01+B*52:30     | B*51:69+B*52:10:01      |                       |                 |                 |
| B*51:09:01+B*53:01:03  | B*51:40+B*53:02         |                       |                 |                 |
| B*51:09:01+B*53:17:02  | B*52:03+B*53:02         |                       |                 |                 |
| B*51:09:01+B*54:26     | B*51:31+B*54:03         |                       |                 |                 |

|                        |                        |                     |
|------------------------|------------------------|---------------------|
| B*51:09:01+B*55:09     | B*51:29+B*55:22        | B*51:82+B*56:01:01G |
| B*51:09:01+B*55:21     | B*51:61:02+B*55:02:01G |                     |
| B*51:09:01+B*55:22     | B*51:31+B*56:01:01G    |                     |
| B*51:09:01+B*55:26     | B*51:73+B*55:02:01G    |                     |
| B*51:09:01+B*55:28     | B*51:21+B*56:15        |                     |
| B*51:09:01+B*55:38     | B*51:21+B*56:27        |                     |
| B*51:09:01+B*55:40     | B*52:06:02+B*55:02:01G |                     |
| B*51:09:01+B*55:50     | B*51:122+B*55:02:01G   |                     |
| B*51:09:01+B*55:54     | B*51:53+B*55:02:01G    |                     |
| B*51:09:01+B*56:01:03  | B*51:40+B*56:34        |                     |
| B*51:09:01+B*56:05:02  | B*51:09:02+B*56:05:01  |                     |
| B*51:09:01+B*57:01:01G | B*51:40+B*57:14        |                     |
| B*51:09:01+B*57:25     | B*51:31+B*57:01:01G    |                     |
| B*51:09:01+B*57:30     | B*51:115+B*57:19       |                     |
| B*51:09:01+B*58:01:05  | B*51:40+B*58:09        |                     |
| B*51:09:01+B*58:08:02  | B*51:09:02+B*58:08:01  |                     |
| B*51:09:01+B*58:37     | B*51:31+B*58:01:01G    |                     |
| B*51:09:01+B*78:02:01  | B*51:09:02+B*78:02:02  |                     |
| B*51:09:01+B*78:05     | B*52:10:01+B*78:02:02  |                     |
| B*51:09:02+B*52:02     | B*51:104+B*52:10:01    |                     |
| B*51:09:02+B*52:20     | B*51:78:02+B*52:10:01  |                     |
| B*51:09:02+B*52:21     | B*51:61:02+B*52:10:01  |                     |
| B*51:09:02+B*53:11     | B*51:54+B*53:02        |                     |
| B*51:09:02+B*53:17:02  | B*52:10:01+B*53:01:01  |                     |
| B*51:09:02+B*78:05     | B*52:10:01+B*78:02:01  |                     |
| B*51:13:01+B*51:24:03  | B*51:13:02+B*51:24:02  |                     |
| B*51:13:01+B*51:37     | B*51:63+B*51:92        |                     |
| B*51:13:01+B*52:08     | B*51:16+B*52:14        |                     |
| B*51:13:01+B*52:12     | B*51:90+B*52:14        | B*51:92+B*52:01:01G |
| B*51:13:01+B*52:20     | B*51:78:01+B*52:14     |                     |
| B*51:13:01+B*52:24     | B*51:29+B*52:14        |                     |
| B*51:13:01+B*52:29     | B*51:53+B*52:14        |                     |
| B*51:13:01+B*52:30     | B*51:69+B*52:14        |                     |
| B*51:13:01+B*54:16     | B*51:92+B*54:01:01G    |                     |
| B*51:13:01+B*55:01:04  | B*51:13:02+B*55:01:01G |                     |
| B*51:13:01+B*55:23     | B*51:92+B*55:32        |                     |
| B*51:13:01+B*55:46     | B*51:92+B*55:02:01G    |                     |
| B*51:13:01+B*56:02     | B*51:62+B*56:22        |                     |
| B*51:13:01+B*56:10     | B*51:62+B*55:13        |                     |
| B*51:13:01+B*59:02     | B*51:24:01+B*59:03     |                     |
| B*51:13:01+B*78:05     | B*52:14+B*78:02:02     |                     |
| B*51:13:02+B*52:25     | B*51:106+B*52:14       |                     |
| B*51:13:02+B*53:01:01  | B*51:63+B*53:04        |                     |
| B*51:13:02+B*55:02:01G | B*51:106+B*55:13       |                     |
| B*51:13:02+B*55:23     | B*51:37+B*55:13        |                     |
| B*51:13:02+B*55:32     | B*51:63+B*55:13        |                     |
| B*51:13:02+B*56:01:01G | B*51:106+B*56:22       |                     |
| B*51:13:02+B*56:09     | B*51:63+B*56:11        |                     |
| B*51:13:02+B*58:01:01G | B*51:63+B*58:34        |                     |
| B*51:13:02+B*59:01:01G | B*51:106+B*59:03       |                     |
| B*51:15+B*56:11        | B*53:04+B*56:01:01G    |                     |
| B*51:16+B*51:108       | B*51:23+B*51:31        |                     |
| B*51:16+B*52:10:02     | B*51:31+B*52:01:07     |                     |
| B*51:16+B*52:12        | B*51:90+B*52:08        |                     |
| B*51:16+B*52:20        | B*51:78:01+B*52:08     | B*51:82+B*52:01:01G |
| B*51:16+B*52:24        | B*51:29+B*52:08        |                     |
| B*51:16+B*52:29        | B*51:53+B*52:08        |                     |
| B*51:16+B*52:30        | B*51:69+B*52:08        |                     |
| B*51:16+B*53:01:01     | B*51:31+B*53:08:01     | B*51:34+B*53:02     |
| B*51:16+B*53:01:03     | B*51:31+B*53:08:02     |                     |
| B*51:16+B*53:11        | B*51:82+B*53:13        |                     |
| B*51:16+B*53:16        | B*51:82+B*53:05        |                     |
| B*51:16+B*53:24        | B*51:82+B*53:01:01     |                     |
| B*51:16+B*54:01:01G    | B*51:21+B*54:26        |                     |
| B*51:16+B*54:10        | B*51:31+B*54:20        | B*51:82+B*54:01:01G |
| B*51:16+B*55:01:01G    | B*51:21+B*55:24        |                     |
| B*51:16+B*55:02:01G    | B*51:21+B*55:22        | B*51:31+B*55:01:01G |
| B*51:16+B*55:09        | B*51:82+B*55:24        |                     |
| B*51:16+B*55:22        | B*51:31+B*55:24        |                     |
| B*51:16+B*55:37        | B*51:31+B*55:52        | B*51:82+B*55:02:01G |
| B*51:16+B*55:52        | B*51:21+B*55:09        | B*51:82+B*55:01:01G |
| B*51:16+B*56:18        | B*51:31+B*56:32        | B*51:34+B*56:31     |
| B*51:16+B*56:20:02     | B*51:24:03+B*55:22     |                     |
| B*51:16+B*57:02:01     | B*51:82+B*57:03:01     |                     |
| B*51:16+B*57:03:01     | B*51:31+B*57:57        |                     |
| B*51:16+B*57:10        | B*51:57+B*57:25        |                     |
| B*51:16+B*57:19        | B*51:29+B*57:25        | B*51:82+B*57:01:01G |
| B*51:16+B*57:26        | B*51:21+B*57:25        |                     |
| B*51:16+B*57:34        | B*51:67+B*57:25        |                     |
| B*51:16+B*57:49        | B*51:68+B*57:25        |                     |
| B*51:16+B*57:50        | B*51:84+B*57:25        |                     |
| B*51:16+B*57:54        | B*51:126+B*57:25       |                     |
| B*51:16+B*58:02        | B*51:31+B*58:06        |                     |
| B*51:16+B*58:22        | B*51:29+B*58:37        | B*51:82+B*58:01:01G |
| B*51:16+B*58:35        | B*51:21+B*58:37        |                     |
| B*51:16+B*58:36        | B*51:104+B*58:37       |                     |
| B*51:16+B*78:05        | B*52:08+B*78:02:02     |                     |
| B*51:19+B*55:01:01G    | B*51:101+B*56:01:01G   |                     |
| B*51:19+B*55:28        | B*51:101+B*56:15       |                     |
| B*51:19+B*55:38        | B*51:101+B*56:27       |                     |
| B*51:19+B*55:56        | B*51:101+B*56:13       |                     |
| B*51:20+B*78:05        | B*52:19+B*78:01:01     |                     |
| B*51:21+B*56:20:02     | B*51:24:03+B*55:02:01G |                     |
| B*51:21+B*56:33        | B*59:01:01G+B*78:03    |                     |
| B*51:21+B*56:35        | B*51:57+B*55:16        |                     |
| B*51:21+B*57:10        | B*51:57+B*57:26        |                     |
| B*51:21+B*57:19        | B*51:29+B*57:26        |                     |
| B*51:21+B*57:34        | B*51:67+B*57:26        |                     |
| B*51:21+B*57:49        | B*51:68+B*57:26        |                     |
| B*51:21+B*57:50        | B*51:84+B*57:26        |                     |
| B*51:21+B*57:54        | B*51:126+B*57:26       |                     |
| B*51:21+B*58:22        | B*51:29+B*58:35        |                     |
| B*51:21+B*58:36        | B*51:104+B*58:35       |                     |
| B*51:21+B*78:03        | B*51:22+B*78:07        |                     |
| B*51:23+B*52:08        | B*51:34+B*52:15        |                     |

|                        |                        |                     |
|------------------------|------------------------|---------------------|
| B*51:23+B*52:10:01     | B*51:108+B*52:01:01G   |                     |
| B*51:23+B*52:10:02     | B*51:40+B*52:15        | B*51:108+B*52:01:07 |
| B*51:23+B*53:01:01     | B*51:108+B*53:08:01    |                     |
| B*51:23+B*53:01:03     | B*51:108+B*53:08:02    |                     |
| B*51:23+B*54:10        | B*51:108+B*54:20       |                     |
| B*51:23+B*55:02:01G    | B*51:108+B*55:01:01G   |                     |
| B*51:23+B*55:22        | B*51:108+B*55:24       |                     |
| B*51:23+B*55:37        | B*51:108+B*55:52       |                     |
| B*51:23+B*56:01:01G    | B*51:108+B*56:25       |                     |
| B*51:23+B*56:18        | B*51:108+B*56:32       |                     |
| B*51:23+B*57:01:01G    | B*51:108+B*57:22       |                     |
| B*51:23+B*58:01:01G    | B*51:108+B*58:19       |                     |
| B*51:24:01+B*56:20:02  | B*51:24:02+B*56:20:01  |                     |
| B*51:24:02+B*52:01:01G | B*51:24:03+B*52:01:05  |                     |
| B*51:24:02+B*55:01:04  | B*51:24:03+B*55:01:01G |                     |
| B*51:24:03+B*51:61:02  | B*51:24:04+B*51:61:01  |                     |
| B*51:24:03+B*52:01:01G | B*51:24:04+B*52:01:07  |                     |
| B*51:24:03+B*52:10:01  | B*51:24:04+B*52:10:02  |                     |
| B*51:24:03+B*53:01:01  | B*51:24:04+B*53:01:03  |                     |
| B*51:24:03+B*53:08:01  | B*51:24:04+B*53:08:02  |                     |
| B*51:24:03+B*58:01:01G | B*51:24:04+B*58:01:05  |                     |
| B*51:24:04+B*54:22     | B*51:106+B*54:11       |                     |
| B*51:24:04+B*56:04     | B*51:106+B*55:08       |                     |
| B*51:29+B*52:12        | B*51:90+B*52:24        |                     |
| B*51:29+B*52:20        | B*51:78:01+B*52:24     |                     |
| B*51:29+B*52:29        | B*51:53+B*52:24        |                     |
| B*51:29+B*52:30        | B*51:69+B*52:24        |                     |
| B*51:29+B*53:12        | B*51:78:01+B*53:16     |                     |
| B*51:29+B*53:17:02     | B*52:01:02+B*53:24     |                     |
| B*51:29+B*53:21        | B*51:57+B*53:24        |                     |
| B*51:29+B*54:13        | B*51:43+B*54:10        |                     |
| B*51:29+B*54:16        | B*51:90+B*54:10        |                     |
| B*51:29+B*54:18        | B*51:129+B*54:10       |                     |
| B*51:29+B*54:26        | B*51:82+B*54:03        |                     |
| B*51:29+B*55:21        | B*51:61:02+B*55:52     |                     |
| B*51:29+B*55:26        | B*51:73+B*55:52        |                     |
| B*51:29+B*55:39        | B*51:133+B*55:37       |                     |
| B*51:29+B*55:40        | B*52:06:02+B*55:52     |                     |
| B*51:29+B*55:42        | B*51:35+B*55:37        |                     |
| B*51:29+B*55:43        | B*51:127+B*55:37       |                     |
| B*51:29+B*55:46        | B*51:90+B*55:37        |                     |
| B*51:29+B*55:50        | B*51:122+B*55:52       |                     |
| B*51:29+B*55:54        | B*51:53+B*55:52        |                     |
| B*51:29+B*56:09        | B*53:24+B*56:05:01     |                     |
| B*51:29+B*57:10        | B*51:57+B*57:19        |                     |
| B*51:29+B*57:32        | B*51:85+B*57:02:01     |                     |
| B*51:29+B*57:34        | B*51:67+B*57:19        |                     |
| B*51:29+B*57:46        | B*51:53+B*57:02:01     |                     |
| B*51:29+B*57:49        | B*51:68+B*57:19        |                     |
| B*51:29+B*57:50        | B*51:84+B*57:19        |                     |
| B*51:29+B*57:54        | B*51:126+B*57:19       |                     |
| B*51:29+B*58:36        | B*51:104+B*58:22       |                     |
| B*51:29+B*78:05        | B*52:24+B*78:02:02     |                     |
| B*51:31+B*52:11        | B*51:34+B*52:10:01     |                     |
| B*51:31+B*52:24        | B*51:82+B*52:10:01     |                     |
| B*51:31+B*55:09        | B*51:82+B*55:22        |                     |
| B*51:34+B*52:10:02     | B*51:40+B*52:08        |                     |
| B*51:34+B*52:24        | B*51:82+B*52:11        |                     |
| B*51:34+B*55:56        | B*51:36+B*55:24        |                     |
| B*51:34+B*56:02        | B*51:59+B*55:22        |                     |
| B*51:35+B*55:39        | B*51:133+B*55:42       |                     |
| B*51:35+B*55:43        | B*51:127+B*55:42       |                     |
| B*51:35+B*55:46        | B*51:90+B*55:42        |                     |
| B*51:36+B*56:01:03     | B*51:40+B*55:56        |                     |
| B*51:37+B*51:62        | B*51:45+B*51:106       |                     |
| B*51:37+B*52:01:01G    | B*51:63+B*52:12        |                     |
| B*51:37+B*52:19        | B*51:97+B*52:12        |                     |
| B*51:37+B*54:01:01G    | B*51:63+B*54:16        | B*51:106+B*54:14    |
| B*51:37+B*55:02:01G    | B*51:63+B*55:46        | B*51:106+B*55:23    |
| B*51:37+B*55:32        | B*51:63+B*55:23        |                     |
| B*51:37+B*57:12        | B*57:19+B*78:02:02     |                     |
| B*51:37+B*57:32        | B*51:85+B*57:01:01G    |                     |
| B*51:37+B*57:46        | B*51:53+B*57:01:01G    |                     |
| B*51:40+B*52:21        | B*51:61:01+B*52:03     |                     |
| B*51:40+B*53:17:02     | B*52:03+B*53:01:03     |                     |
| B*51:43+B*54:16        | B*51:90+B*54:13        |                     |
| B*51:43+B*54:18        | B*51:129+B*54:13       |                     |
| B*51:45+B*54:01:01G    | B*51:62+B*54:14        |                     |
| B*51:45+B*55:02:01G    | B*51:62+B*55:23        |                     |
| B*51:53+B*52:12        | B*51:90+B*52:29        |                     |
| B*51:53+B*52:20        | B*51:78:01+B*52:29     |                     |
| B*51:53+B*52:30        | B*51:69+B*52:29        |                     |
| B*51:53+B*55:21        | B*51:61:02+B*55:54     |                     |
| B*51:53+B*55:26        | B*51:73+B*55:54        |                     |
| B*51:53+B*55:40        | B*52:06:02+B*55:54     |                     |
| B*51:53+B*55:50        | B*51:122+B*55:54       |                     |
| B*51:53+B*57:32        | B*51:85+B*57:46        |                     |
| B*51:53+B*78:05        | B*52:29+B*78:02:02     |                     |
| B*51:56:01+B*53:17:02  | B*51:56:02+B*53:17:01  |                     |
| B*51:57+B*53:13        | B*51:78:01+B*53:21     |                     |
| B*51:57+B*53:17:02     | B*52:01:02+B*53:21     |                     |
| B*51:57+B*56:09        | B*53:21+B*56:05:01     |                     |
| B*51:57+B*57:34        | B*51:67+B*57:10        |                     |
| B*51:57+B*57:49        | B*51:68+B*57:10        |                     |
| B*51:57+B*57:50        | B*51:84+B*57:10        |                     |
| B*51:57+B*57:54        | B*51:126+B*57:10       |                     |
| B*51:57+B*58:01:01G    | B*53:21+B*58:08:01     |                     |
| B*51:59+B*52:12        | B*51:135+B*52:11       |                     |
| B*51:59+B*52:25        | B*51:62+B*52:11        |                     |
| B*51:61:01+B*52:01:01G | B*51:61:02+B*52:01:07  |                     |
| B*51:61:01+B*52:10:01  | B*51:61:02+B*52:10:02  |                     |
| B*51:61:01+B*53:01:01  | B*51:61:02+B*53:01:03  |                     |
| B*51:61:01+B*53:08:01  | B*51:61:02+B*53:08:02  |                     |
| B*51:61:01+B*53:17:02  | B*52:21+B*53:01:03     |                     |
| B*51:61:01+B*56:01:01G | B*51:61:02+B*56:01:03  |                     |



|                         |                        |                       |                       |
|-------------------------|------------------------|-----------------------|-----------------------|
| B*51:61:01+B*58:01:01G  | B*51:61:02+B*58:01:05  |                       |                       |
| B*51:61:02+B*52:02      | B*51:104+B*52:21       |                       |                       |
| B*51:61:02+B*52:20      | B*51:78:02+B*52:21     |                       |                       |
| B*51:61:02+B*53:17:02   | B*52:21+B*53:01:01     |                       |                       |
| B*51:61:02+B*55:26      | B*51:73+B*55:21        |                       |                       |
| B*51:61:02+B*55:40      | B*52:06:02+B*55:21     |                       |                       |
| B*51:61:02+B*55:50      | B*51:122+B*55:21       |                       |                       |
| B*51:61:02+B*78:05      | B*52:21+B*78:02:01     |                       |                       |
| B*51:62+B*52:12         | B*51:135+B*52:25       |                       |                       |
| B*51:62+B*56:09         | B*53:06+B*56:04        |                       |                       |
| B*51:63+B*52:19         | B*51:97+B*52:01:01G    |                       |                       |
| B*51:63+B*55:02:01G     | B*51:106+B*55:32       |                       |                       |
| B*51:63+B*56:13         | B*51:97+B*56:25        |                       |                       |
| B*51:63+B*57:24         | B*51:97+B*57:22        |                       |                       |
| B*51:67+B*57:49         | B*51:68+B*57:34        |                       |                       |
| B*51:67+B*57:50         | B*51:84+B*57:34        |                       |                       |
| B*51:67+B*57:54         | B*51:126+B*57:34       |                       |                       |
| B*51:68+B*57:50         | B*51:84+B*57:49        |                       |                       |
| B*51:68+B*57:54         | B*51:126+B*57:49       |                       |                       |
| B*51:69+B*52:12         | B*51:90+B*52:30        |                       |                       |
| B*51:69+B*52:20         | B*51:78:01+B*52:30     |                       |                       |
| B*51:69+B*78:05         | B*52:30+B*78:02:02     |                       |                       |
| B*51:73+B*55:40         | B*52:06:02+B*55:26     |                       |                       |
| B*51:73+B*55:50         | B*51:122+B*55:26       |                       |                       |
| B*51:78:01+B*52:12      | B*51:90+B*52:20        |                       |                       |
| B*51:78:01+B*53:17:02   | B*52:01:02+B*53:13     | B*52:06:02+B*53:09    |                       |
| B*51:78:01+B*56:01:01G  | B*56:07+B*78:02:02     |                       |                       |
| B*51:78:01+B*56:05:02   | B*51:78:02+B*56:05:01  |                       |                       |
| B*51:78:01+B*56:09      | B*53:13+B*56:05:01     |                       |                       |
| B*51:78:01+B*58:01:01G  | B*53:13+B*58:08:01     |                       |                       |
| B*51:78:01+B*58:08:02   | B*51:78:02+B*58:08:01  |                       |                       |
| B*51:78:01+B*58:22      | B*53:11+B*58:08:01     |                       |                       |
| B*51:78:01+B*78:02:01   | B*51:78:02+B*78:02:02  |                       |                       |
| B*51:78:01+B*78:05      | B*52:20+B*78:02:02     |                       |                       |
| B*51:78:02+B*52:02      | B*51:104+B*52:20       |                       |                       |
| B*51:78:02+B*53:17:02   | B*52:01:01G+B*53:13    | B*52:20+B*53:01:01    |                       |
| B*51:78:02+B*56:01:01G  | B*56:07+B*78:02:01     |                       |                       |
| B*51:78:02+B*56:09      | B*53:13+B*56:05:02     |                       |                       |
| B*51:78:02+B*58:01:01G  | B*53:13+B*58:08:02     |                       |                       |
| B*51:78:02+B*58:22      | B*53:11+B*58:08:02     |                       |                       |
| B*51:78:02+B*78:05      | B*52:20+B*78:02:01     |                       |                       |
| B*51:84+B*57:54         | B*51:126+B*57:50       |                       |                       |
| B*51:90+B*54:18         | B*51:129+B*54:16       |                       |                       |
| B*51:90+B*55:39         | B*51:133+B*55:46       |                       |                       |
| B*51:90+B*55:43         | B*51:127+B*55:46       |                       |                       |
| B*51:90+B*56:02         | B*51:135+B*56:01:01G   |                       |                       |
| B*51:90+B*56:04         | B*51:135+B*56:27       |                       |                       |
| B*51:90+B*78:05         | B*52:12+B*78:02:02     |                       |                       |
| B*51:104+B*53:17:02     | B*52:02+B*53:01:01     |                       |                       |
| B*51:104+B*78:05        | B*52:02+B*78:02:01     |                       |                       |
| B*51:122+B*55:40        | B*52:06:02+B*55:50     |                       |                       |
| B*51:127+B*55:39        | B*51:133+B*55:43       |                       |                       |
| B*52:01:01G+B*52:06:01  | B*52:01:03+B*52:06:02  |                       |                       |
| B*52:01:01G+B*52:10:02  | B*52:01:07+B*52:10:01  |                       |                       |
| B*52:01:01G+B*53:01:03  | B*52:01:07+B*53:01:01  | B*52:10:01+B*53:08:02 | B*52:10:02+B*53:08:01 |
| B*52:01:01G+B*53:01:07  | B*52:01:11+B*53:01:01  |                       |                       |
| B*52:01:01G+B*53:08:02  | B*52:01:07+B*53:08:01  |                       |                       |
| B*52:01:01G+B*53:11     | B*52:20+B*53:24        | B*52:24+B*53:13       |                       |
| B*52:01:01G+B*53:12     | B*52:20+B*53:05        |                       |                       |
| B*52:01:01G+B*53:16     | B*52:24+B*53:05        |                       |                       |
| B*52:01:01G+B*53:24     | B*52:24+B*53:01:01     |                       |                       |
| B*52:01:01G+B*54:01:01G | B*54:12+B*78:05        |                       |                       |
| B*52:01:01G+B*54:10     | B*52:10:01+B*54:20     | B*52:24+B*54:01:01G   |                       |
| B*52:01:01G+B*54:16     | B*52:12+B*54:01:01G    |                       |                       |
| B*52:01:01G+B*54:21     | B*52:27+B*54:01:01G    |                       |                       |
| B*52:01:01G+B*54:26     | B*52:08+B*54:03        |                       |                       |
| B*52:01:01G+B*55:02:01G | B*52:10:01+B*55:01:01G |                       |                       |
| B*52:01:01G+B*55:09     | B*52:24+B*55:24        |                       |                       |
| B*52:01:01G+B*55:22     | B*52:08+B*56:01:01G    | B*52:10:01+B*55:24    |                       |
| B*52:01:01G+B*55:23     | B*52:12+B*55:32        |                       |                       |
| B*52:01:01G+B*55:24     | B*52:08+B*56:25        |                       |                       |
| B*52:01:01G+B*55:37     | B*52:10:01+B*55:52     | B*52:24+B*55:02:01G   |                       |
| B*52:01:01G+B*55:46     | B*52:12+B*55:02:01G    |                       |                       |
| B*52:01:01G+B*55:52     | B*52:24+B*55:01:01G    |                       |                       |
| B*52:01:01G+B*55:54     | B*52:29+B*55:01:01G    |                       |                       |
| B*52:01:01G+B*56:01:01G | B*52:10:01+B*56:25     | B*52:11+B*56:34       |                       |
| B*52:01:01G+B*56:01:03  | B*52:01:07+B*56:01:01G | B*52:10:02+B*56:25    |                       |
| B*52:01:01G+B*56:05:01  | B*52:01:02+B*56:05:02  |                       |                       |
| B*52:01:01G+B*56:05:02  | B*56:21+B*78:05        |                       |                       |
| B*52:01:01G+B*56:13     | B*52:19+B*56:25        |                       |                       |
| B*52:01:01G+B*56:16     | B*52:27+B*56:01:01G    |                       |                       |
| B*52:01:01G+B*56:18     | B*52:10:01+B*56:32     | B*52:11+B*56:31       |                       |
| B*52:01:01G+B*57:01:01G | B*52:10:01+B*57:22     |                       |                       |
| B*52:01:01G+B*57:02:01  | B*52:24+B*57:03:01     |                       |                       |
| B*52:01:01G+B*57:03:01  | B*52:10:01+B*57:57     |                       |                       |
| B*52:01:01G+B*57:04     | B*52:26+B*57:02:01     |                       |                       |
| B*52:01:01G+B*57:07     | B*52:15+B*57:03:01     |                       |                       |
| B*52:01:01G+B*57:12     | B*57:02:01+B*78:05     |                       |                       |
| B*52:01:01G+B*57:19     | B*52:24+B*57:01:01G    |                       |                       |
| B*52:01:01G+B*57:24     | B*52:19+B*57:22        |                       |                       |
| B*52:01:01G+B*57:25     | B*52:08+B*57:01:01G    |                       |                       |
| B*52:01:01G+B*57:46     | B*52:29+B*57:03:01     |                       |                       |
| B*52:01:01G+B*57:58     | B*52:27+B*57:01:01G    |                       |                       |
| B*52:01:01G+B*58:01:01G | B*52:10:01+B*58:19     | B*52:11+B*58:09       | B*53:17:02+B*58:08:02 |
| B*52:01:01G+B*58:01:05  | B*52:01:07+B*58:01:01G | B*52:10:02+B*58:19    |                       |
| B*52:01:01G+B*58:02     | B*52:10:01+B*58:06     |                       |                       |
| B*52:01:01G+B*58:07     | B*52:15+B*58:02        |                       |                       |
| B*52:01:01G+B*58:08:01  | B*52:01:02+B*58:08:02  |                       |                       |
| B*52:01:01G+B*58:12     | B*52:27+B*58:01:01G    |                       |                       |
| B*52:01:01G+B*58:22     | B*52:24+B*58:01:01G    |                       |                       |
| B*52:01:01G+B*58:37     | B*52:08+B*58:01:01G    |                       |                       |
| B*52:01:02+B*53:02      | B*52:10:01+B*53:06     |                       |                       |
| B*52:01:02+B*53:05      | B*52:09+B*53:01:01     |                       |                       |
| B*52:01:02+B*53:12      | B*52:09+B*53:13        |                       |                       |
| B*52:01:02+B*53:16      | B*52:09+B*53:24        |                       |                       |

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| B*52:01:02+B*55:02:01G | B*52:09+B*55:12        |                        |
| B*52:01:02+B*55:21     | B*52:21+B*55:01:01G    |                        |
| B*52:01:02+B*56:09     | B*53:17:02+B*56:05:01  |                        |
| B*52:01:02+B*58:01:01G | B*53:17:02+B*58:08:01  |                        |
| B*52:01:02+B*58:36     | B*52:02+B*58:01:01G    |                        |
| B*52:01:02+B*78:04     | B*52:03+B*78:02:01     |                        |
| B*52:01:02+B*78:05     | B*52:09+B*78:06        |                        |
| B*52:01:05+B*54:01:01G | B*52:25+B*54:04        |                        |
| B*52:01:05+B*55:01:01G | B*52:25+B*55:28        |                        |
| B*52:01:05+B*55:38     | B*52:25+B*55:17        |                        |
| B*52:01:05+B*56:01:01G | B*52:25+B*56:15        |                        |
| B*52:01:05+B*56:22     | B*52:14+B*56:15        |                        |
| B*52:01:07+B*53:01:03  | B*52:10:02+B*53:08:02  |                        |
| B*52:01:07+B*53:01:07  | B*52:01:11+B*53:01:03  |                        |
| B*52:01:07+B*53:13     | B*52:20+B*53:01:03     |                        |
| B*52:01:07+B*53:24     | B*52:24+B*53:01:03     |                        |
| B*52:01:07+B*54:10     | B*52:10:02+B*54:20     |                        |
| B*52:01:07+B*55:02:01G | B*52:10:02+B*55:01:01G |                        |
| B*52:01:07+B*55:22     | B*52:08+B*56:01:03     | B*52:10:02+B*55:24     |
| B*52:01:07+B*55:37     | B*52:10:02+B*55:52     |                        |
| B*52:01:07+B*56:16     | B*52:27+B*56:01:03     |                        |
| B*52:01:07+B*56:18     | B*52:10:02+B*56:32     |                        |
| B*52:01:07+B*57:01:01G | B*52:10:02+B*57:22     |                        |
| B*52:01:07+B*57:03:01  | B*52:10:02+B*57:57     |                        |
| B*52:01:07+B*58:02     | B*52:10:02+B*58:06     |                        |
| B*52:01:07+B*58:12     | B*52:27+B*58:01:05     |                        |
| B*52:01:07+B*58:22     | B*52:24+B*58:01:05     |                        |
| B*52:01:07+B*58:37     | B*52:08+B*58:01:05     |                        |
| B*52:01:11+B*53:13     | B*52:20+B*53:01:07     |                        |
| B*52:01:11+B*53:24     | B*52:24+B*53:01:07     |                        |
| B*52:08+B*56:13        | B*52:19+B*55:24        |                        |
| B*52:08+B*56:16        | B*52:27+B*55:22        |                        |
| B*52:08+B*57:19        | B*52:24+B*57:25        |                        |
| B*52:08+B*57:58        | B*52:27+B*57:25        |                        |
| B*52:08+B*58:12        | B*52:27+B*58:37        |                        |
| B*52:08+B*58:22        | B*52:24+B*58:37        |                        |
| B*52:10:01+B*53:01:03  | B*52:10:02+B*53:01:01  |                        |
| B*52:10:01+B*55:09     | B*52:24+B*55:22        |                        |
| B*52:10:01+B*55:54     | B*52:29+B*55:02:01G    |                        |
| B*52:10:01+B*55:56     | B*52:19+B*55:01:01G    |                        |
| B*52:10:01+B*56:01:03  | B*52:10:02+B*56:01:01G |                        |
| B*52:10:01+B*56:13     | B*52:19+B*56:01:01G    |                        |
| B*52:10:01+B*57:09     | B*52:19+B*57:57        |                        |
| B*52:10:01+B*57:24     | B*52:19+B*57:01:01G    |                        |
| B*52:10:01+B*58:01:05  | B*52:10:02+B*58:01:01G |                        |
| B*52:10:02+B*56:13     | B*52:19+B*56:01:03     |                        |
| B*52:12+B*54:10        | B*52:24+B*54:16        |                        |
| B*52:12+B*54:21        | B*52:27+B*54:16        |                        |
| B*52:12+B*55:37        | B*52:24+B*55:46        |                        |
| B*52:14+B*55:02:01G    | B*52:25+B*55:13        |                        |
| B*52:14+B*56:01:01G    | B*52:25+B*56:22        |                        |
| B*52:14+B*59:01:01G    | B*52:25+B*59:03        |                        |
| B*52:15+B*57:02:01     | B*52:24+B*57:07        |                        |
| B*52:15+B*57:46        | B*52:29+B*57:07        |                        |
| B*52:20+B*53:16        | B*52:24+B*53:12        |                        |
| B*52:20+B*56:01:01G    | B*56:07+B*78:05        |                        |
| B*52:24+B*54:21        | B*52:27+B*54:10        |                        |
| B*52:24+B*55:54        | B*52:29+B*55:52        |                        |
| B*52:24+B*57:46        | B*52:29+B*57:02:01     |                        |
| B*52:24+B*57:58        | B*52:27+B*57:19        |                        |
| B*52:24+B*58:12        | B*52:27+B*58:22        |                        |
| B*52:26+B*57:12        | B*57:04+B*78:05        |                        |
| B*53:01:01+B*53:08:02  | B*53:01:03+B*53:08:01  |                        |
| B*53:01:01+B*53:11     | B*53:13+B*53:24        |                        |
| B*53:01:01+B*53:12     | B*53:05+B*53:13        |                        |
| B*53:01:01+B*53:16     | B*53:05+B*53:24        |                        |
| B*53:01:01+B*54:20     | B*53:08:01+B*54:10     |                        |
| B*53:01:01+B*55:01:01G | B*53:08:01+B*55:02:01G | B*53:23+B*55:31        |
| B*53:01:01+B*55:09     | B*53:24+B*55:24        |                        |
| B*53:01:01+B*55:24     | B*53:08:01+B*55:22     |                        |
| B*53:01:01+B*55:37     | B*53:16+B*55:12        | B*53:24+B*55:02:01G    |
| B*53:01:01+B*55:52     | B*53:08:01+B*55:37     | B*53:24+B*55:01:01G    |
| B*53:01:01+B*56:01:03  | B*53:01:03+B*56:01:01G |                        |
| B*53:01:01+B*56:11     | B*53:04+B*56:09        |                        |
| B*53:01:01+B*56:25     | B*53:08:01+B*56:01:01G |                        |
| B*53:01:01+B*56:31     | B*53:02+B*56:18        |                        |
| B*53:01:01+B*56:32     | B*53:08:01+B*56:18     |                        |
| B*53:01:01+B*56:34     | B*53:02+B*56:01:01G    |                        |
| B*53:01:01+B*57:02:01  | B*53:24+B*57:03:01     |                        |
| B*53:01:01+B*57:10     | B*53:21+B*57:01:01G    |                        |
| B*53:01:01+B*57:19     | B*53:24+B*57:01:01G    |                        |
| B*53:01:01+B*57:22     | B*53:08:01+B*57:01:01G |                        |
| B*53:01:01+B*57:57     | B*53:08:01+B*57:03:01  |                        |
| B*53:01:01+B*58:01:05  | B*53:01:03+B*58:01:01G |                        |
| B*53:01:01+B*58:06     | B*53:08:01+B*58:02     |                        |
| B*53:01:01+B*58:09     | B*53:02+B*58:01:01G    |                        |
| B*53:01:01+B*58:18     | B*53:14+B*58:01:01G    |                        |
| B*53:01:01+B*58:19     | B*53:08:01+B*58:01:01G |                        |
| B*53:01:01+B*58:22     | B*53:24+B*58:01:01G    |                        |
| B*53:01:01+B*58:33     | B*53:18+B*58:01:01G    |                        |
| B*53:01:01+B*58:34     | B*53:04+B*58:01:01G    |                        |
| B*53:01:03+B*54:20     | B*53:08:02+B*54:10     |                        |
| B*53:01:03+B*55:01:01G | B*53:08:02+B*55:02:01G |                        |
| B*53:01:03+B*55:24     | B*53:08:02+B*55:22     |                        |
| B*53:01:03+B*55:52     | B*53:08:02+B*55:37     |                        |
| B*53:01:03+B*56:25     | B*53:08:01+B*56:01:03  | B*53:08:02+B*56:01:01G |
| B*53:01:03+B*56:32     | B*53:08:02+B*56:18     |                        |
| B*53:01:03+B*56:34     | B*53:02+B*56:01:03     |                        |
| B*53:01:03+B*57:14     | B*53:02+B*57:01:01G    |                        |
| B*53:01:03+B*57:22     | B*53:08:02+B*57:01:01G |                        |
| B*53:01:03+B*57:57     | B*53:08:02+B*57:03:01  |                        |
| B*53:01:03+B*58:06     | B*53:08:02+B*58:02     |                        |
| B*53:01:03+B*58:09     | B*53:02+B*58:01:05     |                        |
| B*53:01:03+B*58:18     | B*53:14+B*58:01:05     |                        |
| B*53:01:03+B*58:19     | B*53:08:01+B*58:01:05  | B*53:08:02+B*58:01:01G |

|                         |                     |                     |                 |
|-------------------------|---------------------|---------------------|-----------------|
| B*53:01:03+B*58:22      | B*53:24+B*58:01:05  |                     |                 |
| B*53:01:03+B*58:33      | B*53:18+B*58:01:05  |                     |                 |
| B*53:01:03+B*58:34      | B*53:04+B*58:01:05  |                     |                 |
| B*53:02+B*56:25         | B*53:08:01+B*56:34  |                     |                 |
| B*53:02+B*56:32         | B*53:08:01+B*56:31  |                     |                 |
| B*53:02+B*57:22         | B*53:08:02+B*57:14  |                     |                 |
| B*53:02+B*58:18         | B*53:14+B*56:09     |                     |                 |
| B*53:02+B*58:19         | B*53:08:01+B*58:09  |                     |                 |
| B*53:02+B*58:22         | B*53:24+B*58:09     |                     |                 |
| B*53:02+B*58:33         | B*53:18+B*58:09     |                     |                 |
| B*53:02+B*58:34         | B*53:04+B*58:09     |                     |                 |
| B*53:04+B*58:18         | B*53:14+B*58:34     |                     |                 |
| B*53:04+B*58:19         | B*53:08:01+B*58:34  |                     |                 |
| B*53:04+B*58:22         | B*53:24+B*58:34     |                     |                 |
| B*53:04+B*58:33         | B*53:18+B*58:34     |                     |                 |
| B*53:05+B*53:11         | B*53:12+B*53:24     | B*53:13+B*53:16     |                 |
| B*53:05+B*54:10         | B*53:16+B*54:01:01G |                     |                 |
| B*53:05+B*55:09         | B*53:16+B*55:24     |                     |                 |
| B*53:05+B*55:37         | B*53:16+B*55:02:01G |                     |                 |
| B*53:05+B*55:52         | B*53:16+B*55:01:01G |                     |                 |
| B*53:05+B*57:02:01      | B*53:16+B*57:03:01  |                     |                 |
| B*53:05+B*57:19         | B*53:16+B*57:01:01G |                     |                 |
| B*53:05+B*58:22         | B*53:16+B*58:01:01G |                     |                 |
| B*53:08:01+B*57:02:01   | B*53:24+B*57:57     |                     |                 |
| B*53:08:01+B*57:10      | B*53:21+B*57:22     |                     |                 |
| B*53:08:01+B*57:19      | B*53:24+B*57:22     |                     |                 |
| B*53:08:01+B*58:18      | B*53:14+B*58:19     |                     |                 |
| B*53:08:01+B*58:22      | B*53:24+B*58:19     |                     |                 |
| B*53:08:01+B*58:33      | B*53:18+B*58:19     |                     |                 |
| B*53:11+B*54:01:01G     | B*53:13+B*54:10     |                     |                 |
| B*53:11+B*55:01:01G     | B*53:13+B*55:52     |                     |                 |
| B*53:11+B*55:02:01G     | B*53:13+B*55:37     |                     |                 |
| B*53:11+B*55:24         | B*53:13+B*55:09     |                     |                 |
| B*53:11+B*57:01:01G     | B*53:13+B*57:19     |                     |                 |
| B*53:11+B*57:03:01      | B*53:13+B*57:02:01  |                     |                 |
| B*53:11+B*58:01:01G     | B*53:13+B*58:22     |                     |                 |
| B*53:14+B*58:22         | B*53:24+B*58:18     |                     |                 |
| B*53:14+B*58:33         | B*53:18+B*58:18     |                     |                 |
| B*53:18+B*58:22         | B*53:24+B*58:33     |                     |                 |
| B*53:21+B*57:19         | B*53:24+B*57:10     |                     |                 |
| B*54:01:01G+B*55:09     | B*54:10+B*55:24     | B*54:20+B*55:22     | B*54:26+B*55:52 |
| B*54:01:01G+B*55:17     | B*54:04+B*55:38     |                     |                 |
| B*54:01:01G+B*55:22     | B*54:26+B*55:02:01G |                     |                 |
| B*54:01:01G+B*55:23     | B*54:14+B*55:02:01G | B*54:16+B*55:32     |                 |
| B*54:01:01G+B*55:24     | B*54:26+B*55:01:01G |                     |                 |
| B*54:01:01G+B*55:28     | B*54:04+B*55:01:01G |                     |                 |
| B*54:01:01G+B*55:37     | B*54:10+B*55:02:01G |                     |                 |
| B*54:01:01G+B*55:46     | B*54:16+B*55:02:01G |                     |                 |
| B*54:01:01G+B*55:52     | B*54:10+B*55:01:01G | B*54:20+B*55:02:01G |                 |
| B*54:01:01G+B*56:01:01G | B*54:03+B*55:02:01G |                     |                 |
| B*54:01:01G+B*56:02     | B*54:03+B*56:10     |                     |                 |
| B*54:01:01G+B*56:15     | B*54:04+B*56:01:01G |                     |                 |
| B*54:01:01G+B*56:16     | B*54:21+B*56:01:01G |                     |                 |
| B*54:01:01G+B*56:18     | B*54:09+B*55:02:01G |                     |                 |
| B*54:01:01G+B*56:21     | B*54:12+B*56:05:02  |                     |                 |
| B*54:01:01G+B*56:22     | B*54:03+B*55:13     |                     |                 |
| B*54:01:01G+B*56:25     | B*54:03+B*55:01:01G |                     |                 |
| B*54:01:01G+B*56:32     | B*54:09+B*55:01:01G |                     |                 |
| B*54:01:01G+B*56:35     | B*54:02+B*56:01:01G |                     |                 |
| B*54:01:01G+B*57:01:01G | B*54:03+B*57:26     |                     |                 |
| B*54:01:01G+B*57:02:01  | B*54:10+B*57:03:01  | B*54:12+B*57:12     |                 |
| B*54:01:01G+B*57:19     | B*54:10+B*57:01:01G |                     |                 |
| B*54:01:01G+B*57:25     | B*54:26+B*57:26     |                     |                 |
| B*54:01:01G+B*57:58     | B*54:21+B*57:01:01G |                     |                 |
| B*54:01:01G+B*58:01:01G | B*54:03+B*58:35     |                     |                 |
| B*54:01:01G+B*58:12     | B*54:21+B*58:01:01G |                     |                 |
| B*54:01:01G+B*58:22     | B*54:10+B*58:01:01G |                     |                 |
| B*54:01:01G+B*58:37     | B*54:26+B*58:35     |                     |                 |
| B*54:01:01G+B*59:04     | B*54:03+B*59:01:01G |                     |                 |
| B*54:01:01G+B*78:01:01  | B*54:03+B*78:07     |                     |                 |
| B*54:01:01G+B*81:05     | B*54:24+B*81:01:01G |                     |                 |
| B*54:02+B*56:15         | B*54:04+B*56:35     |                     |                 |
| B*54:02+B*56:16         | B*54:21+B*56:35     |                     |                 |
| B*54:03+B*55:22         | B*54:26+B*56:01:01G |                     |                 |
| B*54:03+B*55:23         | B*54:14+B*56:01:01G |                     |                 |
| B*54:03+B*55:24         | B*54:26+B*56:25     |                     |                 |
| B*54:03+B*55:28         | B*54:04+B*56:25     |                     |                 |
| B*54:03+B*55:37         | B*54:10+B*56:01:01G |                     |                 |
| B*54:03+B*55:46         | B*54:16+B*56:01:01G |                     |                 |
| B*54:03+B*55:52         | B*54:10+B*56:25     | B*54:20+B*56:01:01G |                 |
| B*54:03+B*56:18         | B*54:09+B*56:01:01G | B*54:14+B*56:04     |                 |
| B*54:03+B*56:31         | B*54:09+B*56:34     |                     |                 |
| B*54:03+B*56:32         | B*54:09+B*56:25     |                     |                 |
| B*54:03+B*57:25         | B*54:26+B*57:01:01G |                     |                 |
| B*54:03+B*58:37         | B*54:26+B*58:01:01G |                     |                 |
| B*54:04+B*55:24         | B*54:26+B*55:28     |                     |                 |
| B*54:04+B*55:52         | B*54:10+B*55:28     |                     |                 |
| B*54:04+B*56:16         | B*54:21+B*56:15     |                     |                 |
| B*54:04+B*56:32         | B*54:09+B*55:28     |                     |                 |
| B*54:04+B*57:01:01G     | B*54:14+B*57:03:01  |                     |                 |
| B*54:04+B*57:19         | B*54:14+B*57:02:01  |                     |                 |
| B*54:04+B*57:22         | B*54:14+B*57:57     |                     |                 |
| B*54:09+B*55:22         | B*54:26+B*56:18     |                     |                 |
| B*54:09+B*55:23         | B*54:14+B*56:18     |                     |                 |
| B*54:09+B*55:24         | B*54:26+B*56:32     |                     |                 |
| B*54:09+B*55:37         | B*54:10+B*56:18     |                     |                 |
| B*54:09+B*55:46         | B*54:16+B*56:18     |                     |                 |
| B*54:09+B*55:52         | B*54:10+B*56:32     | B*54:20+B*56:18     |                 |
| B*54:10+B*55:22         | B*54:26+B*55:37     |                     |                 |
| B*54:10+B*55:23         | B*54:14+B*55:37     |                     |                 |
| B*54:10+B*55:46         | B*54:16+B*55:37     |                     |                 |
| B*54:10+B*55:52         | B*54:20+B*55:37     |                     |                 |
| B*54:10+B*57:22         | B*54:20+B*57:01:01G |                     |                 |
| B*54:10+B*57:57         | B*54:20+B*57:03:01  |                     |                 |
| B*54:10+B*57:58         | B*54:21+B*57:19     |                     |                 |

|                         |                         |                     |
|-------------------------|-------------------------|---------------------|
| B*54:10+B*58:06         | B*54:20+B*58:02         |                     |
| B*54:10+B*58:12         | B*54:21+B*58:22         |                     |
| B*54:10+B*58:19         | B*54:20+B*58:01:01G     |                     |
| B*54:11+B*56:04         | B*54:22+B*55:08         |                     |
| B*54:14+B*55:22         | B*54:26+B*55:23         |                     |
| B*54:14+B*55:46         | B*54:16+B*55:23         |                     |
| B*54:14+B*55:52         | B*54:20+B*55:23         |                     |
| B*54:16+B*55:22         | B*54:26+B*55:46         |                     |
| B*54:16+B*55:52         | B*54:20+B*55:46         |                     |
| B*55:01:01G+B*55:09     | B*55:24+B*55:52         |                     |
| B*55:01:01G+B*55:17     | B*55:28+B*55:38         |                     |
| B*55:01:01G+B*55:22     | B*55:02:01G+B*55:24     |                     |
| B*55:01:01G+B*55:34     | B*55:40+B*55:47         |                     |
| B*55:01:01G+B*55:37     | B*55:02:01G+B*55:52     |                     |
| B*55:01:01G+B*55:49     | B*55:03+B*55:04         |                     |
| B*55:01:01G+B*56:01:01G | B*55:02:01G+B*56:25     |                     |
| B*55:01:01G+B*56:02     | B*56:10+B*56:25         |                     |
| B*55:01:01G+B*56:04     | B*55:38+B*56:02         |                     |
| B*55:01:01G+B*56:13     | B*55:56+B*56:01:01G     |                     |
| B*55:01:01G+B*56:15     | B*55:28+B*56:01:01G     |                     |
| B*55:01:01G+B*56:18     | B*55:02:01G+B*56:32     |                     |
| B*55:01:01G+B*56:22     | B*55:13+B*56:25         |                     |
| B*55:01:01G+B*56:27     | B*55:38+B*56:01:01G     |                     |
| B*55:01:01G+B*57:01:01G | B*55:02:01G+B*57:22     | B*56:25+B*57:26     |
| B*55:01:01G+B*57:02:01  | B*55:37+B*57:57         | B*55:52+B*57:03:01  |
| B*55:01:01G+B*57:03:01  | B*55:02:01G+B*57:57     |                     |
| B*55:01:01G+B*57:09     | B*55:56+B*57:57         |                     |
| B*55:01:01G+B*57:19     | B*55:37+B*57:22         | B*55:52+B*57:01:01G |
| B*55:01:01G+B*57:24     | B*55:56+B*57:01:01G     |                     |
| B*55:01:01G+B*57:25     | B*55:24+B*57:26         |                     |
| B*55:01:01G+B*57:39     | B*55:16+B*57:57         |                     |
| B*55:01:01G+B*57:41     | B*55:41+B*57:22         |                     |
| B*55:01:01G+B*57:46     | B*55:54+B*57:03:01      |                     |
| B*55:01:01G+B*58:01:01G | B*55:02:01G+B*58:19     | B*56:25+B*58:35     |
| B*55:01:01G+B*58:02     | B*55:02:01G+B*58:06     |                     |
| B*55:01:01G+B*58:22     | B*55:37+B*58:19         | B*55:52+B*58:01:01G |
| B*55:01:01G+B*58:23     | B*55:29+B*58:01:01G     |                     |
| B*55:01:01G+B*58:24     | B*55:53+B*58:01:01G     |                     |
| B*55:01:01G+B*58:37     | B*55:24+B*58:35         |                     |
| B*55:01:01G+B*59:04     | B*56:25+B*59:01:01G     |                     |
| B*55:01:01G+B*78:01:01  | B*56:25+B*78:07         |                     |
| B*55:01:01G+B*78:02:02  | B*55:31+B*78:01:01      |                     |
| B*55:02:01G+B*55:09     | B*55:22+B*55:52         | B*55:24+B*55:37     |
| B*55:02:01G+B*55:23     | B*55:32+B*55:46         |                     |
| B*55:02:01G+B*56:02     | B*56:01:01G+B*56:10     |                     |
| B*55:02:01G+B*56:04     | B*56:10+B*56:27         |                     |
| B*55:02:01G+B*56:22     | B*55:13+B*56:01:01G     |                     |
| B*55:02:01G+B*57:01:01G | B*56:01:01G+B*57:26     |                     |
| B*55:02:01G+B*57:02:01  | B*55:37+B*57:03:01      |                     |
| B*55:02:01G+B*57:09     | B*55:56+B*57:03:01      |                     |
| B*55:02:01G+B*57:19     | B*55:37+B*57:01:01G     |                     |
| B*55:02:01G+B*57:24     | B*56:13+B*57:26         |                     |
| B*55:02:01G+B*57:25     | B*55:22+B*57:26         |                     |
| B*55:02:01G+B*57:31     | B*56:20:01+B*57:26      |                     |
| B*55:02:01G+B*57:39     | B*55:16+B*57:03:01      |                     |
| B*55:02:01G+B*57:41     | B*55:41+B*57:01:01G     |                     |
| B*55:02:01G+B*57:58     | B*56:16+B*57:26         |                     |
| B*55:02:01G+B*58:01:01G | B*56:01:01G+B*58:35     |                     |
| B*55:02:01G+B*58:01:05  | B*56:01:03+B*58:35      |                     |
| B*55:02:01G+B*58:09     | B*56:34+B*58:35         |                     |
| B*55:02:01G+B*58:12     | B*56:16+B*58:35         |                     |
| B*55:02:01G+B*58:22     | B*55:37+B*58:01:01G     |                     |
| B*55:02:01G+B*58:37     | B*55:22+B*58:35         |                     |
| B*55:02:01G+B*59:03     | B*55:13+B*59:01:01G     |                     |
| B*55:02:01G+B*59:04     | B*56:01:01G+B*59:01:01G |                     |
| B*55:02:01G+B*78:01:01  | B*56:01:01G+B*78:07     |                     |
| B*55:02:01G+B*78:06     | B*55:12+B*78:05         |                     |
| B*55:09+B*57:01:01G     | B*55:24+B*57:19         |                     |
| B*55:09+B*57:03:01      | B*55:24+B*57:02:01      |                     |
| B*55:09+B*57:26         | B*55:52+B*57:25         |                     |
| B*55:09+B*58:01:01G     | B*55:24+B*58:22         |                     |
| B*55:09+B*58:35         | B*55:52+B*58:37         |                     |
| B*55:13+B*56:02         | B*56:10+B*56:22         |                     |
| B*55:13+B*56:09         | B*55:32+B*56:11         |                     |
| B*55:13+B*57:01:01G     | B*56:22+B*57:26         |                     |
| B*55:13+B*58:01:01G     | B*55:32+B*58:34         | B*56:22+B*58:35     |
| B*55:13+B*59:04         | B*56:01:01G+B*59:03     | B*56:22+B*59:01:01G |
| B*55:13+B*78:01:01      | B*56:22+B*78:07         |                     |
| B*55:14+B*58:16         | B*56:32+B*58:14         |                     |
| B*55:16+B*57:02:01      | B*55:37+B*57:39         |                     |
| B*55:16+B*57:09         | B*55:56+B*57:39         |                     |
| B*55:16+B*57:10         | B*56:35+B*57:26         |                     |
| B*55:17+B*56:01:01G     | B*55:28+B*56:27         | B*55:38+B*56:15     |
| B*55:17+B*56:02         | B*55:28+B*56:04         |                     |
| B*55:22+B*56:25         | B*55:24+B*56:01:01G     |                     |
| B*55:22+B*56:32         | B*55:24+B*56:18         |                     |
| B*55:22+B*57:01:01G     | B*56:01:01G+B*57:25     |                     |
| B*55:22+B*57:22         | B*55:24+B*57:01:01G     | B*56:25+B*57:25     |
| B*55:22+B*57:24         | B*56:13+B*57:25         |                     |
| B*55:22+B*57:31         | B*56:20:01+B*57:25      |                     |
| B*55:22+B*57:57         | B*55:24+B*57:03:01      |                     |
| B*55:22+B*57:58         | B*56:16+B*57:25         |                     |
| B*55:22+B*58:01:01G     | B*56:01:01G+B*58:37     |                     |
| B*55:22+B*58:01:05      | B*56:01:03+B*58:37      |                     |
| B*55:22+B*58:06         | B*55:24+B*56:02         |                     |
| B*55:22+B*58:09         | B*56:34+B*58:37         |                     |
| B*55:22+B*58:12         | B*56:16+B*58:37         |                     |
| B*55:22+B*58:19         | B*55:24+B*58:01:01G     | B*56:25+B*58:37     |
| B*55:23+B*56:04         | B*56:01:01G+B*56:18     |                     |
| B*55:23+B*57:03:01      | B*56:15+B*57:26         |                     |
| B*55:23+B*57:09         | B*55:28+B*57:24         |                     |
| B*55:23+B*57:57         | B*55:28+B*57:01:01G     |                     |
| B*55:28+B*56:13         | B*55:56+B*56:15         |                     |
| B*55:29+B*58:22         | B*55:52+B*58:23         |                     |
| B*55:29+B*58:24         | B*55:53+B*58:23         |                     |

|                         |                        |
|-------------------------|------------------------|
| B*55:31+B*56:17         | B*56:23+B*56:25        |
| B*55:37+B*56:25         | B*55:52+B*56:01:01G    |
| B*55:37+B*56:32         | B*55:52+B*56:18        |
| B*55:37+B*57:09         | B*55:56+B*57:02:01     |
| B*55:37+B*57:41         | B*55:41+B*57:19        |
| B*55:37+B*58:06         | B*55:52+B*58:02        |
| B*55:38+B*56:13         | B*55:56+B*56:27        |
| B*55:52+B*57:24         | B*55:56+B*57:19        |
| B*55:52+B*57:46         | B*55:54+B*57:02:01     |
| B*55:52+B*58:24         | B*55:53+B*58:22        |
| B*56:01:01G+B*56:04     | B*56:02+B*56:27        |
| B*56:01:01G+B*56:31     | B*56:18+B*56:34        |
| B*56:01:01G+B*56:32     | B*56:18+B*56:25        |
| B*56:01:01G+B*57:09     | B*56:13+B*57:57        |
| B*56:01:01G+B*57:22     | B*56:25+B*57:01:01G    |
| B*56:01:01G+B*57:24     | B*56:13+B*57:01:01G    |
| B*56:01:01G+B*57:31     | B*56:20:01+B*57:01:01G |
| B*56:01:01G+B*57:57     | B*56:25+B*57:03:01     |
| B*56:01:01G+B*57:58     | B*56:16+B*57:01:01G    |
| B*56:01:01G+B*58:01:05  | B*56:01:03+B*58:01:01G |
| B*56:01:01G+B*58:06     | B*56:25+B*58:02        |
| B*56:01:01G+B*58:09     | B*56:34+B*58:01:01G    |
| B*56:01:01G+B*58:12     | B*56:16+B*58:01:01G    |
| B*56:01:01G+B*58:19     | B*56:25+B*58:01:01G    |
| B*56:01:01G+B*78:03     | B*56:06+B*56:33        |
| B*56:01:03+B*57:14      | B*56:34+B*57:01:01G    |
| B*56:01:03+B*58:09      | B*56:34+B*58:01:05     |
| B*56:01:03+B*58:12      | B*56:16+B*58:01:05     |
| B*56:01:03+B*58:19      | B*56:25+B*58:01:05     |
| B*56:01:03+B*67:03      | B*56:20:02+B*67:01:01  |
| B*56:02+B*57:26         | B*56:10+B*57:01:01G    |
| B*56:02+B*58:35         | B*56:10+B*58:01:01G    |
| B*56:02+B*59:01:01G     | B*56:10+B*59:04        |
| B*56:02+B*78:07         | B*56:10+B*78:01:01     |
| B*56:05:01+B*58:01:01G  | B*56:09+B*58:08:01     |
| B*56:05:01+B*58:08:02   | B*56:05:02+B*58:08:01  |
| B*56:05:01+B*58:34      | B*56:11+B*58:08:01     |
| B*56:05:01+B*78:02:01   | B*56:05:02+B*78:02:02  |
| B*56:05:02+B*57:02:01   | B*56:21+B*57:12        |
| B*56:05:02+B*58:01:01G  | B*56:09+B*58:08:02     |
| B*56:05:02+B*58:34      | B*56:11+B*58:08:02     |
| B*56:09+B*58:34         | B*56:11+B*58:01:01G    |
| B*56:13+B*57:22         | B*56:25+B*57:24        |
| B*56:13+B*57:31         | B*56:20:01+B*57:24     |
| B*56:13+B*57:58         | B*56:16+B*57:24        |
| B*56:16+B*57:22         | B*56:25+B*57:58        |
| B*56:16+B*57:31         | B*56:20:01+B*57:58     |
| B*56:16+B*58:09         | B*56:34+B*58:12        |
| B*56:16+B*58:19         | B*56:25+B*58:12        |
| B*56:18+B*57:22         | B*56:32+B*57:01:01G    |
| B*56:18+B*57:57         | B*56:32+B*57:03:01     |
| B*56:18+B*58:06         | B*56:32+B*58:02        |
| B*56:18+B*58:09         | B*56:31+B*58:01:01G    |
| B*56:18+B*58:19         | B*56:32+B*58:01:01G    |
| B*56:20:01+B*57:22      | B*56:25+B*57:31        |
| B*56:25+B*56:31         | B*56:32+B*56:34        |
| B*56:25+B*58:09         | B*56:34+B*58:19        |
| B*56:31+B*58:19         | B*56:32+B*58:09        |
| B*57:01:01G+B*57:02:01  | B*57:03:01+B*57:19     |
| B*57:01:01G+B*57:09     | B*57:24+B*57:57        |
| B*57:01:01G+B*57:57     | B*57:03:01+B*57:22     |
| B*57:01:01G+B*58:01:11  | B*57:01:06+B*58:01:01G |
| B*57:01:01G+B*58:02     | B*57:11+B*58:14        |
| B*57:01:01G+B*58:06     | B*57:22+B*58:02        |
| B*57:01:01G+B*58:09     | B*57:14+B*58:01:05     |
| B*57:01:01G+B*58:12     | B*57:58+B*58:01:01G    |
| B*57:01:01G+B*58:19     | B*57:22+B*58:01:01G    |
| B*57:01:01G+B*58:22     | B*57:19+B*58:01:01G    |
| B*57:01:01G+B*58:35     | B*57:26+B*58:01:01G    |
| B*57:01:01G+B*58:37     | B*57:25+B*58:01:01G    |
| B*57:01:01G+B*59:01:01G | B*57:26+B*59:04        |
| B*57:01:01G+B*78:07     | B*57:26+B*78:01:01     |
| B*57:01:06+B*58:12      | B*57:58+B*58:01:11     |
| B*57:01:06+B*58:19      | B*57:22+B*58:01:11     |
| B*57:01:06+B*58:22      | B*57:19+B*58:01:11     |
| B*57:01:06+B*58:35      | B*57:26+B*58:01:11     |
| B*57:01:06+B*58:37      | B*57:25+B*58:01:11     |
| B*57:02:01+B*57:22      | B*57:19+B*57:57        |
| B*57:02:01+B*58:01:01G  | B*57:03:01+B*58:22     |
| B*57:02:01+B*58:19      | B*57:57+B*58:22        |
| B*57:03:01+B*58:06      | B*57:57+B*58:02        |
| B*57:03:01+B*58:07      | B*57:07+B*58:02        |
| B*57:03:01+B*58:19      | B*57:57+B*58:01:01G    |
| B*57:07+B*58:06         | B*57:57+B*58:07        |
| B*57:19+B*58:12         | B*57:58+B*58:22        |
| B*57:19+B*58:19         | B*57:22+B*58:22        |
| B*57:19+B*58:35         | B*57:26+B*58:22        |
| B*57:19+B*58:37         | B*57:25+B*58:22        |
| B*57:22+B*58:12         | B*57:58+B*58:19        |
| B*57:22+B*58:35         | B*57:26+B*58:19        |
| B*57:22+B*58:37         | B*57:25+B*58:19        |
| B*57:25+B*58:12         | B*57:58+B*58:37        |
| B*57:25+B*58:35         | B*57:26+B*58:37        |
| B*57:26+B*58:12         | B*57:58+B*58:35        |
| B*58:01:01G+B*58:06     | B*58:02+B*58:19        |
| B*58:01:01G+B*59:01:01G | B*58:35+B*59:04        |
| B*58:01:01G+B*78:07     | B*58:35+B*78:01:01     |
| B*58:08:01+B*78:02:01   | B*58:08:02+B*78:02:02  |
| B*59:01:01G+B*78:01:01  | B*59:04+B*78:07        |

# HLA-C Ambiguities, Release 3.9.0

## Sequences identical over exons 2+3

| Code in table | Allele 1      | Allele 2      | Allele 3      | Allele 4      | Allele 5      | Allele 6   | Allele 7 | Allele 8 | Allele 9 | Allele 10 |
|---------------|---------------|---------------|---------------|---------------|---------------|------------|----------|----------|----------|-----------|
| C*01:02:01G   | C*01:02:01    | C*01:02:02    | C*01:02:11    | C*01:02:12    | C*01:02:14    | C*01:02:15 | C*01:25  | C*01:44  |          |           |
| C*01:03:01G   | C*01:03       | C*01:24       |               |               |               |            |          |          |          |           |
| C*02:02:02G   | C*02:02:02    | C*02:02:17    | C*02:29       |               |               |            |          |          |          |           |
| C*03:02:01G   | C*03:02:01    | C*03:02:02:01 | C*03:02:02:02 | C*03:02:03    | C*03:02:07    | C*03:146   |          |          |          |           |
| C*03:03:01G   | C*03:03:01    | C*03:03:17    | C*03:20N      | C*03:62       |               |            |          |          |          |           |
| C*03:04:01G   | C*03:04:01:01 | C*03:04:01:02 | C*03:04:03    | C*03:04:20    | C*03:100      | C*03:101   | C*03:105 | C*03:106 |          |           |
| C*04:01:01G   | C*04:01:01:01 | C*04:01:01:02 | C*04:01:01:03 | C*04:01:01:04 | C*04:01:01:05 | C*04:09N   | C*04:28  | C*04:30  | C*04:41  | C*04:79   |
|               | C*04:82       | C*04:84       | C*04:106      |               |               |            |          |          |          |           |
| C*05:01:01G   | C*05:01:01:01 | C*05:01:01:02 | C*05:01:04    | C*05:01:05    | C*05:01:15    | C*05:03    | C*05:37  | C*05:53  |          |           |
| C*06:02:01G   | C*06:02:01:01 | C*06:02:01:02 | C*06:02:03    | C*06:46N      | C*06:55       | C*06:73    | C*06:83  |          |          |           |
| C*07:01:01G   | C*07:01:01:01 | C*07:01:01:02 | C*07:01:02    | C*07:01:09    | C*07:01:19    | C*07:06    | C*07:18  | C*07:52  | C*07:153 | C*07:166  |
| C*07:01:20G   | C*07:01:20    | C*07:01:27    |               |               |               |            |          |          |          |           |
| C*07:02:01G   | C*07:02:01:01 | C*07:02:01:02 | C*07:02:01:03 | C*07:02:21    | C*07:02:23    | C*07:50    | C*07:66  | C*07:74  | C*07:159 | C*07:160  |
|               | C*07:167      | C*07:245      |               |               |               |            |          |          |          |           |
| C*07:04:01G   | C*07:04:01    | C*07:11       |               |               |               |            |          |          |          |           |
| C*08:01:01G   | C*08:01:01    | C*08:01:03    | C*08:01:04    | C*08:20       | C*08:22       | C*08:24    |          |          |          |           |
| C*08:02:01G   | C*08:02:01    | C*08:52N      |               |               |               |            |          |          |          |           |
| C*08:03:01G   | C*08:03:01    | C*08:40       |               |               |               |            |          |          |          |           |
| C*12:02:01G   | C*12:02:01    | C*12:02:02    |               |               |               |            |          |          |          |           |
| C*12:03:01G   | C*12:03:01:01 | C*12:03:01:02 | C*12:03:06    | C*12:23       |               |            |          |          |          |           |
| C*14:02:01G   | C*14:02:01    | C*14:02:07    | C*14:23       | C*14:31       |               |            |          |          |          |           |
| C*15:02:01G   | C*15:02:01    | C*15:02:07    | C*15:13       | C*15:47       |               |            |          |          |          |           |
| C*15:05:01G   | C*15:05:01    | C*15:05:02    | C*15:05:03    | C*15:29       |               |            |          |          |          |           |
| C*16:02:01G   | C*16:02:01    | C*16:02:06    |               |               |               |            |          |          |          |           |
| C*17:01:01G   | C*17:01:01:01 | C*17:01:01:02 | C*17:02       | C*17:03       |               |            |          |          |          |           |
| C*18:01:01G   | C*18:01       | C*18:02       |               |               |               |            |          |          |          |           |

## Alleles extended due to unsequenced regions

The following alleles do not contain the complete exon 2 + 3 sequence. For these alleles, the sequence of an alternate allele has been used to extend the sequence to cover this region.

| Incomplete allele | Sequence extended with |
|-------------------|------------------------|
| C*07:65           | C*07:60                |

## Alleles removed from analysis due to insertions or deletions

| Allele    |
|-----------|
| C*03:46   |
| C*05:07N  |
| C*05:51Q  |
| C*06:16N  |
| C*07:32N  |
| C*07:33N  |
| C*07:150Q |
| C*08:36N  |

## Ambiguous typing combinations over exon 2 + 3

| Combination 1           | Combination 2          | Combination 3         | Combination 4      | Combination 5       |
|-------------------------|------------------------|-----------------------|--------------------|---------------------|
| C*01:02:01G+C*01:23     | C*01:17+C*01:58        |                       |                    |                     |
| C*01:02:01G+C*02:02:02G | C*01:09+C*02:32        | C*01:10+C*02:43       | C*01:14+C*02:27:01 | C*01:48+C*02:08     |
|                         | C*01:54+C*02:19        |                       |                    |                     |
| C*01:02:01G+C*02:03     | C*01:06+C*02:16:02     |                       |                    |                     |
| C*01:02:01G+C*02:08     | C*01:64+C*02:42        |                       |                    |                     |
| C*01:02:01G+C*02:10     | C*01:02:06+C*02:02:14  | C*01:14+C*02:27:02    |                    |                     |
| C*01:02:01G+C*02:16:02  | C*01:22+C*02:32        |                       |                    |                     |
| C*01:02:01G+C*02:28     | C*01:06+C*02:02:02G    |                       |                    |                     |
| C*01:02:01G+C*02:34     | C*01:26+C*02:02:02G    |                       |                    |                     |
| C*01:02:01G+C*02:49     | C*01:23+C*02:02:02G    | C*01:58+C*02:55       |                    |                     |
| C*01:02:01G+C*02:51     | C*01:13+C*02:02:14     |                       |                    |                     |
| C*01:02:01G+C*02:53     | C*01:15+C*02:02:02G    |                       |                    |                     |
| C*01:02:01G+C*02:55     | C*01:17+C*02:02:02G    |                       |                    |                     |
| C*01:02:01G+C*02:56     | C*01:32+C*02:02:02G    |                       |                    |                     |
| C*01:02:01G+C*03:02:01G | C*01:02:06+C*03:02:06  |                       |                    |                     |
| C*01:02:01G+C*03:03:01G | C*01:02:04+C*03:03:10  | C*01:02:06+C*03:03:09 | C*01:22+C*03:49    | C*01:51+C*03:04:01G |
|                         | C*01:65+C*03:151       |                       |                    |                     |
| C*01:02:01G+C*03:03:04  | C*01:51+C*03:04:02     |                       |                    |                     |
| C*01:02:01G+C*03:03:07  | C*01:02:08+C*03:03:01G |                       |                    |                     |
| C*01:02:01G+C*03:03:09  | C*01:51+C*03:04:10     |                       |                    |                     |
| C*01:02:01G+C*03:03:10  | C*01:51+C*03:04:28     |                       |                    |                     |
| C*01:02:01G+C*03:03:14  | C*01:02:05+C*03:03:01G |                       |                    |                     |
| C*01:02:01G+C*03:03:16  | C*01:02:07+C*03:03:01G |                       |                    |                     |
| C*01:02:01G+C*03:03:18  | C*01:51+C*03:04:04     |                       |                    |                     |
| C*01:02:01G+C*03:04:01G | C*01:02:04+C*03:04:28  | C*01:02:06+C*03:04:10 | C*01:12+C*03:128   | C*01:22+C*03:28     |
|                         | C*01:31+C*03:98        | C*01:35+C*03:117      | C*01:48+C*03:64:01 | C*01:65+C*03:41     |
| C*01:02:01G+C*03:07     | C*01:14+C*03:04:01G    | C*01:59+C*03:10       |                    |                     |
| C*01:02:01G+C*03:11:02  | C*01:51+C*03:37        |                       |                    |                     |
| C*01:02:01G+C*03:12     | C*01:51+C*03:19        |                       |                    |                     |
| C*01:02:01G+C*03:13     | C*01:51+C*03:35        |                       |                    |                     |

|                         |                        |                       |                     |                 |
|-------------------------|------------------------|-----------------------|---------------------|-----------------|
| C*01:02:01G+C*03:18     | C*01:51+C*03:64:02     |                       |                     |                 |
| C*01:02:01G+C*03:23     | C*01:07+C*03:04:01G    |                       |                     |                 |
| C*01:02:01G+C*03:27     | C*01:17+C*03:05        |                       |                     |                 |
| C*01:02:01G+C*03:30     | C*01:51+C*03:65        |                       |                     |                 |
| C*01:02:01G+C*03:31     | C*01:51+C*03:08        |                       |                     |                 |
| C*01:02:01G+C*03:32     | C*01:58+C*03:04:01G    |                       |                     |                 |
| C*01:02:01G+C*03:34     | C*01:10+C*03:92        |                       |                     |                 |
| C*01:02:01G+C*03:36     | C*01:06+C*03:02:01G    |                       |                     |                 |
| C*01:02:01G+C*03:38:01  | C*01:17+C*03:04:02     |                       |                     |                 |
| C*01:02:01G+C*03:38:02  | C*01:17+C*03:04:01G    |                       |                     |                 |
| C*01:02:01G+C*03:40:01  | C*01:54+C*03:04:01G    |                       |                     |                 |
| C*01:02:01G+C*03:40:02  | C*01:54+C*03:04:27     |                       |                     |                 |
| C*01:02:01G+C*03:42     | C*01:54+C*03:09        |                       |                     |                 |
| C*01:02:01G+C*03:43:01  | C*01:51+C*03:40:01     | C*01:54+C*03:03:01G   |                     |                 |
| C*01:02:01G+C*03:43:02  | C*01:51+C*03:40:02     |                       |                     |                 |
| C*01:02:01G+C*03:45     | C*01:14+C*03:32        | C*01:58+C*03:07       |                     |                 |
| C*01:02:01G+C*03:49     | C*01:51+C*03:28        |                       |                     |                 |
| C*01:02:01G+C*03:50     | C*01:51+C*03:107       |                       |                     |                 |
| C*01:02:01G+C*03:51     | C*01:30+C*03:04:01G    |                       |                     |                 |
| C*01:02:01G+C*03:55     | C*01:51+C*03:92        |                       |                     |                 |
| C*01:02:01G+C*03:58     | C*01:03:01G+C*03:86    |                       |                     |                 |
| C*01:02:01G+C*03:59     | C*01:28+C*03:03:01G    | C*01:51+C*03:123      |                     |                 |
| C*01:02:01G+C*03:60     | C*01:58+C*03:02:01G    |                       |                     |                 |
| C*01:02:01G+C*03:64:01  | C*01:64+C*03:37        |                       |                     |                 |
| C*01:02:01G+C*03:69     | C*01:17+C*03:03:01G    | C*01:51+C*03:38:02    |                     |                 |
| C*01:02:01G+C*03:77     | C*01:06+C*03:04:01G    |                       |                     |                 |
| C*01:02:01G+C*03:92     | C*01:22+C*03:117       |                       |                     |                 |
| C*01:02:01G+C*03:95     | C*01:08+C*03:02:01G    |                       |                     |                 |
| C*01:02:01G+C*03:96     | C*01:15+C*03:03:01G    |                       |                     |                 |
| C*01:02:01G+C*03:103    | C*01:51+C*03:90        |                       |                     |                 |
| C*01:02:01G+C*03:116:01 | C*01:51+C*03:09        |                       |                     |                 |
| C*01:02:01G+C*03:123    | C*01:28+C*03:04:01G    |                       |                     |                 |
| C*01:02:01G+C*03:127    | C*01:51+C*03:70        |                       |                     |                 |
| C*01:02:01G+C*03:130    | C*01:17+C*03:140       | C*01:59+C*03:38:02    |                     |                 |
| C*01:02:01G+C*03:132    | C*01:51+C*03:02:01G    |                       |                     |                 |
| C*01:02:01G+C*03:136    | C*01:17+C*03:32        | C*01:23+C*03:04:01G   | C*01:58+C*03:38:02  |                 |
| C*01:02:01G+C*03:140    | C*01:59+C*03:04:01G    |                       |                     |                 |
| C*01:02:01G+C*03:142    | C*01:10+C*03:21        |                       |                     |                 |
| C*01:02:01G+C*03:151    | C*01:51+C*03:41        |                       |                     |                 |
| C*01:02:01G+C*03:160    | C*01:70+C*03:03:01G    |                       |                     |                 |
| C*01:02:01G+C*03:161    | C*01:30+C*03:55        |                       |                     |                 |
| C*01:02:01G+C*03:163    | C*01:14+C*03:38:02     | C*01:17+C*03:07       |                     |                 |
| C*01:02:01G+C*04:01:01G | C*01:02:04+C*04:01:11  | C*01:02:06+C*04:01:08 | C*01:14+C*04:29     | C*01:17+C*04:10 |
|                         | C*01:58+C*04:33        |                       |                     |                 |
| C*01:02:01G+C*04:01:09  | C*01:02:06+C*04:01:07  |                       |                     |                 |
| C*01:02:01G+C*04:01:30  | C*01:36+C*04:37        |                       |                     |                 |
| C*01:02:01G+C*04:01:33  | C*01:02:03+C*04:01:01G |                       |                     |                 |
| C*01:02:01G+C*04:01:41  | C*01:02:07+C*04:01:01G |                       |                     |                 |
| C*01:02:01G+C*04:03     | C*01:58+C*04:107       |                       |                     |                 |
| C*01:02:01G+C*04:04:01  | C*01:22+C*04:01:01G    |                       |                     |                 |
| C*01:02:01G+C*04:04:02  | C*01:22+C*04:01:09     |                       |                     |                 |
| C*01:02:01G+C*04:06     | C*01:22+C*04:03        |                       |                     |                 |
| C*01:02:01G+C*04:10     | C*01:14+C*04:36        |                       |                     |                 |
| C*01:02:01G+C*04:13     | C*01:22+C*04:61        |                       |                     |                 |
| C*01:02:01G+C*04:29     | C*01:17+C*04:36        | C*01:23+C*04:11       |                     |                 |
| C*01:02:01G+C*04:32     | C*01:10+C*04:01:01G    |                       |                     |                 |
| C*01:02:01G+C*04:34     | C*01:35+C*04:113       |                       |                     |                 |
| C*01:02:01G+C*04:36     | C*01:58+C*04:11        |                       |                     |                 |
| C*01:02:01G+C*04:52     | C*01:51+C*04:01:01G    |                       |                     |                 |
| C*01:02:01G+C*04:55     | C*01:51+C*04:11        |                       |                     |                 |
| C*01:02:01G+C*04:58     | C*01:60+C*04:13        |                       |                     |                 |
| C*01:02:01G+C*04:64:01  | C*01:15+C*04:01:01G    |                       |                     |                 |
| C*01:02:01G+C*04:85     | C*01:31+C*04:01:01G    |                       |                     |                 |
| C*01:02:01G+C*04:88N    | C*01:56N+C*04:01:01G   |                       |                     |                 |
| C*01:02:01G+C*04:94:01  | C*01:09+C*04:01:01G    |                       |                     |                 |
| C*01:02:01G+C*04:94:02  | C*01:09+C*04:01:09     |                       |                     |                 |
| C*01:02:01G+C*04:97     | C*01:46+C*04:01:01G    |                       |                     |                 |
| C*01:02:01G+C*04:113    | C*01:06+C*04:01:01G    |                       |                     |                 |
| C*01:02:01G+C*04:114    | C*01:59+C*04:29        |                       |                     |                 |
| C*01:02:01G+C*04:122    | C*01:06+C*04:04:01     | C*01:22+C*04:113      |                     |                 |
| C*01:02:01G+C*05:01:01G | C*01:12+C*05:59        | C*01:13+C*05:18:03    | C*01:14+C*08:02:01G | C*01:43+C*05:29 |
| C*01:02:01G+C*05:01:02  | C*01:13+C*05:18:02     | C*01:14+C*08:02:04    |                     |                 |
| C*01:02:01G+C*05:01:10  | C*01:02:09+C*05:01:01G |                       |                     |                 |
| C*01:02:01G+C*05:01:16  | C*01:02:07+C*05:01:01G |                       |                     |                 |
| C*01:02:01G+C*05:01:18  | C*01:02:07+C*05:01:02  |                       |                     |                 |
| C*01:02:01G+C*05:08     | C*01:09+C*05:01:01G    | C*01:14+C*08:29       |                     |                 |
| C*01:02:01G+C*05:09:01  | C*01:14+C*08:15:01     |                       |                     |                 |
| C*01:02:01G+C*05:09:02  | C*01:14+C*08:15:02     |                       |                     |                 |
| C*01:02:01G+C*05:11     | C*01:14+C*08:04:01     | C*01:22+C*05:01:01G   |                     |                 |
| C*01:02:01G+C*05:12     | C*01:06+C*05:18:01     |                       |                     |                 |
| C*01:02:01G+C*05:16     | C*01:14+C*08:12        |                       |                     |                 |
| C*01:02:01G+C*05:18:01  | C*01:02:06+C*05:18:03  | C*01:14+C*08:64       |                     |                 |
| C*01:02:01G+C*05:18:02  | C*01:14+C*08:33:01     |                       |                     |                 |
| C*01:02:01G+C*05:20     | C*01:59+C*08:02:01G    |                       |                     |                 |
| C*01:02:01G+C*05:23     | C*01:14+C*08:07        | C*01:60+C*05:01:01G   |                     |                 |
| C*01:02:01G+C*05:25     | C*01:14+C*08:28        | C*01:58+C*05:01:01G   |                     |                 |
| C*01:02:01G+C*05:27     | C*01:22+C*05:39        | C*01:35+C*05:01:01G   |                     |                 |
| C*01:02:01G+C*05:42     | C*01:17+C*05:25        | C*01:23+C*05:01:01G   | C*01:58+C*05:46     |                 |
| C*01:02:01G+C*05:43     | C*01:14+C*08:37        |                       |                     |                 |
| C*01:02:01G+C*05:44:01  | C*01:15+C*05:01:01G    |                       |                     |                 |
| C*01:02:01G+C*05:46     | C*01:14+C*08:05        | C*01:17+C*05:01:01G   |                     |                 |
| C*01:02:01G+C*05:52     | C*01:09+C*05:09:01     |                       |                     |                 |
| C*01:02:01G+C*05:55     | C*01:51+C*05:01:01G    |                       |                     |                 |
| C*01:02:01G+C*05:58:02  | C*01:48+C*05:01:01G    |                       |                     |                 |
| C*01:02:01G+C*05:64     | C*01:14+C*08:19        |                       |                     |                 |
| C*01:02:01G+C*05:68     | C*01:14+C*08:57        | C*01:22+C*05:76       |                     |                 |
| C*01:02:01G+C*06:02:01G | C*01:02:04+C*06:02:21  | C*01:09+C*06:06       | C*01:12+C*06:23     | C*01:14+C*06:11 |
|                         | C*01:58+C*06:30        |                       |                     |                 |
| C*01:02:01G+C*06:04     | C*01:22+C*06:06        |                       |                     |                 |
| C*01:02:01G+C*06:08     | C*01:10+C*06:02:01G    |                       |                     |                 |
| C*01:02:01G+C*06:20     | C*01:32+C*06:02:01G    |                       |                     |                 |
| C*01:02:01G+C*06:28     | C*01:64+C*06:02:01G    |                       |                     |                 |
| C*01:02:01G+C*06:29     | C*01:33+C*06:02:01G    |                       |                     |                 |
| C*01:02:01G+C*06:37     | C*01:20+C*06:02:01G    |                       |                     |                 |
| C*01:02:01G+C*06:43     | C*01:07+C*06:02:01G    |                       |                     |                 |

|                         |                        |                     |                    |                    |
|-------------------------|------------------------|---------------------|--------------------|--------------------|
| C*01:02:01G+C*06:53     | C*01:51+C*06:02:01G    |                     |                    |                    |
| C*01:02:01G+C*06:56     | C*01:38+C*06:02:01G    |                     |                    |                    |
| C*01:02:01G+C*06:61     | C*01:57+C*06:02:01G    |                     |                    |                    |
| C*01:02:01G+C*06:66     | C*01:08+C*06:02:01G    |                     |                    |                    |
| C*01:02:01G+C*06:67     | C*01:43+C*06:02:01G    |                     |                    |                    |
| C*01:02:01G+C*06:70     | C*01:48+C*06:02:01G    |                     |                    |                    |
| C*01:02:01G+C*06:76:01  | C*01:64+C*06:03:02     |                     |                    |                    |
| C*01:02:01G+C*06:76:02  | C*01:14+C*12:28        | C*01:23+C*12:05     | C*01:58+C*12:04:02 |                    |
| C*01:02:01G+C*06:82     | C*01:59+C*06:11        |                     |                    |                    |
| C*01:02:01G+C*07:01:01G | C*01:12+C*07:250       | C*01:17+C*07:40     | C*01:22+C*07:176   | C*01:54+C*07:248   |
|                         | C*01:58+C*07:16        | C*01:60+C*07:141:02 |                    |                    |
| C*01:02:01G+C*07:01:08  | C*01:02:07+C*07:01:01G |                     |                    |                    |
| C*01:02:01G+C*07:02:01G | C*01:02:04+C*07:02:36  | C*01:17+C*07:39     | C*01:22+C*07:37    | C*01:54+C*07:29    |
|                         | C*01:58+C*07:51        | C*01:60+C*07:17     |                    |                    |
| C*01:02:01G+C*07:02:26  | C*01:02:10+C*07:02:01G |                     |                    |                    |
| C*01:02:01G+C*07:04:01G | C*01:58+C*07:181       | C*01:60+C*07:12     |                    |                    |
| C*01:02:01G+C*07:07     | C*01:14+C*07:16        |                     |                    |                    |
| C*01:02:01G+C*07:09     | C*01:14+C*07:01:01G    | C*01:58+C*07:07     |                    |                    |
| C*01:02:01G+C*07:15     | C*01:10+C*07:02:01G    |                     |                    |                    |
| C*01:02:01G+C*07:22     | C*01:09+C*07:176       |                     |                    |                    |
| C*01:02:01G+C*07:28     | C*01:03:01G+C*07:248   |                     |                    |                    |
| C*01:02:01G+C*07:49     | C*01:17+C*07:238       | C*01:59+C*07:02:01G |                    |                    |
| C*01:02:01G+C*07:56:01  | C*01:51+C*07:02:01G    | C*01:58+C*07:79     |                    |                    |
| C*01:02:01G+C*07:60     | C*01:51+C*07:16        |                     |                    |                    |
| C*01:02:01G+C*07:73     | C*01:64+C*07:01:01G    |                     |                    |                    |
| C*01:02:01G+C*07:76     | C*01:14+C*07:02:01G    |                     |                    |                    |
| C*01:02:01G+C*07:79     | C*01:51+C*07:51        |                     |                    |                    |
| C*01:02:01G+C*07:92     | C*01:64+C*07:26        |                     |                    |                    |
| C*01:02:01G+C*07:95     | C*01:06+C*07:165       |                     |                    |                    |
| C*01:02:01G+C*07:101    | C*01:43+C*07:04:01G    |                     |                    |                    |
| C*01:02:01G+C*07:105    | C*01:57+C*07:02:01G    |                     |                    |                    |
| C*01:02:01G+C*07:109    | C*01:51+C*07:01:01G    | C*01:58+C*07:60     |                    |                    |
| C*01:02:01G+C*07:119    | C*01:52+C*07:01:01G    |                     |                    |                    |
| C*01:02:01G+C*07:129    | C*01:26+C*07:01:01G    |                     |                    |                    |
| C*01:02:01G+C*07:133    | C*01:65+C*07:02:01G    |                     |                    |                    |
| C*01:02:01G+C*07:134    | C*01:33+C*07:01:01G    |                     |                    |                    |
| C*01:02:01G+C*07:136    | C*01:28+C*07:02:01G    |                     |                    |                    |
| C*01:02:01G+C*07:137:01 | C*01:09+C*07:137:02    |                     |                    |                    |
| C*01:02:01G+C*07:138    | C*01:09+C*07:37        |                     |                    |                    |
| C*01:02:01G+C*07:141:01 | C*01:02:06+C*07:141:02 |                     |                    |                    |
| C*01:02:01G+C*07:148    | C*01:43+C*07:01:01G    |                     |                    |                    |
| C*01:02:01G+C*07:152N   | C*01:69N+C*07:02:01G   |                     |                    |                    |
| C*01:02:01G+C*07:161    | C*01:43+C*07:02:01G    |                     |                    |                    |
| C*01:02:01G+C*07:168    | C*01:32+C*07:02:01G    |                     |                    |                    |
| C*01:02:01G+C*07:172    | C*01:64+C*07:02:01G    |                     |                    |                    |
| C*01:02:01G+C*07:178    | C*01:71+C*07:02:01G    |                     |                    |                    |
| C*01:02:01G+C*07:186    | C*01:35+C*07:37        |                     |                    |                    |
| C*01:02:01G+C*07:207    | C*01:10+C*07:01:01G    |                     |                    |                    |
| C*01:02:01G+C*07:210    | C*01:59+C*07:40        |                     |                    |                    |
| C*01:02:01G+C*07:212    | C*01:31+C*07:120       | C*01:35+C*07:176    |                    |                    |
| C*01:02:01G+C*07:238    | C*01:59+C*07:39        |                     |                    |                    |
| C*01:02:01G+C*07:247    | C*01:17+C*07:210       | C*01:59+C*07:01:01G |                    |                    |
| C*01:02:01G+C*07:256    | C*01:53+C*07:01:01G    |                     |                    |                    |
| C*01:02:01G+C*08:01:01G | C*01:43+C*08:16:01     |                     |                    |                    |
| C*01:02:01G+C*08:02:04  | C*01:13+C*08:33:01     |                     |                    |                    |
| C*01:02:01G+C*08:03:01G | C*01:15+C*08:01:01G    | C*01:64+C*08:14     |                    |                    |
| C*01:02:01G+C*08:04:01  | C*01:22+C*08:02:01G    | C*01:43+C*08:13     |                    |                    |
| C*01:02:01G+C*08:05     | C*01:17+C*08:02:01G    | C*01:43+C*08:25     |                    |                    |
| C*01:02:01G+C*08:07     | C*01:60+C*08:02:01G    |                     |                    |                    |
| C*01:02:01G+C*08:10     | C*01:14+C*08:01:01G    |                     |                    |                    |
| C*01:02:01G+C*08:21     | C*01:17+C*08:01:01G    |                     |                    |                    |
| C*01:02:01G+C*08:27     | C*01:09+C*08:64        |                     |                    |                    |
| C*01:02:01G+C*08:28     | C*01:58+C*08:02:01G    |                     |                    |                    |
| C*01:02:01G+C*08:29     | C*01:09+C*08:02:01G    |                     |                    |                    |
| C*01:02:01G+C*08:31     | C*01:10+C*08:29        |                     |                    |                    |
| C*01:02:01G+C*08:35     | C*01:15+C*08:64        |                     |                    |                    |
| C*01:02:01G+C*08:51     | C*01:30+C*08:15:01     |                     |                    |                    |
| C*01:02:01G+C*08:54     | C*01:22+C*08:35        |                     |                    |                    |
| C*01:02:01G+C*08:61     | C*01:15+C*08:44        |                     |                    |                    |
| C*01:02:01G+C*08:63     | C*01:08+C*08:02:01G    |                     |                    |                    |
| C*01:02:01G+C*12:02:01G | C*01:17+C*12:49        |                     |                    |                    |
| C*01:02:01G+C*12:03:01G | C*01:09+C*12:24        |                     |                    |                    |
| C*01:02:01G+C*12:03:02  | C*01:02:07+C*12:03:08  |                     |                    |                    |
| C*01:02:01G+C*12:03:08  | C*01:02:06+C*12:03:16  |                     |                    |                    |
| C*01:02:01G+C*12:03:15  | C*01:02:13+C*12:03:01G |                     |                    |                    |
| C*01:02:01G+C*12:04:02  | C*01:14+C*12:03:01G    | C*01:17+C*12:05     |                    |                    |
| C*01:02:01G+C*12:20     | C*01:22+C*12:24        |                     |                    |                    |
| C*01:02:01G+C*12:28     | C*01:58+C*12:03:01G    |                     |                    |                    |
| C*01:02:01G+C*12:41     | C*01:14+C*12:02:01G    | C*01:59+C*12:72     |                    |                    |
| C*01:02:01G+C*12:50     | C*01:32+C*12:03:01G    |                     |                    |                    |
| C*01:02:01G+C*12:54     | C*01:59+C*12:03:01G    |                     |                    |                    |
| C*01:02:01G+C*12:58     | C*01:51+C*12:03:01G    |                     |                    |                    |
| C*01:02:01G+C*14:02:01G | C*01:02:06+C*14:02:05  | C*01:64+C*14:18     |                    |                    |
| C*01:02:01G+C*14:03     | C*01:48+C*14:02:03     |                     |                    |                    |
| C*01:02:01G+C*14:06     | C*01:22+C*14:02:01G    |                     |                    |                    |
| C*01:02:01G+C*14:10     | C*01:51+C*14:03        |                     |                    |                    |
| C*01:02:01G+C*14:11     | C*01:11+C*14:02:01G    |                     |                    |                    |
| C*01:02:01G+C*14:12     | C*01:14+C*14:02:01G    |                     |                    |                    |
| C*01:02:01G+C*14:13     | C*01:58+C*14:02:01G    |                     |                    |                    |
| C*01:02:01G+C*14:16     | C*01:09+C*14:02:01G    |                     |                    |                    |
| C*01:02:01G+C*14:24:02  | C*01:07+C*14:02:01G    |                     |                    |                    |
| C*01:02:01G+C*14:25     | C*01:10+C*14:02:01G    |                     |                    |                    |
| C*01:02:01G+C*14:33     | C*01:39+C*14:02:01G    |                     |                    |                    |
| C*01:02:01G+C*14:35N    | C*01:37N+C*14:03       |                     |                    |                    |
| C*01:02:01G+C*14:38     | C*01:31+C*14:03        |                     |                    |                    |
| C*01:02:01G+C*15:02:01G | C*01:02:06+C*15:02:05  | C*01:14+C*15:07     | C*01:22+C*15:08    | C*01:48+C*15:10:02 |
|                         | C*01:59+C*15:21        |                     |                    |                    |
| C*01:02:01G+C*15:02:02  | C*01:02:10+C*15:02:01G |                     |                    |                    |
| C*01:02:01G+C*15:03     | C*01:17+C*15:02:01G    |                     |                    |                    |
| C*01:02:01G+C*15:04     | C*01:54+C*15:40        |                     |                    |                    |
| C*01:02:01G+C*15:06:01  | C*01:02:06+C*15:06:03  |                     |                    |                    |
| C*01:02:01G+C*15:09     | C*01:54+C*15:06:01     |                     |                    |                    |
| C*01:02:01G+C*15:12     | C*01:51+C*15:02:01G    |                     |                    |                    |
| C*01:02:01G+C*15:15     | C*01:35+C*15:08        |                     |                    |                    |
| C*01:02:01G+C*15:16     | C*01:17+C*15:17        |                     |                    |                    |



|                         |                       |                     |                 |
|-------------------------|-----------------------|---------------------|-----------------|
| C*01:02:01G+C*15:26     | C*01:50+C*15:37       |                     |                 |
| C*01:02:01G+C*15:28     | C*01:42+C*15:02:01G   |                     |                 |
| C*01:02:01G+C*15:39     | C*01:30+C*15:02:01G   |                     |                 |
| C*01:02:01G+C*15:42     | C*01:10+C*15:02:01G   |                     |                 |
| C*01:02:01G+C*15:57     | C*01:06+C*15:02:01G   |                     |                 |
| C*01:02:01G+C*15:58     | C*01:12+C*15:37       |                     |                 |
| C*01:02:01G+C*16:01:01  | C*01:12+C*16:18       |                     |                 |
| C*01:02:01G+C*16:01:09  | C*01:02:13+C*16:01:01 |                     |                 |
| C*01:02:01G+C*16:02:01G | C*01:02:06+C*16:02:03 | C*01:14+C*16:01:01  | C*01:59+C*16:37 |
| C*01:02:01G+C*16:06     | C*01:05+C*16:18       |                     |                 |
| C*01:02:01G+C*16:09     | C*01:26+C*16:02:01G   |                     |                 |
| C*01:02:01G+C*16:15:01  | C*01:17+C*16:01:01    |                     |                 |
| C*01:02:01G+C*16:17     | C*01:27+C*16:01:01    |                     |                 |
| C*01:02:01G+C*16:22     | C*01:28+C*16:01:01    |                     |                 |
| C*01:02:01G+C*16:25     | C*01:14+C*16:15:01    | C*01:17+C*16:02:01G |                 |
| C*01:02:01G+C*16:26     | C*01:58+C*16:01:01    |                     |                 |
| C*01:02:01G+C*16:29     | C*01:10+C*16:04:01    |                     |                 |
| C*01:02:01G+C*16:30N    | C*01:56N+C*16:01:01   |                     |                 |
| C*01:02:01G+C*16:46     | C*01:14+C*16:26       | C*01:58+C*16:02:01G |                 |
| C*01:02:01G+C*16:48     | C*01:14+C*16:35       |                     |                 |
| C*01:02:01G+C*16:50     | C*01:10+C*16:01:01    |                     |                 |
| C*01:02:01G+C*16:51     | C*01:71+C*16:01:01    |                     |                 |
| C*01:02:01G+C*17:05     | C*01:43+C*17:01:01G   |                     |                 |
| C*01:02:01G+C*17:08     | C*01:07+C*17:01:01G   |                     |                 |
| C*01:02:01G+C*17:11     | C*01:58+C*17:01:01G   |                     |                 |
| C*01:02:01G+C*18:04     | C*01:64+C*18:01:01G   |                     |                 |
| C*01:02:03+C*04:01:41   | C*01:02:07+C*04:01:33 |                     |                 |
| C*01:02:03+C*04:04:01   | C*01:22+C*04:01:33    |                     |                 |
| C*01:02:03+C*04:32      | C*01:10+C*04:01:33    |                     |                 |
| C*01:02:03+C*04:52      | C*01:51+C*04:01:33    |                     |                 |
| C*01:02:03+C*04:64:01   | C*01:15+C*04:01:33    |                     |                 |
| C*01:02:03+C*04:85      | C*01:31+C*04:01:33    |                     |                 |
| C*01:02:03+C*04:88N     | C*01:56N+C*04:01:33   |                     |                 |
| C*01:02:03+C*04:94:01   | C*01:09+C*04:01:33    |                     |                 |
| C*01:02:03+C*04:97      | C*01:46+C*04:01:33    |                     |                 |
| C*01:02:03+C*04:113     | C*01:06+C*04:01:33    |                     |                 |
| C*01:02:05+C*03:03:07   | C*01:02:08+C*03:03:14 |                     |                 |
| C*01:02:05+C*03:03:16   | C*01:02:07+C*03:03:14 |                     |                 |
| C*01:02:05+C*03:43:01   | C*01:54+C*03:03:14    |                     |                 |
| C*01:02:05+C*03:59      | C*01:28+C*03:03:14    |                     |                 |
| C*01:02:05+C*03:69      | C*01:17+C*03:03:14    |                     |                 |
| C*01:02:05+C*03:96      | C*01:15+C*03:03:14    |                     |                 |
| C*01:02:05+C*03:160     | C*01:70+C*03:03:14    |                     |                 |
| C*01:02:06+C*02:51      | C*01:13+C*02:10       |                     |                 |
| C*01:02:06+C*05:01:01G  | C*01:13+C*05:18:01    |                     |                 |
| C*01:02:06+C*07:01:01G  | C*01:60+C*07:14:01    |                     |                 |
| C*01:02:06+C*07:130     | C*01:13+C*07:02:01G   |                     |                 |
| C*01:02:06+C*08:02:01G  | C*01:13+C*08:64       |                     |                 |
| C*01:02:06+C*08:02:07   | C*01:13+C*08:33:02    |                     |                 |
| C*01:02:06+C*08:29      | C*01:13+C*08:27       |                     |                 |
| C*01:02:06+C*16:27      | C*01:13+C*16:01:01    |                     |                 |
| C*01:02:07+C*03:03:07   | C*01:02:08+C*03:03:16 |                     |                 |
| C*01:02:07+C*03:43:01   | C*01:54+C*03:03:16    |                     |                 |
| C*01:02:07+C*03:59      | C*01:28+C*03:03:16    |                     |                 |
| C*01:02:07+C*03:69      | C*01:17+C*03:03:16    |                     |                 |
| C*01:02:07+C*03:96      | C*01:15+C*03:03:16    |                     |                 |
| C*01:02:07+C*03:160     | C*01:70+C*03:03:16    |                     |                 |
| C*01:02:07+C*04:04:01   | C*01:22+C*04:01:41    |                     |                 |
| C*01:02:07+C*04:32      | C*01:10+C*04:01:41    |                     |                 |
| C*01:02:07+C*04:52      | C*01:51+C*04:01:41    |                     |                 |
| C*01:02:07+C*04:64:01   | C*01:15+C*04:01:41    |                     |                 |
| C*01:02:07+C*04:85      | C*01:31+C*04:01:41    |                     |                 |
| C*01:02:07+C*04:88N     | C*01:56N+C*04:01:41   |                     |                 |
| C*01:02:07+C*04:94:01   | C*01:09+C*04:01:41    |                     |                 |
| C*01:02:07+C*04:97      | C*01:46+C*04:01:41    |                     |                 |
| C*01:02:07+C*04:113     | C*01:06+C*04:01:41    |                     |                 |
| C*01:02:07+C*05:01:10   | C*01:02:09+C*05:01:16 |                     |                 |
| C*01:02:07+C*05:08      | C*01:09+C*05:01:16    |                     |                 |
| C*01:02:07+C*05:11      | C*01:22+C*05:01:16    |                     |                 |
| C*01:02:07+C*05:23      | C*01:60+C*05:01:16    |                     |                 |
| C*01:02:07+C*05:25      | C*01:58+C*05:01:16    |                     |                 |
| C*01:02:07+C*05:27      | C*01:35+C*05:01:16    |                     |                 |
| C*01:02:07+C*05:42      | C*01:23+C*05:01:16    |                     |                 |
| C*01:02:07+C*05:44:01   | C*01:15+C*05:01:16    |                     |                 |
| C*01:02:07+C*05:46      | C*01:17+C*05:01:16    |                     |                 |
| C*01:02:07+C*05:55      | C*01:51+C*05:01:16    |                     |                 |
| C*01:02:07+C*05:58:02   | C*01:48+C*05:01:16    |                     |                 |
| C*01:02:07+C*07:09      | C*01:14+C*07:01:08    |                     |                 |
| C*01:02:07+C*07:73      | C*01:64+C*07:01:08    |                     |                 |
| C*01:02:07+C*07:109     | C*01:51+C*07:01:08    |                     |                 |
| C*01:02:07+C*07:119     | C*01:52+C*07:01:08    |                     |                 |
| C*01:02:07+C*07:129     | C*01:26+C*07:01:08    |                     |                 |
| C*01:02:07+C*07:134     | C*01:33+C*07:01:08    |                     |                 |
| C*01:02:07+C*07:148     | C*01:43+C*07:01:08    |                     |                 |
| C*01:02:07+C*07:207     | C*01:10+C*07:01:08    |                     |                 |
| C*01:02:07+C*07:247     | C*01:59+C*07:01:08    |                     |                 |
| C*01:02:07+C*07:256     | C*01:53+C*07:01:08    |                     |                 |
| C*01:02:08+C*03:43:01   | C*01:54+C*03:03:07    |                     |                 |
| C*01:02:08+C*03:59      | C*01:28+C*03:03:07    |                     |                 |
| C*01:02:08+C*03:69      | C*01:17+C*03:03:07    |                     |                 |
| C*01:02:08+C*03:96      | C*01:15+C*03:03:07    |                     |                 |
| C*01:02:08+C*03:160     | C*01:70+C*03:03:07    |                     |                 |
| C*01:02:09+C*05:08      | C*01:09+C*05:01:10    |                     |                 |
| C*01:02:09+C*05:11      | C*01:22+C*05:01:10    |                     |                 |
| C*01:02:09+C*05:23      | C*01:60+C*05:01:10    |                     |                 |
| C*01:02:09+C*05:25      | C*01:58+C*05:01:10    |                     |                 |
| C*01:02:09+C*05:27      | C*01:35+C*05:01:10    |                     |                 |
| C*01:02:09+C*05:42      | C*01:23+C*05:01:10    |                     |                 |
| C*01:02:09+C*05:44:01   | C*01:15+C*05:01:10    |                     |                 |
| C*01:02:09+C*05:46      | C*01:17+C*05:01:10    |                     |                 |
| C*01:02:09+C*05:55      | C*01:51+C*05:01:10    |                     |                 |
| C*01:02:09+C*05:58:02   | C*01:48+C*05:01:10    |                     |                 |
| C*01:02:10+C*07:15      | C*01:10+C*07:02:26    |                     |                 |
| C*01:02:10+C*07:49      | C*01:59+C*07:02:26    |                     |                 |
| C*01:02:10+C*07:56:01   | C*01:51+C*07:02:26    |                     |                 |

---

|                         |                     |
|-------------------------|---------------------|
| C*01:02:10+C*07:76      | C*01:14+C*07:02:26  |
| C*01:02:10+C*07:105     | C*01:57+C*07:02:26  |
| C*01:02:10+C*07:133     | C*01:65+C*07:02:26  |
| C*01:02:10+C*07:136     | C*01:28+C*07:02:26  |
| C*01:02:10+C*07:152N    | C*01:69N+C*07:02:26 |
| C*01:02:10+C*07:161     | C*01:43+C*07:02:26  |
| C*01:02:10+C*07:168     | C*01:32+C*07:02:26  |
| C*01:02:10+C*07:172     | C*01:64+C*07:02:26  |
| C*01:02:10+C*07:178     | C*01:71+C*07:02:26  |
| C*01:02:10+C*15:03      | C*01:17+C*15:02:02  |
| C*01:02:10+C*15:12      | C*01:51+C*15:02:02  |
| C*01:02:10+C*15:28      | C*01:42+C*15:02:02  |
| C*01:02:10+C*15:39      | C*01:30+C*15:02:02  |
| C*01:02:10+C*15:42      | C*01:10+C*15:02:02  |
| C*01:02:10+C*15:57      | C*01:06+C*15:02:02  |
| C*01:02:13+C*12:04:02   | C*01:14+C*12:03:15  |
| C*01:02:13+C*12:28      | C*01:58+C*12:03:15  |
| C*01:02:13+C*12:50      | C*01:32+C*12:03:15  |
| C*01:02:13+C*12:54      | C*01:59+C*12:03:15  |
| C*01:02:13+C*12:58      | C*01:51+C*12:03:15  |
| C*01:02:13+C*16:02:01G  | C*01:14+C*16:01:09  |
| C*01:02:13+C*16:15:01   | C*01:17+C*16:01:09  |
| C*01:02:13+C*16:17      | C*01:27+C*16:01:09  |
| C*01:02:13+C*16:22      | C*01:28+C*16:01:09  |
| C*01:02:13+C*16:26      | C*01:58+C*16:01:09  |
| C*01:02:13+C*16:30N     | C*01:56N+C*16:01:09 |
| C*01:02:13+C*16:50      | C*01:10+C*16:01:09  |
| C*01:02:13+C*16:51      | C*01:71+C*16:01:09  |
| C*01:03:01G+C*04:01:01G | C*01:55+C*04:37     |
| C*01:03:01G+C*04:54     | C*01:54+C*04:01:01G |
| C*01:03:01G+C*05:04     | C*01:54+C*05:01:01G |
| C*01:03:01G+C*06:02:01G | C*01:54+C*06:09     |
| C*01:03:01G+C*07:01:01G | C*01:54+C*07:28     |
| C*01:03:01G+C*08:11     | C*01:54+C*08:01:01G |
| C*01:03:01G+C*16:01:01  | C*01:54+C*16:45     |
| C*01:05+C*07:08         | C*01:36+C*07:02:01G |
| C*01:05+C*07:31         | C*01:12+C*07:02:01G |
| C*01:05+C*16:01:01      | C*01:12+C*16:06     |
| C*01:06+C*02:34         | C*01:26+C*02:28     |
| C*01:06+C*02:49         | C*01:23+C*02:28     |
| C*01:06+C*02:53         | C*01:15+C*02:28     |
| C*01:06+C*02:55         | C*01:17+C*02:28     |
| C*01:06+C*02:56         | C*01:32+C*02:28     |
| C*01:06+C*03:03:01G     | C*01:51+C*03:77     |
| C*01:06+C*03:07         | C*01:14+C*03:77     |
| C*01:06+C*03:23         | C*01:07+C*03:77     |
| C*01:06+C*03:32         | C*01:58+C*03:77     |
| C*01:06+C*03:38:02      | C*01:17+C*03:77     |
| C*01:06+C*03:40:01      | C*01:54+C*03:77     |
| C*01:06+C*03:51         | C*01:30+C*03:77     |
| C*01:06+C*03:60         | C*01:58+C*03:36     |
| C*01:06+C*03:95         | C*01:08+C*03:36     |
| C*01:06+C*03:123        | C*01:28+C*03:77     |
| C*01:06+C*03:132        | C*01:51+C*03:36     |
| C*01:06+C*03:136        | C*01:23+C*03:77     |
| C*01:06+C*03:140        | C*01:59+C*03:77     |
| C*01:06+C*04:32         | C*01:10+C*04:113    |
| C*01:06+C*04:52         | C*01:51+C*04:113    |
| C*01:06+C*04:64:01      | C*01:15+C*04:113    |
| C*01:06+C*04:85         | C*01:31+C*04:113    |
| C*01:06+C*04:88N        | C*01:56N+C*04:113   |
| C*01:06+C*04:94:01      | C*01:09+C*04:113    |
| C*01:06+C*04:97         | C*01:46+C*04:113    |
| C*01:06+C*08:54         | C*01:15+C*08:39     |
| C*01:06+C*15:03         | C*01:17+C*15:57     |
| C*01:06+C*15:12         | C*01:51+C*15:57     |
| C*01:06+C*15:28         | C*01:42+C*15:57     |
| C*01:06+C*15:39         | C*01:30+C*15:57     |
| C*01:06+C*15:42         | C*01:10+C*15:57     |
| C*01:07+C*03:03:01G     | C*01:51+C*03:23     |
| C*01:07+C*03:07         | C*01:14+C*03:23     |
| C*01:07+C*03:32         | C*01:58+C*03:23     |
| C*01:07+C*03:38:02      | C*01:17+C*03:23     |
| C*01:07+C*03:40:01      | C*01:54+C*03:23     |
| C*01:07+C*03:51         | C*01:30+C*03:23     |
| C*01:07+C*03:123        | C*01:28+C*03:23     |
| C*01:07+C*03:136        | C*01:23+C*03:23     |
| C*01:07+C*03:140        | C*01:59+C*03:23     |
| C*01:07+C*06:08         | C*01:10+C*06:43     |
| C*01:07+C*06:20         | C*01:32+C*06:43     |
| C*01:07+C*06:28         | C*01:64+C*06:43     |
| C*01:07+C*06:29         | C*01:33+C*06:43     |
| C*01:07+C*06:37         | C*01:20+C*06:43     |
| C*01:07+C*06:53         | C*01:51+C*06:43     |
| C*01:07+C*06:56         | C*01:38+C*06:43     |
| C*01:07+C*06:61         | C*01:57+C*06:43     |
| C*01:07+C*06:66         | C*01:08+C*06:43     |
| C*01:07+C*06:67         | C*01:43+C*06:43     |
| C*01:07+C*06:70         | C*01:48+C*06:43     |
| C*01:07+C*14:06         | C*01:22+C*14:24:02  |
| C*01:07+C*14:11         | C*01:11+C*14:24:02  |
| C*01:07+C*14:12         | C*01:14+C*14:24:02  |
| C*01:07+C*14:13         | C*01:58+C*14:24:02  |
| C*01:07+C*14:16         | C*01:09+C*14:24:02  |
| C*01:07+C*14:25         | C*01:10+C*14:24:02  |
| C*01:07+C*14:33         | C*01:39+C*14:24:02  |
| C*01:07+C*17:05         | C*01:43+C*17:08     |
| C*01:07+C*17:11         | C*01:58+C*17:08     |
| C*01:08+C*03:60         | C*01:58+C*03:95     |
| C*01:08+C*03:132        | C*01:51+C*03:95     |
| C*01:08+C*05:01:01G     | C*01:14+C*08:63     |
| C*01:08+C*05:20         | C*01:59+C*08:63     |
| C*01:08+C*06:08         | C*01:10+C*06:66     |
| C*01:08+C*06:20         | C*01:32+C*06:66     |
| C*01:08+C*06:28         | C*01:64+C*06:66     |

---

|                     |                     |
|---------------------|---------------------|
| C*01:08+C*06:29     | C*01:33+C*06:66     |
| C*01:08+C*06:37     | C*01:20+C*06:66     |
| C*01:08+C*06:53     | C*01:51+C*06:66     |
| C*01:08+C*06:56     | C*01:38+C*06:66     |
| C*01:08+C*06:61     | C*01:57+C*06:66     |
| C*01:08+C*06:67     | C*01:43+C*06:66     |
| C*01:08+C*06:70     | C*01:48+C*06:66     |
| C*01:08+C*08:04:01  | C*01:22+C*08:63     |
| C*01:08+C*08:05     | C*01:17+C*08:63     |
| C*01:08+C*08:07     | C*01:60+C*08:63     |
| C*01:08+C*08:28     | C*01:58+C*08:63     |
| C*01:08+C*08:29     | C*01:09+C*08:63     |
| C*01:09+C*02:03     | C*01:22+C*02:28     |
| C*01:09+C*02:16:01  | C*01:22+C*02:10     |
| C*01:09+C*02:16:02  | C*01:22+C*02:02:02G |
| C*01:09+C*02:18     | C*01:22+C*02:13     |
| C*01:09+C*03:03:01G | C*01:35+C*03:21     |
| C*01:09+C*03:04:07  | C*01:35+C*03:80     |
| C*01:09+C*03:55     | C*01:22+C*03:21     |
| C*01:09+C*04:04:01  | C*01:22+C*04:94:01  |
| C*01:09+C*04:04:02  | C*01:22+C*04:94:02  |
| C*01:09+C*04:32     | C*01:10+C*04:94:01  |
| C*01:09+C*04:52     | C*01:51+C*04:94:01  |
| C*01:09+C*04:64:01  | C*01:15+C*04:94:01  |
| C*01:09+C*04:85     | C*01:31+C*04:94:01  |
| C*01:09+C*04:88N    | C*01:56N+C*04:94:01 |
| C*01:09+C*04:97     | C*01:46+C*04:94:01  |
| C*01:09+C*05:11     | C*01:22+C*05:08     |
| C*01:09+C*05:18:01  | C*01:14+C*08:27     |
| C*01:09+C*05:20     | C*01:59+C*08:29     |
| C*01:09+C*05:23     | C*01:60+C*05:08     |
| C*01:09+C*05:25     | C*01:58+C*05:08     |
| C*01:09+C*05:27     | C*01:35+C*05:08     |
| C*01:09+C*05:42     | C*01:23+C*05:08     |
| C*01:09+C*05:44:01  | C*01:15+C*05:08     |
| C*01:09+C*05:46     | C*01:17+C*05:08     |
| C*01:09+C*05:55     | C*01:51+C*05:08     |
| C*01:09+C*05:58:02  | C*01:48+C*05:08     |
| C*01:09+C*06:04     | C*01:22+C*06:02:01G |
| C*01:09+C*07:01:01G | C*01:22+C*07:22     |
| C*01:09+C*07:02:01G | C*01:22+C*07:138    |
| C*01:09+C*07:186    | C*01:35+C*07:138    |
| C*01:09+C*07:212    | C*01:35+C*07:22     |
| C*01:09+C*08:04:01  | C*01:22+C*08:29     |
| C*01:09+C*08:05     | C*01:17+C*08:29     |
| C*01:09+C*08:07     | C*01:60+C*08:29     |
| C*01:09+C*08:28     | C*01:58+C*08:29     |
| C*01:09+C*08:35     | C*01:15+C*08:27     |
| C*01:09+C*12:18:01  | C*01:22+C*12:02:01G |
| C*01:09+C*12:20     | C*01:22+C*12:03:01G |
| C*01:09+C*14:06     | C*01:22+C*14:16     |
| C*01:09+C*14:11     | C*01:11+C*14:16     |
| C*01:09+C*14:12     | C*01:14+C*14:16     |
| C*01:09+C*14:13     | C*01:58+C*14:16     |
| C*01:09+C*14:25     | C*01:10+C*14:16     |
| C*01:09+C*14:33     | C*01:39+C*14:16     |
| C*01:09+C*16:35     | C*01:22+C*16:04:01  |
| C*01:10+C*03:55     | C*01:51+C*03:34     |
| C*01:10+C*04:04:01  | C*01:22+C*04:32     |
| C*01:10+C*04:52     | C*01:51+C*04:32     |
| C*01:10+C*04:64:01  | C*01:15+C*04:32     |
| C*01:10+C*04:85     | C*01:31+C*04:32     |
| C*01:10+C*04:88N    | C*01:56N+C*04:32    |
| C*01:10+C*04:97     | C*01:46+C*04:32     |
| C*01:10+C*05:08     | C*01:14+C*08:31     |
| C*01:10+C*06:20     | C*01:32+C*06:08     |
| C*01:10+C*06:28     | C*01:64+C*06:08     |
| C*01:10+C*06:29     | C*01:33+C*06:08     |
| C*01:10+C*06:37     | C*01:20+C*06:08     |
| C*01:10+C*06:53     | C*01:51+C*06:08     |
| C*01:10+C*06:56     | C*01:38+C*06:08     |
| C*01:10+C*06:61     | C*01:57+C*06:08     |
| C*01:10+C*06:67     | C*01:43+C*06:08     |
| C*01:10+C*06:70     | C*01:48+C*06:08     |
| C*01:10+C*07:09     | C*01:14+C*07:207    |
| C*01:10+C*07:49     | C*01:59+C*07:15     |
| C*01:10+C*07:56:01  | C*01:51+C*07:15     |
| C*01:10+C*07:73     | C*01:64+C*07:207    |
| C*01:10+C*07:76     | C*01:14+C*07:15     |
| C*01:10+C*07:105    | C*01:57+C*07:15     |
| C*01:10+C*07:109    | C*01:51+C*07:207    |
| C*01:10+C*07:119    | C*01:52+C*07:207    |
| C*01:10+C*07:129    | C*01:26+C*07:207    |
| C*01:10+C*07:133    | C*01:65+C*07:15     |
| C*01:10+C*07:134    | C*01:33+C*07:207    |
| C*01:10+C*07:136    | C*01:28+C*07:15     |
| C*01:10+C*07:148    | C*01:43+C*07:207    |
| C*01:10+C*07:152N   | C*01:69N+C*07:15    |
| C*01:10+C*07:161    | C*01:43+C*07:15     |
| C*01:10+C*07:168    | C*01:32+C*07:15     |
| C*01:10+C*07:172    | C*01:64+C*07:15     |
| C*01:10+C*07:178    | C*01:71+C*07:15     |
| C*01:10+C*07:247    | C*01:59+C*07:207    |
| C*01:10+C*07:256    | C*01:53+C*07:207    |
| C*01:10+C*14:06     | C*01:22+C*14:25     |
| C*01:10+C*14:11     | C*01:11+C*14:25     |
| C*01:10+C*14:12     | C*01:14+C*14:25     |
| C*01:10+C*14:13     | C*01:58+C*14:25     |
| C*01:10+C*14:33     | C*01:39+C*14:25     |
| C*01:10+C*15:03     | C*01:17+C*15:42     |
| C*01:10+C*15:12     | C*01:51+C*15:42     |
| C*01:10+C*15:28     | C*01:42+C*15:42     |
| C*01:10+C*15:39     | C*01:30+C*15:42     |
| C*01:10+C*16:02:01G | C*01:14+C*16:50     |
| C*01:10+C*16:15:01  | C*01:17+C*16:50     |

|                     |                      |                 |                  |
|---------------------|----------------------|-----------------|------------------|
| C*01:10+C*16:17     | C*01:27+C*16:50      |                 |                  |
| C*01:10+C*16:22     | C*01:28+C*16:50      |                 |                  |
| C*01:10+C*16:26     | C*01:58+C*16:50      |                 |                  |
| C*01:10+C*16:30N    | C*01:56N+C*16:50     |                 |                  |
| C*01:10+C*16:51     | C*01:71+C*16:50      |                 |                  |
| C*01:11+C*14:06     | C*01:22+C*14:11      |                 |                  |
| C*01:11+C*14:12     | C*01:14+C*14:11      |                 |                  |
| C*01:11+C*14:13     | C*01:58+C*14:11      |                 |                  |
| C*01:11+C*14:33     | C*01:39+C*14:11      |                 |                  |
| C*01:12+C*02:22     | C*01:34+C*02:19      |                 |                  |
| C*01:12+C*03:04:02  | C*01:49+C*03:17      |                 |                  |
| C*01:12+C*03:40:01  | C*01:50+C*03:71      |                 |                  |
| C*01:12+C*07:08     | C*01:36+C*07:31      |                 |                  |
| C*01:12+C*12:10:02  | C*01:36+C*12:03:19   |                 |                  |
| C*01:12+C*12:44     | C*01:50+C*12:03:19   |                 |                  |
| C*01:12+C*15:26     | C*01:50+C*15:58      |                 |                  |
| C*01:13+C*16:02:03  | C*01:14+C*16:27      |                 |                  |
| C*01:14+C*03:03:01G | C*01:51+C*03:07      |                 |                  |
| C*01:14+C*03:08     | C*01:59+C*03:29      |                 |                  |
| C*01:14+C*03:40:01  | C*01:54+C*03:07      |                 |                  |
| C*01:14+C*03:51     | C*01:30+C*03:07      |                 |                  |
| C*01:14+C*03:69     | C*01:51+C*03:163     |                 |                  |
| C*01:14+C*03:123    | C*01:28+C*03:07      |                 |                  |
| C*01:14+C*03:130    | C*01:59+C*03:163     |                 |                  |
| C*01:14+C*03:136    | C*01:17+C*03:45      | C*01:23+C*03:07 | C*01:58+C*03:163 |
| C*01:14+C*03:140    | C*01:59+C*03:07      |                 |                  |
| C*01:14+C*04:114    | C*01:59+C*04:01:01G  |                 |                  |
| C*01:14+C*05:20     | C*01:59+C*05:01:01G  |                 |                  |
| C*01:14+C*06:82     | C*01:59+C*06:02:01G  |                 |                  |
| C*01:14+C*07:49     | C*01:59+C*07:76      |                 |                  |
| C*01:14+C*07:56:01  | C*01:51+C*07:76      |                 |                  |
| C*01:14+C*07:60     | C*01:51+C*07:07      |                 |                  |
| C*01:14+C*07:73     | C*01:64+C*07:09      |                 |                  |
| C*01:14+C*07:105    | C*01:57+C*07:76      |                 |                  |
| C*01:14+C*07:109    | C*01:51+C*07:09      |                 |                  |
| C*01:14+C*07:119    | C*01:52+C*07:09      |                 |                  |
| C*01:14+C*07:129    | C*01:26+C*07:09      |                 |                  |
| C*01:14+C*07:133    | C*01:65+C*07:76      |                 |                  |
| C*01:14+C*07:134    | C*01:33+C*07:09      |                 |                  |
| C*01:14+C*07:136    | C*01:28+C*07:76      |                 |                  |
| C*01:14+C*07:148    | C*01:43+C*07:09      |                 |                  |
| C*01:14+C*07:152N   | C*01:69N+C*07:76     |                 |                  |
| C*01:14+C*07:161    | C*01:43+C*07:76      |                 |                  |
| C*01:14+C*07:168    | C*01:32+C*07:76      |                 |                  |
| C*01:14+C*07:172    | C*01:64+C*07:76      |                 |                  |
| C*01:14+C*07:178    | C*01:71+C*07:76      |                 |                  |
| C*01:14+C*07:247    | C*01:59+C*07:09      |                 |                  |
| C*01:14+C*07:256    | C*01:53+C*07:09      |                 |                  |
| C*01:14+C*08:03:01G | C*01:15+C*08:10      |                 |                  |
| C*01:14+C*08:13     | C*01:22+C*05:29      |                 |                  |
| C*01:14+C*08:21     | C*01:17+C*08:10      |                 |                  |
| C*01:14+C*08:25     | C*01:17+C*05:29      |                 |                  |
| C*01:14+C*08:35     | C*01:15+C*05:18:01   |                 |                  |
| C*01:14+C*08:39     | C*01:22+C*05:12      |                 |                  |
| C*01:14+C*08:47     | C*01:60+C*05:76      |                 |                  |
| C*01:14+C*08:51     | C*01:30+C*05:09:01   |                 |                  |
| C*01:14+C*12:50     | C*01:32+C*12:04:02   |                 |                  |
| C*01:14+C*12:54     | C*01:59+C*12:04:02   |                 |                  |
| C*01:14+C*12:58     | C*01:51+C*12:04:02   |                 |                  |
| C*01:14+C*14:06     | C*01:22+C*14:12      |                 |                  |
| C*01:14+C*14:13     | C*01:58+C*14:12      |                 |                  |
| C*01:14+C*14:33     | C*01:39+C*14:12      |                 |                  |
| C*01:14+C*16:17     | C*01:27+C*16:02:01G  |                 |                  |
| C*01:14+C*16:22     | C*01:28+C*16:02:01G  |                 |                  |
| C*01:14+C*16:30N    | C*01:56N+C*16:02:01G |                 |                  |
| C*01:14+C*16:40     | C*01:22+C*12:09      |                 |                  |
| C*01:14+C*16:51     | C*01:71+C*16:02:01G  |                 |                  |
| C*01:15+C*02:34     | C*01:26+C*02:53      |                 |                  |
| C*01:15+C*02:49     | C*01:23+C*02:53      |                 |                  |
| C*01:15+C*02:55     | C*01:17+C*02:53      |                 |                  |
| C*01:15+C*02:56     | C*01:32+C*02:53      |                 |                  |
| C*01:15+C*03:43:01  | C*01:54+C*03:96      |                 |                  |
| C*01:15+C*03:59     | C*01:28+C*03:96      |                 |                  |
| C*01:15+C*03:69     | C*01:17+C*03:96      |                 |                  |
| C*01:15+C*03:160    | C*01:70+C*03:96      |                 |                  |
| C*01:15+C*04:04:01  | C*01:22+C*04:64:01   |                 |                  |
| C*01:15+C*04:52     | C*01:51+C*04:64:01   |                 |                  |
| C*01:15+C*04:85     | C*01:31+C*04:64:01   |                 |                  |
| C*01:15+C*04:88N    | C*01:56N+C*04:64:01  |                 |                  |
| C*01:15+C*04:97     | C*01:46+C*04:64:01   |                 |                  |
| C*01:15+C*05:11     | C*01:22+C*05:44:01   |                 |                  |
| C*01:15+C*05:23     | C*01:60+C*05:44:01   |                 |                  |
| C*01:15+C*05:25     | C*01:58+C*05:44:01   |                 |                  |
| C*01:15+C*05:27     | C*01:35+C*05:44:01   |                 |                  |
| C*01:15+C*05:42     | C*01:23+C*05:44:01   |                 |                  |
| C*01:15+C*05:46     | C*01:17+C*05:44:01   |                 |                  |
| C*01:15+C*05:55     | C*01:51+C*05:44:01   |                 |                  |
| C*01:15+C*05:58:02  | C*01:48+C*05:44:01   |                 |                  |
| C*01:15+C*08:21     | C*01:17+C*08:03:01G  |                 |                  |
| C*01:17+C*02:10     | C*01:59+C*02:12      |                 |                  |
| C*01:17+C*02:34     | C*01:26+C*02:55      |                 |                  |
| C*01:17+C*02:49     | C*01:23+C*02:55      |                 |                  |
| C*01:17+C*02:56     | C*01:32+C*02:55      |                 |                  |
| C*01:17+C*03:03:04  | C*01:51+C*03:38:01   |                 |                  |
| C*01:17+C*03:40:01  | C*01:54+C*03:38:02   |                 |                  |
| C*01:17+C*03:43:01  | C*01:54+C*03:69      |                 |                  |
| C*01:17+C*03:51     | C*01:30+C*03:38:02   |                 |                  |
| C*01:17+C*03:59     | C*01:28+C*03:69      |                 |                  |
| C*01:17+C*03:60     | C*01:23+C*03:02:01G  |                 |                  |
| C*01:17+C*03:123    | C*01:28+C*03:38:02   |                 |                  |
| C*01:17+C*03:136    | C*01:23+C*03:38:02   |                 |                  |
| C*01:17+C*03:160    | C*01:70+C*03:69      |                 |                  |
| C*01:17+C*04:01:01G | C*01:23+C*04:33      |                 |                  |
| C*01:17+C*04:03     | C*01:23+C*04:107     |                 |                  |
| C*01:17+C*05:11     | C*01:22+C*05:46      |                 |                  |

|                     |                     |                    |
|---------------------|---------------------|--------------------|
| C*01:17+C*05:20     | C*01:59+C*08:05     |                    |
| C*01:17+C*05:23     | C*01:60+C*05:46     |                    |
| C*01:17+C*05:27     | C*01:35+C*05:46     |                    |
| C*01:17+C*05:42     | C*01:23+C*05:46     |                    |
| C*01:17+C*05:55     | C*01:51+C*05:46     |                    |
| C*01:17+C*05:58:02  | C*01:48+C*05:46     |                    |
| C*01:17+C*06:02:01G | C*01:23+C*06:30     |                    |
| C*01:17+C*06:76:02  | C*01:23+C*12:04:02  |                    |
| C*01:17+C*07:01:01G | C*01:23+C*07:16     |                    |
| C*01:17+C*07:02:01G | C*01:23+C*07:51     |                    |
| C*01:17+C*07:04:01G | C*01:23+C*07:181    |                    |
| C*01:17+C*07:09     | C*01:23+C*07:07     |                    |
| C*01:17+C*07:56:01  | C*01:23+C*07:79     |                    |
| C*01:17+C*07:109    | C*01:23+C*07:60     |                    |
| C*01:17+C*08:04:01  | C*01:22+C*08:05     |                    |
| C*01:17+C*08:07     | C*01:60+C*08:05     |                    |
| C*01:17+C*08:13     | C*01:22+C*08:25     |                    |
| C*01:17+C*08:28     | C*01:23+C*08:02:01G | C*01:58+C*08:05    |
| C*01:17+C*12:28     | C*01:23+C*12:03:01G |                    |
| C*01:17+C*14:13     | C*01:23+C*14:02:01G |                    |
| C*01:17+C*15:12     | C*01:51+C*15:03     |                    |
| C*01:17+C*15:28     | C*01:42+C*15:03     |                    |
| C*01:17+C*15:39     | C*01:30+C*15:03     |                    |
| C*01:17+C*16:09     | C*01:26+C*16:25     |                    |
| C*01:17+C*16:17     | C*01:27+C*16:15:01  |                    |
| C*01:17+C*16:22     | C*01:28+C*16:15:01  |                    |
| C*01:17+C*16:26     | C*01:23+C*16:01:01  | C*01:58+C*16:15:01 |
| C*01:17+C*16:30N    | C*01:56N+C*16:15:01 |                    |
| C*01:17+C*16:46     | C*01:23+C*16:02:01G | C*01:58+C*16:25    |
| C*01:17+C*16:51     | C*01:71+C*16:15:01  |                    |
| C*01:17+C*17:11     | C*01:23+C*17:01:01G |                    |
| C*01:20+C*06:20     | C*01:32+C*06:37     |                    |
| C*01:20+C*06:28     | C*01:64+C*06:37     |                    |
| C*01:20+C*06:29     | C*01:33+C*06:37     |                    |
| C*01:20+C*06:53     | C*01:51+C*06:37     |                    |
| C*01:20+C*06:56     | C*01:38+C*06:37     |                    |
| C*01:20+C*06:61     | C*01:57+C*06:37     |                    |
| C*01:20+C*06:67     | C*01:43+C*06:37     |                    |
| C*01:20+C*06:70     | C*01:48+C*06:37     |                    |
| C*01:22+C*03:03:01G | C*01:35+C*03:55     |                    |
| C*01:22+C*03:04:01G | C*01:35+C*03:92     |                    |
| C*01:22+C*04:08     | C*01:35+C*04:01:01G |                    |
| C*01:22+C*04:34     | C*01:35+C*04:122    |                    |
| C*01:22+C*04:52     | C*01:51+C*04:04:01  |                    |
| C*01:22+C*04:85     | C*01:31+C*04:04:01  |                    |
| C*01:22+C*04:88N    | C*01:56N+C*04:04:01 |                    |
| C*01:22+C*04:97     | C*01:46+C*04:04:01  |                    |
| C*01:22+C*05:20     | C*01:59+C*08:04:01  |                    |
| C*01:22+C*05:23     | C*01:60+C*05:11     |                    |
| C*01:22+C*05:25     | C*01:58+C*05:11     |                    |
| C*01:22+C*05:27     | C*01:35+C*05:11     |                    |
| C*01:22+C*05:42     | C*01:23+C*05:11     |                    |
| C*01:22+C*05:55     | C*01:51+C*05:11     |                    |
| C*01:22+C*05:58:02  | C*01:48+C*05:11     |                    |
| C*01:22+C*07:186    | C*01:35+C*07:02:01G |                    |
| C*01:22+C*07:212    | C*01:35+C*07:01:01G |                    |
| C*01:22+C*08:07     | C*01:60+C*08:04:01  |                    |
| C*01:22+C*08:28     | C*01:58+C*08:04:01  |                    |
| C*01:22+C*08:41     | C*01:35+C*08:01:01G |                    |
| C*01:22+C*08:47     | C*01:60+C*08:57     |                    |
| C*01:22+C*14:13     | C*01:58+C*14:06     |                    |
| C*01:22+C*14:20     | C*01:35+C*14:02:01G |                    |
| C*01:22+C*14:33     | C*01:39+C*14:06     |                    |
| C*01:22+C*15:15     | C*01:35+C*15:02:01G |                    |
| C*01:23+C*02:34     | C*01:26+C*02:49     |                    |
| C*01:23+C*02:56     | C*01:32+C*02:49     |                    |
| C*01:23+C*03:03:01G | C*01:51+C*03:136    | C*01:58+C*03:69    |
| C*01:23+C*03:04:02  | C*01:58+C*03:38:01  |                    |
| C*01:23+C*03:05     | C*01:58+C*03:27     |                    |
| C*01:23+C*03:32     | C*01:58+C*03:136    |                    |
| C*01:23+C*03:40:01  | C*01:54+C*03:136    |                    |
| C*01:23+C*03:51     | C*01:30+C*03:136    |                    |
| C*01:23+C*03:123    | C*01:28+C*03:136    |                    |
| C*01:23+C*03:140    | C*01:58+C*03:130    | C*01:59+C*03:136   |
| C*01:23+C*04:10     | C*01:58+C*04:01:01G |                    |
| C*01:23+C*04:36     | C*01:58+C*04:29     |                    |
| C*01:23+C*04:55     | C*01:51+C*04:29     |                    |
| C*01:23+C*05:23     | C*01:60+C*05:42     |                    |
| C*01:23+C*05:25     | C*01:58+C*05:42     |                    |
| C*01:23+C*05:27     | C*01:35+C*05:42     |                    |
| C*01:23+C*05:55     | C*01:51+C*05:42     |                    |
| C*01:23+C*05:58:02  | C*01:48+C*05:42     |                    |
| C*01:23+C*07:39     | C*01:58+C*07:02:01G |                    |
| C*01:23+C*07:40     | C*01:58+C*07:01:01G |                    |
| C*01:23+C*07:210    | C*01:58+C*07:247    |                    |
| C*01:23+C*07:238    | C*01:58+C*07:49     |                    |
| C*01:23+C*08:01:01G | C*01:58+C*08:21     |                    |
| C*01:23+C*12:49     | C*01:58+C*12:02:01G |                    |
| C*01:23+C*15:02:01G | C*01:58+C*15:03     |                    |
| C*01:23+C*15:17     | C*01:58+C*15:16     |                    |
| C*01:26+C*02:56     | C*01:32+C*02:34     |                    |
| C*01:26+C*07:73     | C*01:64+C*07:129    |                    |
| C*01:26+C*07:109    | C*01:51+C*07:129    |                    |
| C*01:26+C*07:119    | C*01:52+C*07:129    |                    |
| C*01:26+C*07:134    | C*01:33+C*07:129    |                    |
| C*01:26+C*07:148    | C*01:43+C*07:129    |                    |
| C*01:26+C*07:247    | C*01:59+C*07:129    |                    |
| C*01:26+C*07:256    | C*01:53+C*07:129    |                    |
| C*01:26+C*16:46     | C*01:58+C*16:09     |                    |
| C*01:27+C*16:22     | C*01:28+C*16:17     |                    |
| C*01:27+C*16:26     | C*01:58+C*16:17     |                    |
| C*01:27+C*16:30N    | C*01:56N+C*16:17    |                    |
| C*01:27+C*16:51     | C*01:71+C*16:17     |                    |
| C*01:28+C*03:32     | C*01:58+C*03:123    |                    |
| C*01:28+C*03:40:01  | C*01:54+C*03:123    |                    |

|                     |                     |
|---------------------|---------------------|
| C*01:28+C*03:43:01  | C*01:54+C*03:59     |
| C*01:28+C*03:51     | C*01:30+C*03:123    |
| C*01:28+C*03:140    | C*01:59+C*03:123    |
| C*01:28+C*03:160    | C*01:70+C*03:59     |
| C*01:28+C*07:49     | C*01:59+C*07:136    |
| C*01:28+C*07:56:01  | C*01:51+C*07:136    |
| C*01:28+C*07:105    | C*01:57+C*07:136    |
| C*01:28+C*07:133    | C*01:65+C*07:136    |
| C*01:28+C*07:152N   | C*01:69N+C*07:136   |
| C*01:28+C*07:161    | C*01:43+C*07:136    |
| C*01:28+C*07:168    | C*01:32+C*07:136    |
| C*01:28+C*07:172    | C*01:64+C*07:136    |
| C*01:28+C*07:178    | C*01:71+C*07:136    |
| C*01:28+C*16:26     | C*01:58+C*16:22     |
| C*01:28+C*16:30N    | C*01:56N+C*16:22    |
| C*01:28+C*16:51     | C*01:71+C*16:22     |
| C*01:30+C*03:03:01G | C*01:51+C*03:51     |
| C*01:30+C*03:32     | C*01:58+C*03:51     |
| C*01:30+C*03:40:01  | C*01:54+C*03:51     |
| C*01:30+C*03:140    | C*01:59+C*03:51     |
| C*01:30+C*15:12     | C*01:51+C*15:39     |
| C*01:30+C*15:28     | C*01:42+C*15:39     |
| C*01:31+C*04:52     | C*01:51+C*04:85     |
| C*01:31+C*04:88N    | C*01:56N+C*04:85    |
| C*01:31+C*04:97     | C*01:46+C*04:85     |
| C*01:31+C*14:10     | C*01:51+C*14:38     |
| C*01:31+C*14:35N    | C*01:37N+C*14:38    |
| C*01:32+C*06:28     | C*01:64+C*06:20     |
| C*01:32+C*06:29     | C*01:33+C*06:20     |
| C*01:32+C*06:53     | C*01:51+C*06:20     |
| C*01:32+C*06:56     | C*01:38+C*06:20     |
| C*01:32+C*06:61     | C*01:57+C*06:20     |
| C*01:32+C*06:67     | C*01:43+C*06:20     |
| C*01:32+C*06:70     | C*01:48+C*06:20     |
| C*01:32+C*07:49     | C*01:59+C*07:168    |
| C*01:32+C*07:56:01  | C*01:51+C*07:168    |
| C*01:32+C*07:105    | C*01:57+C*07:168    |
| C*01:32+C*07:133    | C*01:65+C*07:168    |
| C*01:32+C*07:152N   | C*01:69N+C*07:168   |
| C*01:32+C*07:161    | C*01:43+C*07:168    |
| C*01:32+C*07:172    | C*01:64+C*07:168    |
| C*01:32+C*07:178    | C*01:71+C*07:168    |
| C*01:32+C*12:28     | C*01:58+C*12:50     |
| C*01:32+C*12:54     | C*01:59+C*12:50     |
| C*01:32+C*12:58     | C*01:51+C*12:50     |
| C*01:33+C*06:28     | C*01:64+C*06:29     |
| C*01:33+C*06:53     | C*01:51+C*06:29     |
| C*01:33+C*06:56     | C*01:38+C*06:29     |
| C*01:33+C*06:61     | C*01:57+C*06:29     |
| C*01:33+C*06:67     | C*01:43+C*06:29     |
| C*01:33+C*06:70     | C*01:48+C*06:29     |
| C*01:33+C*07:73     | C*01:64+C*07:134    |
| C*01:33+C*07:109    | C*01:51+C*07:134    |
| C*01:33+C*07:119    | C*01:52+C*07:134    |
| C*01:33+C*07:148    | C*01:43+C*07:134    |
| C*01:33+C*07:247    | C*01:59+C*07:134    |
| C*01:33+C*07:256    | C*01:53+C*07:134    |
| C*01:35+C*05:23     | C*01:60+C*05:27     |
| C*01:35+C*05:25     | C*01:58+C*05:27     |
| C*01:35+C*05:55     | C*01:51+C*05:27     |
| C*01:35+C*05:58:02  | C*01:48+C*05:27     |
| C*01:36+C*12:44     | C*01:50+C*12:10:02  |
| C*01:37N+C*14:10    | C*01:51+C*14:35N    |
| C*01:38+C*06:28     | C*01:64+C*06:56     |
| C*01:38+C*06:53     | C*01:51+C*06:56     |
| C*01:38+C*06:61     | C*01:57+C*06:56     |
| C*01:38+C*06:67     | C*01:43+C*06:56     |
| C*01:38+C*06:70     | C*01:48+C*06:56     |
| C*01:39+C*14:13     | C*01:58+C*14:33     |
| C*01:42+C*15:12     | C*01:51+C*15:28     |
| C*01:43+C*06:28     | C*01:64+C*06:67     |
| C*01:43+C*06:53     | C*01:51+C*06:67     |
| C*01:43+C*06:61     | C*01:57+C*06:67     |
| C*01:43+C*06:70     | C*01:48+C*06:67     |
| C*01:43+C*07:49     | C*01:59+C*07:161    |
| C*01:43+C*07:56:01  | C*01:51+C*07:161    |
| C*01:43+C*07:73     | C*01:64+C*07:148    |
| C*01:43+C*07:105    | C*01:57+C*07:161    |
| C*01:43+C*07:109    | C*01:51+C*07:148    |
| C*01:43+C*07:119    | C*01:52+C*07:148    |
| C*01:43+C*07:133    | C*01:65+C*07:161    |
| C*01:43+C*07:152N   | C*01:69N+C*07:161   |
| C*01:43+C*07:172    | C*01:64+C*07:161    |
| C*01:43+C*07:178    | C*01:71+C*07:161    |
| C*01:43+C*07:247    | C*01:59+C*07:148    |
| C*01:43+C*07:256    | C*01:53+C*07:148    |
| C*01:43+C*17:11     | C*01:58+C*17:05     |
| C*01:46+C*04:52     | C*01:51+C*04:97     |
| C*01:46+C*04:88N    | C*01:56N+C*04:97    |
| C*01:48+C*05:23     | C*01:60+C*05:58:02  |
| C*01:48+C*05:25     | C*01:58+C*05:58:02  |
| C*01:48+C*05:55     | C*01:51+C*05:58:02  |
| C*01:48+C*06:28     | C*01:64+C*06:70     |
| C*01:48+C*06:53     | C*01:51+C*06:70     |
| C*01:48+C*06:61     | C*01:57+C*06:70     |
| C*01:49+C*04:17     | C*01:50+C*04:15:03  |
| C*01:49+C*05:05     | C*01:50+C*05:01:03  |
| C*01:49+C*07:257    | C*01:50+C*07:01:07  |
| C*01:51+C*03:32     | C*01:58+C*03:03:01G |
| C*01:51+C*03:40:03  | C*01:54+C*03:03:05  |
| C*01:51+C*03:42     | C*01:54+C*03:116:01 |
| C*01:51+C*03:60     | C*01:58+C*03:132    |
| C*01:51+C*03:64:01  | C*01:64+C*03:11:02  |
| C*01:51+C*03:130    | C*01:59+C*03:69     |
| C*01:51+C*03:140    | C*01:59+C*03:03:01G |

|                         |                        |                     |                     |                 |
|-------------------------|------------------------|---------------------|---------------------|-----------------|
| C*01:51+C*04:36         | C*01:58+C*04:55        |                     |                     |                 |
| C*01:51+C*04:88N        | C*01:56N+C*04:52       |                     |                     |                 |
| C*01:51+C*05:23         | C*01:60+C*05:55        |                     |                     |                 |
| C*01:51+C*05:25         | C*01:58+C*05:55        |                     |                     |                 |
| C*01:51+C*06:28         | C*01:64+C*06:53        |                     |                     |                 |
| C*01:51+C*06:61         | C*01:57+C*06:53        |                     |                     |                 |
| C*01:51+C*07:49         | C*01:59+C*07:56:01     |                     |                     |                 |
| C*01:51+C*07:73         | C*01:64+C*07:109       |                     |                     |                 |
| C*01:51+C*07:105        | C*01:57+C*07:56:01     |                     |                     |                 |
| C*01:51+C*07:119        | C*01:52+C*07:109       |                     |                     |                 |
| C*01:51+C*07:133        | C*01:65+C*07:56:01     |                     |                     |                 |
| C*01:51+C*07:152N       | C*01:69N+C*07:56:01    |                     |                     |                 |
| C*01:51+C*07:172        | C*01:64+C*07:56:01     |                     |                     |                 |
| C*01:51+C*07:178        | C*01:71+C*07:56:01     |                     |                     |                 |
| C*01:51+C*07:247        | C*01:59+C*07:109       |                     |                     |                 |
| C*01:51+C*07:256        | C*01:53+C*07:109       |                     |                     |                 |
| C*01:51+C*12:28         | C*01:58+C*12:58        |                     |                     |                 |
| C*01:51+C*12:54         | C*01:59+C*12:58        |                     |                     |                 |
| C*01:52+C*07:73         | C*01:64+C*07:119       |                     |                     |                 |
| C*01:52+C*07:247        | C*01:59+C*07:119       |                     |                     |                 |
| C*01:52+C*07:256        | C*01:53+C*07:119       |                     |                     |                 |
| C*01:53+C*07:73         | C*01:64+C*07:256       |                     |                     |                 |
| C*01:53+C*07:247        | C*01:59+C*07:256       |                     |                     |                 |
| C*01:54+C*03:32         | C*01:58+C*03:40:01     |                     |                     |                 |
| C*01:54+C*03:140        | C*01:59+C*03:40:01     |                     |                     |                 |
| C*01:54+C*03:160        | C*01:70+C*03:43:01     |                     |                     |                 |
| C*01:56N+C*16:26        | C*01:58+C*16:30N       |                     |                     |                 |
| C*01:56N+C*16:51        | C*01:71+C*16:30N       |                     |                     |                 |
| C*01:57+C*06:28         | C*01:64+C*06:61        |                     |                     |                 |
| C*01:57+C*07:49         | C*01:59+C*07:105       |                     |                     |                 |
| C*01:57+C*07:133        | C*01:65+C*07:105       |                     |                     |                 |
| C*01:57+C*07:152N       | C*01:69N+C*07:105      |                     |                     |                 |
| C*01:57+C*07:172        | C*01:64+C*07:105       |                     |                     |                 |
| C*01:57+C*07:178        | C*01:71+C*07:105       |                     |                     |                 |
| C*01:58+C*03:140        | C*01:59+C*03:32        |                     |                     |                 |
| C*01:58+C*05:20         | C*01:59+C*08:28        |                     |                     |                 |
| C*01:58+C*05:23         | C*01:60+C*05:25        |                     |                     |                 |
| C*01:58+C*08:07         | C*01:60+C*08:28        |                     |                     |                 |
| C*01:58+C*12:54         | C*01:59+C*12:28        |                     |                     |                 |
| C*01:58+C*16:51         | C*01:71+C*16:26        |                     |                     |                 |
| C*01:59+C*07:73         | C*01:64+C*07:247       |                     |                     |                 |
| C*01:59+C*07:133        | C*01:65+C*07:49        |                     |                     |                 |
| C*01:59+C*07:152N       | C*01:69N+C*07:49       |                     |                     |                 |
| C*01:59+C*07:172        | C*01:64+C*07:49        |                     |                     |                 |
| C*01:59+C*07:178        | C*01:71+C*07:49        |                     |                     |                 |
| C*01:59+C*08:07         | C*01:60+C*05:20        |                     |                     |                 |
| C*01:64+C*07:133        | C*01:65+C*07:172       |                     |                     |                 |
| C*01:64+C*07:152N       | C*01:69N+C*07:172      |                     |                     |                 |
| C*01:64+C*07:178        | C*01:71+C*07:172       |                     |                     |                 |
| C*01:65+C*07:152N       | C*01:69N+C*07:133      |                     |                     |                 |
| C*01:65+C*07:178        | C*01:71+C*07:133       |                     |                     |                 |
| C*01:69N+C*07:178       | C*01:71+C*07:152N      |                     |                     |                 |
| C*02:02:01+C*07:01:01G  | C*02:02:02G+C*07:01:15 |                     |                     |                 |
| C*02:02:01+C*07:01:12   | C*02:02:11+C*07:01:15  |                     |                     |                 |
| C*02:02:01+C*07:01:24   | C*02:02:19+C*07:01:15  |                     |                     |                 |
| C*02:02:01+C*07:94      | C*02:20+C*07:01:15     |                     |                     |                 |
| C*02:02:01+C*07:129     | C*02:34+C*07:01:15     |                     |                     |                 |
| C*02:02:01+C*07:173     | C*02:36+C*07:01:15     |                     |                     |                 |
| C*02:02:01+C*07:248     | C*02:19+C*07:01:15     |                     |                     |                 |
| C*02:02:01+C*07:254     | C*02:35+C*07:01:15     |                     |                     |                 |
| C*02:02:01+C*07:257     | C*02:61+C*07:01:15     |                     |                     |                 |
| C*02:02:02G+C*02:02:05  | C*02:02:03+C*02:10     |                     |                     |                 |
| C*02:02:02G+C*02:03     | C*02:16:02+C*02:28     |                     |                     |                 |
| C*02:02:02G+C*02:16:01  | C*02:10+C*02:16:02     |                     |                     |                 |
| C*02:02:02G+C*02:18     | C*02:13+C*02:16:02     |                     |                     |                 |
| C*02:02:02G+C*02:27:02  | C*02:10+C*02:27:01     |                     |                     |                 |
| C*02:02:02G+C*03:02:01G | C*02:61+C*03:139       |                     |                     |                 |
| C*02:02:02G+C*03:03:01G | C*02:02:03+C*03:03:04  | C*02:19+C*03:43:01  | C*02:61+C*03:116:01 |                 |
| C*02:02:02G+C*03:03:05  | C*02:02:11+C*03:03:01G |                     |                     |                 |
| C*02:02:02G+C*03:04:01G | C*02:02:03+C*03:04:02  | C*02:19+C*03:40:01  | C*02:27:01+C*03:07  | C*02:61+C*03:09 |
| C*02:02:02G+C*03:04:18  | C*02:02:11+C*03:04:02  |                     |                     |                 |
| C*02:02:02G+C*03:04:27  | C*02:19+C*03:40:02     |                     |                     |                 |
| C*02:02:02G+C*03:09     | C*02:19+C*03:42        |                     |                     |                 |
| C*02:02:02G+C*03:11:01  | C*02:42+C*03:03:12     |                     |                     |                 |
| C*02:02:02G+C*03:11:02  | C*02:42+C*03:03:01G    |                     |                     |                 |
| C*02:02:02G+C*03:12     | C*02:47+C*03:43:01     |                     |                     |                 |
| C*02:02:02G+C*03:19     | C*02:47+C*03:40:01     |                     |                     |                 |
| C*02:02:02G+C*03:21     | C*02:43+C*03:142       |                     |                     |                 |
| C*02:02:02G+C*03:22Q    | C*02:25Q+C*03:03:01G   |                     |                     |                 |
| C*02:02:02G+C*03:27     | C*02:55+C*03:05        |                     |                     |                 |
| C*02:02:02G+C*03:32     | C*02:27:01+C*03:45     |                     |                     |                 |
| C*02:02:02G+C*03:36     | C*02:28+C*03:02:01G    |                     |                     |                 |
| C*02:02:02G+C*03:37     | C*02:42+C*03:04:01G    |                     |                     |                 |
| C*02:02:02G+C*03:38:01  | C*02:55+C*03:04:02     |                     |                     |                 |
| C*02:02:02G+C*03:38:02  | C*02:02:03+C*03:38:01  | C*02:27:01+C*03:163 | C*02:55+C*03:04:01G |                 |
| C*02:02:02G+C*03:40:01  | C*02:61+C*03:42        |                     |                     |                 |
| C*02:02:02G+C*03:40:03  | C*02:02:11+C*03:40:01  |                     |                     |                 |
| C*02:02:02G+C*03:52     | C*02:15+C*03:03:01G    |                     |                     |                 |
| C*02:02:02G+C*03:55     | C*02:16:02+C*03:21     |                     |                     |                 |
| C*02:02:02G+C*03:64:01  | C*02:08+C*03:04:01G    |                     |                     |                 |
| C*02:02:02G+C*03:69     | C*02:55+C*03:03:01G    |                     |                     |                 |
| C*02:02:02G+C*03:77     | C*02:28+C*03:04:01G    |                     |                     |                 |
| C*02:02:02G+C*03:81     | C*02:36+C*03:03:01G    |                     |                     |                 |
| C*02:02:02G+C*03:92     | C*02:43+C*03:34        |                     |                     |                 |
| C*02:02:02G+C*03:96     | C*02:53+C*03:03:01G    |                     |                     |                 |
| C*02:02:02G+C*03:116:02 | C*02:02:22+C*03:116:01 |                     |                     |                 |
| C*02:02:02G+C*03:130    | C*02:55+C*03:140       |                     |                     |                 |
| C*02:02:02G+C*03:136    | C*02:49+C*03:04:01G    | C*02:55+C*03:32     |                     |                 |
| C*02:02:02G+C*03:143    | C*02:60+C*03:04:02     |                     |                     |                 |
| C*02:02:02G+C*03:147    | C*02:44+C*03:04:01G    |                     |                     |                 |
| C*02:02:02G+C*03:163    | C*02:55+C*03:07        |                     |                     |                 |
| C*02:02:02G+C*04:01:01G | C*02:02:11+C*04:01:30  | C*02:32+C*04:94:01  | C*02:43+C*04:32     | C*02:55+C*04:10 |
| C*02:02:02G+C*04:01:09  | C*02:32+C*04:94:02     |                     |                     |                 |
| C*02:02:02G+C*04:01:10  | C*02:02:08+C*04:01:01G |                     |                     |                 |
| C*02:02:02G+C*04:01:24  | C*02:02:09+C*04:01:01G |                     |                     |                 |

|                         |                        |                     |                    |                    |
|-------------------------|------------------------|---------------------|--------------------|--------------------|
| C*02:02:02G+C*04:01:29  | C*02:02:12+C*04:01:01G |                     |                    |                    |
| C*02:02:02G+C*04:04:01  | C*02:16:02+C*04:94:01  |                     |                    |                    |
| C*02:02:02G+C*04:04:02  | C*02:16:02+C*04:94:02  |                     |                    |                    |
| C*02:02:02G+C*04:13     | C*02:13+C*04:04:01     | C*02:18+C*04:94:01  |                    |                    |
| C*02:02:02G+C*04:15:02  | C*02:02:03+C*04:15:03  |                     |                    |                    |
| C*02:02:02G+C*04:15:03  | C*02:02:11+C*04:15:01  |                     |                    |                    |
| C*02:02:02G+C*04:17     | C*02:61+C*04:15:02     |                     |                    |                    |
| C*02:02:02G+C*04:29     | C*02:27:01+C*04:01:01G | C*02:49+C*04:11     | C*02:55+C*04:36    |                    |
| C*02:02:02G+C*04:36     | C*02:27:01+C*04:10     |                     |                    |                    |
| C*02:02:02G+C*04:40     | C*02:57+C*04:01:01G    |                     |                    |                    |
| C*02:02:02G+C*04:43     | C*02:15+C*04:01:01G    |                     |                    |                    |
| C*02:02:02G+C*04:46     | C*02:09+C*04:01:01G    |                     |                    |                    |
| C*02:02:02G+C*04:61     | C*02:13+C*04:01:01G    |                     |                    |                    |
| C*02:02:02G+C*04:64:01  | C*02:53+C*04:01:01G    |                     |                    |                    |
| C*02:02:02G+C*04:68     | C*02:13+C*04:14        |                     |                    |                    |
| C*02:02:02G+C*04:74     | C*02:46+C*04:01:01G    |                     |                    |                    |
| C*02:02:02G+C*04:108    | C*02:36+C*04:23        |                     |                    |                    |
| C*02:02:02G+C*04:113    | C*02:28+C*04:01:01G    |                     |                    |                    |
| C*02:02:02G+C*04:118    | C*02:59+C*04:01:01G    |                     |                    |                    |
| C*02:02:02G+C*04:122    | C*02:03+C*04:94:01     | C*02:28+C*04:04:01  |                    |                    |
| C*02:02:02G+C*05:01:01G | C*02:02:03+C*05:01:03  | C*02:08+C*05:58:02  | C*02:26:02+C*05:26 | C*02:32+C*05:08    |
| C*02:02:02G+C*05:01:06  | C*02:02:07+C*05:01:01G |                     |                    |                    |
| C*02:02:02G+C*05:01:20  | C*02:02:11+C*05:01:02  |                     |                    |                    |
| C*02:02:02G+C*05:05     | C*02:61+C*05:01:01G    |                     |                    |                    |
| C*02:02:02G+C*05:09:01  | C*02:32+C*05:52        |                     |                    |                    |
| C*02:02:02G+C*05:10     | C*02:62+C*05:01:03     |                     |                    |                    |
| C*02:02:02G+C*05:11     | C*02:16:02+C*05:08     |                     |                    |                    |
| C*02:02:02G+C*05:12     | C*02:28+C*05:18:01     |                     |                    |                    |
| C*02:02:02G+C*05:21     | C*02:35+C*05:01:01G    |                     |                    |                    |
| C*02:02:02G+C*05:22:01  | C*02:02:03+C*05:22:02  |                     |                    |                    |
| C*02:02:02G+C*05:42     | C*02:49+C*05:01:01G    | C*02:55+C*05:25     |                    |                    |
| C*02:02:02G+C*05:44:01  | C*02:53+C*05:01:01G    |                     |                    |                    |
| C*02:02:02G+C*05:46     | C*02:55+C*05:01:01G    |                     |                    |                    |
| C*02:02:02G+C*05:60     | C*02:09+C*05:01:01G    |                     |                    |                    |
| C*02:02:02G+C*05:68     | C*02:13+C*05:11        | C*02:18+C*05:08     |                    |                    |
| C*02:02:02G+C*05:76     | C*02:13+C*05:01:01G    |                     |                    |                    |
| C*02:02:02G+C*06:02:01G | C*02:08+C*06:70        | C*02:43+C*06:08     |                    |                    |
| C*02:02:02G+C*06:02:17  | C*02:02:11+C*06:02:01G |                     |                    |                    |
| C*02:02:02G+C*06:04     | C*02:16:02+C*06:02:01G |                     |                    |                    |
| C*02:02:02G+C*06:06     | C*02:32+C*06:02:01G    |                     |                    |                    |
| C*02:02:02G+C*06:11     | C*02:27:01+C*06:02:01G |                     |                    |                    |
| C*02:02:02G+C*06:18     | C*02:21+C*06:02:01G    |                     |                    |                    |
| C*02:02:02G+C*06:20     | C*02:56+C*06:02:01G    |                     |                    |                    |
| C*02:02:02G+C*06:31     | C*02:13+C*06:02:01G    |                     |                    |                    |
| C*02:02:02G+C*06:50     | C*02:20+C*06:02:01G    |                     |                    |                    |
| C*02:02:02G+C*06:76:02  | C*02:49+C*12:05        |                     |                    |                    |
| C*02:02:02G+C*06:81     | C*02:37+C*06:02:01G    |                     |                    |                    |
| C*02:02:02G+C*07:01:01G | C*02:02:03+C*07:01:07  | C*02:13+C*07:165    | C*02:16:02+C*07:22 | C*02:27:01+C*07:09 |
|                         | C*02:43+C*07:207       | C*02:55+C*07:40     |                    |                    |
| C*02:02:02G+C*07:01:12  | C*02:02:11+C*07:01:01G |                     |                    |                    |
| C*02:02:02G+C*07:01:23  | C*02:42+C*07:20        |                     |                    |                    |
| C*02:02:02G+C*07:01:24  | C*02:02:19+C*07:01:01G |                     |                    |                    |
| C*02:02:02G+C*07:02:01G | C*02:13+C*07:241       | C*02:16:02+C*07:138 | C*02:27:01+C*07:76 | C*02:43+C*07:15    |
|                         | C*02:55+C*07:39        |                     |                    |                    |
| C*02:02:02G+C*07:02:12  | C*02:02:11+C*07:02:01G |                     |                    |                    |
| C*02:02:02G+C*07:04:01G | C*02:02:03+C*07:04:03  | C*02:57+C*07:199:01 |                    |                    |
| C*02:02:02G+C*07:04:03  | C*02:57+C*07:199:02    |                     |                    |                    |
| C*02:02:02G+C*07:16     | C*02:27:01+C*07:07     |                     |                    |                    |
| C*02:02:02G+C*07:27:01  | C*02:02:03+C*07:27:02  |                     |                    |                    |
| C*02:02:02G+C*07:29     | C*02:19+C*07:02:01G    |                     |                    |                    |
| C*02:02:02G+C*07:37     | C*02:32+C*07:138       |                     |                    |                    |
| C*02:02:02G+C*07:43     | C*02:62+C*07:27:02     |                     |                    |                    |
| C*02:02:02G+C*07:49     | C*02:55+C*07:238       |                     |                    |                    |
| C*02:02:02G+C*07:75     | C*02:35+C*07:02:01G    |                     |                    |                    |
| C*02:02:02G+C*07:88     | C*02:30+C*07:02:01G    |                     |                    |                    |
| C*02:02:02G+C*07:94     | C*02:20+C*07:01:01G    |                     |                    |                    |
| C*02:02:02G+C*07:95     | C*02:28+C*07:165       |                     |                    |                    |
| C*02:02:02G+C*07:123    | C*02:36+C*07:02:01G    |                     |                    |                    |
| C*02:02:02G+C*07:126    | C*02:59+C*07:02:01G    |                     |                    |                    |
| C*02:02:02G+C*07:129    | C*02:34+C*07:01:01G    |                     |                    |                    |
| C*02:02:02G+C*07:137:02 | C*02:32+C*07:137:01    |                     |                    |                    |
| C*02:02:02G+C*07:168    | C*02:56+C*07:02:01G    |                     |                    |                    |
| C*02:02:02G+C*07:173    | C*02:36+C*07:01:01G    |                     |                    |                    |
| C*02:02:02G+C*07:176    | C*02:32+C*07:22        |                     |                    |                    |
| C*02:02:02G+C*07:183    | C*02:20+C*07:02:01G    |                     |                    |                    |
| C*02:02:02G+C*07:196    | C*02:62+C*07:01:07     |                     |                    |                    |
| C*02:02:02G+C*07:199:01 | C*02:02:03+C*07:199:02 |                     |                    |                    |
| C*02:02:02G+C*07:247    | C*02:55+C*07:210       |                     |                    |                    |
| C*02:02:02G+C*07:248    | C*02:19+C*07:01:01G    |                     |                    |                    |
| C*02:02:02G+C*07:254    | C*02:35+C*07:01:01G    |                     |                    |                    |
| C*02:02:02G+C*07:257    | C*02:61+C*07:01:01G    |                     |                    |                    |
| C*02:02:02G+C*08:01:01G | C*02:02:03+C*08:01:02  | C*02:27:01+C*08:10  |                    |                    |
| C*02:02:02G+C*08:02:01G | C*02:27:01+C*05:01:01G | C*02:32+C*08:29     |                    |                    |
| C*02:02:02G+C*08:02:04  | C*02:27:01+C*05:01:02  |                     |                    |                    |
| C*02:02:02G+C*08:02:06  | C*02:02:11+C*08:02:01G |                     |                    |                    |
| C*02:02:02G+C*08:03:01G | C*02:53+C*08:01:01G    |                     |                    |                    |
| C*02:02:02G+C*08:04:01  | C*02:16:02+C*08:29     | C*02:27:01+C*05:11  |                    |                    |
| C*02:02:02G+C*08:05     | C*02:27:01+C*05:46     | C*02:55+C*08:02:01G |                    |                    |
| C*02:02:02G+C*08:07     | C*02:27:01+C*05:23     |                     |                    |                    |
| C*02:02:02G+C*08:08     | C*02:60+C*08:01:01G    |                     |                    |                    |
| C*02:02:02G+C*08:12     | C*02:27:01+C*05:16     |                     |                    |                    |
| C*02:02:02G+C*08:15:01  | C*02:27:01+C*05:09:01  |                     |                    |                    |
| C*02:02:02G+C*08:15:02  | C*02:27:01+C*05:09:02  |                     |                    |                    |
| C*02:02:02G+C*08:19     | C*02:27:01+C*05:64     |                     |                    |                    |
| C*02:02:02G+C*08:21     | C*02:55+C*08:01:01G    |                     |                    |                    |
| C*02:02:02G+C*08:28     | C*02:27:01+C*05:25     |                     |                    |                    |
| C*02:02:02G+C*08:29     | C*02:27:01+C*05:08     | C*02:43+C*08:31     |                    |                    |
| C*02:02:02G+C*08:33:01  | C*02:27:01+C*05:18:02  |                     |                    |                    |
| C*02:02:02G+C*08:35     | C*02:53+C*08:64        |                     |                    |                    |
| C*02:02:02G+C*08:37     | C*02:27:01+C*05:43     |                     |                    |                    |
| C*02:02:02G+C*08:39     | C*02:03+C*08:27        |                     |                    |                    |
| C*02:02:02G+C*08:44     | C*02:62+C*08:01:02     |                     |                    |                    |
| C*02:02:02G+C*08:47     | C*02:13+C*08:07        |                     |                    |                    |
| C*02:02:02G+C*08:57     | C*02:13+C*08:04:01     | C*02:18+C*08:29     | C*02:27:01+C*05:68 |                    |
| C*02:02:02G+C*08:61     | C*02:53+C*08:44        |                     |                    |                    |



|                         |                        |                        |                     |
|-------------------------|------------------------|------------------------|---------------------|
| C*02:02:02G+C*08:62     | C*02:61+C*08:02:06     |                        |                     |
| C*02:02:02G+C*08:64     | C*02:27:01+C*05:18:01  | C*02:32+C*08:27        |                     |
| C*02:02:02G+C*12:02:01G | C*02:27:01+C*12:41     | C*02:55+C*12:49        |                     |
| C*02:02:02G+C*12:02:03  | C*02:02:03+C*12:02:01G |                        |                     |
| C*02:02:02G+C*12:02:08  | C*02:02:03+C*12:02:06  |                        |                     |
| C*02:02:02G+C*12:02:09  | C*02:02:11+C*12:02:01G |                        |                     |
| C*02:02:02G+C*12:03:01G | C*02:10+C*12:03:17     | C*02:27:01+C*12:04:02  |                     |
| C*02:02:02G+C*12:03:09  | C*02:02:13+C*12:03:17  |                        |                     |
| C*02:02:02G+C*12:04:02  | C*02:55+C*12:05        |                        |                     |
| C*02:02:02G+C*12:10:01  | C*02:02:11+C*12:10:02  |                        |                     |
| C*02:02:02G+C*12:15     | C*02:06+C*12:03:17     |                        |                     |
| C*02:02:02G+C*12:18:01  | C*02:16:02+C*12:02:01G |                        |                     |
| C*02:02:02G+C*12:20     | C*02:16:01+C*12:03:17  | C*02:16:02+C*12:03:01G |                     |
| C*02:02:02G+C*12:24     | C*02:32+C*12:03:01G    |                        |                     |
| C*02:02:02G+C*12:28     | C*02:27:01+C*06:76:02  |                        |                     |
| C*02:02:02G+C*12:50     | C*02:56+C*12:03:01G    |                        |                     |
| C*02:02:02G+C*12:51     | C*02:24+C*12:03:01G    |                        |                     |
| C*02:02:02G+C*12:52     | C*02:50+C*12:03:01G    |                        |                     |
| C*02:02:02G+C*12:53     | C*02:20+C*12:03:01G    |                        |                     |
| C*02:02:02G+C*12:60     | C*02:46+C*12:04:02     |                        |                     |
| C*02:02:02G+C*12:79     | C*02:45+C*12:03:01G    |                        |                     |
| C*02:02:02G+C*14:02:01G | C*02:27:01+C*14:12     | C*02:32+C*14:16        | C*02:43+C*14:25     |
| C*02:02:02G+C*14:02:03  | C*02:08+C*14:03        |                        |                     |
| C*02:02:02G+C*14:06     | C*02:16:02+C*14:16     |                        |                     |
| C*02:02:02G+C*14:15     | C*02:13+C*14:06        | C*02:18+C*14:16        |                     |
| C*02:02:02G+C*14:34     | C*02:04+C*14:02:01G    |                        |                     |
| C*02:02:02G+C*14:41     | C*02:04+C*14:03        |                        |                     |
| C*02:02:02G+C*15:02:01G | C*02:43+C*15:42        | C*02:47+C*15:09        |                     |
| C*02:02:02G+C*15:02:08  | C*02:02:10+C*15:02:01G |                        |                     |
| C*02:02:02G+C*15:03     | C*02:55+C*15:02:01G    |                        |                     |
| C*02:02:02G+C*15:06:01  | C*02:19+C*15:09        | C*02:36+C*15:40        |                     |
| C*02:02:02G+C*15:07     | C*02:27:01+C*15:02:01G |                        |                     |
| C*02:02:02G+C*15:09     | C*02:36+C*15:04        |                        |                     |
| C*02:02:02G+C*15:10:02  | C*02:08+C*15:02:01G    |                        |                     |
| C*02:02:02G+C*15:16     | C*02:55+C*15:17        |                        |                     |
| C*02:02:02G+C*15:17     | C*02:26:02+C*15:11     |                        |                     |
| C*02:02:02G+C*15:19     | C*02:30+C*15:09        |                        |                     |
| C*02:02:02G+C*15:26     | C*02:61+C*15:02:01G    |                        |                     |
| C*02:02:02G+C*15:31     | C*02:13+C*15:02:01G    |                        |                     |
| C*02:02:02G+C*15:35     | C*02:35+C*15:02:01G    |                        |                     |
| C*02:02:02G+C*15:40     | C*02:19+C*15:04        |                        |                     |
| C*02:02:02G+C*15:57     | C*02:28+C*15:02:01G    |                        |                     |
| C*02:02:02G+C*16:01:01  | C*02:27:01+C*16:02:01G | C*02:43+C*16:50        |                     |
| C*02:02:02G+C*16:04:01  | C*02:43+C*16:29        |                        |                     |
| C*02:02:02G+C*16:07:02  | C*02:02:03+C*16:07:01  |                        |                     |
| C*02:02:02G+C*16:09     | C*02:34+C*16:02:01G    |                        |                     |
| C*02:02:02G+C*16:11     | C*02:21+C*16:01:01     |                        |                     |
| C*02:02:02G+C*16:15:01  | C*02:27:01+C*16:25     | C*02:55+C*16:01:01     |                     |
| C*02:02:02G+C*16:20     | C*02:36+C*16:01:01     |                        |                     |
| C*02:02:02G+C*16:25     | C*02:55+C*16:02:01G    |                        |                     |
| C*02:02:02G+C*16:26     | C*02:27:01+C*16:46     |                        |                     |
| C*02:02:02G+C*16:35     | C*02:13+C*16:40        | C*02:16:02+C*16:04:01  | C*02:27:01+C*16:48  |
| C*02:02:02G+C*16:49     | C*02:61+C*16:01:01     |                        |                     |
| C*02:02:02G+C*17:01:02  | C*02:02:11+C*17:01:01G |                        |                     |
| C*02:02:02G+C*17:13     | C*02:37+C*17:01:01G    |                        |                     |
| C*02:02:03+C*02:16:01   | C*02:02:05+C*02:16:02  |                        |                     |
| C*02:02:03+C*02:27:02   | C*02:02:05+C*02:27:01  |                        |                     |
| C*02:02:03+C*03:03:01G  | C*02:62+C*03:13        |                        |                     |
| C*02:02:03+C*03:04:01G  | C*02:62+C*03:35        |                        |                     |
| C*02:02:03+C*03:04:18   | C*02:02:11+C*03:04:01G | C*02:19+C*03:40:03     |                     |
| C*02:02:03+C*03:05      | C*02:60+C*03:35        |                        |                     |
| C*02:02:03+C*03:143     | C*02:60+C*03:04:01G    | C*02:62+C*03:05        |                     |
| C*02:02:03+C*04:110     | C*02:62+C*04:01:01G    |                        |                     |
| C*02:02:03+C*05:10      | C*02:62+C*05:01:01G    |                        |                     |
| C*02:02:03+C*06:14      | C*02:62+C*06:02:01G    |                        |                     |
| C*02:02:03+C*07:10      | C*02:62+C*07:02:01G    |                        |                     |
| C*02:02:03+C*07:43      | C*02:62+C*07:27:01     |                        |                     |
| C*02:02:03+C*07:196     | C*02:62+C*07:01:01G    |                        |                     |
| C*02:02:03+C*08:44      | C*02:62+C*08:01:01G    |                        |                     |
| C*02:02:03+C*08:61      | C*02:62+C*08:03:01G    |                        |                     |
| C*02:02:03+C*12:02:09   | C*02:02:11+C*12:02:03  |                        |                     |
| C*02:02:03+C*12:03:01G  | C*02:02:05+C*12:03:17  |                        |                     |
| C*02:02:03+C*12:18:01   | C*02:16:02+C*12:02:03  |                        |                     |
| C*02:02:03+C*15:05:01G  | C*02:62+C*15:22        |                        |                     |
| C*02:02:05+C*03:03:04   | C*02:10+C*03:03:01G    |                        |                     |
| C*02:02:05+C*03:04:02   | C*02:10+C*03:04:01G    | C*02:27:02+C*03:07     | C*02:58+C*03:34     |
| C*02:02:05+C*03:17      | C*02:05+C*03:35        |                        |                     |
| C*02:02:05+C*03:38:01   | C*02:10+C*03:38:02     | C*02:12+C*03:140       | C*02:27:02+C*03:163 |
| C*02:02:05+C*04:15:03   | C*02:10+C*04:15:02     |                        |                     |
| C*02:02:05+C*05:01:03   | C*02:10+C*05:01:01G    | C*02:51+C*05:18:01     |                     |
| C*02:02:05+C*05:16      | C*02:05+C*05:01:01G    |                        |                     |
| C*02:02:05+C*05:22:02   | C*02:10+C*05:22:01     |                        |                     |
| C*02:02:05+C*07:01:07   | C*02:10+C*07:01:01G    | C*02:12+C*07:210       | C*02:14+C*07:26     |
|                         | C*02:27:02+C*07:09     |                        | C*02:16:01+C*07:22  |
| C*02:02:05+C*07:04:03   | C*02:10+C*07:04:01G    |                        |                     |
| C*02:02:05+C*07:27:02   | C*02:10+C*07:27:01     |                        |                     |
| C*02:02:05+C*07:31      | C*02:05+C*07:27:01     |                        |                     |
| C*02:02:05+C*07:199:02  | C*02:10+C*07:199:01    |                        |                     |
| C*02:02:05+C*08:01:02   | C*02:10+C*08:01:01G    | C*02:27:02+C*08:10     |                     |
| C*02:02:05+C*08:12      | C*02:05+C*08:02:01G    |                        |                     |
| C*02:02:05+C*12:02:01G  | C*02:10+C*12:02:03     |                        |                     |
| C*02:02:05+C*12:02:06   | C*02:10+C*12:02:08     |                        |                     |
| C*02:02:05+C*12:03:01G  | C*02:05+C*12:02:08     |                        |                     |
| C*02:02:05+C*12:03:19   | C*02:05+C*12:02:03     |                        |                     |
| C*02:02:05+C*12:18:01   | C*02:16:01+C*12:02:03  |                        |                     |
| C*02:02:05+C*16:01:01   | C*02:05+C*16:07:02     |                        |                     |
| C*02:02:05+C*16:07:01   | C*02:10+C*16:07:02     |                        |                     |
| C*02:02:05+C*16:23      | C*02:17+C*16:07:02     |                        |                     |
| C*02:02:07+C*05:05      | C*02:61+C*05:01:06     |                        |                     |
| C*02:02:07+C*05:21      | C*02:35+C*05:01:06     |                        |                     |
| C*02:02:07+C*05:42      | C*02:49+C*05:01:06     |                        |                     |
| C*02:02:07+C*05:44:01   | C*02:53+C*05:01:06     |                        |                     |
| C*02:02:07+C*05:46      | C*02:55+C*05:01:06     |                        |                     |
| C*02:02:07+C*05:60      | C*02:09+C*05:01:06     |                        |                     |
| C*02:02:07+C*05:76      | C*02:13+C*05:01:06     |                        |                     |

|                        |                       |
|------------------------|-----------------------|
| C*02:02:07+C*08:02:01G | C*02:27:01+C*05:01:06 |
| C*02:02:08+C*04:01:24  | C*02:02:09+C*04:01:10 |
| C*02:02:08+C*04:01:29  | C*02:02:12+C*04:01:10 |
| C*02:02:08+C*04:29     | C*02:27:01+C*04:01:10 |
| C*02:02:08+C*04:40     | C*02:57+C*04:01:10    |
| C*02:02:08+C*04:43     | C*02:15+C*04:01:10    |
| C*02:02:08+C*04:46     | C*02:09+C*04:01:10    |
| C*02:02:08+C*04:61     | C*02:13+C*04:01:10    |
| C*02:02:08+C*04:64:01  | C*02:53+C*04:01:10    |
| C*02:02:08+C*04:74     | C*02:46+C*04:01:10    |
| C*02:02:08+C*04:113    | C*02:28+C*04:01:10    |
| C*02:02:08+C*04:118    | C*02:59+C*04:01:10    |
| C*02:02:09+C*04:01:29  | C*02:02:12+C*04:01:24 |
| C*02:02:09+C*04:29     | C*02:27:01+C*04:01:24 |
| C*02:02:09+C*04:40     | C*02:57+C*04:01:24    |
| C*02:02:09+C*04:43     | C*02:15+C*04:01:24    |
| C*02:02:09+C*04:46     | C*02:09+C*04:01:24    |
| C*02:02:09+C*04:61     | C*02:13+C*04:01:24    |
| C*02:02:09+C*04:64:01  | C*02:53+C*04:01:24    |
| C*02:02:09+C*04:74     | C*02:46+C*04:01:24    |
| C*02:02:09+C*04:113    | C*02:28+C*04:01:24    |
| C*02:02:09+C*04:118    | C*02:59+C*04:01:24    |
| C*02:02:10+C*15:03     | C*02:55+C*15:02:08    |
| C*02:02:10+C*15:07     | C*02:27:01+C*15:02:08 |
| C*02:02:10+C*15:10:02  | C*02:08+C*15:02:08    |
| C*02:02:10+C*15:26     | C*02:61+C*15:02:08    |
| C*02:02:10+C*15:31     | C*02:13+C*15:02:08    |
| C*02:02:10+C*15:35     | C*02:35+C*15:02:08    |
| C*02:02:10+C*15:57     | C*02:28+C*15:02:08    |
| C*02:02:11+C*03:11:02  | C*02:42+C*03:03:05    |
| C*02:02:11+C*03:19     | C*02:47+C*03:40:03    |
| C*02:02:11+C*03:22Q    | C*02:25Q+C*03:03:05   |
| C*02:02:11+C*03:38:01  | C*02:55+C*03:04:18    |
| C*02:02:11+C*03:52     | C*02:15+C*03:03:05    |
| C*02:02:11+C*03:69     | C*02:55+C*03:03:05    |
| C*02:02:11+C*03:81     | C*02:36+C*03:03:05    |
| C*02:02:11+C*03:96     | C*02:53+C*03:03:05    |
| C*02:02:11+C*03:143    | C*02:60+C*03:04:18    |
| C*02:02:11+C*06:04     | C*02:16:02+C*06:02:17 |
| C*02:02:11+C*06:06     | C*02:32+C*06:02:17    |
| C*02:02:11+C*06:11     | C*02:27:01+C*06:02:17 |
| C*02:02:11+C*06:18     | C*02:21+C*06:02:17    |
| C*02:02:11+C*06:20     | C*02:56+C*06:02:17    |
| C*02:02:11+C*06:31     | C*02:13+C*06:02:17    |
| C*02:02:11+C*06:50     | C*02:20+C*06:02:17    |
| C*02:02:11+C*06:81     | C*02:37+C*06:02:17    |
| C*02:02:11+C*07:01:24  | C*02:02:19+C*07:01:12 |
| C*02:02:11+C*07:29     | C*02:19+C*07:02:12    |
| C*02:02:11+C*07:75     | C*02:35+C*07:02:12    |
| C*02:02:11+C*07:88     | C*02:30+C*07:02:12    |
| C*02:02:11+C*07:94     | C*02:20+C*07:01:12    |
| C*02:02:11+C*07:123    | C*02:36+C*07:02:12    |
| C*02:02:11+C*07:126    | C*02:59+C*07:02:12    |
| C*02:02:11+C*07:129    | C*02:34+C*07:01:12    |
| C*02:02:11+C*07:168    | C*02:56+C*07:02:12    |
| C*02:02:11+C*07:173    | C*02:36+C*07:01:12    |
| C*02:02:11+C*07:183    | C*02:20+C*07:02:12    |
| C*02:02:11+C*07:248    | C*02:19+C*07:01:12    |
| C*02:02:11+C*07:254    | C*02:35+C*07:01:12    |
| C*02:02:11+C*07:257    | C*02:61+C*07:01:12    |
| C*02:02:11+C*08:02:04  | C*02:27:01+C*05:01:20 |
| C*02:02:11+C*08:05     | C*02:55+C*08:02:06    |
| C*02:02:11+C*12:18:01  | C*02:16:02+C*12:02:09 |
| C*02:02:11+C*17:13     | C*02:37+C*17:01:02    |
| C*02:02:12+C*04:29     | C*02:27:01+C*04:01:29 |
| C*02:02:12+C*04:40     | C*02:57+C*04:01:29    |
| C*02:02:12+C*04:43     | C*02:15+C*04:01:29    |
| C*02:02:12+C*04:46     | C*02:09+C*04:01:29    |
| C*02:02:12+C*04:61     | C*02:13+C*04:01:29    |
| C*02:02:12+C*04:64:01  | C*02:53+C*04:01:29    |
| C*02:02:12+C*04:74     | C*02:46+C*04:01:29    |
| C*02:02:12+C*04:113    | C*02:28+C*04:01:29    |
| C*02:02:12+C*04:118    | C*02:59+C*04:01:29    |
| C*02:02:13+C*12:03:01G | C*02:10+C*12:03:09    |
| C*02:02:13+C*12:15     | C*02:06+C*12:03:09    |
| C*02:02:13+C*12:20     | C*02:16:01+C*12:03:09 |
| C*02:02:14+C*03:02:01G | C*02:10+C*03:02:06    |
| C*02:02:14+C*03:03:01G | C*02:10+C*03:03:09    |
| C*02:02:14+C*03:04:01G | C*02:10+C*03:04:10    |
| C*02:02:14+C*03:67     | C*02:14+C*03:03:09    |
| C*02:02:14+C*04:01:01G | C*02:10+C*04:01:08    |
| C*02:02:14+C*04:01:09  | C*02:10+C*04:01:07    |
| C*02:02:14+C*04:29     | C*02:27:02+C*04:01:08 |
| C*02:02:14+C*05:01:01G | C*02:51+C*05:18:03    |
| C*02:02:14+C*05:01:02  | C*02:51+C*05:18:02    |
| C*02:02:14+C*05:18:01  | C*02:10+C*05:18:03    |
| C*02:02:14+C*07:141:01 | C*02:10+C*07:141:02   |
| C*02:02:14+C*08:02:04  | C*02:51+C*08:33:01    |
| C*02:02:14+C*08:64     | C*02:27:02+C*05:18:03 |
| C*02:02:14+C*12:03:08  | C*02:10+C*12:03:16    |
| C*02:02:14+C*14:02:01G | C*02:10+C*14:02:05    |
| C*02:02:14+C*15:02:01G | C*02:10+C*15:02:05    |
| C*02:02:14+C*15:06:01  | C*02:10+C*15:06:03    |
| C*02:02:14+C*15:07     | C*02:27:02+C*15:02:05 |
| C*02:02:14+C*16:01:01  | C*02:27:02+C*16:02:03 |
| C*02:02:14+C*16:02:01G | C*02:10+C*16:02:03    |
| C*02:02:19+C*07:94     | C*02:20+C*07:01:24    |
| C*02:02:19+C*07:129    | C*02:34+C*07:01:24    |
| C*02:02:19+C*07:173    | C*02:36+C*07:01:24    |
| C*02:02:19+C*07:248    | C*02:19+C*07:01:24    |
| C*02:02:19+C*07:254    | C*02:35+C*07:01:24    |
| C*02:02:19+C*07:257    | C*02:61+C*07:01:24    |
| C*02:02:22+C*03:03:01G | C*02:61+C*03:116:02   |
| C*02:03+C*02:10        | C*02:16:01+C*02:28    |
| C*02:03+C*02:13        | C*02:18+C*02:28       |

|                     |                        |                        |                    |
|---------------------|------------------------|------------------------|--------------------|
| C*02:03+C*03:02:01G | C*02:16:02+C*03:36     |                        |                    |
| C*02:03+C*03:04:01G | C*02:16:02+C*03:77     |                        |                    |
| C*02:03+C*03:21     | C*02:28+C*03:55        |                        |                    |
| C*02:03+C*03:28     | C*02:32+C*03:77        |                        |                    |
| C*02:03+C*04:01:01G | C*02:16:02+C*04:113    | C*02:32+C*04:122       |                    |
| C*02:03+C*04:04:01  | C*02:16:02+C*04:122    |                        |                    |
| C*02:03+C*04:08     | C*02:32+C*04:34        |                        |                    |
| C*02:03+C*04:13     | C*02:18+C*04:122       |                        |                    |
| C*02:03+C*04:61     | C*02:18+C*04:113       |                        |                    |
| C*02:03+C*04:94:02  | C*02:28+C*04:04:02     |                        |                    |
| C*02:03+C*05:08     | C*02:28+C*05:11        |                        |                    |
| C*02:03+C*05:18:01  | C*02:16:02+C*05:12     |                        |                    |
| C*02:03+C*06:02:01G | C*02:28+C*06:04        |                        |                    |
| C*02:03+C*07:01:01G | C*02:18+C*07:95        |                        |                    |
| C*02:03+C*07:22     | C*02:13+C*07:95        | C*02:28+C*07:01:01G    |                    |
| C*02:03+C*07:138    | C*02:28+C*07:02:01G    |                        |                    |
| C*02:03+C*07:165    | C*02:16:02+C*07:95     |                        |                    |
| C*02:03+C*08:29     | C*02:28+C*08:04:01     |                        |                    |
| C*02:03+C*08:64     | C*02:32+C*08:39        |                        |                    |
| C*02:03+C*12:02:01G | C*02:28+C*12:18:01     |                        |                    |
| C*02:03+C*12:03:01G | C*02:28+C*12:20        |                        |                    |
| C*02:03+C*14:16     | C*02:28+C*14:06        |                        |                    |
| C*02:03+C*15:02:01G | C*02:16:02+C*15:57     |                        |                    |
| C*02:03+C*15:08     | C*02:32+C*15:57        |                        |                    |
| C*02:03+C*15:31     | C*02:18+C*15:57        |                        |                    |
| C*02:03+C*16:01:01  | C*02:18+C*16:43        |                        |                    |
| C*02:03+C*16:04:01  | C*02:28+C*16:35        |                        |                    |
| C*02:04+C*14:02:03  | C*02:08+C*14:41        |                        |                    |
| C*02:05+C*04:01:01G | C*02:17+C*04:15:02     |                        |                    |
| C*02:05+C*05:01:03  | C*02:10+C*05:16        |                        |                    |
| C*02:05+C*07:08     | C*02:17+C*07:27:01     |                        |                    |
| C*02:05+C*07:27:02  | C*02:10+C*07:31        |                        |                    |
| C*02:05+C*07:108    | C*02:17+C*07:01:12     |                        |                    |
| C*02:05+C*08:19     | C*02:17+C*08:02:06     |                        |                    |
| C*02:05+C*12:02:01G | C*02:10+C*12:03:19     |                        |                    |
| C*02:05+C*12:02:06  | C*02:10+C*12:03:01G    | C*02:27:02+C*12:04:02  |                    |
| C*02:05+C*12:10:02  | C*02:17+C*12:02:03     |                        |                    |
| C*02:05+C*12:18:01  | C*02:16:01+C*12:03:19  |                        |                    |
| C*02:05+C*12:18:02  | C*02:16:01+C*12:03:08  |                        |                    |
| C*02:05+C*14:02:01G | C*02:17+C*14:05        |                        |                    |
| C*02:05+C*14:09     | C*02:10+C*14:05        |                        |                    |
| C*02:05+C*16:07:01  | C*02:10+C*16:01:01     | C*02:27:02+C*16:02:01G |                    |
| C*02:05+C*16:23     | C*02:17+C*16:01:01     |                        |                    |
| C*02:06+C*12:03:01G | C*02:10+C*12:15        |                        |                    |
| C*02:06+C*12:20     | C*02:16:01+C*12:15     |                        |                    |
| C*02:06+C*15:04     | C*02:10+C*15:02:01G    |                        |                    |
| C*02:08+C*03:37     | C*02:42+C*03:64:01     |                        |                    |
| C*02:08+C*03:38:02  | C*02:55+C*03:64:01     |                        |                    |
| C*02:08+C*03:77     | C*02:28+C*03:64:01     |                        |                    |
| C*02:08+C*03:136    | C*02:49+C*03:64:01     |                        |                    |
| C*02:08+C*03:147    | C*02:44+C*03:64:01     |                        |                    |
| C*02:08+C*06:02:01G | C*02:42+C*06:28        |                        |                    |
| C*02:08+C*06:03:02  | C*02:42+C*06:76:01     |                        |                    |
| C*02:08+C*07:01:01G | C*02:42+C*07:73        |                        |                    |
| C*02:08+C*07:02:01G | C*02:42+C*07:172       |                        |                    |
| C*02:08+C*07:26     | C*02:42+C*07:92        |                        |                    |
| C*02:08+C*08:14     | C*02:42+C*08:03:01G    |                        |                    |
| C*02:08+C*14:18     | C*02:42+C*14:02:01G    |                        |                    |
| C*02:08+C*15:03     | C*02:55+C*15:10:02     |                        |                    |
| C*02:08+C*15:07     | C*02:27:01+C*15:10:02  |                        |                    |
| C*02:08+C*15:26     | C*02:61+C*15:10:02     |                        |                    |
| C*02:08+C*15:31     | C*02:13+C*15:10:02     |                        |                    |
| C*02:08+C*15:35     | C*02:35+C*15:10:02     |                        |                    |
| C*02:08+C*15:57     | C*02:28+C*15:10:02     |                        |                    |
| C*02:08+C*18:01:01G | C*02:42+C*18:04        |                        |                    |
| C*02:09+C*04:29     | C*02:27:01+C*04:46     |                        |                    |
| C*02:09+C*04:40     | C*02:57+C*04:46        |                        |                    |
| C*02:09+C*04:43     | C*02:15+C*04:46        |                        |                    |
| C*02:09+C*04:61     | C*02:13+C*04:46        |                        |                    |
| C*02:09+C*04:64:01  | C*02:53+C*04:46        |                        |                    |
| C*02:09+C*04:74     | C*02:46+C*04:46        |                        |                    |
| C*02:09+C*04:113    | C*02:28+C*04:46        |                        |                    |
| C*02:09+C*04:118    | C*02:59+C*04:46        |                        |                    |
| C*02:09+C*05:05     | C*02:61+C*05:60        |                        |                    |
| C*02:09+C*05:21     | C*02:35+C*05:60        |                        |                    |
| C*02:09+C*05:42     | C*02:49+C*05:60        |                        |                    |
| C*02:09+C*05:44:01  | C*02:53+C*05:60        |                        |                    |
| C*02:09+C*05:46     | C*02:55+C*05:60        |                        |                    |
| C*02:09+C*05:76     | C*02:13+C*05:60        |                        |                    |
| C*02:09+C*08:02:01G | C*02:27:01+C*05:60     |                        |                    |
| C*02:10+C*02:18     | C*02:13+C*02:16:01     |                        |                    |
| C*02:10+C*03:32     | C*02:27:02+C*03:45     |                        |                    |
| C*02:10+C*03:55     | C*02:16:01+C*03:21     |                        |                    |
| C*02:10+C*03:67     | C*02:14+C*03:03:01G    |                        |                    |
| C*02:10+C*04:04:01  | C*02:16:01+C*04:94:01  |                        |                    |
| C*02:10+C*04:04:02  | C*02:16:01+C*04:94:02  |                        |                    |
| C*02:10+C*04:08     | C*02:58+C*04:32        |                        |                    |
| C*02:10+C*04:27     | C*02:33+C*04:07        |                        |                    |
| C*02:10+C*04:29     | C*02:27:02+C*04:01:01G |                        |                    |
| C*02:10+C*04:36     | C*02:27:02+C*04:10     |                        |                    |
| C*02:10+C*04:42     | C*02:14+C*04:103       |                        |                    |
| C*02:10+C*05:11     | C*02:16:01+C*05:08     |                        |                    |
| C*02:10+C*05:43     | C*02:14+C*05:01:01G    |                        |                    |
| C*02:10+C*06:02:01G | C*02:14+C*06:03:02     |                        |                    |
| C*02:10+C*06:04     | C*02:16:01+C*06:02:01G |                        |                    |
| C*02:10+C*06:11     | C*02:27:02+C*06:02:01G |                        |                    |
| C*02:10+C*06:28     | C*02:14+C*06:76:01     |                        |                    |
| C*02:10+C*07:02:01G | C*02:12+C*07:238       | C*02:16:01+C*07:138    | C*02:27:02+C*07:76 |
| C*02:10+C*07:16     | C*02:27:02+C*07:07     |                        |                    |
| C*02:10+C*07:56:02  | C*02:33+C*07:02:01G    |                        |                    |
| C*02:10+C*07:73     | C*02:14+C*07:92        |                        |                    |
| C*02:10+C*07:130    | C*02:51+C*07:02:01G    |                        |                    |
| C*02:10+C*07:186    | C*02:58+C*07:15        |                        |                    |
| C*02:10+C*07:212    | C*02:58+C*07:207       |                        |                    |
| C*02:10+C*08:02:01G | C*02:27:02+C*05:01:01G | C*02:51+C*08:64        |                    |

|                        |                        |                     |
|------------------------|------------------------|---------------------|
| C*02:10+C*08:02:04     | C*02:27:02+C*05:01:02  |                     |
| C*02:10+C*08:02:07     | C*02:51+C*08:33:02     |                     |
| C*02:10+C*08:04:01     | C*02:16:01+C*08:29     | C*02:27:02+C*05:11  |
| C*02:10+C*08:05        | C*02:12+C*05:20        | C*02:27:02+C*05:46  |
| C*02:10+C*08:07        | C*02:27:02+C*05:23     |                     |
| C*02:10+C*08:12        | C*02:27:02+C*05:16     |                     |
| C*02:10+C*08:15:01     | C*02:27:02+C*05:09:01  |                     |
| C*02:10+C*08:15:02     | C*02:27:02+C*05:09:02  |                     |
| C*02:10+C*08:19        | C*02:27:02+C*05:64     |                     |
| C*02:10+C*08:28        | C*02:27:02+C*05:25     |                     |
| C*02:10+C*08:29        | C*02:27:02+C*05:08     | C*02:51+C*08:27     |
| C*02:10+C*08:33:01     | C*02:27:02+C*05:18:02  |                     |
| C*02:10+C*08:37        | C*02:14+C*08:02:01G    | C*02:27:02+C*05:43  |
| C*02:10+C*08:57        | C*02:27:02+C*05:68     |                     |
| C*02:10+C*08:64        | C*02:27:02+C*05:18:01  |                     |
| C*02:10+C*12:02:01G    | C*02:27:02+C*12:41     |                     |
| C*02:10+C*12:18:01     | C*02:16:01+C*12:02:01G |                     |
| C*02:10+C*12:20        | C*02:16:01+C*12:03:01G |                     |
| C*02:10+C*12:28        | C*02:27:02+C*06:76:02  |                     |
| C*02:10+C*14:02:01G    | C*02:17+C*14:09        | C*02:27:02+C*14:12  |
| C*02:10+C*14:06        | C*02:16:01+C*14:16     |                     |
| C*02:10+C*14:20        | C*02:58+C*14:25        |                     |
| C*02:10+C*15:07        | C*02:27:02+C*15:02:01G |                     |
| C*02:10+C*15:15        | C*02:58+C*15:42        |                     |
| C*02:10+C*16:15:01     | C*02:27:02+C*16:25     |                     |
| C*02:10+C*16:21        | C*02:14+C*16:01:01     |                     |
| C*02:10+C*16:23        | C*02:17+C*16:07:01     |                     |
| C*02:10+C*16:26        | C*02:27:02+C*16:46     |                     |
| C*02:10+C*16:27        | C*02:51+C*16:01:01     |                     |
| C*02:10+C*16:35        | C*02:16:01+C*16:04:01  | C*02:27:02+C*16:48  |
| C*02:12+C*12:49        | C*02:27:02+C*12:72     |                     |
| C*02:13+C*03:55        | C*02:18+C*03:21        |                     |
| C*02:13+C*04:04:02     | C*02:18+C*04:94:02     |                     |
| C*02:13+C*04:29        | C*02:27:01+C*04:61     |                     |
| C*02:13+C*04:40        | C*02:57+C*04:61        |                     |
| C*02:13+C*04:43        | C*02:15+C*04:61        |                     |
| C*02:13+C*04:64:01     | C*02:53+C*04:61        |                     |
| C*02:13+C*04:74        | C*02:46+C*04:61        |                     |
| C*02:13+C*04:113       | C*02:28+C*04:61        |                     |
| C*02:13+C*04:118       | C*02:59+C*04:61        |                     |
| C*02:13+C*04:122       | C*02:28+C*04:13        |                     |
| C*02:13+C*05:05        | C*02:61+C*05:76        |                     |
| C*02:13+C*05:21        | C*02:35+C*05:76        |                     |
| C*02:13+C*05:42        | C*02:49+C*05:76        |                     |
| C*02:13+C*05:44:01     | C*02:53+C*05:76        |                     |
| C*02:13+C*05:46        | C*02:55+C*05:76        |                     |
| C*02:13+C*06:04        | C*02:16:02+C*06:31     | C*02:18+C*06:02:01G |
| C*02:13+C*06:06        | C*02:32+C*06:31        |                     |
| C*02:13+C*06:11        | C*02:27:01+C*06:31     |                     |
| C*02:13+C*06:18        | C*02:21+C*06:31        |                     |
| C*02:13+C*06:20        | C*02:56+C*06:31        |                     |
| C*02:13+C*06:50        | C*02:20+C*06:31        |                     |
| C*02:13+C*06:81        | C*02:37+C*06:31        |                     |
| C*02:13+C*07:01:01G    | C*02:18+C*07:22        |                     |
| C*02:13+C*07:02:01G    | C*02:18+C*07:138       |                     |
| C*02:13+C*08:02:01G    | C*02:27:01+C*05:76     |                     |
| C*02:13+C*12:03:08     | C*02:55+C*16:04:01     |                     |
| C*02:13+C*12:18:01     | C*02:18+C*12:02:01G    |                     |
| C*02:13+C*12:20        | C*02:18+C*12:03:01G    |                     |
| C*02:13+C*15:03        | C*02:55+C*15:31        |                     |
| C*02:13+C*15:07        | C*02:27:01+C*15:31     |                     |
| C*02:13+C*15:26        | C*02:61+C*15:31        |                     |
| C*02:13+C*15:35        | C*02:35+C*15:31        |                     |
| C*02:13+C*15:57        | C*02:28+C*15:31        |                     |
| C*02:13+C*16:35        | C*02:18+C*16:04:01     |                     |
| C*02:13+C*16:43        | C*02:28+C*16:01:01     |                     |
| C*02:14+C*16:27        | C*02:51+C*16:21        |                     |
| C*02:15+C*03:11:02     | C*02:42+C*03:52        |                     |
| C*02:15+C*03:22Q       | C*02:25Q+C*03:52       |                     |
| C*02:15+C*03:69        | C*02:55+C*03:52        |                     |
| C*02:15+C*03:81        | C*02:36+C*03:52        |                     |
| C*02:15+C*03:96        | C*02:53+C*03:52        |                     |
| C*02:15+C*04:29        | C*02:27:01+C*04:43     |                     |
| C*02:15+C*04:40        | C*02:57+C*04:43        |                     |
| C*02:15+C*04:64:01     | C*02:53+C*04:43        |                     |
| C*02:15+C*04:74        | C*02:46+C*04:43        |                     |
| C*02:15+C*04:113       | C*02:28+C*04:43        |                     |
| C*02:15+C*04:118       | C*02:59+C*04:43        |                     |
| C*02:16:01+C*02:27:01  | C*02:16:02+C*02:27:02  |                     |
| C*02:16:01+C*06:11     | C*02:27:02+C*06:04     |                     |
| C*02:16:02+C*03:28     | C*02:32+C*03:04:01G    |                     |
| C*02:16:02+C*03:49     | C*02:32+C*03:03:01G    |                     |
| C*02:16:02+C*03:117    | C*02:32+C*03:92        |                     |
| C*02:16:02+C*04:01:01G | C*02:32+C*04:04:01     |                     |
| C*02:16:02+C*04:01:09  | C*02:32+C*04:04:02     |                     |
| C*02:16:02+C*04:03     | C*02:32+C*04:06        |                     |
| C*02:16:02+C*04:13     | C*02:18+C*04:04:01     |                     |
| C*02:16:02+C*04:61     | C*02:18+C*04:01:01G    | C*02:32+C*04:13     |
| C*02:16:02+C*04:68     | C*02:18+C*04:14        |                     |
| C*02:16:02+C*05:01:01G | C*02:32+C*05:11        |                     |
| C*02:16:02+C*05:39     | C*02:32+C*05:27        |                     |
| C*02:16:02+C*05:68     | C*02:18+C*05:11        |                     |
| C*02:16:02+C*05:76     | C*02:18+C*05:01:01G    | C*02:32+C*05:68     |
| C*02:16:02+C*06:06     | C*02:32+C*06:04        |                     |
| C*02:16:02+C*06:11     | C*02:27:01+C*06:04     |                     |
| C*02:16:02+C*06:18     | C*02:21+C*06:04        |                     |
| C*02:16:02+C*06:20     | C*02:56+C*06:04        |                     |
| C*02:16:02+C*06:50     | C*02:20+C*06:04        |                     |
| C*02:16:02+C*06:81     | C*02:37+C*06:04        |                     |
| C*02:16:02+C*07:01:01G | C*02:18+C*07:165       |                     |
| C*02:16:02+C*07:02:01G | C*02:18+C*07:241       |                     |
| C*02:16:02+C*07:37     | C*02:32+C*07:02:01G    |                     |
| C*02:16:02+C*07:176    | C*02:32+C*07:01:01G    |                     |
| C*02:16:02+C*08:02:01G | C*02:32+C*08:04:01     |                     |
| C*02:16:02+C*08:35     | C*02:32+C*08:54        |                     |

|                        |                        |                 |
|------------------------|------------------------|-----------------|
| C*02:16:02+C*08:47     | C*02:18+C*08:07        |                 |
| C*02:16:02+C*08:57     | C*02:18+C*08:04:01     |                 |
| C*02:16:02+C*12:03:08  | C*02:55+C*16:40        |                 |
| C*02:16:02+C*12:24     | C*02:32+C*12:20        |                 |
| C*02:16:02+C*12:50     | C*02:56+C*12:20        |                 |
| C*02:16:02+C*12:51     | C*02:24+C*12:20        |                 |
| C*02:16:02+C*12:52     | C*02:50+C*12:20        |                 |
| C*02:16:02+C*12:53     | C*02:20+C*12:20        |                 |
| C*02:16:02+C*12:79     | C*02:45+C*12:20        |                 |
| C*02:16:02+C*14:02:01G | C*02:32+C*14:06        |                 |
| C*02:16:02+C*14:15     | C*02:18+C*14:06        |                 |
| C*02:16:02+C*15:08     | C*02:32+C*15:02:01G    |                 |
| C*02:16:02+C*15:31     | C*02:18+C*15:02:01G    |                 |
| C*02:16:02+C*16:35     | C*02:18+C*16:40        |                 |
| C*02:18+C*05:09:02     | C*02:32+C*05:17        |                 |
| C*02:18+C*08:02:01G    | C*02:32+C*08:57        |                 |
| C*02:18+C*12:03:08     | C*02:55+C*16:35        |                 |
| C*02:18+C*12:09        | C*02:32+C*16:48        |                 |
| C*02:18+C*14:02:01G    | C*02:32+C*14:15        |                 |
| C*02:18+C*15:08        | C*02:32+C*15:31        |                 |
| C*02:19+C*03:12        | C*02:47+C*03:03:01G    |                 |
| C*02:19+C*03:19        | C*02:47+C*03:04:01G    |                 |
| C*02:19+C*07:75        | C*02:35+C*07:29        |                 |
| C*02:19+C*07:88        | C*02:30+C*07:29        |                 |
| C*02:19+C*07:94        | C*02:20+C*07:248       |                 |
| C*02:19+C*07:123       | C*02:36+C*07:29        |                 |
| C*02:19+C*07:126       | C*02:59+C*07:29        |                 |
| C*02:19+C*07:129       | C*02:34+C*07:248       |                 |
| C*02:19+C*07:168       | C*02:56+C*07:29        |                 |
| C*02:19+C*07:173       | C*02:36+C*07:248       |                 |
| C*02:19+C*07:183       | C*02:20+C*07:29        |                 |
| C*02:19+C*07:254       | C*02:35+C*07:248       |                 |
| C*02:19+C*07:257       | C*02:61+C*07:248       |                 |
| C*02:19+C*15:02:01G    | C*02:47+C*15:06:01     |                 |
| C*02:19+C*15:02:05     | C*02:47+C*15:06:03     |                 |
| C*02:19+C*15:19        | C*02:30+C*15:06:01     |                 |
| C*02:19+C*15:58        | C*02:47+C*15:55        |                 |
| C*02:20+C*06:06        | C*02:32+C*06:50        |                 |
| C*02:20+C*06:11        | C*02:27:01+C*06:50     |                 |
| C*02:20+C*06:18        | C*02:21+C*06:50        |                 |
| C*02:20+C*06:20        | C*02:56+C*06:50        |                 |
| C*02:20+C*06:81        | C*02:37+C*06:50        |                 |
| C*02:20+C*07:75        | C*02:35+C*07:183       |                 |
| C*02:20+C*07:88        | C*02:30+C*07:183       |                 |
| C*02:20+C*07:123       | C*02:36+C*07:183       |                 |
| C*02:20+C*07:126       | C*02:59+C*07:183       |                 |
| C*02:20+C*07:129       | C*02:34+C*07:94        |                 |
| C*02:20+C*07:168       | C*02:56+C*07:183       |                 |
| C*02:20+C*07:173       | C*02:36+C*07:94        |                 |
| C*02:20+C*07:254       | C*02:35+C*07:94        |                 |
| C*02:20+C*07:257       | C*02:61+C*07:94        |                 |
| C*02:20+C*12:24        | C*02:32+C*12:53        |                 |
| C*02:20+C*12:50        | C*02:56+C*12:53        |                 |
| C*02:20+C*12:51        | C*02:24+C*12:53        |                 |
| C*02:20+C*12:52        | C*02:50+C*12:53        |                 |
| C*02:20+C*12:79        | C*02:45+C*12:53        |                 |
| C*02:21+C*06:06        | C*02:32+C*06:18        |                 |
| C*02:21+C*06:11        | C*02:27:01+C*06:18     |                 |
| C*02:21+C*06:20        | C*02:56+C*06:18        |                 |
| C*02:21+C*06:81        | C*02:37+C*06:18        |                 |
| C*02:21+C*16:15:01     | C*02:55+C*16:11        |                 |
| C*02:21+C*16:20        | C*02:36+C*16:11        |                 |
| C*02:21+C*16:49        | C*02:61+C*16:11        |                 |
| C*02:24+C*12:24        | C*02:32+C*12:51        |                 |
| C*02:24+C*12:50        | C*02:56+C*12:51        |                 |
| C*02:24+C*12:52        | C*02:50+C*12:51        |                 |
| C*02:24+C*12:79        | C*02:45+C*12:51        |                 |
| C*02:25Q+C*03:11:02    | C*02:42+C*03:22Q       |                 |
| C*02:25Q+C*03:69       | C*02:55+C*03:22Q       |                 |
| C*02:25Q+C*03:81       | C*02:36+C*03:22Q       |                 |
| C*02:25Q+C*03:96       | C*02:53+C*03:22Q       |                 |
| C*02:26:01+C*03:04:01G | C*02:26:02+C*03:04:26  |                 |
| C*02:26:01+C*03:64:01  | C*02:26:03+C*03:64:02  |                 |
| C*02:26:01+C*04:01:39  | C*02:26:02+C*04:01:01G |                 |
| C*02:26:01+C*05:58:01  | C*02:26:03+C*05:58:02  |                 |
| C*02:26:01+C*06:03:01  | C*02:26:02+C*06:03:02  |                 |
| C*02:26:01+C*07:02:10  | C*02:26:02+C*07:02:01G |                 |
| C*02:26:01+C*15:10:02  | C*02:26:02+C*15:10:01  |                 |
| C*02:26:02+C*03:03:01G | C*02:26:03+C*03:03:12  |                 |
| C*02:26:02+C*03:11:02  | C*02:26:03+C*03:11:01  |                 |
| C*02:26:02+C*06:02:10  | C*02:26:03+C*06:02:01G |                 |
| C*02:26:02+C*07:01:23  | C*02:26:03+C*07:01:01G |                 |
| C*02:26:02+C*07:02:11  | C*02:26:03+C*07:02:01G |                 |
| C*02:26:02+C*07:04:05  | C*02:26:03+C*07:04:01G |                 |
| C*02:26:02+C*16:02:02  | C*02:26:03+C*16:02:01G |                 |
| C*02:27:01+C*03:15     | C*02:49+C*03:02:01G    | C*02:55+C*03:60 |
| C*02:27:01+C*04:33     | C*02:55+C*04:11        |                 |
| C*02:27:01+C*04:40     | C*02:57+C*04:29        |                 |
| C*02:27:01+C*04:52     | C*02:49+C*04:55        |                 |
| C*02:27:01+C*04:64:01  | C*02:53+C*04:29        |                 |
| C*02:27:01+C*04:74     | C*02:46+C*04:29        |                 |
| C*02:27:01+C*04:113    | C*02:28+C*04:29        |                 |
| C*02:27:01+C*04:118    | C*02:59+C*04:29        |                 |
| C*02:27:01+C*05:05     | C*02:61+C*08:02:01G    |                 |
| C*02:27:01+C*05:12     | C*02:28+C*08:64        |                 |
| C*02:27:01+C*05:21     | C*02:35+C*08:02:01G    |                 |
| C*02:27:01+C*05:42     | C*02:49+C*08:02:01G    | C*02:55+C*08:28 |
| C*02:27:01+C*05:44:01  | C*02:53+C*08:02:01G    |                 |
| C*02:27:01+C*06:06     | C*02:32+C*06:11        |                 |
| C*02:27:01+C*06:20     | C*02:56+C*06:11        |                 |
| C*02:27:01+C*06:81     | C*02:37+C*06:11        |                 |
| C*02:27:01+C*12:03:01G | C*02:27:02+C*12:03:17  |                 |
| C*02:27:01+C*12:60     | C*02:46+C*12:03:01G    |                 |
| C*02:27:01+C*15:03     | C*02:55+C*15:07        |                 |
| C*02:27:01+C*15:26     | C*02:61+C*15:07        |                 |

C\*02:27:01+C\*15:35  
 C\*02:27:01+C\*15:57  
 C\*02:27:01+C\*16:09  
 C\*02:27:02+C\*05:44:01  
 C\*02:27:02+C\*05:79  
 C\*02:28+C\*03:37  
 C\*02:28+C\*03:38:02  
 C\*02:28+C\*03:136  
 C\*02:28+C\*03:147  
 C\*02:28+C\*04:40  
 C\*02:28+C\*04:64:01  
 C\*02:28+C\*04:74  
 C\*02:28+C\*04:118  
 C\*02:28+C\*08:54  
 C\*02:28+C\*15:03  
 C\*02:28+C\*15:26  
 C\*02:28+C\*15:35  
 C\*02:30+C\*07:75  
 C\*02:30+C\*07:123  
 C\*02:30+C\*07:126  
 C\*02:30+C\*07:168  
 C\*02:30+C\*15:02:01G  
 C\*02:32+C\*06:20  
 C\*02:32+C\*06:81  
 C\*02:32+C\*12:50  
 C\*02:32+C\*12:52  
 C\*02:32+C\*12:79  
 C\*02:33+C\*07:130  
 C\*02:34+C\*07:173  
 C\*02:34+C\*07:254  
 C\*02:34+C\*07:257  
 C\*02:34+C\*16:25  
 C\*02:35+C\*05:05  
 C\*02:35+C\*05:42  
 C\*02:35+C\*05:44:01  
 C\*02:35+C\*05:46  
 C\*02:35+C\*07:123  
 C\*02:35+C\*07:126  
 C\*02:35+C\*07:168  
 C\*02:35+C\*07:173  
 C\*02:35+C\*07:257  
 C\*02:35+C\*15:03  
 C\*02:35+C\*15:26  
 C\*02:36+C\*03:11:02  
 C\*02:36+C\*03:69  
 C\*02:36+C\*03:96  
 C\*02:36+C\*07:126  
 C\*02:36+C\*07:168  
 C\*02:36+C\*07:257  
 C\*02:36+C\*16:15:01  
 C\*02:36+C\*16:49  
 C\*02:37+C\*06:20  
 C\*02:42+C\*03:38:02  
 C\*02:42+C\*03:69  
 C\*02:42+C\*03:96  
 C\*02:42+C\*03:136  
 C\*02:42+C\*03:147  
 C\*02:44+C\*03:38:02  
 C\*02:44+C\*03:136  
 C\*02:45+C\*12:50  
 C\*02:45+C\*12:52  
 C\*02:46+C\*04:40  
 C\*02:46+C\*04:64:01  
 C\*02:46+C\*04:118  
 C\*02:49+C\*03:07  
 C\*02:49+C\*03:38:02  
 C\*02:49+C\*04:33  
 C\*02:49+C\*04:107  
 C\*02:49+C\*05:05  
 C\*02:49+C\*05:44:01  
 C\*02:49+C\*05:46  
 C\*02:49+C\*06:30  
 C\*02:49+C\*07:07  
 C\*02:49+C\*07:16  
 C\*02:49+C\*07:51  
 C\*02:49+C\*07:60  
 C\*02:49+C\*07:79  
 C\*02:49+C\*07:181  
 C\*02:49+C\*12:03:01G  
 C\*02:49+C\*12:04:02  
 C\*02:49+C\*14:02:01G  
 C\*02:49+C\*16:01:01  
 C\*02:49+C\*16:02:01G  
 C\*02:49+C\*17:01:01G  
 C\*02:50+C\*12:50  
 C\*02:53+C\*03:69  
 C\*02:53+C\*04:40  
 C\*02:53+C\*04:118  
 C\*02:53+C\*05:05  
 C\*02:53+C\*05:46  
 C\*02:53+C\*08:08  
 C\*02:53+C\*08:21  
 C\*02:55+C\*03:143  
 C\*02:55+C\*05:05  
 C\*02:55+C\*08:08  
 C\*02:55+C\*15:26  
 C\*02:55+C\*16:49  
 C\*02:56+C\*07:126  
 C\*02:57+C\*04:118  
 C\*02:60+C\*03:38:02  
 C\*03:02:01G+C\*03:03:01G  
 C\*03:02:01G+C\*03:03:04  
 C\*03:02:01G+C\*03:03:09  
 C\*03:02:01G+C\*03:03:10  
 C\*03:02:01G+C\*03:03:18

C\*02:35+C\*15:07  
 C\*02:28+C\*15:07  
 C\*02:34+C\*16:01:01  
 C\*02:51+C\*08:35  
 C\*02:51+C\*08:03:01G  
 C\*02:42+C\*03:77  
 C\*02:55+C\*03:77  
 C\*02:49+C\*03:77  
 C\*02:44+C\*03:77  
 C\*02:57+C\*04:113  
 C\*02:53+C\*04:113  
 C\*02:46+C\*04:113  
 C\*02:59+C\*04:113  
 C\*02:53+C\*08:39  
 C\*02:55+C\*15:57  
 C\*02:61+C\*15:57  
 C\*02:35+C\*15:57  
 C\*02:35+C\*07:88  
 C\*02:36+C\*07:88  
 C\*02:59+C\*07:88  
 C\*02:56+C\*07:88  
 C\*02:47+C\*15:19  
 C\*02:56+C\*06:06  
 C\*02:37+C\*06:06  
 C\*02:56+C\*12:24  
 C\*02:50+C\*12:24  
 C\*02:45+C\*12:24  
 C\*02:51+C\*07:56:02  
 C\*02:36+C\*07:129  
 C\*02:35+C\*07:129  
 C\*02:61+C\*07:129  
 C\*02:55+C\*16:09  
 C\*02:61+C\*05:21  
 C\*02:49+C\*05:21  
 C\*02:53+C\*05:21  
 C\*02:55+C\*05:21  
 C\*02:36+C\*07:75  
 C\*02:59+C\*07:75  
 C\*02:56+C\*07:75  
 C\*02:36+C\*07:254  
 C\*02:61+C\*07:254  
 C\*02:55+C\*15:35  
 C\*02:61+C\*15:35  
 C\*02:42+C\*03:81  
 C\*02:55+C\*03:81  
 C\*02:53+C\*03:81  
 C\*02:59+C\*07:123  
 C\*02:56+C\*07:123  
 C\*02:61+C\*07:173  
 C\*02:55+C\*16:20  
 C\*02:61+C\*16:20  
 C\*02:56+C\*06:81  
 C\*02:55+C\*03:37  
 C\*02:55+C\*03:11:02  
 C\*02:53+C\*03:11:02  
 C\*02:49+C\*03:37  
 C\*02:44+C\*03:37  
 C\*02:55+C\*03:147  
 C\*02:49+C\*03:147  
 C\*02:56+C\*12:79  
 C\*02:50+C\*12:79  
 C\*02:57+C\*04:74  
 C\*02:53+C\*04:74  
 C\*02:59+C\*04:74  
 C\*02:55+C\*03:45  
 C\*02:55+C\*03:136  
 C\*02:55+C\*04:01:01G  
 C\*02:55+C\*04:03  
 C\*02:61+C\*05:42  
 C\*02:53+C\*05:42  
 C\*02:55+C\*05:42  
 C\*02:55+C\*06:02:01G  
 C\*02:55+C\*07:09  
 C\*02:55+C\*07:01:01G  
 C\*02:55+C\*07:02:01G  
 C\*02:55+C\*07:109  
 C\*02:55+C\*07:56:01  
 C\*02:55+C\*07:04:01G  
 C\*02:55+C\*12:28  
 C\*02:55+C\*06:76:02  
 C\*02:55+C\*14:13  
 C\*02:55+C\*16:26  
 C\*02:55+C\*16:46  
 C\*02:55+C\*17:11  
 C\*02:56+C\*12:52  
 C\*02:55+C\*03:96  
 C\*02:57+C\*04:64:01  
 C\*02:59+C\*04:64:01  
 C\*02:61+C\*05:44:01  
 C\*02:55+C\*05:44:01  
 C\*02:60+C\*08:03:01G  
 C\*02:55+C\*08:03:01G  
 C\*02:60+C\*03:38:01  
 C\*02:61+C\*05:46  
 C\*02:60+C\*08:21  
 C\*02:61+C\*15:03  
 C\*02:61+C\*16:15:01  
 C\*02:59+C\*07:168  
 C\*02:59+C\*04:40  
 C\*02:62+C\*03:27  
 C\*03:04:01G+C\*03:132  
 C\*03:04:02+C\*03:132  
 C\*03:02:06+C\*03:03:01G  
 C\*03:04:28+C\*03:132  
 C\*03:04:04+C\*03:132

|                         |                        |                      |
|-------------------------|------------------------|----------------------|
| C*03:02:01G+C*03:04:10  | C*03:02:06+C*03:04:01G |                      |
| C*03:02:01G+C*03:09     | C*03:04:01G+C*03:139   |                      |
| C*03:02:01G+C*03:11:02  | C*03:37+C*03:132       |                      |
| C*03:02:01G+C*03:12     | C*03:19+C*03:132       |                      |
| C*03:02:01G+C*03:13     | C*03:35+C*03:132       |                      |
| C*03:02:01G+C*03:18     | C*03:64:02+C*03:132    |                      |
| C*03:02:01G+C*03:30     | C*03:65+C*03:132       |                      |
| C*03:02:01G+C*03:31     | C*03:08+C*03:132       |                      |
| C*03:02:01G+C*03:32     | C*03:04:01G+C*03:60    |                      |
| C*03:02:01G+C*03:42     | C*03:40:01+C*03:139    |                      |
| C*03:02:01G+C*03:43:01  | C*03:40:01+C*03:132    |                      |
| C*03:02:01G+C*03:43:02  | C*03:40:02+C*03:132    |                      |
| C*03:02:01G+C*03:45     | C*03:07+C*03:60        |                      |
| C*03:02:01G+C*03:49     | C*03:28+C*03:132       |                      |
| C*03:02:01G+C*03:50     | C*03:107+C*03:132      |                      |
| C*03:02:01G+C*03:55     | C*03:92+C*03:132       |                      |
| C*03:02:01G+C*03:59     | C*03:123+C*03:132      |                      |
| C*03:02:01G+C*03:69     | C*03:38:02+C*03:132    |                      |
| C*03:02:01G+C*03:77     | C*03:04:01G+C*03:36    |                      |
| C*03:02:01G+C*03:103    | C*03:90+C*03:132       |                      |
| C*03:02:01G+C*03:113    | C*03:04:19+C*03:16     |                      |
| C*03:02:01G+C*03:116:01 | C*03:03:01G+C*03:139   | C*03:09+C*03:132     |
| C*03:02:01G+C*03:127    | C*03:70+C*03:132       |                      |
| C*03:02:01G+C*03:136    | C*03:38:02+C*03:60     |                      |
| C*03:02:01G+C*03:150    | C*03:03:01G+C*03:108   |                      |
| C*03:02:01G+C*03:151    | C*03:41+C*03:132       |                      |
| C*03:02:01G+C*04:01:01G | C*03:15+C*04:11        | C*03:60+C*04:33      |
| C*03:02:01G+C*04:01:07  | C*03:02:06+C*04:01:09  |                      |
| C*03:02:01G+C*04:01:08  | C*03:02:06+C*04:01:01G |                      |
| C*03:02:01G+C*04:03     | C*03:60+C*04:107       |                      |
| C*03:02:01G+C*04:15:02  | C*03:139+C*04:17       |                      |
| C*03:02:01G+C*04:36     | C*03:60+C*04:11        |                      |
| C*03:02:01G+C*04:50     | C*03:110+C*04:01:01G   |                      |
| C*03:02:01G+C*04:52     | C*03:15+C*04:55        | C*03:132+C*04:01:01G |
| C*03:02:01G+C*04:55     | C*03:132+C*04:11       |                      |
| C*03:02:01G+C*04:113    | C*03:36+C*04:01:01G    |                      |
| C*03:02:01G+C*04:122    | C*03:36+C*04:04:01     |                      |
| C*03:02:01G+C*05:01:01G | C*03:139+C*05:05       |                      |
| C*03:02:01G+C*05:10     | C*03:40:01+C*05:31     |                      |
| C*03:02:01G+C*05:12     | C*03:36+C*05:18:01     |                      |
| C*03:02:01G+C*05:18:03  | C*03:02:06+C*05:18:01  |                      |
| C*03:02:01G+C*05:25     | C*03:60+C*05:01:01G    |                      |
| C*03:02:01G+C*05:42     | C*03:15+C*08:02:01G    | C*03:60+C*05:46      |
| C*03:02:01G+C*05:55     | C*03:132+C*05:01:01G   |                      |
| C*03:02:01G+C*05:64     | C*03:89+C*05:05        |                      |
| C*03:02:01G+C*06:02:01G | C*03:60+C*06:30        |                      |
| C*03:02:01G+C*06:53     | C*03:132+C*06:02:01G   |                      |
| C*03:02:01G+C*06:66     | C*03:95+C*06:02:01G    |                      |
| C*03:02:01G+C*06:76:02  | C*03:60+C*12:04:02     |                      |
| C*03:02:01G+C*07:01:01G | C*03:60+C*07:16        | C*03:139+C*07:257    |
| C*03:02:01G+C*07:01:14  | C*03:02:09+C*07:01:01G |                      |
| C*03:02:01G+C*07:01:26  | C*03:02:04+C*07:01:01G |                      |
| C*03:02:01G+C*07:02:01G | C*03:60+C*07:51        |                      |
| C*03:02:01G+C*07:04:01G | C*03:60+C*07:181       |                      |
| C*03:02:01G+C*07:09     | C*03:60+C*07:07        |                      |
| C*03:02:01G+C*07:25     | C*03:108+C*07:02:01G   |                      |
| C*03:02:01G+C*07:56:01  | C*03:60+C*07:79        | C*03:132+C*07:02:01G |
| C*03:02:01G+C*07:60     | C*03:132+C*07:16       |                      |
| C*03:02:01G+C*07:79     | C*03:132+C*07:51       |                      |
| C*03:02:01G+C*07:95     | C*03:36+C*07:165       |                      |
| C*03:02:01G+C*07:108    | C*03:89+C*07:257       | C*03:132+C*07:01:01G |
| C*03:02:01G+C*07:109    | C*03:60+C*07:60        |                      |
| C*03:02:01G+C*07:141:02 | C*03:02:06+C*07:141:01 |                      |
| C*03:02:01G+C*07:201    | C*03:33+C*07:01:01G    |                      |
| C*03:02:01G+C*08:02:06  | C*03:139+C*08:62       |                      |
| C*03:02:01G+C*08:28     | C*03:60+C*08:02:01G    |                      |
| C*03:02:01G+C*08:63     | C*03:95+C*08:02:01G    |                      |
| C*03:02:01G+C*12:03:16  | C*03:02:06+C*12:03:08  |                      |
| C*03:02:01G+C*12:28     | C*03:60+C*12:03:01G    |                      |
| C*03:02:01G+C*12:58     | C*03:132+C*12:03:01G   |                      |
| C*03:02:01G+C*14:02:05  | C*03:02:06+C*14:02:01G |                      |
| C*03:02:01G+C*14:10     | C*03:132+C*14:03       |                      |
| C*03:02:01G+C*14:13     | C*03:60+C*14:02:01G    |                      |
| C*03:02:01G+C*14:32     | C*03:110+C*14:02:01G   |                      |
| C*03:02:01G+C*15:02:01G | C*03:139+C*15:26       |                      |
| C*03:02:01G+C*15:02:05  | C*03:02:06+C*15:02:01G |                      |
| C*03:02:01G+C*15:06:03  | C*03:02:06+C*15:06:01  |                      |
| C*03:02:01G+C*15:12     | C*03:132+C*15:02:01G   |                      |
| C*03:02:01G+C*15:57     | C*03:36+C*15:02:01G    |                      |
| C*03:02:01G+C*16:01:01  | C*03:139+C*16:49       |                      |
| C*03:02:01G+C*16:02:03  | C*03:02:06+C*16:02:01G |                      |
| C*03:02:01G+C*16:24     | C*03:108+C*16:01:01    |                      |
| C*03:02:01G+C*16:26     | C*03:60+C*16:01:01     |                      |
| C*03:02:01G+C*16:46     | C*03:60+C*16:02:01G    |                      |
| C*03:02:01G+C*17:11     | C*03:60+C*17:01:01G    |                      |
| C*03:02:04+C*07:01:14   | C*03:02:09+C*07:01:26  |                      |
| C*03:02:04+C*07:109     | C*03:132+C*07:01:26    |                      |
| C*03:02:04+C*07:201     | C*03:33+C*07:01:26     |                      |
| C*03:02:06+C*03:09      | C*03:04:10+C*03:139    |                      |
| C*03:02:06+C*03:32      | C*03:04:10+C*03:60     |                      |
| C*03:02:06+C*03:77      | C*03:04:10+C*03:36     |                      |
| C*03:02:06+C*03:116:01  | C*03:03:09+C*03:139    |                      |
| C*03:02:06+C*03:150     | C*03:03:09+C*03:108    |                      |
| C*03:02:06+C*04:50      | C*03:110+C*04:01:08    |                      |
| C*03:02:06+C*04:52      | C*03:132+C*04:01:08    |                      |
| C*03:02:06+C*04:113     | C*03:36+C*04:01:08     |                      |
| C*03:02:06+C*05:12      | C*03:36+C*05:18:03     |                      |
| C*03:02:06+C*14:13      | C*03:60+C*14:02:05     |                      |
| C*03:02:06+C*14:32      | C*03:110+C*14:02:05    |                      |
| C*03:02:06+C*15:12      | C*03:132+C*15:02:05    |                      |
| C*03:02:06+C*15:57      | C*03:36+C*15:02:05     |                      |
| C*03:02:06+C*16:46      | C*03:60+C*16:02:03     |                      |
| C*03:02:09+C*07:109     | C*03:132+C*07:01:14    |                      |
| C*03:02:09+C*07:201     | C*03:33+C*07:01:14     |                      |
| C*03:03:01G+C*03:04:02  | C*03:03:04+C*03:04:01G |                      |

|                         |                         |                        |                    |                    |
|-------------------------|-------------------------|------------------------|--------------------|--------------------|
| C*03:03:01G+C*03:04:04  | C*03:03:18+C*03:04:01G  |                        |                    |                    |
| C*03:03:01G+C*03:04:10  | C*03:03:09+C*03:04:01G  |                        |                    |                    |
| C*03:03:01G+C*03:04:18  | C*03:03:05+C*03:04:02   |                        |                    |                    |
| C*03:03:01G+C*03:04:28  | C*03:03:10+C*03:04:01G  |                        |                    |                    |
| C*03:03:01G+C*03:05     | C*03:13+C*03:143        |                        |                    |                    |
| C*03:03:01G+C*03:08     | C*03:04:01G+C*03:31     |                        |                    |                    |
| C*03:03:01G+C*03:09     | C*03:04:01G+C*03:116:01 |                        |                    |                    |
| C*03:03:01G+C*03:11:01  | C*03:03:12+C*03:11:02   |                        |                    |                    |
| C*03:03:01G+C*03:19     | C*03:04:01G+C*03:12     |                        |                    |                    |
| C*03:03:01G+C*03:27     | C*03:05+C*03:69         |                        |                    |                    |
| C*03:03:01G+C*03:28     | C*03:04:01G+C*03:49     |                        |                    |                    |
| C*03:03:01G+C*03:29     | C*03:10+C*03:31         |                        |                    |                    |
| C*03:03:01G+C*03:35     | C*03:04:01G+C*03:13     |                        |                    |                    |
| C*03:03:01G+C*03:36     | C*03:77+C*03:132        |                        |                    |                    |
| C*03:03:01G+C*03:37     | C*03:04:01G+C*03:11:02  |                        |                    |                    |
| C*03:03:01G+C*03:38:01  | C*03:03:04+C*03:38:02   | C*03:04:02+C*03:69     |                    |                    |
| C*03:03:01G+C*03:38:02  | C*03:04:01G+C*03:69     |                        |                    |                    |
| C*03:03:01G+C*03:40:01  | C*03:04:01G+C*03:43:01  |                        |                    |                    |
| C*03:03:01G+C*03:40:02  | C*03:04:01G+C*03:43:02  | C*03:04:27+C*03:43:01  |                    |                    |
| C*03:03:01G+C*03:40:03  | C*03:03:05+C*03:40:01   |                        |                    |                    |
| C*03:03:01G+C*03:41     | C*03:04:01G+C*03:151    |                        |                    |                    |
| C*03:03:01G+C*03:42     | C*03:09+C*03:43:01      | C*03:40:01+C*03:116:01 |                    |                    |
| C*03:03:01G+C*03:60     | C*03:32+C*03:132        |                        |                    |                    |
| C*03:03:01G+C*03:64:02  | C*03:04:01G+C*03:18     |                        |                    |                    |
| C*03:03:01G+C*03:65     | C*03:04:01G+C*03:30     |                        |                    |                    |
| C*03:03:01G+C*03:70     | C*03:04:01G+C*03:127    |                        |                    |                    |
| C*03:03:01G+C*03:80     | C*03:04:07+C*03:21      |                        |                    |                    |
| C*03:03:01G+C*03:90     | C*03:04:01G+C*03:103    |                        |                    |                    |
| C*03:03:01G+C*03:92     | C*03:04:01G+C*03:55     |                        |                    |                    |
| C*03:03:01G+C*03:107    | C*03:04:01G+C*03:50     |                        |                    |                    |
| C*03:03:01G+C*03:117    | C*03:28+C*03:55         | C*03:49+C*03:92        |                    |                    |
| C*03:03:01G+C*03:123    | C*03:04:01G+C*03:59     |                        |                    |                    |
| C*03:03:01G+C*03:130    | C*03:69+C*03:140        |                        |                    |                    |
| C*03:03:01G+C*03:136    | C*03:32+C*03:69         |                        |                    |                    |
| C*03:03:01G+C*03:163    | C*03:07+C*03:69         |                        |                    |                    |
| C*03:03:01G+C*04:01:01G | C*03:03:05+C*04:01:30   | C*03:04:01G+C*04:52    | C*03:13+C*04:110   | C*03:49+C*04:04:01 |
|                         | C*03:55+C*04:08         | C*03:69+C*04:10        |                    |                    |
| C*03:03:01G+C*04:01:07  | C*03:03:09+C*04:01:09   |                        |                    |                    |
| C*03:03:01G+C*04:01:08  | C*03:03:09+C*04:01:01G  | C*03:04:10+C*04:52     |                    |                    |
| C*03:03:01G+C*04:01:09  | C*03:04:27+C*04:52      | C*03:49+C*04:04:02     |                    |                    |
| C*03:03:01G+C*04:01:11  | C*03:03:10+C*04:01:01G  | C*03:04:28+C*04:52     |                    |                    |
| C*03:03:01G+C*04:01:16  | C*03:03:13+C*04:01:01G  |                        |                    |                    |
| C*03:03:01G+C*04:01:41  | C*03:03:16+C*04:01:01G  |                        |                    |                    |
| C*03:03:01G+C*04:03     | C*03:49+C*04:06         |                        |                    |                    |
| C*03:03:01G+C*04:10     | C*03:45+C*04:55         |                        |                    |                    |
| C*03:03:01G+C*04:11     | C*03:04:01G+C*04:55     |                        |                    |                    |
| C*03:03:01G+C*04:12     | C*03:53+C*04:01:01G     |                        |                    |                    |
| C*03:03:01G+C*04:15:02  | C*03:116:01+C*04:17     |                        |                    |                    |
| C*03:03:01G+C*04:15:03  | C*03:03:04+C*04:15:02   | C*03:03:05+C*04:15:01  |                    |                    |
| C*03:03:01G+C*04:18     | C*03:30+C*04:01:01G     | C*03:65+C*04:52        |                    |                    |
| C*03:03:01G+C*04:29     | C*03:69+C*04:36         | C*03:136+C*04:55       |                    |                    |
| C*03:03:01G+C*04:33     | C*03:163+C*04:55        |                        |                    |                    |
| C*03:03:01G+C*04:36     | C*03:32+C*04:55         |                        |                    |                    |
| C*03:03:01G+C*04:42     | C*03:67+C*04:103        |                        |                    |                    |
| C*03:03:01G+C*04:43     | C*03:52+C*04:01:01G     |                        |                    |                    |
| C*03:03:01G+C*04:48     | C*03:54+C*04:52         |                        |                    |                    |
| C*03:03:01G+C*04:49     | C*03:124+C*04:01:01G    |                        |                    |                    |
| C*03:03:01G+C*04:61     | C*03:49+C*04:13         |                        |                    |                    |
| C*03:03:01G+C*04:64:01  | C*03:96+C*04:01:01G     |                        |                    |                    |
| C*03:03:01G+C*04:108    | C*03:81+C*04:23         |                        |                    |                    |
| C*03:03:01G+C*04:109    | C*03:152+C*04:01:01G    |                        |                    |                    |
| C*03:03:01G+C*04:112    | C*03:08+C*04:52         | C*03:31+C*04:01:01G    |                    |                    |
| C*03:03:01G+C*04:113    | C*03:49+C*04:122        | C*03:77+C*04:52        |                    |                    |
| C*03:03:01G+C*04:122    | C*03:55+C*04:34         |                        |                    |                    |
| C*03:03:01G+C*05:01:01G | C*03:04:01G+C*05:55     | C*03:13+C*05:10        | C*03:18+C*05:58:01 | C*03:49+C*05:11    |
|                         | C*03:55+C*05:39         | C*03:116:01+C*05:05    |                    |                    |
| C*03:03:01G+C*05:01:03  | C*03:03:04+C*05:01:01G  | C*03:04:02+C*05:55     |                    |                    |
| C*03:03:01G+C*05:01:16  | C*03:03:16+C*05:01:01G  |                        |                    |                    |
| C*03:03:01G+C*05:01:17  | C*03:04:19+C*05:55      |                        |                    |                    |
| C*03:03:01G+C*05:01:18  | C*03:03:16+C*05:01:02   |                        |                    |                    |
| C*03:03:01G+C*05:01:20  | C*03:03:05+C*05:01:02   |                        |                    |                    |
| C*03:03:01G+C*05:08     | C*03:21+C*05:27         |                        |                    |                    |
| C*03:03:01G+C*05:11     | C*03:55+C*05:27         |                        |                    |                    |
| C*03:03:01G+C*05:15     | C*03:124+C*05:01:01G    |                        |                    |                    |
| C*03:03:01G+C*05:18:03  | C*03:03:09+C*05:18:01   |                        |                    |                    |
| C*03:03:01G+C*05:22:02  | C*03:03:04+C*05:22:01   |                        |                    |                    |
| C*03:03:01G+C*05:25     | C*03:32+C*05:55         |                        |                    |                    |
| C*03:03:01G+C*05:36     | C*03:08+C*05:55         | C*03:31+C*05:01:01G    |                    |                    |
| C*03:03:01G+C*05:39     | C*03:49+C*05:27         |                        |                    |                    |
| C*03:03:01G+C*05:42     | C*03:69+C*05:25         | C*03:136+C*05:55       |                    |                    |
| C*03:03:01G+C*05:43     | C*03:67+C*05:01:01G     |                        |                    |                    |
| C*03:03:01G+C*05:44:01  | C*03:96+C*05:01:01G     |                        |                    |                    |
| C*03:03:01G+C*05:46     | C*03:38:02+C*05:55      | C*03:69+C*05:01:01G    |                    |                    |
| C*03:03:01G+C*05:59     | C*03:128+C*05:55        |                        |                    |                    |
| C*03:03:01G+C*05:76     | C*03:49+C*05:68         |                        |                    |                    |
| C*03:03:01G+C*06:02:01G | C*03:03:12+C*06:02:10   | C*03:04:01G+C*06:53    | C*03:13+C*06:14    | C*03:67+C*06:03:02 |
| C*03:03:01G+C*06:02:05  | C*03:03:19+C*06:02:01G  |                        |                    |                    |
| C*03:03:01G+C*06:02:17  | C*03:03:05+C*06:02:01G  |                        |                    |                    |
| C*03:03:01G+C*06:02:19  | C*03:03:11+C*06:02:01G  |                        |                    |                    |
| C*03:03:01G+C*06:02:21  | C*03:03:10+C*06:02:01G  | C*03:04:28+C*06:53     |                    |                    |
| C*03:03:01G+C*06:06     | C*03:49+C*06:04         |                        |                    |                    |
| C*03:03:01G+C*06:23     | C*03:128+C*06:53        |                        |                    |                    |
| C*03:03:01G+C*06:28     | C*03:67+C*06:76:01      |                        |                    |                    |
| C*03:03:01G+C*06:43     | C*03:23+C*06:53         |                        |                    |                    |
| C*03:03:01G+C*06:47     | C*03:90+C*06:53         | C*03:103+C*06:02:01G   |                    |                    |
| C*03:03:01G+C*06:69     | C*03:70+C*06:53         | C*03:127+C*06:02:01G   |                    |                    |
| C*03:03:01G+C*06:71     | C*03:104+C*06:53        |                        |                    |                    |
| C*03:03:01G+C*06:76:02  | C*03:45+C*12:58         |                        |                    |                    |
| C*03:03:01G+C*06:85     | C*03:48+C*06:53         |                        |                    |                    |
| C*03:03:01G+C*07:01:01G | C*03:03:12+C*07:01:23   | C*03:04:01G+C*07:109   | C*03:11:01+C*07:20 | C*03:13+C*07:196   |
|                         | C*03:18+C*07:263        | C*03:31+C*07:27:01     | C*03:32+C*07:60    | C*03:39+C*07:96    |
|                         | C*03:43:01+C*07:248     | C*03:55+C*07:212       | C*03:67+C*07:26    | C*03:69+C*07:40    |
|                         | C*03:116:01+C*07:257    |                        |                    |                    |
| C*03:03:01G+C*07:01:07  | C*03:03:04+C*07:01:01G  | C*03:04:02+C*07:109    | C*03:31+C*07:27:02 |                    |
| C*03:03:01G+C*07:01:08  | C*03:03:16+C*07:01:01G  |                        |                    |                    |



|                         |                        |                        |                     |                      |
|-------------------------|------------------------|------------------------|---------------------|----------------------|
| C*03:03:01G+C*07:01:12  | C*03:03:05+C*07:01:01G |                        |                     |                      |
| C*03:03:01G+C*07:01:23  | C*03:11:02+C*07:20     |                        |                     |                      |
| C*03:03:01G+C*07:02:01G | C*03:03:12+C*07:02:11  | C*03:04:01G+C*07:56:01 | C*03:13+C*07:10     | C*03:18+C*07:127     |
|                         | C*03:32+C*07:79        | C*03:43:01+C*07:29     | C*03:55+C*07:186    | C*03:69+C*07:39      |
|                         | C*03:103+C*07:27:01    | C*03:151+C*07:133      |                     |                      |
| C*03:03:01G+C*07:02:09  | C*03:04:25+C*07:56:01  |                        |                     |                      |
| C*03:03:01G+C*07:02:12  | C*03:03:05+C*07:02:01G |                        |                     |                      |
| C*03:03:01G+C*07:02:15  | C*03:04:22+C*07:56:01  |                        |                     |                      |
| C*03:03:01G+C*07:02:24  | C*03:03:02+C*07:02:01G |                        |                     |                      |
| C*03:03:01G+C*07:02:36  | C*03:03:10+C*07:02:01G | C*03:04:28+C*07:56:01  |                     |                      |
| C*03:03:01G+C*07:04:01G | C*03:03:12+C*07:04:05  |                        |                     |                      |
| C*03:03:01G+C*07:04:03  | C*03:03:04+C*07:04:01G |                        |                     |                      |
| C*03:03:01G+C*07:07     | C*03:07+C*07:60        |                        |                     |                      |
| C*03:03:01G+C*07:09     | C*03:07+C*07:109       | C*03:45+C*07:60        |                     |                      |
| C*03:03:01G+C*07:10     | C*03:103+C*07:43       |                        |                     |                      |
| C*03:03:01G+C*07:16     | C*03:04:01G+C*07:60    |                        |                     |                      |
| C*03:03:01G+C*07:19     | C*03:08+C*07:56:01     | C*03:31+C*07:02:01G    | C*03:90+C*07:109    | C*03:103+C*07:01:01G |
| C*03:03:01G+C*07:22     | C*03:21+C*07:212       |                        |                     |                      |
| C*03:03:01G+C*07:25     | C*03:150+C*07:02:01G   |                        |                     |                      |
| C*03:03:01G+C*07:27:01  | C*03:13+C*07:43        |                        |                     |                      |
| C*03:03:01G+C*07:27:02  | C*03:03:04+C*07:27:01  |                        |                     |                      |
| C*03:03:01G+C*07:37     | C*03:28+C*07:56:01     | C*03:49+C*07:02:01G    |                     |                      |
| C*03:03:01G+C*07:48     | C*03:93+C*07:56:01     |                        |                     |                      |
| C*03:03:01G+C*07:49     | C*03:69+C*07:238       | C*03:140+C*07:56:01    |                     |                      |
| C*03:03:01G+C*07:51     | C*03:04:01G+C*07:79    |                        |                     |                      |
| C*03:03:01G+C*07:73     | C*03:67+C*07:92        |                        |                     |                      |
| C*03:03:01G+C*07:76     | C*03:07+C*07:56:01     | C*03:45+C*07:79        |                     |                      |
| C*03:03:01G+C*07:92     | C*03:18+C*07:96        |                        |                     |                      |
| C*03:03:01G+C*07:123    | C*03:81+C*07:02:01G    |                        |                     |                      |
| C*03:03:01G+C*07:124    | C*03:70+C*07:109       | C*03:127+C*07:01:01G   |                     |                      |
| C*03:03:01G+C*07:131    | C*03:126+C*07:01:01G   |                        |                     |                      |
| C*03:03:01G+C*07:136    | C*03:59+C*07:02:01G    | C*03:123+C*07:56:01    |                     |                      |
| C*03:03:01G+C*07:138    | C*03:21+C*07:186       |                        |                     |                      |
| C*03:03:01G+C*07:141:02 | C*03:03:09+C*07:141:01 |                        |                     |                      |
| C*03:03:01G+C*07:155    | C*03:70+C*07:56:01     | C*03:127+C*07:02:01G   |                     |                      |
| C*03:03:01G+C*07:173    | C*03:81+C*07:01:01G    |                        |                     |                      |
| C*03:03:01G+C*07:176    | C*03:28+C*07:109       | C*03:49+C*07:01:01G    |                     |                      |
| C*03:03:01G+C*07:182    | C*03:152+C*07:01:01G   |                        |                     |                      |
| C*03:03:01G+C*07:196    | C*03:31+C*07:43        |                        |                     |                      |
| C*03:03:01G+C*07:199:02 | C*03:03:04+C*07:199:01 |                        |                     |                      |
| C*03:03:01G+C*07:240    | C*03:122+C*07:02:01G   |                        |                     |                      |
| C*03:03:01G+C*07:243    | C*03:157+C*07:56:01    |                        |                     |                      |
| C*03:03:01G+C*07:247    | C*03:69+C*07:210       | C*03:140+C*07:109      |                     |                      |
| C*03:03:01G+C*07:250    | C*03:128+C*07:109      |                        |                     |                      |
| C*03:03:01G+C*07:255    | C*03:122+C*07:01:01G   |                        |                     |                      |
| C*03:03:01G+C*07:262    | C*03:124+C*07:02:01G   |                        |                     |                      |
| C*03:03:01G+C*08:01:01G | C*03:13+C*08:44        | C*03:55+C*08:41        |                     |                      |
| C*03:03:01G+C*08:01:02  | C*03:03:04+C*08:01:01G |                        |                     |                      |
| C*03:03:01G+C*08:02:01G | C*03:49+C*08:04:01     |                        |                     |                      |
| C*03:03:01G+C*08:02:06  | C*03:03:05+C*08:02:01G | C*03:116:01+C*08:62    |                     |                      |
| C*03:03:01G+C*08:03:01G | C*03:13+C*08:61        | C*03:96+C*08:01:01G    |                     |                      |
| C*03:03:01G+C*08:05     | C*03:69+C*08:02:01G    |                        |                     |                      |
| C*03:03:01G+C*08:21     | C*03:69+C*08:01:01G    |                        |                     |                      |
| C*03:03:01G+C*08:35     | C*03:49+C*08:54        | C*03:96+C*08:64        |                     |                      |
| C*03:03:01G+C*08:37     | C*03:67+C*08:02:01G    |                        |                     |                      |
| C*03:03:01G+C*08:38     | C*03:103+C*08:03:01G   |                        |                     |                      |
| C*03:03:01G+C*08:61     | C*03:96+C*08:44        |                        |                     |                      |
| C*03:03:01G+C*12:02:01G | C*03:03:04+C*12:02:03  | C*03:69+C*12:49        |                     |                      |
| C*03:03:01G+C*12:02:06  | C*03:03:04+C*12:02:08  |                        |                     |                      |
| C*03:03:01G+C*12:02:09  | C*03:03:05+C*12:02:01G |                        |                     |                      |
| C*03:03:01G+C*12:03:01G | C*03:04:01G+C*12:58    |                        |                     |                      |
| C*03:03:01G+C*12:03:02  | C*03:03:16+C*12:03:08  |                        |                     |                      |
| C*03:03:01G+C*12:03:10  | C*03:04:19+C*12:58     |                        |                     |                      |
| C*03:03:01G+C*12:03:12  | C*03:04:08+C*12:58     |                        |                     |                      |
| C*03:03:01G+C*12:03:13  | C*03:04:29+C*12:58     |                        |                     |                      |
| C*03:03:01G+C*12:03:16  | C*03:03:09+C*12:03:08  |                        |                     |                      |
| C*03:03:01G+C*12:04:02  | C*03:07+C*12:58        | C*03:69+C*12:05        |                     |                      |
| C*03:03:01G+C*12:08     | C*03:31+C*12:02:01G    |                        |                     |                      |
| C*03:03:01G+C*12:10:01  | C*03:03:05+C*12:10:02  |                        |                     |                      |
| C*03:03:01G+C*12:11     | C*03:90+C*12:58        | C*03:103+C*12:03:01G   |                     |                      |
| C*03:03:01G+C*12:12     | C*03:70+C*12:58        | C*03:127+C*12:03:01G   |                     |                      |
| C*03:03:01G+C*12:13     | C*03:120+C*12:03:01G   |                        |                     |                      |
| C*03:03:01G+C*12:17     | C*03:53+C*12:02:01G    |                        |                     |                      |
| C*03:03:01G+C*12:24     | C*03:49+C*12:20        |                        |                     |                      |
| C*03:03:01G+C*12:25     | C*03:104+C*12:58       |                        |                     |                      |
| C*03:03:01G+C*12:26     | C*03:75+C*12:03:01G    |                        |                     |                      |
| C*03:03:01G+C*12:28     | C*03:32+C*12:58        |                        |                     |                      |
| C*03:03:01G+C*12:54     | C*03:140+C*12:58       |                        |                     |                      |
| C*03:03:01G+C*12:61     | C*03:30+C*12:03:01G    | C*03:65+C*12:58        |                     |                      |
| C*03:03:01G+C*12:81     | C*03:08+C*12:58        | C*03:31+C*12:03:01G    |                     |                      |
| C*03:03:01G+C*14:02:01G | C*03:49+C*14:06        | C*03:55+C*14:20        |                     |                      |
| C*03:03:01G+C*14:02:03  | C*03:64:01+C*14:10     |                        |                     |                      |
| C*03:03:01G+C*14:02:05  | C*03:03:09+C*14:02:01G |                        |                     |                      |
| C*03:03:01G+C*14:03     | C*03:04:01G+C*14:10    |                        |                     |                      |
| C*03:03:01G+C*14:19     | C*03:88+C*14:02:01G    |                        |                     |                      |
| C*03:03:01G+C*15:02:01G | C*03:04:01G+C*15:12    | C*03:12+C*15:06:01     | C*03:31+C*15:17     | C*03:55+C*15:15      |
|                         | C*03:116:01+C*15:26    |                        |                     |                      |
| C*03:03:01G+C*15:02:05  | C*03:03:09+C*15:02:01G | C*03:04:10+C*15:12     | C*03:12+C*15:06:03  |                      |
| C*03:03:01G+C*15:03     | C*03:31+C*15:16        | C*03:38:02+C*15:12     | C*03:69+C*15:02:01G |                      |
| C*03:03:01G+C*15:04     | C*03:43:01+C*15:40     |                        |                     |                      |
| C*03:03:01G+C*15:06:01  | C*03:81+C*15:40        |                        |                     |                      |
| C*03:03:01G+C*15:06:02  | C*03:03:11+C*15:06:01  |                        |                     |                      |
| C*03:03:01G+C*15:06:03  | C*03:03:09+C*15:06:01  |                        |                     |                      |
| C*03:03:01G+C*15:08     | C*03:28+C*15:12        | C*03:49+C*15:02:01G    |                     |                      |
| C*03:03:01G+C*15:09     | C*03:43:01+C*15:06:01  | C*03:81+C*15:04        |                     |                      |
| C*03:03:01G+C*15:10:02  | C*03:64:01+C*15:12     |                        |                     |                      |
| C*03:03:01G+C*15:16     | C*03:69+C*15:17        |                        |                     |                      |
| C*03:03:01G+C*15:18     | C*03:141+C*15:02:01G   |                        |                     |                      |
| C*03:03:01G+C*15:22     | C*03:13+C*15:05:01G    |                        |                     |                      |
| C*03:03:01G+C*15:39     | C*03:51+C*15:12        | C*03:161+C*15:15       |                     |                      |
| C*03:03:01G+C*15:45     | C*03:70+C*15:12        | C*03:127+C*15:02:01G   |                     |                      |
| C*03:03:01G+C*15:46     | C*03:103+C*15:05:01G   |                        |                     |                      |
| C*03:03:01G+C*15:53     | C*03:88+C*15:02:01G    |                        |                     |                      |
| C*03:03:01G+C*15:57     | C*03:77+C*15:12        |                        |                     |                      |
| C*03:03:01G+C*15:58     | C*03:12+C*15:55        | C*03:17+C*15:12        |                     |                      |

|                         |                        |
|-------------------------|------------------------|
| C*03:03:01G+C*16:01:01  | C*03:116:01+C*16:49    |
| C*03:03:01G+C*16:01:04  | C*03:03:19+C*16:01:01  |
| C*03:03:01G+C*16:02:01G | C*03:03:12+C*16:02:02  |
| C*03:03:01G+C*16:02:03  | C*03:03:09+C*16:02:01G |
| C*03:03:01G+C*16:06     | C*03:103+C*16:07:02    |
| C*03:03:01G+C*16:07:01  | C*03:03:04+C*16:07:02  |
| C*03:03:01G+C*16:15:01  | C*03:69+C*16:01:01     |
| C*03:03:01G+C*16:20     | C*03:81+C*16:01:01     |
| C*03:03:01G+C*16:21     | C*03:67+C*16:01:01     |
| C*03:03:01G+C*16:22     | C*03:59+C*16:01:01     |
| C*03:03:01G+C*16:24     | C*03:150+C*16:01:01    |
| C*03:03:01G+C*16:25     | C*03:69+C*16:02:01G    |
| C*03:03:01G+C*16:28     | C*03:141+C*16:01:01    |
| C*03:03:01G+C*16:32     | C*03:83+C*16:01:01     |
| C*03:03:01G+C*17:01:02  | C*03:03:05+C*17:01:01G |
| C*03:03:01G+C*17:01:05  | C*03:03:03+C*17:01:01G |
| C*03:03:02+C*07:02:12   | C*03:03:05+C*07:02:24  |
| C*03:03:02+C*07:02:36   | C*03:03:10+C*07:02:24  |
| C*03:03:02+C*07:19      | C*03:31+C*07:02:24     |
| C*03:03:02+C*07:25      | C*03:150+C*07:02:24    |
| C*03:03:02+C*07:37      | C*03:49+C*07:02:24     |
| C*03:03:02+C*07:123     | C*03:81+C*07:02:24     |
| C*03:03:02+C*07:136     | C*03:59+C*07:02:24     |
| C*03:03:02+C*07:155     | C*03:127+C*07:02:24    |
| C*03:03:02+C*07:240     | C*03:122+C*07:02:24    |
| C*03:03:02+C*07:262     | C*03:124+C*07:02:24    |
| C*03:03:03+C*17:01:02   | C*03:03:05+C*17:01:05  |
| C*03:03:04+C*03:04:04   | C*03:03:18+C*03:04:02  |
| C*03:03:04+C*03:04:10   | C*03:03:09+C*03:04:02  |
| C*03:03:04+C*03:04:28   | C*03:03:10+C*03:04:02  |
| C*03:03:04+C*03:08      | C*03:04:02+C*03:31     |
| C*03:03:04+C*03:09      | C*03:04:02+C*03:116:01 |
| C*03:03:04+C*03:19      | C*03:04:02+C*03:12     |
| C*03:03:04+C*03:28      | C*03:04:02+C*03:49     |
| C*03:03:04+C*03:35      | C*03:04:02+C*03:13     |
| C*03:03:04+C*03:37      | C*03:04:02+C*03:11:02  |
| C*03:03:04+C*03:40:01   | C*03:04:02+C*03:43:01  |
| C*03:03:04+C*03:40:02   | C*03:04:02+C*03:43:02  |
| C*03:03:04+C*03:40:03   | C*03:04:18+C*03:43:01  |
| C*03:03:04+C*03:41      | C*03:04:02+C*03:151    |
| C*03:03:04+C*03:64:02   | C*03:04:02+C*03:18     |
| C*03:03:04+C*03:65      | C*03:04:02+C*03:30     |
| C*03:03:04+C*03:70      | C*03:04:02+C*03:127    |
| C*03:03:04+C*03:90      | C*03:04:02+C*03:103    |
| C*03:03:04+C*03:92      | C*03:04:02+C*03:55     |
| C*03:03:04+C*03:107     | C*03:04:02+C*03:50     |
| C*03:03:04+C*03:123     | C*03:04:02+C*03:59     |
| C*03:03:04+C*04:01:01G  | C*03:04:02+C*04:52     |
| C*03:03:04+C*04:01:02   | C*03:04:06+C*04:52     |
| C*03:03:04+C*04:11      | C*03:04:02+C*04:55     |
| C*03:03:04+C*05:01:16   | C*03:03:16+C*05:01:03  |
| C*03:03:04+C*05:15      | C*03:124+C*05:01:03    |
| C*03:03:04+C*05:36      | C*03:31+C*05:01:03     |
| C*03:03:04+C*05:43      | C*03:67+C*05:01:03     |
| C*03:03:04+C*05:44:01   | C*03:96+C*05:01:03     |
| C*03:03:04+C*05:46      | C*03:38:01+C*05:55     |
| C*03:03:04+C*05:81      | C*03:125+C*05:55       |
| C*03:03:04+C*06:02:01G  | C*03:04:02+C*06:53     |
| C*03:03:04+C*06:02:17   | C*03:04:18+C*06:53     |
| C*03:03:04+C*06:87      | C*03:125+C*06:53       |
| C*03:03:04+C*07:01:08   | C*03:03:16+C*07:01:07  |
| C*03:03:04+C*07:01:12   | C*03:03:05+C*07:01:07  |
| C*03:03:04+C*07:02:01G  | C*03:04:02+C*07:56:01  |
| C*03:03:04+C*07:02:12   | C*03:04:18+C*07:56:01  |
| C*03:03:04+C*07:16      | C*03:04:02+C*07:60     |
| C*03:03:04+C*07:19      | C*03:103+C*07:01:07    |
| C*03:03:04+C*07:24      | C*03:125+C*07:109      |
| C*03:03:04+C*07:51      | C*03:04:02+C*07:79     |
| C*03:03:04+C*07:124     | C*03:127+C*07:01:07    |
| C*03:03:04+C*07:131     | C*03:126+C*07:01:07    |
| C*03:03:04+C*07:173     | C*03:81+C*07:01:07     |
| C*03:03:04+C*07:176     | C*03:49+C*07:01:07     |
| C*03:03:04+C*07:182     | C*03:152+C*07:01:07    |
| C*03:03:04+C*07:218     | C*03:125+C*07:56:01    |
| C*03:03:04+C*07:255     | C*03:122+C*07:01:07    |
| C*03:03:04+C*08:03:01G  | C*03:96+C*08:01:02     |
| C*03:03:04+C*08:21      | C*03:69+C*08:01:02     |
| C*03:03:04+C*12:03:01G  | C*03:04:02+C*12:58     |
| C*03:03:04+C*12:45      | C*03:125+C*12:58       |
| C*03:03:04+C*14:03      | C*03:04:02+C*14:10     |
| C*03:03:04+C*15:02:01G  | C*03:04:02+C*15:12     |
| C*03:03:04+C*15:03      | C*03:38:01+C*15:12     |
| C*03:03:04+C*16:06      | C*03:103+C*16:07:01    |
| C*03:03:05+C*03:38:01   | C*03:04:18+C*03:69     |
| C*03:03:05+C*03:42      | C*03:40:03+C*03:116:01 |
| C*03:03:05+C*05:01:03   | C*03:04:18+C*05:55     |
| C*03:03:05+C*05:01:18   | C*03:03:16+C*05:01:20  |
| C*03:03:05+C*06:02:05   | C*03:03:19+C*06:02:17  |
| C*03:03:05+C*06:02:19   | C*03:03:11+C*06:02:17  |
| C*03:03:05+C*06:02:21   | C*03:03:10+C*06:02:17  |
| C*03:03:05+C*06:47      | C*03:103+C*06:02:17    |
| C*03:03:05+C*06:69      | C*03:127+C*06:02:17    |
| C*03:03:05+C*07:01:08   | C*03:03:16+C*07:01:12  |
| C*03:03:05+C*07:02:36   | C*03:03:10+C*07:02:12  |
| C*03:03:05+C*07:19      | C*03:31+C*07:02:12     |
| C*03:03:05+C*07:25      | C*03:150+C*07:02:12    |
| C*03:03:05+C*07:37      | C*03:49+C*07:02:12     |
| C*03:03:05+C*07:123     | C*03:81+C*07:02:12     |
| C*03:03:05+C*07:124     | C*03:127+C*07:01:12    |
| C*03:03:05+C*07:131     | C*03:126+C*07:01:12    |
| C*03:03:05+C*07:136     | C*03:59+C*07:02:12     |
| C*03:03:05+C*07:155     | C*03:127+C*07:02:12    |
| C*03:03:05+C*07:173     | C*03:81+C*07:01:12     |
| C*03:03:05+C*07:176     | C*03:49+C*07:01:12     |
| C*03:03:05+C*07:182     | C*03:152+C*07:01:12    |

C\*03:69+C\*05:01:03

C\*03:04:18+C\*07:109  
C\*03:103+C\*07:27:02

C\*03:103+C\*07:01:12

|                        |                        |
|------------------------|------------------------|
| C*03:03:05+C*07:240    | C*03:122+C*07:02:12    |
| C*03:03:05+C*07:255    | C*03:122+C*07:01:12    |
| C*03:03:05+C*07:262    | C*03:124+C*07:02:12    |
| C*03:03:05+C*08:05     | C*03:69+C*08:02:06     |
| C*03:03:05+C*08:37     | C*03:67+C*08:02:06     |
| C*03:03:05+C*12:08     | C*03:31+C*12:02:09     |
| C*03:03:05+C*12:17     | C*03:53+C*12:02:09     |
| C*03:03:09+C*03:04:04  | C*03:03:18+C*03:04:10  |
| C*03:03:09+C*03:04:28  | C*03:03:10+C*03:04:10  |
| C*03:03:09+C*03:08     | C*03:04:10+C*03:31     |
| C*03:03:09+C*03:09     | C*03:04:10+C*03:116:01 |
| C*03:03:09+C*03:19     | C*03:04:10+C*03:12     |
| C*03:03:09+C*03:28     | C*03:04:10+C*03:49     |
| C*03:03:09+C*03:35     | C*03:04:10+C*03:13     |
| C*03:03:09+C*03:37     | C*03:04:10+C*03:11:02  |
| C*03:03:09+C*03:38:02  | C*03:04:10+C*03:69     |
| C*03:03:09+C*03:40:01  | C*03:04:10+C*03:43:01  |
| C*03:03:09+C*03:40:02  | C*03:04:10+C*03:43:02  |
| C*03:03:09+C*03:41     | C*03:04:10+C*03:151    |
| C*03:03:09+C*03:64:02  | C*03:04:10+C*03:18     |
| C*03:03:09+C*03:65     | C*03:04:10+C*03:30     |
| C*03:03:09+C*03:70     | C*03:04:10+C*03:127    |
| C*03:03:09+C*03:90     | C*03:04:10+C*03:103    |
| C*03:03:09+C*03:92     | C*03:04:10+C*03:55     |
| C*03:03:09+C*03:107    | C*03:04:10+C*03:50     |
| C*03:03:09+C*03:123    | C*03:04:10+C*03:59     |
| C*03:03:09+C*04:01:11  | C*03:03:10+C*04:01:08  |
| C*03:03:09+C*04:01:16  | C*03:03:13+C*04:01:08  |
| C*03:03:09+C*04:01:41  | C*03:03:16+C*04:01:08  |
| C*03:03:09+C*04:11     | C*03:04:10+C*04:55     |
| C*03:03:09+C*04:12     | C*03:53+C*04:01:08     |
| C*03:03:09+C*04:18     | C*03:30+C*04:01:08     |
| C*03:03:09+C*04:43     | C*03:52+C*04:01:08     |
| C*03:03:09+C*04:49     | C*03:124+C*04:01:08    |
| C*03:03:09+C*04:64:01  | C*03:96+C*04:01:08     |
| C*03:03:09+C*04:109    | C*03:152+C*04:01:08    |
| C*03:03:09+C*04:112    | C*03:31+C*04:01:08     |
| C*03:03:09+C*05:01:01G | C*03:04:10+C*05:55     |
| C*03:03:09+C*06:02:01G | C*03:04:10+C*06:53     |
| C*03:03:09+C*07:01:01G | C*03:04:10+C*07:109    |
| C*03:03:09+C*07:02:01G | C*03:04:10+C*07:56:01  |
| C*03:03:09+C*07:16     | C*03:04:10+C*07:60     |
| C*03:03:09+C*07:51     | C*03:04:10+C*07:79     |
| C*03:03:09+C*12:03:01G | C*03:04:10+C*12:58     |
| C*03:03:09+C*12:03:02  | C*03:03:16+C*12:03:16  |
| C*03:03:09+C*14:03     | C*03:04:10+C*14:10     |
| C*03:03:09+C*14:19     | C*03:88+C*14:02:05     |
| C*03:03:09+C*15:03     | C*03:69+C*15:02:05     |
| C*03:03:09+C*15:06:02  | C*03:03:11+C*15:06:03  |
| C*03:03:09+C*15:08     | C*03:49+C*15:02:05     |
| C*03:03:09+C*15:09     | C*03:43:01+C*15:06:03  |
| C*03:03:09+C*15:18     | C*03:141+C*15:02:05    |
| C*03:03:09+C*15:45     | C*03:127+C*15:02:05    |
| C*03:03:09+C*15:53     | C*03:88+C*15:02:05     |
| C*03:03:09+C*16:25     | C*03:69+C*16:02:03     |
| C*03:03:10+C*03:04:04  | C*03:03:18+C*03:04:28  |
| C*03:03:10+C*03:08     | C*03:04:28+C*03:31     |
| C*03:03:10+C*03:09     | C*03:04:28+C*03:116:01 |
| C*03:03:10+C*03:19     | C*03:04:28+C*03:12     |
| C*03:03:10+C*03:28     | C*03:04:28+C*03:49     |
| C*03:03:10+C*03:35     | C*03:04:28+C*03:13     |
| C*03:03:10+C*03:37     | C*03:04:28+C*03:11:02  |
| C*03:03:10+C*03:38:02  | C*03:04:28+C*03:69     |
| C*03:03:10+C*03:40:01  | C*03:04:28+C*03:43:01  |
| C*03:03:10+C*03:40:02  | C*03:04:28+C*03:43:02  |
| C*03:03:10+C*03:41     | C*03:04:28+C*03:151    |
| C*03:03:10+C*03:64:02  | C*03:04:28+C*03:18     |
| C*03:03:10+C*03:65     | C*03:04:28+C*03:30     |
| C*03:03:10+C*03:70     | C*03:04:28+C*03:127    |
| C*03:03:10+C*03:90     | C*03:04:28+C*03:103    |
| C*03:03:10+C*03:92     | C*03:04:28+C*03:55     |
| C*03:03:10+C*03:107    | C*03:04:28+C*03:50     |
| C*03:03:10+C*03:123    | C*03:04:28+C*03:59     |
| C*03:03:10+C*04:01:16  | C*03:03:13+C*04:01:11  |
| C*03:03:10+C*04:01:41  | C*03:03:16+C*04:01:11  |
| C*03:03:10+C*04:11     | C*03:04:28+C*04:55     |
| C*03:03:10+C*04:12     | C*03:53+C*04:01:11     |
| C*03:03:10+C*04:18     | C*03:30+C*04:01:11     |
| C*03:03:10+C*04:43     | C*03:52+C*04:01:11     |
| C*03:03:10+C*04:49     | C*03:124+C*04:01:11    |
| C*03:03:10+C*04:64:01  | C*03:96+C*04:01:11     |
| C*03:03:10+C*04:109    | C*03:152+C*04:01:11    |
| C*03:03:10+C*04:112    | C*03:31+C*04:01:11     |
| C*03:03:10+C*05:01:01G | C*03:04:28+C*05:55     |
| C*03:03:10+C*06:02:05  | C*03:03:19+C*06:02:21  |
| C*03:03:10+C*06:02:19  | C*03:03:11+C*06:02:21  |
| C*03:03:10+C*06:47     | C*03:103+C*06:02:21    |
| C*03:03:10+C*06:69     | C*03:127+C*06:02:21    |
| C*03:03:10+C*07:01:01G | C*03:04:28+C*07:109    |
| C*03:03:10+C*07:16     | C*03:04:28+C*07:60     |
| C*03:03:10+C*07:19     | C*03:31+C*07:02:36     |
| C*03:03:10+C*07:25     | C*03:150+C*07:02:36    |
| C*03:03:10+C*07:37     | C*03:49+C*07:02:36     |
| C*03:03:10+C*07:51     | C*03:04:28+C*07:79     |
| C*03:03:10+C*07:123    | C*03:81+C*07:02:36     |
| C*03:03:10+C*07:136    | C*03:59+C*07:02:36     |
| C*03:03:10+C*07:155    | C*03:127+C*07:02:36    |
| C*03:03:10+C*07:240    | C*03:122+C*07:02:36    |
| C*03:03:10+C*07:262    | C*03:124+C*07:02:36    |
| C*03:03:10+C*12:03:01G | C*03:04:28+C*12:58     |
| C*03:03:10+C*14:03     | C*03:04:28+C*14:10     |
| C*03:03:10+C*15:02:01G | C*03:04:28+C*15:12     |
| C*03:03:11+C*06:02:05  | C*03:03:19+C*06:02:19  |
| C*03:03:11+C*06:47     | C*03:103+C*06:02:19    |
| C*03:03:11+C*06:69     | C*03:127+C*06:02:19    |

|                         |                        |                       |                  |                    |
|-------------------------|------------------------|-----------------------|------------------|--------------------|
| C*03:03:11+C*15:02:01G  | C*03:12+C*15:06:02     |                       |                  |                    |
| C*03:03:11+C*15:09      | C*03:43:01+C*15:06:02  |                       |                  |                    |
| C*03:03:12+C*03:37      | C*03:04:01G+C*03:11:01 |                       |                  |                    |
| C*03:03:12+C*04:103     | C*03:18+C*04:16        |                       |                  |                    |
| C*03:03:12+C*15:10:01   | C*03:18+C*15:02:01G    | C*03:64:02+C*15:12    |                  |                    |
| C*03:03:13+C*04:01:41   | C*03:03:16+C*04:01:16  |                       |                  |                    |
| C*03:03:13+C*04:12      | C*03:53+C*04:01:16     |                       |                  |                    |
| C*03:03:13+C*04:18      | C*03:30+C*04:01:16     |                       |                  |                    |
| C*03:03:13+C*04:43      | C*03:52+C*04:01:16     |                       |                  |                    |
| C*03:03:13+C*04:49      | C*03:124+C*04:01:16    |                       |                  |                    |
| C*03:03:13+C*04:64:01   | C*03:96+C*04:01:16     |                       |                  |                    |
| C*03:03:13+C*04:109     | C*03:152+C*04:01:16    |                       |                  |                    |
| C*03:03:13+C*04:112     | C*03:31+C*04:01:16     |                       |                  |                    |
| C*03:03:16+C*04:12      | C*03:53+C*04:01:41     |                       |                  |                    |
| C*03:03:16+C*04:18      | C*03:30+C*04:01:41     |                       |                  |                    |
| C*03:03:16+C*04:43      | C*03:52+C*04:01:41     |                       |                  |                    |
| C*03:03:16+C*04:49      | C*03:124+C*04:01:41    |                       |                  |                    |
| C*03:03:16+C*04:64:01   | C*03:96+C*04:01:41     |                       |                  |                    |
| C*03:03:16+C*04:109     | C*03:152+C*04:01:41    |                       |                  |                    |
| C*03:03:16+C*04:112     | C*03:31+C*04:01:41     |                       |                  |                    |
| C*03:03:16+C*05:15      | C*03:124+C*05:01:16    |                       |                  |                    |
| C*03:03:16+C*05:36      | C*03:31+C*05:01:16     |                       |                  |                    |
| C*03:03:16+C*05:43      | C*03:67+C*05:01:16     |                       |                  |                    |
| C*03:03:16+C*05:44:01   | C*03:96+C*05:01:16     |                       |                  |                    |
| C*03:03:16+C*05:46      | C*03:69+C*05:01:16     |                       |                  |                    |
| C*03:03:16+C*07:19      | C*03:103+C*07:01:08    |                       |                  |                    |
| C*03:03:16+C*07:124     | C*03:127+C*07:01:08    |                       |                  |                    |
| C*03:03:16+C*07:131     | C*03:126+C*07:01:08    |                       |                  |                    |
| C*03:03:16+C*07:173     | C*03:81+C*07:01:08     |                       |                  |                    |
| C*03:03:16+C*07:176     | C*03:49+C*07:01:08     |                       |                  |                    |
| C*03:03:16+C*07:182     | C*03:152+C*07:01:08    |                       |                  |                    |
| C*03:03:16+C*07:255     | C*03:122+C*07:01:08    |                       |                  |                    |
| C*03:03:18+C*03:08      | C*03:04:04+C*03:31     |                       |                  |                    |
| C*03:03:18+C*03:09      | C*03:04:04+C*03:116:01 |                       |                  |                    |
| C*03:03:18+C*03:19      | C*03:04:04+C*03:12     |                       |                  |                    |
| C*03:03:18+C*03:28      | C*03:04:04+C*03:49     |                       |                  |                    |
| C*03:03:18+C*03:35      | C*03:04:04+C*03:13     |                       |                  |                    |
| C*03:03:18+C*03:37      | C*03:04:04+C*03:11:02  |                       |                  |                    |
| C*03:03:18+C*03:38:02   | C*03:04:04+C*03:69     |                       |                  |                    |
| C*03:03:18+C*03:40:01   | C*03:04:04+C*03:43:01  |                       |                  |                    |
| C*03:03:18+C*03:40:02   | C*03:04:04+C*03:43:02  |                       |                  |                    |
| C*03:03:18+C*03:41      | C*03:04:04+C*03:151    |                       |                  |                    |
| C*03:03:18+C*03:64:02   | C*03:04:04+C*03:18     |                       |                  |                    |
| C*03:03:18+C*03:65      | C*03:04:04+C*03:30     |                       |                  |                    |
| C*03:03:18+C*03:70      | C*03:04:04+C*03:127    |                       |                  |                    |
| C*03:03:18+C*03:90      | C*03:04:04+C*03:103    |                       |                  |                    |
| C*03:03:18+C*03:92      | C*03:04:04+C*03:55     |                       |                  |                    |
| C*03:03:18+C*03:107     | C*03:04:04+C*03:50     |                       |                  |                    |
| C*03:03:18+C*03:123     | C*03:04:04+C*03:59     |                       |                  |                    |
| C*03:03:18+C*04:01:01G  | C*03:04:04+C*04:52     |                       |                  |                    |
| C*03:03:18+C*04:11      | C*03:04:04+C*04:55     |                       |                  |                    |
| C*03:03:18+C*05:01:01G  | C*03:04:04+C*05:55     |                       |                  |                    |
| C*03:03:18+C*06:02:01G  | C*03:04:04+C*06:53     |                       |                  |                    |
| C*03:03:18+C*07:01:01G  | C*03:04:04+C*07:109    |                       |                  |                    |
| C*03:03:18+C*07:02:01G  | C*03:04:04+C*07:56:01  |                       |                  |                    |
| C*03:03:18+C*07:16      | C*03:04:04+C*07:60     |                       |                  |                    |
| C*03:03:18+C*07:51      | C*03:04:04+C*07:79     |                       |                  |                    |
| C*03:03:18+C*12:03:01G  | C*03:04:04+C*12:58     |                       |                  |                    |
| C*03:03:18+C*14:03      | C*03:04:04+C*14:10     |                       |                  |                    |
| C*03:03:18+C*15:02:01G  | C*03:04:04+C*15:12     |                       |                  |                    |
| C*03:03:19+C*06:47      | C*03:103+C*06:02:05    |                       |                  |                    |
| C*03:03:19+C*06:69      | C*03:127+C*06:02:05    |                       |                  |                    |
| C*03:03:19+C*16:15:01   | C*03:69+C*16:01:04     |                       |                  |                    |
| C*03:03:19+C*16:20      | C*03:81+C*16:01:04     |                       |                  |                    |
| C*03:03:19+C*16:21      | C*03:67+C*16:01:04     |                       |                  |                    |
| C*03:03:19+C*16:22      | C*03:59+C*16:01:04     |                       |                  |                    |
| C*03:03:19+C*16:24      | C*03:150+C*16:01:04    |                       |                  |                    |
| C*03:03:19+C*16:28      | C*03:141+C*16:01:04    |                       |                  |                    |
| C*03:03:19+C*16:32      | C*03:83+C*16:01:04     |                       |                  |                    |
| C*03:04:01G+C*03:05     | C*03:35+C*03:143       |                       |                  |                    |
| C*03:04:01G+C*03:07     | C*03:10+C*03:140       |                       |                  |                    |
| C*03:04:01G+C*03:15     | C*03:60+C*03:163       |                       |                  |                    |
| C*03:04:01G+C*03:27     | C*03:05+C*03:38:02     |                       |                  |                    |
| C*03:04:01G+C*03:29     | C*03:08+C*03:10        |                       |                  |                    |
| C*03:04:01G+C*03:38:01  | C*03:04:02+C*03:38:02  |                       |                  |                    |
| C*03:04:01G+C*03:40:02  | C*03:04:27+C*03:40:01  |                       |                  |                    |
| C*03:04:01G+C*03:42     | C*03:09+C*03:40:01     |                       |                  |                    |
| C*03:04:01G+C*03:45     | C*03:07+C*03:32        |                       |                  |                    |
| C*03:04:01G+C*03:71     | C*03:17+C*03:42        |                       |                  |                    |
| C*03:04:01G+C*03:117    | C*03:28+C*03:92        |                       |                  |                    |
| C*03:04:01G+C*03:130    | C*03:38:02+C*03:140    |                       |                  |                    |
| C*03:04:01G+C*03:136    | C*03:32+C*03:38:02     |                       |                  |                    |
| C*03:04:01G+C*03:161    | C*03:51+C*03:55        |                       |                  |                    |
| C*03:04:01G+C*03:163    | C*03:07+C*03:38:02     | C*03:10+C*03:130      |                  |                    |
| C*03:04:01G+C*04:01:01G | C*03:04:25+C*04:01:23  | C*03:04:26+C*04:01:39 | C*03:07+C*04:29  | C*03:10+C*04:114   |
|                         | C*03:28+C*04:04:01     | C*03:32+C*04:33       | C*03:35+C*04:110 | C*03:38:02+C*04:10 |
|                         | C*03:92+C*04:08        | C*03:98+C*04:85       | C*03:163+C*04:36 |                    |
|                         | C*03:04:10+C*04:01:09  | C*03:04:27+C*04:01:08 |                  |                    |
| C*03:04:01G+C*04:01:08  | C*03:04:10+C*04:01:01G |                       |                  |                    |
| C*03:04:01G+C*04:01:09  | C*03:04:27+C*04:01:01G | C*03:28+C*04:04:02    |                  |                    |
| C*03:04:01G+C*04:01:11  | C*03:04:28+C*04:01:01G |                       |                  |                    |
| C*03:04:01G+C*04:03     | C*03:28+C*04:06        | C*03:32+C*04:107      |                  |                    |
| C*03:04:01G+C*04:04:02  | C*03:04:27+C*04:04:01  |                       |                  |                    |
| C*03:04:01G+C*04:07     | C*03:26+C*04:89        |                       |                  |                    |
| C*03:04:01G+C*04:10     | C*03:07+C*04:36        | C*03:45+C*04:11       |                  |                    |
| C*03:04:01G+C*04:15:02  | C*03:09+C*04:17        |                       |                  |                    |
| C*03:04:01G+C*04:15:03  | C*03:04:02+C*04:15:02  |                       |                  |                    |
| C*03:04:01G+C*04:18     | C*03:65+C*04:01:01G    |                       |                  |                    |
| C*03:04:01G+C*04:29     | C*03:38:02+C*04:36     | C*03:136+C*04:11      |                  |                    |
| C*03:04:01G+C*04:32     | C*03:34+C*04:08        |                       |                  |                    |
| C*03:04:01G+C*04:33     | C*03:163+C*04:11       |                       |                  |                    |
| C*03:04:01G+C*04:36     | C*03:32+C*04:11        |                       |                  |                    |
| C*03:04:01G+C*04:48     | C*03:54+C*04:01:01G    |                       |                  |                    |
| C*03:04:01G+C*04:58     | C*03:162+C*04:04:01    |                       |                  |                    |
| C*03:04:01G+C*04:61     | C*03:28+C*04:13        |                       |                  |                    |

|                         |                        |                        |                       |                       |
|-------------------------|------------------------|------------------------|-----------------------|-----------------------|
| C*03:04:01G+C*04:94:02  | C*03:04:27+C*04:94:01  |                        |                       |                       |
| C*03:04:01G+C*04:112    | C*03:08+C*04:01:01G    | C*03:29+C*04:114       |                       |                       |
| C*03:04:01G+C*04:113    | C*03:28+C*04:122       | C*03:77+C*04:01:01G    | C*03:117+C*04:34      |                       |
| C*03:04:01G+C*04:114    | C*03:130+C*04:36       | C*03:140+C*04:29       |                       |                       |
| C*03:04:01G+C*04:122    | C*03:77+C*04:04:01     | C*03:92+C*04:34        |                       |                       |
| C*03:04:01G+C*05:01:01G | C*03:04:25+C*05:01:12  | C*03:07+C*08:02:01G    | C*03:09+C*05:05       | C*03:10+C*05:20       |
|                         | C*03:26+C*05:47        | C*03:28+C*05:11        | C*03:35+C*05:10       | C*03:64:01+C*05:58:02 |
|                         | C*03:64:02+C*05:58:01  | C*03:92+C*05:39        | C*03:117+C*05:27      |                       |
| C*03:04:01G+C*05:01:02  | C*03:07+C*08:02:04     |                        |                       |                       |
| C*03:04:01G+C*05:01:03  | C*03:04:02+C*05:01:01G |                        |                       |                       |
| C*03:04:01G+C*05:01:17  | C*03:04:19+C*05:01:01G |                        |                       |                       |
| C*03:04:01G+C*05:08     | C*03:07+C*08:29        |                        |                       |                       |
| C*03:04:01G+C*05:09:01  | C*03:07+C*08:15:01     |                        |                       |                       |
| C*03:04:01G+C*05:09:02  | C*03:04:19+C*05:09:01  | C*03:07+C*08:15:02     |                       |                       |
| C*03:04:01G+C*05:11     | C*03:07+C*08:04:01     | C*03:92+C*05:27        |                       |                       |
| C*03:04:01G+C*05:12     | C*03:77+C*05:18:01     |                        |                       |                       |
| C*03:04:01G+C*05:16     | C*03:07+C*08:12        | C*03:17+C*05:10        |                       |                       |
| C*03:04:01G+C*05:18:01  | C*03:07+C*08:64        |                        |                       |                       |
| C*03:04:01G+C*05:18:02  | C*03:07+C*08:33:01     |                        |                       |                       |
| C*03:04:01G+C*05:18:03  | C*03:04:10+C*05:18:01  |                        |                       |                       |
| C*03:04:01G+C*05:20     | C*03:140+C*08:02:01G   |                        |                       |                       |
| C*03:04:01G+C*05:22:02  | C*03:04:02+C*05:22:01  |                        |                       |                       |
| C*03:04:01G+C*05:23     | C*03:07+C*08:07        |                        |                       |                       |
| C*03:04:01G+C*05:25     | C*03:07+C*08:28        | C*03:32+C*05:01:01G    | C*03:45+C*08:02:01G   |                       |
| C*03:04:01G+C*05:36     | C*03:08+C*05:01:01G    | C*03:29+C*05:20        |                       |                       |
| C*03:04:01G+C*05:39     | C*03:28+C*05:27        |                        |                       |                       |
| C*03:04:01G+C*05:42     | C*03:32+C*05:46        | C*03:38:02+C*05:25     | C*03:45+C*08:05       | C*03:136+C*05:01:01G  |
|                         | C*03:163+C*08:28       |                        |                       |                       |
| C*03:04:01G+C*05:43     | C*03:07+C*08:37        |                        |                       |                       |
| C*03:04:01G+C*05:46     | C*03:07+C*08:05        | C*03:38:02+C*05:01:01G | C*03:163+C*08:02:01G  |                       |
| C*03:04:01G+C*05:59     | C*03:128+C*05:01:01G   |                        |                       |                       |
| C*03:04:01G+C*05:64     | C*03:07+C*08:19        |                        |                       |                       |
| C*03:04:01G+C*05:68     | C*03:07+C*08:57        |                        |                       |                       |
| C*03:04:01G+C*05:76     | C*03:28+C*05:68        |                        |                       |                       |
| C*03:04:01G+C*06:02:01G | C*03:04:27+C*06:02:08  | C*03:07+C*06:11        | C*03:10+C*06:82       | C*03:32+C*06:30       |
|                         | C*03:35+C*06:14        | C*03:64:01+C*06:70     |                       |                       |
| C*03:04:01G+C*06:02:21  | C*03:04:28+C*06:02:01G |                        |                       |                       |
| C*03:04:01G+C*06:03:02  | C*03:04:26+C*06:03:01  |                        |                       |                       |
| C*03:04:01G+C*06:06     | C*03:28+C*06:04        |                        |                       |                       |
| C*03:04:01G+C*06:23     | C*03:128+C*06:02:01G   |                        |                       |                       |
| C*03:04:01G+C*06:43     | C*03:23+C*06:02:01G    |                        |                       |                       |
| C*03:04:01G+C*06:47     | C*03:90+C*06:02:01G    |                        |                       |                       |
| C*03:04:01G+C*06:69     | C*03:70+C*06:02:01G    |                        |                       |                       |
| C*03:04:01G+C*06:71     | C*03:104+C*06:02:01G   |                        |                       |                       |
| C*03:04:01G+C*06:76:02  | C*03:07+C*12:28        | C*03:32+C*12:04:02     | C*03:45+C*12:03:01G   | C*03:136+C*12:05      |
| C*03:04:01G+C*06:82     | C*03:140+C*06:11       |                        |                       |                       |
| C*03:04:01G+C*06:85     | C*03:48+C*06:02:01G    |                        |                       |                       |
| C*03:04:01G+C*07:01:01G | C*03:04:19+C*07:01:05  | C*03:08+C*07:27:01     | C*03:09+C*07:257      | C*03:32+C*07:16       |
|                         | C*03:35+C*07:196       | C*03:38:02+C*07:40     | C*03:40:01+C*07:248   | C*03:64:02+C*07:263   |
|                         | C*03:92+C*07:212       |                        |                       |                       |
| C*03:04:01G+C*07:01:07  | C*03:04:02+C*07:01:01G | C*03:08+C*07:27:02     | C*03:38:01+C*07:40    |                       |
| C*03:04:01G+C*07:01:12  | C*03:40:03+C*07:248    |                        |                       |                       |
| C*03:04:01G+C*07:01:23  | C*03:37+C*07:20        |                        |                       |                       |
| C*03:04:01G+C*07:02:01G | C*03:04:19+C*07:02:04  | C*03:04:26+C*07:02:10  | C*03:04:27+C*07:02:32 | C*03:32+C*07:51       |
|                         | C*03:35+C*07:10        | C*03:38:02+C*07:39     | C*03:40:01+C*07:29    | C*03:41+C*07:133      |
|                         | C*03:64:02+C*07:127    | C*03:90+C*07:27:01     | C*03:92+C*07:186      |                       |
| C*03:04:01G+C*07:02:09  | C*03:04:25+C*07:02:01G |                        |                       |                       |
| C*03:04:01G+C*07:02:12  | C*03:40:03+C*07:29     |                        |                       |                       |
| C*03:04:01G+C*07:02:15  | C*03:04:22+C*07:02:01G |                        |                       |                       |
| C*03:04:01G+C*07:02:36  | C*03:04:28+C*07:02:01G |                        |                       |                       |
| C*03:04:01G+C*07:04:01G | C*03:32+C*07:181       |                        |                       |                       |
| C*03:04:01G+C*07:04:03  | C*03:04:02+C*07:04:01G |                        |                       |                       |
| C*03:04:01G+C*07:07     | C*03:07+C*07:16        |                        |                       |                       |
| C*03:04:01G+C*07:09     | C*03:07+C*07:01:01G    | C*03:10+C*07:247       | C*03:32+C*07:07       | C*03:45+C*07:16       |
|                         | C*03:163+C*07:40       |                        |                       |                       |
| C*03:04:01G+C*07:10     | C*03:90+C*07:43        |                        |                       |                       |
| C*03:04:01G+C*07:13     | C*03:26+C*07:29        |                        |                       |                       |
| C*03:04:01G+C*07:15     | C*03:34+C*07:186       |                        |                       |                       |
| C*03:04:01G+C*07:19     | C*03:08+C*07:02:01G    | C*03:90+C*07:01:01G    |                       |                       |
| C*03:04:01G+C*07:27:01  | C*03:35+C*07:43        |                        |                       |                       |
| C*03:04:01G+C*07:27:02  | C*03:04:02+C*07:27:01  |                        |                       |                       |
| C*03:04:01G+C*07:31     | C*03:17+C*07:43        |                        |                       |                       |
| C*03:04:01G+C*07:37     | C*03:28+C*07:02:01G    | C*03:117+C*07:186      |                       |                       |
| C*03:04:01G+C*07:48     | C*03:93+C*07:02:01G    |                        |                       |                       |
| C*03:04:01G+C*07:49     | C*03:38:02+C*07:238    | C*03:130+C*07:39       | C*03:140+C*07:02:01G  |                       |
| C*03:04:01G+C*07:76     | C*03:07+C*07:02:01G    | C*03:10+C*07:49        | C*03:45+C*07:51       | C*03:163+C*07:39      |
| C*03:04:01G+C*07:92     | C*03:64:02+C*07:96     |                        |                       |                       |
| C*03:04:01G+C*07:95     | C*03:77+C*07:165       |                        |                       |                       |
| C*03:04:01G+C*07:120    | C*03:98+C*07:212       |                        |                       |                       |
| C*03:04:01G+C*07:124    | C*03:70+C*07:01:01G    |                        |                       |                       |
| C*03:04:01G+C*07:136    | C*03:123+C*07:02:01G   |                        |                       |                       |
| C*03:04:01G+C*07:141:02 | C*03:04:10+C*07:141:01 |                        |                       |                       |
| C*03:04:01G+C*07:142    | C*03:57+C*07:04:01G    |                        |                       |                       |
| C*03:04:01G+C*07:155    | C*03:70+C*07:02:01G    |                        |                       |                       |
| C*03:04:01G+C*07:176    | C*03:28+C*07:01:01G    | C*03:117+C*07:212      |                       |                       |
| C*03:04:01G+C*07:196    | C*03:08+C*07:43        |                        |                       |                       |
| C*03:04:01G+C*07:199:02 | C*03:04:02+C*07:199:01 |                        |                       |                       |
| C*03:04:01G+C*07:207    | C*03:34+C*07:212       |                        |                       |                       |
| C*03:04:01G+C*07:210    | C*03:140+C*07:40       |                        |                       |                       |
| C*03:04:01G+C*07:238    | C*03:140+C*07:39       |                        |                       |                       |
| C*03:04:01G+C*07:243    | C*03:157+C*07:02:01G   |                        |                       |                       |
| C*03:04:01G+C*07:247    | C*03:38:02+C*07:210    | C*03:130+C*07:40       | C*03:140+C*07:01:01G  |                       |
| C*03:04:01G+C*07:250    | C*03:128+C*07:01:01G   |                        |                       |                       |
| C*03:04:01G+C*08:01:01G | C*03:35+C*08:44        | C*03:92+C*08:41        |                       |                       |
| C*03:04:01G+C*08:01:02  | C*03:04:02+C*08:01:01G |                        |                       |                       |
| C*03:04:01G+C*08:01:06  | C*03:04:27+C*08:01:07  |                        |                       |                       |
| C*03:04:01G+C*08:01:08  | C*03:04:05+C*08:01:01G |                        |                       |                       |
| C*03:04:01G+C*08:02:01G | C*03:28+C*08:04:01     | C*03:87+C*08:33:02     |                       |                       |
| C*03:04:01G+C*08:02:04  | C*03:04:27+C*08:02:07  |                        |                       |                       |
| C*03:04:01G+C*08:02:06  | C*03:09+C*08:62        |                        |                       |                       |
| C*03:04:01G+C*08:03:01G | C*03:35+C*08:61        |                        |                       |                       |
| C*03:04:01G+C*08:05     | C*03:38:02+C*08:02:01G |                        |                       |                       |
| C*03:04:01G+C*08:10     | C*03:07+C*08:01:01G    |                        |                       |                       |
| C*03:04:01G+C*08:15:02  | C*03:04:19+C*08:15:01  |                        |                       |                       |
| C*03:04:01G+C*08:21     | C*03:38:02+C*08:01:01G |                        |                       |                       |

|                         |                        |                        |                    |                     |
|-------------------------|------------------------|------------------------|--------------------|---------------------|
| C*03:04:01G+C*08:28     | C*03:32+C*08:02:01G    |                        |                    |                     |
| C*03:04:01G+C*08:35     | C*03:28+C*08:54        |                        |                    |                     |
| C*03:04:01G+C*08:38     | C*03:90+C*08:03:01G    |                        |                    |                     |
| C*03:04:01G+C*08:47     | C*03:162+C*08:02:01G   |                        |                    |                     |
| C*03:04:01G+C*08:51     | C*03:51+C*08:15:01     |                        |                    |                     |
| C*03:04:01G+C*12:02:01G | C*03:04:02+C*12:02:03  | C*03:38:02+C*12:49     |                    |                     |
| C*03:04:01G+C*12:02:05  | C*03:04:15+C*12:02:01G |                        |                    |                     |
| C*03:04:01G+C*12:02:06  | C*03:04:02+C*12:02:08  |                        |                    |                     |
| C*03:04:01G+C*12:02:09  | C*03:04:18+C*12:02:03  |                        |                    |                     |
| C*03:04:01G+C*12:03:01G | C*03:04:25+C*12:03:04  |                        |                    |                     |
| C*03:04:01G+C*12:03:08  | C*03:04:27+C*12:03:20  |                        |                    |                     |
| C*03:04:01G+C*12:03:10  | C*03:04:19+C*12:03:01G |                        |                    |                     |
| C*03:04:01G+C*12:03:12  | C*03:04:08+C*12:03:01G |                        |                    |                     |
| C*03:04:01G+C*12:03:13  | C*03:04:29+C*12:03:01G |                        |                    |                     |
| C*03:04:01G+C*12:03:16  | C*03:04:10+C*12:03:08  |                        |                    |                     |
| C*03:04:01G+C*12:04:02  | C*03:07+C*12:03:01G    | C*03:10+C*12:54        | C*03:38:02+C*12:05 |                     |
| C*03:04:01G+C*12:08     | C*03:08+C*12:02:01G    |                        |                    |                     |
| C*03:04:01G+C*12:11     | C*03:90+C*12:03:01G    |                        |                    |                     |
| C*03:04:01G+C*12:12     | C*03:70+C*12:03:01G    |                        |                    |                     |
| C*03:04:01G+C*12:14:02  | C*03:162+C*12:18:01    |                        |                    |                     |
| C*03:04:01G+C*12:24     | C*03:28+C*12:20        |                        |                    |                     |
| C*03:04:01G+C*12:25     | C*03:104+C*12:03:01G   |                        |                    |                     |
| C*03:04:01G+C*12:28     | C*03:32+C*12:03:01G    |                        |                    |                     |
| C*03:04:01G+C*12:41     | C*03:07+C*12:02:01G    | C*03:140+C*12:72       | C*03:163+C*12:49   |                     |
| C*03:04:01G+C*12:54     | C*03:140+C*12:03:01G   |                        |                    |                     |
| C*03:04:01G+C*12:61     | C*03:65+C*12:03:01G    |                        |                    |                     |
| C*03:04:01G+C*12:72     | C*03:10+C*12:02:01G    |                        |                    |                     |
| C*03:04:01G+C*12:81     | C*03:08+C*12:03:01G    |                        |                    |                     |
| C*03:04:01G+C*14:02:01G | C*03:28+C*14:06        | C*03:92+C*14:20        |                    |                     |
| C*03:04:01G+C*14:02:02  | C*03:04:27+C*14:02:01G |                        |                    |                     |
| C*03:04:01G+C*14:02:03  | C*03:04:25+C*14:02:01G | C*03:64:01+C*14:03     |                    |                     |
| C*03:04:01G+C*14:02:05  | C*03:04:10+C*14:02:01G |                        |                    |                     |
| C*03:04:01G+C*14:02:09  | C*03:04:22+C*14:02:01G |                        |                    |                     |
| C*03:04:01G+C*14:03     | C*03:98+C*14:38        |                        |                    |                     |
| C*03:04:01G+C*14:04     | C*03:130+C*14:02:01G   |                        |                    |                     |
| C*03:04:01G+C*14:12     | C*03:07+C*14:02:01G    |                        |                    |                     |
| C*03:04:01G+C*14:13     | C*03:32+C*14:02:01G    |                        |                    |                     |
| C*03:04:01G+C*14:24:02  | C*03:23+C*14:02:01G    |                        |                    |                     |
| C*03:04:01G+C*14:25     | C*03:34+C*14:20        |                        |                    |                     |
| C*03:04:01G+C*15:02:01G | C*03:04:25+C*15:02:10  | C*03:07+C*15:07        | C*03:08+C*15:17    | C*03:09+C*15:26     |
|                         | C*03:19+C*15:06:01     | C*03:92+C*15:15        | C*03:140+C*15:21   |                     |
| C*03:04:01G+C*15:02:05  | C*03:04:10+C*15:02:01G | C*03:19+C*15:06:03     |                    |                     |
| C*03:04:01G+C*15:03     | C*03:08+C*15:16        | C*03:38:02+C*15:02:01G | C*03:130+C*15:21   | C*03:163+C*15:07    |
| C*03:04:01G+C*15:04     | C*03:40:01+C*15:40     |                        |                    |                     |
| C*03:04:01G+C*15:05:01G | C*03:26+C*15:06:01     |                        |                    |                     |
| C*03:04:01G+C*15:06:03  | C*03:04:10+C*15:06:01  |                        |                    |                     |
| C*03:04:01G+C*15:08     | C*03:28+C*15:02:01G    | C*03:117+C*15:15       |                    |                     |
| C*03:04:01G+C*15:09     | C*03:40:01+C*15:06:01  |                        |                    |                     |
| C*03:04:01G+C*15:10:01  | C*03:04:26+C*15:10:02  |                        |                    |                     |
| C*03:04:01G+C*15:10:02  | C*03:64:01+C*15:02:01G |                        |                    |                     |
| C*03:04:01G+C*15:16     | C*03:38:02+C*15:17     |                        |                    |                     |
| C*03:04:01G+C*15:21     | C*03:10+C*15:07        |                        |                    |                     |
| C*03:04:01G+C*15:22     | C*03:35+C*15:05:01G    |                        |                    |                     |
| C*03:04:01G+C*15:37     | C*03:128+C*15:58       |                        |                    |                     |
| C*03:04:01G+C*15:39     | C*03:51+C*15:02:01G    |                        |                    |                     |
| C*03:04:01G+C*15:42     | C*03:34+C*15:15        |                        |                    |                     |
| C*03:04:01G+C*15:45     | C*03:70+C*15:02:01G    |                        |                    |                     |
| C*03:04:01G+C*15:46     | C*03:90+C*15:05:01G    |                        |                    |                     |
| C*03:04:01G+C*15:55     | C*03:17+C*15:06:01     |                        |                    |                     |
| C*03:04:01G+C*15:57     | C*03:77+C*15:02:01G    |                        |                    |                     |
| C*03:04:01G+C*15:58     | C*03:17+C*15:02:01G    | C*03:19+C*15:55        |                    |                     |
| C*03:04:01G+C*15:59     | C*03:109+C*15:05:01G   |                        |                    |                     |
| C*03:04:01G+C*15:61     | C*03:156+C*15:09       |                        |                    |                     |
| C*03:04:01G+C*16:01:01  | C*03:04:25+C*16:01:02  | C*03:04:27+C*16:01:06  | C*03:09+C*16:49    |                     |
| C*03:04:01G+C*16:02:01G | C*03:07+C*16:01:01     | C*03:140+C*16:37       |                    |                     |
| C*03:04:01G+C*16:02:03  | C*03:04:10+C*16:02:01G |                        |                    |                     |
| C*03:04:01G+C*16:06     | C*03:90+C*16:07:02     |                        |                    |                     |
| C*03:04:01G+C*16:07:01  | C*03:04:02+C*16:07:02  |                        |                    |                     |
| C*03:04:01G+C*16:15:01  | C*03:38:02+C*16:01:01  |                        |                    |                     |
| C*03:04:01G+C*16:18     | C*03:128+C*16:01:01    |                        |                    |                     |
| C*03:04:01G+C*16:22     | C*03:123+C*16:01:01    |                        |                    |                     |
| C*03:04:01G+C*16:25     | C*03:07+C*16:15:01     | C*03:38:02+C*16:02:01G | C*03:130+C*16:37   | C*03:163+C*16:01:01 |
| C*03:04:01G+C*16:26     | C*03:32+C*16:01:01     |                        |                    |                     |
| C*03:04:01G+C*16:37     | C*03:10+C*16:01:01     |                        |                    |                     |
| C*03:04:01G+C*16:46     | C*03:07+C*16:26        | C*03:32+C*16:02:01G    | C*03:45+C*16:01:01 |                     |
| C*03:04:01G+C*16:48     | C*03:07+C*16:35        |                        |                    |                     |
| C*03:04:01G+C*17:01:04  | C*03:04:25+C*17:01:01G |                        |                    |                     |
| C*03:04:01G+C*17:08     | C*03:23+C*17:01:01G    |                        |                    |                     |
| C*03:04:01G+C*17:11     | C*03:32+C*17:01:01G    |                        |                    |                     |
| C*03:04:02+C*03:27      | C*03:05+C*03:38:01     |                        |                    |                     |
| C*03:04:02+C*03:40:03   | C*03:04:18+C*03:40:01  |                        |                    |                     |
| C*03:04:02+C*03:130     | C*03:38:01+C*03:140    |                        |                    |                     |
| C*03:04:02+C*03:136     | C*03:32+C*03:38:01     |                        |                    |                     |
| C*03:04:02+C*03:163     | C*03:07+C*03:38:01     |                        |                    |                     |
| C*03:04:02+C*04:01:01G  | C*03:04:18+C*04:01:30  | C*03:38:01+C*04:10     |                    |                     |
| C*03:04:02+C*04:01:02   | C*03:04:06+C*04:01:01G |                        |                    |                     |
| C*03:04:02+C*04:15:03   | C*03:04:18+C*04:15:01  |                        |                    |                     |
| C*03:04:02+C*04:20      | C*03:135+C*04:110      |                        |                    |                     |
| C*03:04:02+C*04:29      | C*03:38:01+C*04:36     |                        |                    |                     |
| C*03:04:02+C*05:01:17   | C*03:04:19+C*05:01:03  |                        |                    |                     |
| C*03:04:02+C*05:01:20   | C*03:04:18+C*05:01:02  |                        |                    |                     |
| C*03:04:02+C*05:25      | C*03:32+C*05:01:03     |                        |                    |                     |
| C*03:04:02+C*05:36      | C*03:08+C*05:01:03     |                        |                    |                     |
| C*03:04:02+C*05:42      | C*03:38:01+C*05:25     | C*03:136+C*05:01:03    |                    |                     |
| C*03:04:02+C*05:46      | C*03:38:01+C*05:01:01G | C*03:38:02+C*05:01:03  |                    |                     |
| C*03:04:02+C*05:59      | C*03:128+C*05:01:03    |                        |                    |                     |
| C*03:04:02+C*05:81      | C*03:125+C*05:01:01G   |                        |                    |                     |
| C*03:04:02+C*06:02:17   | C*03:04:18+C*06:02:01G |                        |                    |                     |
| C*03:04:02+C*06:87      | C*03:125+C*06:02:01G   |                        |                    |                     |
| C*03:04:02+C*07:01:12   | C*03:04:18+C*07:01:01G |                        |                    |                     |
| C*03:04:02+C*07:02:01G  | C*03:38:01+C*07:39     | C*03:90+C*07:27:02     |                    |                     |
| C*03:04:02+C*07:02:12   | C*03:04:18+C*07:02:01G |                        |                    |                     |
| C*03:04:02+C*07:09      | C*03:07+C*07:01:07     |                        |                    |                     |
| C*03:04:02+C*07:19      | C*03:90+C*07:01:07     |                        |                    |                     |
| C*03:04:02+C*07:24      | C*03:125+C*07:01:01G   |                        |                    |                     |

|                        |                        |                       |
|------------------------|------------------------|-----------------------|
| C*03:04:02+C*07:31     | C*03:71+C*07:184       |                       |
| C*03:04:02+C*07:43     | C*03:42+C*07:184       |                       |
| C*03:04:02+C*07:49     | C*03:38:01+C*07:238    |                       |
| C*03:04:02+C*07:124    | C*03:70+C*07:01:07     |                       |
| C*03:04:02+C*07:142    | C*03:57+C*07:04:03     |                       |
| C*03:04:02+C*07:176    | C*03:28+C*07:01:07     |                       |
| C*03:04:02+C*07:218    | C*03:125+C*07:02:01G   |                       |
| C*03:04:02+C*07:230    | C*03:135+C*07:196      |                       |
| C*03:04:02+C*07:247    | C*03:38:01+C*07:210    | C*03:140+C*07:01:07   |
| C*03:04:02+C*07:250    | C*03:128+C*07:01:07    |                       |
| C*03:04:02+C*08:01:08  | C*03:04:05+C*08:01:02  |                       |
| C*03:04:02+C*08:02:06  | C*03:04:18+C*08:02:01G |                       |
| C*03:04:02+C*08:05     | C*03:38:01+C*08:02:01G |                       |
| C*03:04:02+C*08:08     | C*03:05+C*08:44        | C*03:143+C*08:01:01G  |
| C*03:04:02+C*08:10     | C*03:07+C*08:01:02     |                       |
| C*03:04:02+C*08:21     | C*03:38:01+C*08:01:01G | C*03:38:02+C*08:01:02 |
| C*03:04:02+C*12:02:01G | C*03:38:01+C*12:49     |                       |
| C*03:04:02+C*12:02:09  | C*03:04:18+C*12:02:01G |                       |
| C*03:04:02+C*12:04:02  | C*03:38:01+C*12:05     |                       |
| C*03:04:02+C*12:10:01  | C*03:04:18+C*12:10:02  |                       |
| C*03:04:02+C*12:45     | C*03:125+C*12:03:01G   |                       |
| C*03:04:02+C*15:03     | C*03:38:01+C*15:02:01G |                       |
| C*03:04:02+C*15:16     | C*03:38:01+C*15:17     |                       |
| C*03:04:02+C*16:06     | C*03:90+C*16:07:01     |                       |
| C*03:04:02+C*16:13     | C*03:125+C*16:01:01    |                       |
| C*03:04:02+C*16:15:01  | C*03:38:01+C*16:01:01  |                       |
| C*03:04:02+C*16:25     | C*03:38:01+C*16:02:01G |                       |
| C*03:04:02+C*17:01:02  | C*03:04:18+C*17:01:01G |                       |
| C*03:04:05+C*07:38:01  | C*03:04:19+C*07:38:02  |                       |
| C*03:04:05+C*08:10     | C*03:07+C*08:01:08     |                       |
| C*03:04:05+C*08:21     | C*03:38:02+C*08:01:08  |                       |
| C*03:04:07+C*05:08     | C*03:80+C*05:27        |                       |
| C*03:04:07+C*07:22     | C*03:80+C*07:212       |                       |
| C*03:04:07+C*07:138    | C*03:80+C*07:186       |                       |
| C*03:04:08+C*06:76:02  | C*03:45+C*12:03:12     |                       |
| C*03:04:08+C*12:03:10  | C*03:04:19+C*12:03:12  |                       |
| C*03:04:08+C*12:03:13  | C*03:04:29+C*12:03:12  |                       |
| C*03:04:08+C*12:04:02  | C*03:07+C*12:03:12     |                       |
| C*03:04:08+C*12:11     | C*03:90+C*12:03:12     |                       |
| C*03:04:08+C*12:12     | C*03:70+C*12:03:12     |                       |
| C*03:04:08+C*12:25     | C*03:104+C*12:03:12    |                       |
| C*03:04:08+C*12:28     | C*03:32+C*12:03:12     |                       |
| C*03:04:08+C*12:54     | C*03:140+C*12:03:12    |                       |
| C*03:04:08+C*12:61     | C*03:65+C*12:03:12     |                       |
| C*03:04:08+C*12:81     | C*03:08+C*12:03:12     |                       |
| C*03:04:10+C*04:01:11  | C*03:04:28+C*04:01:08  |                       |
| C*03:04:10+C*04:18     | C*03:65+C*04:01:08     |                       |
| C*03:04:10+C*04:48     | C*03:54+C*04:01:08     |                       |
| C*03:04:10+C*04:112    | C*03:08+C*04:01:08     |                       |
| C*03:04:10+C*04:113    | C*03:77+C*04:01:08     |                       |
| C*03:04:10+C*05:12     | C*03:77+C*05:18:03     |                       |
| C*03:04:10+C*14:02:02  | C*03:04:27+C*14:02:05  |                       |
| C*03:04:10+C*14:02:03  | C*03:04:25+C*14:02:05  |                       |
| C*03:04:10+C*14:02:09  | C*03:04:22+C*14:02:05  |                       |
| C*03:04:10+C*14:04     | C*03:130+C*14:02:05    |                       |
| C*03:04:10+C*14:12     | C*03:07+C*14:02:05     |                       |
| C*03:04:10+C*14:13     | C*03:32+C*14:02:05     |                       |
| C*03:04:10+C*14:24:02  | C*03:23+C*14:02:05     |                       |
| C*03:04:10+C*15:03     | C*03:38:02+C*15:02:05  |                       |
| C*03:04:10+C*15:05:01G | C*03:26+C*15:06:03     |                       |
| C*03:04:10+C*15:08     | C*03:28+C*15:02:05     |                       |
| C*03:04:10+C*15:09     | C*03:40:01+C*15:06:03  |                       |
| C*03:04:10+C*15:10:02  | C*03:64:01+C*15:02:05  |                       |
| C*03:04:10+C*15:39     | C*03:51+C*15:02:05     |                       |
| C*03:04:10+C*15:45     | C*03:70+C*15:02:05     |                       |
| C*03:04:10+C*15:55     | C*03:17+C*15:06:03     |                       |
| C*03:04:10+C*15:57     | C*03:77+C*15:02:05     |                       |
| C*03:04:10+C*15:58     | C*03:17+C*15:02:05     |                       |
| C*03:04:10+C*16:25     | C*03:38:02+C*16:02:03  |                       |
| C*03:04:10+C*16:46     | C*03:32+C*16:02:03     |                       |
| C*03:04:15+C*12:08     | C*03:08+C*12:02:05     |                       |
| C*03:04:15+C*12:41     | C*03:07+C*12:02:05     |                       |
| C*03:04:15+C*12:72     | C*03:10+C*12:02:05     |                       |
| C*03:04:18+C*06:87     | C*03:125+C*06:02:17    |                       |
| C*03:04:18+C*07:24     | C*03:125+C*07:01:12    |                       |
| C*03:04:18+C*07:218    | C*03:125+C*07:02:12    |                       |
| C*03:04:18+C*08:05     | C*03:38:01+C*08:02:06  |                       |
| C*03:04:19+C*05:25     | C*03:32+C*05:01:17     |                       |
| C*03:04:19+C*05:36     | C*03:08+C*05:01:17     |                       |
| C*03:04:19+C*05:42     | C*03:136+C*05:01:17    |                       |
| C*03:04:19+C*05:46     | C*03:38:02+C*05:01:17  |                       |
| C*03:04:19+C*05:59     | C*03:128+C*05:01:17    |                       |
| C*03:04:19+C*06:76:02  | C*03:45+C*12:03:10     |                       |
| C*03:04:19+C*08:51     | C*03:51+C*08:15:02     |                       |
| C*03:04:19+C*12:03:13  | C*03:04:29+C*12:03:10  |                       |
| C*03:04:19+C*12:04:02  | C*03:07+C*12:03:10     |                       |
| C*03:04:19+C*12:11     | C*03:90+C*12:03:10     |                       |
| C*03:04:19+C*12:12     | C*03:70+C*12:03:10     |                       |
| C*03:04:19+C*12:25     | C*03:104+C*12:03:10    |                       |
| C*03:04:19+C*12:28     | C*03:32+C*12:03:10     |                       |
| C*03:04:19+C*12:54     | C*03:140+C*12:03:10    |                       |
| C*03:04:19+C*12:61     | C*03:65+C*12:03:10     |                       |
| C*03:04:19+C*12:81     | C*03:08+C*12:03:10     |                       |
| C*03:04:22+C*07:02:09  | C*03:04:25+C*07:02:15  |                       |
| C*03:04:22+C*07:02:36  | C*03:04:28+C*07:02:15  |                       |
| C*03:04:22+C*07:19     | C*03:08+C*07:02:15     |                       |
| C*03:04:22+C*07:37     | C*03:28+C*07:02:15     |                       |
| C*03:04:22+C*07:48     | C*03:93+C*07:02:15     |                       |
| C*03:04:22+C*07:49     | C*03:140+C*07:02:15    |                       |
| C*03:04:22+C*07:76     | C*03:07+C*07:02:15     |                       |
| C*03:04:22+C*07:136    | C*03:123+C*07:02:15    |                       |
| C*03:04:22+C*07:155    | C*03:70+C*07:02:15     |                       |
| C*03:04:22+C*07:243    | C*03:157+C*07:02:15    |                       |
| C*03:04:22+C*14:02:02  | C*03:04:27+C*14:02:09  |                       |
| C*03:04:22+C*14:02:03  | C*03:04:25+C*14:02:09  |                       |

|                        |                       |                      |
|------------------------|-----------------------|----------------------|
| C*03:04:22+C*14:04     | C*03:130+C*14:02:09   |                      |
| C*03:04:22+C*14:12     | C*03:07+C*14:02:09    |                      |
| C*03:04:22+C*14:13     | C*03:32+C*14:02:09    |                      |
| C*03:04:22+C*14:24:02  | C*03:23+C*14:02:09    |                      |
| C*03:04:25+C*07:02:36  | C*03:04:28+C*07:02:09 |                      |
| C*03:04:25+C*07:19     | C*03:08+C*07:02:09    |                      |
| C*03:04:25+C*07:37     | C*03:28+C*07:02:09    |                      |
| C*03:04:25+C*07:48     | C*03:93+C*07:02:09    |                      |
| C*03:04:25+C*07:49     | C*03:140+C*07:02:09   |                      |
| C*03:04:25+C*07:76     | C*03:07+C*07:02:09    |                      |
| C*03:04:25+C*07:136    | C*03:123+C*07:02:09   |                      |
| C*03:04:25+C*07:155    | C*03:70+C*07:02:09    |                      |
| C*03:04:25+C*07:243    | C*03:157+C*07:02:09   |                      |
| C*03:04:25+C*12:04:01  | C*03:07+C*12:03:08    |                      |
| C*03:04:25+C*14:02:02  | C*03:04:27+C*14:02:03 |                      |
| C*03:04:25+C*14:04     | C*03:130+C*14:02:03   |                      |
| C*03:04:25+C*14:12     | C*03:07+C*14:02:03    |                      |
| C*03:04:25+C*14:13     | C*03:32+C*14:02:03    |                      |
| C*03:04:25+C*14:18     | C*03:37+C*14:03       |                      |
| C*03:04:25+C*14:24:02  | C*03:23+C*14:02:03    |                      |
| C*03:04:25+C*14:27     | C*03:64:01+C*14:22    |                      |
| C*03:04:25+C*14:34     | C*03:64:01+C*14:41    |                      |
| C*03:04:25+C*17:08     | C*03:23+C*17:01:04    |                      |
| C*03:04:25+C*17:11     | C*03:32+C*17:01:04    |                      |
| C*03:04:26+C*07:73     | C*03:64:02+C*07:20    |                      |
| C*03:04:27+C*03:42     | C*03:09+C*03:40:02    |                      |
| C*03:04:27+C*04:01:11  | C*03:04:28+C*04:01:09 |                      |
| C*03:04:27+C*04:18     | C*03:65+C*04:01:09    |                      |
| C*03:04:27+C*04:48     | C*03:54+C*04:01:09    |                      |
| C*03:04:27+C*04:58     | C*03:162+C*04:04:02   |                      |
| C*03:04:27+C*04:112    | C*03:08+C*04:01:09    |                      |
| C*03:04:27+C*04:113    | C*03:77+C*04:01:09    |                      |
| C*03:04:27+C*04:122    | C*03:77+C*04:04:02    |                      |
| C*03:04:27+C*07:01:01G | C*03:40:02+C*07:248   |                      |
| C*03:04:27+C*07:02:01G | C*03:40:02+C*07:29    |                      |
| C*03:04:27+C*07:56:01  | C*03:43:02+C*07:29    |                      |
| C*03:04:27+C*07:109    | C*03:43:02+C*07:248   |                      |
| C*03:04:27+C*14:04     | C*03:130+C*14:02:02   |                      |
| C*03:04:27+C*14:12     | C*03:07+C*14:02:02    |                      |
| C*03:04:27+C*14:13     | C*03:32+C*14:02:02    |                      |
| C*03:04:27+C*14:24:02  | C*03:23+C*14:02:02    |                      |
| C*03:04:27+C*15:04     | C*03:40:02+C*15:40    |                      |
| C*03:04:27+C*15:09     | C*03:40:02+C*15:06:01 |                      |
| C*03:04:28+C*04:18     | C*03:65+C*04:01:11    |                      |
| C*03:04:28+C*04:48     | C*03:54+C*04:01:11    |                      |
| C*03:04:28+C*04:112    | C*03:08+C*04:01:11    |                      |
| C*03:04:28+C*04:113    | C*03:77+C*04:01:11    |                      |
| C*03:04:28+C*06:23     | C*03:128+C*06:02:21   |                      |
| C*03:04:28+C*06:43     | C*03:23+C*06:02:21    |                      |
| C*03:04:28+C*06:47     | C*03:90+C*06:02:21    |                      |
| C*03:04:28+C*06:69     | C*03:70+C*06:02:21    |                      |
| C*03:04:28+C*06:71     | C*03:104+C*06:02:21   |                      |
| C*03:04:28+C*06:85     | C*03:48+C*06:02:21    |                      |
| C*03:04:28+C*07:19     | C*03:08+C*07:02:36    |                      |
| C*03:04:28+C*07:37     | C*03:28+C*07:02:36    |                      |
| C*03:04:28+C*07:48     | C*03:93+C*07:02:36    |                      |
| C*03:04:28+C*07:49     | C*03:140+C*07:02:36   |                      |
| C*03:04:28+C*07:76     | C*03:07+C*07:02:36    |                      |
| C*03:04:28+C*07:136    | C*03:123+C*07:02:36   |                      |
| C*03:04:28+C*07:155    | C*03:70+C*07:02:36    |                      |
| C*03:04:28+C*07:243    | C*03:157+C*07:02:36   |                      |
| C*03:04:29+C*06:76:02  | C*03:45+C*12:03:13    |                      |
| C*03:04:29+C*12:04:02  | C*03:07+C*12:03:13    |                      |
| C*03:04:29+C*12:11     | C*03:90+C*12:03:13    |                      |
| C*03:04:29+C*12:12     | C*03:70+C*12:03:13    |                      |
| C*03:04:29+C*12:25     | C*03:104+C*12:03:13   |                      |
| C*03:04:29+C*12:28     | C*03:32+C*12:03:13    |                      |
| C*03:04:29+C*12:54     | C*03:140+C*12:03:13   |                      |
| C*03:04:29+C*12:61     | C*03:65+C*12:03:13    |                      |
| C*03:04:29+C*12:81     | C*03:08+C*12:03:13    |                      |
| C*03:05+C*03:130       | C*03:27+C*03:140      |                      |
| C*03:05+C*03:136       | C*03:27+C*03:32       |                      |
| C*03:05+C*03:163       | C*03:07+C*03:27       |                      |
| C*03:05+C*04:01:01G    | C*03:27+C*04:10       |                      |
| C*03:05+C*04:29        | C*03:27+C*04:36       |                      |
| C*03:05+C*04:110       | C*03:143+C*04:01:01G  |                      |
| C*03:05+C*05:10        | C*03:143+C*05:01:01G  |                      |
| C*03:05+C*05:42        | C*03:27+C*05:25       |                      |
| C*03:05+C*05:46        | C*03:27+C*05:01:01G   |                      |
| C*03:05+C*06:14        | C*03:143+C*06:02:01G  |                      |
| C*03:05+C*07:01:01G    | C*03:27+C*07:40       |                      |
| C*03:05+C*07:02:01G    | C*03:27+C*07:39       |                      |
| C*03:05+C*07:10        | C*03:143+C*07:02:01G  |                      |
| C*03:05+C*07:43        | C*03:143+C*07:27:01   |                      |
| C*03:05+C*07:49        | C*03:27+C*07:238      |                      |
| C*03:05+C*07:196       | C*03:143+C*07:01:01G  |                      |
| C*03:05+C*07:247       | C*03:27+C*07:210      |                      |
| C*03:05+C*08:05        | C*03:27+C*08:02:01G   |                      |
| C*03:05+C*08:21        | C*03:27+C*08:01:01G   |                      |
| C*03:05+C*08:61        | C*03:143+C*08:03:01G  |                      |
| C*03:05+C*12:02:01G    | C*03:27+C*12:49       |                      |
| C*03:05+C*12:04:02     | C*03:27+C*12:05       |                      |
| C*03:05+C*15:03        | C*03:27+C*15:02:01G   |                      |
| C*03:05+C*15:05:01G    | C*03:143+C*15:22      |                      |
| C*03:05+C*15:16        | C*03:27+C*15:17       |                      |
| C*03:05+C*16:15:01     | C*03:27+C*16:01:01    |                      |
| C*03:05+C*16:25        | C*03:27+C*16:02:01G   |                      |
| C*03:07+C*03:08        | C*03:29+C*03:140      |                      |
| C*03:07+C*03:130       | C*03:140+C*03:163     |                      |
| C*03:07+C*03:136       | C*03:32+C*03:163      | C*03:38:02+C*03:45   |
| C*03:07+C*04:01:01G    | C*03:45+C*04:33       | C*03:163+C*04:10     |
| C*03:07+C*04:03        | C*03:45+C*04:107      |                      |
| C*03:07+C*04:114       | C*03:130+C*04:10      | C*03:140+C*04:01:01G |
| C*03:07+C*05:20        | C*03:140+C*05:01:01G  |                      |
| C*03:07+C*05:25        | C*03:45+C*05:01:01G   |                      |



|                     |                      |                      |                  |
|---------------------|----------------------|----------------------|------------------|
| C*03:07+C*05:42     | C*03:45+C*05:46      | C*03:163+C*05:25     |                  |
| C*03:07+C*05:46     | C*03:163+C*05:01:01G |                      |                  |
| C*03:07+C*06:02:01G | C*03:45+C*06:30      |                      |                  |
| C*03:07+C*06:76:02  | C*03:45+C*12:04:02   |                      |                  |
| C*03:07+C*06:82     | C*03:140+C*06:02:01G |                      |                  |
| C*03:07+C*07:04:01G | C*03:45+C*07:181     |                      |                  |
| C*03:07+C*07:09     | C*03:45+C*07:07      |                      |                  |
| C*03:07+C*07:19     | C*03:08+C*07:76      | C*03:29+C*07:49      | C*03:90+C*07:09  |
| C*03:07+C*07:37     | C*03:28+C*07:76      |                      |                  |
| C*03:07+C*07:39     | C*03:10+C*07:238     |                      |                  |
| C*03:07+C*07:40     | C*03:10+C*07:210     |                      |                  |
| C*03:07+C*07:48     | C*03:93+C*07:76      |                      |                  |
| C*03:07+C*07:49     | C*03:140+C*07:76     | C*03:163+C*07:238    |                  |
| C*03:07+C*07:124    | C*03:70+C*07:09      |                      |                  |
| C*03:07+C*07:136    | C*03:123+C*07:76     |                      |                  |
| C*03:07+C*07:155    | C*03:70+C*07:76      |                      |                  |
| C*03:07+C*07:176    | C*03:28+C*07:09      |                      |                  |
| C*03:07+C*07:243    | C*03:157+C*07:76     |                      |                  |
| C*03:07+C*07:247    | C*03:140+C*07:09     | C*03:163+C*07:210    |                  |
| C*03:07+C*07:250    | C*03:128+C*07:09     |                      |                  |
| C*03:07+C*08:21     | C*03:38:02+C*08:10   | C*03:163+C*08:01:01G |                  |
| C*03:07+C*08:25     | C*03:38:02+C*05:29   |                      |                  |
| C*03:07+C*08:47     | C*03:162+C*05:01:01G |                      |                  |
| C*03:07+C*08:51     | C*03:51+C*05:09:01   |                      |                  |
| C*03:07+C*12:04:02  | C*03:163+C*12:05     |                      |                  |
| C*03:07+C*12:08     | C*03:08+C*12:41      |                      |                  |
| C*03:07+C*12:11     | C*03:90+C*12:04:02   |                      |                  |
| C*03:07+C*12:12     | C*03:70+C*12:04:02   |                      |                  |
| C*03:07+C*12:25     | C*03:104+C*12:04:02  |                      |                  |
| C*03:07+C*12:54     | C*03:130+C*12:05     | C*03:140+C*12:04:02  |                  |
| C*03:07+C*12:61     | C*03:65+C*12:04:02   |                      |                  |
| C*03:07+C*12:72     | C*03:10+C*12:41      |                      |                  |
| C*03:07+C*12:81     | C*03:08+C*12:04:02   | C*03:29+C*12:54      |                  |
| C*03:07+C*14:04     | C*03:130+C*14:12     |                      |                  |
| C*03:07+C*14:13     | C*03:32+C*14:12      | C*03:45+C*14:02:01G  |                  |
| C*03:07+C*14:24:02  | C*03:23+C*14:12      |                      |                  |
| C*03:07+C*15:03     | C*03:163+C*15:02:01G |                      |                  |
| C*03:07+C*15:16     | C*03:163+C*15:17     |                      |                  |
| C*03:07+C*15:21     | C*03:10+C*15:02:01G  | C*03:29+C*15:17      |                  |
| C*03:07+C*16:18     | C*03:128+C*16:02:01G |                      |                  |
| C*03:07+C*16:22     | C*03:123+C*16:02:01G |                      |                  |
| C*03:07+C*16:25     | C*03:163+C*16:02:01G |                      |                  |
| C*03:07+C*16:37     | C*03:10+C*16:02:01G  |                      |                  |
| C*03:07+C*16:46     | C*03:45+C*16:02:01G  |                      |                  |
| C*03:07+C*17:11     | C*03:45+C*17:01:01G  |                      |                  |
| C*03:08+C*03:11:02  | C*03:31+C*03:37      |                      |                  |
| C*03:08+C*03:12     | C*03:19+C*03:31      |                      |                  |
| C*03:08+C*03:13     | C*03:31+C*03:35      |                      |                  |
| C*03:08+C*03:18     | C*03:31+C*03:64:02   |                      |                  |
| C*03:08+C*03:30     | C*03:31+C*03:65      |                      |                  |
| C*03:08+C*03:43:01  | C*03:31+C*03:40:01   |                      |                  |
| C*03:08+C*03:43:02  | C*03:31+C*03:40:02   |                      |                  |
| C*03:08+C*03:49     | C*03:28+C*03:31      |                      |                  |
| C*03:08+C*03:50     | C*03:31+C*03:107     |                      |                  |
| C*03:08+C*03:55     | C*03:31+C*03:92      |                      |                  |
| C*03:08+C*03:59     | C*03:31+C*03:123     |                      |                  |
| C*03:08+C*03:69     | C*03:31+C*03:38:02   |                      |                  |
| C*03:08+C*03:103    | C*03:31+C*03:90      |                      |                  |
| C*03:08+C*03:116:01 | C*03:09+C*03:31      |                      |                  |
| C*03:08+C*03:127    | C*03:31+C*03:70      |                      |                  |
| C*03:08+C*03:151    | C*03:31+C*03:41      |                      |                  |
| C*03:08+C*03:163    | C*03:29+C*03:130     |                      |                  |
| C*03:08+C*04:18     | C*03:65+C*04:112     |                      |                  |
| C*03:08+C*04:48     | C*03:54+C*04:112     |                      |                  |
| C*03:08+C*04:55     | C*03:31+C*04:11      |                      |                  |
| C*03:08+C*04:113    | C*03:77+C*04:112     |                      |                  |
| C*03:08+C*05:25     | C*03:32+C*05:36      |                      |                  |
| C*03:08+C*05:42     | C*03:136+C*05:36     |                      |                  |
| C*03:08+C*05:46     | C*03:38:02+C*05:36   |                      |                  |
| C*03:08+C*05:59     | C*03:128+C*05:36     |                      |                  |
| C*03:08+C*06:02:01G | C*03:29+C*06:82      | C*03:38:02+C*06:44   |                  |
| C*03:08+C*06:53     | C*03:31+C*06:02:01G  | C*03:69+C*06:44      |                  |
| C*03:08+C*06:76:02  | C*03:45+C*12:81      |                      |                  |
| C*03:08+C*07:02:04  | C*03:90+C*07:01:05   |                      |                  |
| C*03:08+C*07:02:11  | C*03:90+C*07:01:23   |                      |                  |
| C*03:08+C*07:02:12  | C*03:90+C*07:01:12   |                      |                  |
| C*03:08+C*07:02:31  | C*03:90+C*07:01:22   |                      |                  |
| C*03:08+C*07:09     | C*03:29+C*07:247     |                      |                  |
| C*03:08+C*07:10     | C*03:90+C*07:196     |                      |                  |
| C*03:08+C*07:15     | C*03:90+C*07:207     |                      |                  |
| C*03:08+C*07:17     | C*03:90+C*07:141:02  |                      |                  |
| C*03:08+C*07:29     | C*03:90+C*07:248     |                      |                  |
| C*03:08+C*07:31     | C*03:17+C*07:196     |                      |                  |
| C*03:08+C*07:37     | C*03:28+C*07:19      | C*03:90+C*07:176     |                  |
| C*03:08+C*07:39     | C*03:90+C*07:40      |                      |                  |
| C*03:08+C*07:48     | C*03:93+C*07:19      |                      |                  |
| C*03:08+C*07:49     | C*03:90+C*07:247     | C*03:140+C*07:19     |                  |
| C*03:08+C*07:51     | C*03:90+C*07:16      |                      |                  |
| C*03:08+C*07:60     | C*03:31+C*07:16      |                      |                  |
| C*03:08+C*07:75     | C*03:90+C*07:254     |                      |                  |
| C*03:08+C*07:79     | C*03:31+C*07:51      | C*03:90+C*07:60      | C*03:103+C*07:16 |
| C*03:08+C*07:107    | C*03:90+C*07:224     |                      |                  |
| C*03:08+C*07:109    | C*03:31+C*07:01:01G  |                      |                  |
| C*03:08+C*07:123    | C*03:90+C*07:173     |                      |                  |
| C*03:08+C*07:127    | C*03:90+C*07:263     |                      |                  |
| C*03:08+C*07:136    | C*03:123+C*07:19     |                      |                  |
| C*03:08+C*07:138    | C*03:90+C*07:22      |                      |                  |
| C*03:08+C*07:155    | C*03:70+C*07:19      | C*03:90+C*07:124     |                  |
| C*03:08+C*07:161    | C*03:90+C*07:148     |                      |                  |
| C*03:08+C*07:171    | C*03:90+C*07:170     |                      |                  |
| C*03:08+C*07:172    | C*03:90+C*07:73      |                      |                  |
| C*03:08+C*07:183    | C*03:90+C*07:94      |                      |                  |
| C*03:08+C*07:186    | C*03:90+C*07:212     |                      |                  |
| C*03:08+C*07:216    | C*03:90+C*07:53      |                      |                  |
| C*03:08+C*07:218    | C*03:90+C*07:24      |                      |                  |

|                        |                         |                      |
|------------------------|-------------------------|----------------------|
| C*03:08+C*07:232       | C*03:90+C*07:128        |                      |
| C*03:08+C*07:238       | C*03:90+C*07:210        |                      |
| C*03:08+C*07:240       | C*03:90+C*07:255        |                      |
| C*03:08+C*07:241       | C*03:90+C*07:165        |                      |
| C*03:08+C*07:243       | C*03:157+C*07:19        |                      |
| C*03:08+C*12:11        | C*03:90+C*12:81         |                      |
| C*03:08+C*12:12        | C*03:70+C*12:81         |                      |
| C*03:08+C*12:25        | C*03:104+C*12:81        |                      |
| C*03:08+C*12:28        | C*03:32+C*12:81         |                      |
| C*03:08+C*12:54        | C*03:140+C*12:81        |                      |
| C*03:08+C*12:61        | C*03:65+C*12:81         |                      |
| C*03:08+C*12:72        | C*03:10+C*12:08         | C*03:29+C*12:02:01G  |
| C*03:08+C*14:10        | C*03:31+C*14:03         |                      |
| C*03:08+C*15:12        | C*03:31+C*15:02:01G     |                      |
| C*03:08+C*15:21        | C*03:29+C*15:07         |                      |
| C*03:08+C*16:37        | C*03:29+C*16:01:01      |                      |
| C*03:09+C*03:11:02     | C*03:37+C*03:116:01     |                      |
| C*03:09+C*03:12        | C*03:19+C*03:116:01     |                      |
| C*03:09+C*03:13        | C*03:35+C*03:116:01     |                      |
| C*03:09+C*03:18        | C*03:64:02+C*03:116:01  |                      |
| C*03:09+C*03:30        | C*03:65+C*03:116:01     |                      |
| C*03:09+C*03:36        | C*03:77+C*03:139        |                      |
| C*03:09+C*03:43:02     | C*03:40:02+C*03:116:01  |                      |
| C*03:09+C*03:49        | C*03:28+C*03:116:01     |                      |
| C*03:09+C*03:50        | C*03:107+C*03:116:01    |                      |
| C*03:09+C*03:55        | C*03:92+C*03:116:01     |                      |
| C*03:09+C*03:59        | C*03:116:01+C*03:123    |                      |
| C*03:09+C*03:60        | C*03:32+C*03:139        |                      |
| C*03:09+C*03:69        | C*03:38:02+C*03:116:01  |                      |
| C*03:09+C*03:103       | C*03:90+C*03:116:01     |                      |
| C*03:09+C*03:127       | C*03:70+C*03:116:01     |                      |
| C*03:09+C*03:151       | C*03:41+C*03:116:01     |                      |
| C*03:09+C*04:52        | C*03:116:01+C*04:01:01G |                      |
| C*03:09+C*04:55        | C*03:116:01+C*04:11     |                      |
| C*03:09+C*05:55        | C*03:116:01+C*05:01:01G |                      |
| C*03:09+C*06:53        | C*03:116:01+C*06:02:01G |                      |
| C*03:09+C*07:01:01G    | C*03:42+C*07:248        |                      |
| C*03:09+C*07:02:01G    | C*03:42+C*07:29         |                      |
| C*03:09+C*07:56:01     | C*03:116:01+C*07:02:01G |                      |
| C*03:09+C*07:60        | C*03:116:01+C*07:16     |                      |
| C*03:09+C*07:79        | C*03:116:01+C*07:51     |                      |
| C*03:09+C*07:109       | C*03:116:01+C*07:01:01G |                      |
| C*03:09+C*12:58        | C*03:116:01+C*12:03:01G |                      |
| C*03:09+C*14:10        | C*03:116:01+C*14:03     |                      |
| C*03:09+C*15:04        | C*03:42+C*15:40         |                      |
| C*03:09+C*15:09        | C*03:42+C*15:06:01      |                      |
| C*03:09+C*15:12        | C*03:116:01+C*15:02:01G |                      |
| C*03:10+C*04:112       | C*03:29+C*04:01:01G     |                      |
| C*03:10+C*05:36        | C*03:29+C*05:01:01G     |                      |
| C*03:10+C*07:01:01G    | C*03:29+C*07:27:01      |                      |
| C*03:10+C*07:01:07     | C*03:29+C*07:27:02      |                      |
| C*03:10+C*07:19        | C*03:29+C*07:02:01G     |                      |
| C*03:10+C*07:196       | C*03:29+C*07:43         |                      |
| C*03:10+C*12:81        | C*03:29+C*12:03:01G     |                      |
| C*03:10+C*14:04        | C*03:38:02+C*14:12      | C*03:163+C*14:02:01G |
| C*03:10+C*15:03        | C*03:29+C*15:16         | C*03:163+C*15:21     |
| C*03:10+C*16:15:01     | C*03:38:02+C*16:37      |                      |
| C*03:10+C*16:18        | C*03:128+C*16:37        |                      |
| C*03:10+C*16:22        | C*03:123+C*16:37        |                      |
| C*03:10+C*16:25        | C*03:163+C*16:37        |                      |
| C*03:10+C*16:26        | C*03:32+C*16:37         |                      |
| C*03:10+C*16:46        | C*03:45+C*16:37         |                      |
| C*03:11:01+C*06:02:01G | C*03:39+C*06:03:01      |                      |
| C*03:11:01+C*06:02:10  | C*03:11:02+C*06:02:01G  | C*03:37+C*06:53      |
| C*03:11:01+C*06:76:01  | C*03:18+C*06:03:01      |                      |
| C*03:11:01+C*07:01:23  | C*03:11:02+C*07:01:01G  | C*03:37+C*07:109     |
| C*03:11:01+C*07:02:11  | C*03:11:02+C*07:02:01G  | C*03:37+C*07:56:01   |
| C*03:11:01+C*07:04:05  | C*03:11:02+C*07:04:01G  |                      |
| C*03:11:01+C*07:172    | C*03:18+C*07:02:10      |                      |
| C*03:11:01+C*15:23     | C*03:39+C*15:05:01G     |                      |
| C*03:11:01+C*16:02:02  | C*03:11:02+C*16:02:01G  |                      |
| C*03:11:02+C*03:19     | C*03:12+C*03:37         |                      |
| C*03:11:02+C*03:28     | C*03:37+C*03:49         |                      |
| C*03:11:02+C*03:35     | C*03:13+C*03:37         |                      |
| C*03:11:02+C*03:38:02  | C*03:37+C*03:69         |                      |
| C*03:11:02+C*03:40:01  | C*03:37+C*03:43:01      |                      |
| C*03:11:02+C*03:40:02  | C*03:37+C*03:43:02      |                      |
| C*03:11:02+C*03:41     | C*03:37+C*03:151        |                      |
| C*03:11:02+C*03:64:02  | C*03:18+C*03:37         |                      |
| C*03:11:02+C*03:65     | C*03:30+C*03:37         |                      |
| C*03:11:02+C*03:70     | C*03:37+C*03:127        |                      |
| C*03:11:02+C*03:90     | C*03:37+C*03:103        |                      |
| C*03:11:02+C*03:92     | C*03:37+C*03:55         |                      |
| C*03:11:02+C*03:107    | C*03:37+C*03:50         |                      |
| C*03:11:02+C*03:123    | C*03:37+C*03:59         |                      |
| C*03:11:02+C*04:01:01G | C*03:37+C*04:52         |                      |
| C*03:11:02+C*04:11     | C*03:37+C*04:55         |                      |
| C*03:11:02+C*05:01:01G | C*03:37+C*05:55         |                      |
| C*03:11:02+C*06:28     | C*03:64:01+C*06:53      |                      |
| C*03:11:02+C*07:16     | C*03:37+C*07:60         |                      |
| C*03:11:02+C*07:51     | C*03:37+C*07:79         |                      |
| C*03:11:02+C*07:73     | C*03:64:01+C*07:109     |                      |
| C*03:11:02+C*07:172    | C*03:64:01+C*07:56:01   |                      |
| C*03:11:02+C*12:03:01G | C*03:37+C*12:58         |                      |
| C*03:11:02+C*14:03     | C*03:37+C*14:10         |                      |
| C*03:11:02+C*15:02:01G | C*03:37+C*15:12         |                      |
| C*03:12+C*03:28        | C*03:19+C*03:49         |                      |
| C*03:12+C*03:35        | C*03:13+C*03:19         |                      |
| C*03:12+C*03:38:02     | C*03:19+C*03:69         |                      |
| C*03:12+C*03:40:01     | C*03:19+C*03:43:01      |                      |
| C*03:12+C*03:40:02     | C*03:19+C*03:43:02      |                      |
| C*03:12+C*03:41        | C*03:19+C*03:151        |                      |
| C*03:12+C*03:64:02     | C*03:18+C*03:19         |                      |
| C*03:12+C*03:65        | C*03:19+C*03:30         |                      |
| C*03:12+C*03:70        | C*03:19+C*03:127        |                      |

|                     |                        |                        |
|---------------------|------------------------|------------------------|
| C*03:12+C*03:90     | C*03:19+C*03:103       |                        |
| C*03:12+C*03:92     | C*03:19+C*03:55        |                        |
| C*03:12+C*03:107    | C*03:19+C*03:50        |                        |
| C*03:12+C*03:123    | C*03:19+C*03:59        |                        |
| C*03:12+C*04:01:01G | C*03:19+C*04:52        |                        |
| C*03:12+C*04:11     | C*03:19+C*04:55        |                        |
| C*03:12+C*05:01:01G | C*03:19+C*05:55        |                        |
| C*03:12+C*06:02:01G | C*03:19+C*06:53        |                        |
| C*03:12+C*06:20     | C*03:102+C*06:02:08    |                        |
| C*03:12+C*07:01:01G | C*03:19+C*07:109       |                        |
| C*03:12+C*07:02:01G | C*03:19+C*07:56:01     |                        |
| C*03:12+C*07:16     | C*03:19+C*07:60        |                        |
| C*03:12+C*07:51     | C*03:19+C*07:79        |                        |
| C*03:12+C*07:168    | C*03:102+C*07:02:32    |                        |
| C*03:12+C*12:03:01G | C*03:19+C*12:58        |                        |
| C*03:12+C*14:03     | C*03:19+C*14:10        |                        |
| C*03:12+C*15:02:01G | C*03:19+C*15:12        |                        |
| C*03:12+C*15:05:01G | C*03:26+C*15:12        |                        |
| C*03:12+C*15:09     | C*03:40:01+C*15:12     | C*03:43:01+C*15:02:01G |
| C*03:13+C*03:28     | C*03:35+C*03:49        |                        |
| C*03:13+C*03:38:02  | C*03:35+C*03:69        |                        |
| C*03:13+C*03:40:01  | C*03:35+C*03:43:01     |                        |
| C*03:13+C*03:40:02  | C*03:35+C*03:43:02     |                        |
| C*03:13+C*03:41     | C*03:35+C*03:151       |                        |
| C*03:13+C*03:64:02  | C*03:18+C*03:35        |                        |
| C*03:13+C*03:65     | C*03:30+C*03:35        |                        |
| C*03:13+C*03:70     | C*03:35+C*03:127       |                        |
| C*03:13+C*03:90     | C*03:35+C*03:103       |                        |
| C*03:13+C*03:92     | C*03:35+C*03:55        |                        |
| C*03:13+C*03:107    | C*03:35+C*03:50        |                        |
| C*03:13+C*03:123    | C*03:35+C*03:59        |                        |
| C*03:13+C*04:01:01G | C*03:35+C*04:52        |                        |
| C*03:13+C*04:11     | C*03:35+C*04:55        |                        |
| C*03:13+C*05:01:01G | C*03:35+C*05:55        |                        |
| C*03:13+C*05:16     | C*03:17+C*05:55        |                        |
| C*03:13+C*06:02:01G | C*03:35+C*06:53        |                        |
| C*03:13+C*07:01:01G | C*03:35+C*07:109       |                        |
| C*03:13+C*07:02:01G | C*03:35+C*07:56:01     |                        |
| C*03:13+C*07:16     | C*03:35+C*07:60        |                        |
| C*03:13+C*07:51     | C*03:35+C*07:79        |                        |
| C*03:13+C*12:03:01G | C*03:35+C*12:58        |                        |
| C*03:13+C*14:03     | C*03:35+C*14:10        |                        |
| C*03:13+C*15:02:01G | C*03:35+C*15:12        |                        |
| C*03:13+C*15:46     | C*03:103+C*15:22       |                        |
| C*03:14+C*14:20     | C*03:40:01+C*14:17     |                        |
| C*03:15+C*04:36     | C*03:60+C*04:01:01G    |                        |
| C*03:15+C*07:39     | C*03:60+C*07:76        |                        |
| C*03:15+C*07:40     | C*03:60+C*07:09        |                        |
| C*03:15+C*08:28     | C*03:60+C*05:42        |                        |
| C*03:15+C*08:63     | C*03:95+C*05:42        |                        |
| C*03:15+C*12:49     | C*03:60+C*12:41        |                        |
| C*03:15+C*15:07     | C*03:60+C*15:03        |                        |
| C*03:15+C*16:01:01  | C*03:60+C*16:25        |                        |
| C*03:17+C*05:01:01G | C*03:35+C*05:16        |                        |
| C*03:17+C*07:10     | C*03:90+C*07:31        |                        |
| C*03:17+C*07:27:01  | C*03:35+C*07:31        |                        |
| C*03:17+C*08:02:01G | C*03:35+C*08:12        |                        |
| C*03:17+C*12:02:03  | C*03:35+C*12:03:19     |                        |
| C*03:17+C*12:02:08  | C*03:35+C*12:03:01G    |                        |
| C*03:17+C*15:03     | C*03:38:02+C*15:58     |                        |
| C*03:17+C*15:05:01G | C*03:26+C*15:55        |                        |
| C*03:17+C*15:08     | C*03:28+C*15:58        |                        |
| C*03:17+C*15:09     | C*03:40:01+C*15:55     |                        |
| C*03:17+C*15:10:02  | C*03:64:01+C*15:58     |                        |
| C*03:17+C*15:39     | C*03:51+C*15:58        |                        |
| C*03:17+C*15:45     | C*03:70+C*15:58        |                        |
| C*03:17+C*15:57     | C*03:77+C*15:58        |                        |
| C*03:17+C*16:07:02  | C*03:35+C*16:01:01     |                        |
| C*03:18+C*03:28     | C*03:49+C*03:64:02     |                        |
| C*03:18+C*03:38:02  | C*03:64:02+C*03:69     |                        |
| C*03:18+C*03:40:01  | C*03:43:01+C*03:64:02  |                        |
| C*03:18+C*03:40:02  | C*03:43:02+C*03:64:02  |                        |
| C*03:18+C*03:41     | C*03:64:02+C*03:151    |                        |
| C*03:18+C*03:65     | C*03:30+C*03:64:02     |                        |
| C*03:18+C*03:70     | C*03:64:02+C*03:127    |                        |
| C*03:18+C*03:90     | C*03:64:02+C*03:103    |                        |
| C*03:18+C*03:92     | C*03:55+C*03:64:02     |                        |
| C*03:18+C*03:107    | C*03:50+C*03:64:02     |                        |
| C*03:18+C*03:123    | C*03:59+C*03:64:02     |                        |
| C*03:18+C*04:01:01G | C*03:64:02+C*04:52     |                        |
| C*03:18+C*04:11     | C*03:64:02+C*04:55     |                        |
| C*03:18+C*05:01:01G | C*03:64:02+C*05:55     |                        |
| C*03:18+C*06:02:01G | C*03:39+C*06:76:01     | C*03:64:02+C*06:53     |
| C*03:18+C*07:01:01G | C*03:39+C*07:92        | C*03:64:02+C*07:109    |
| C*03:18+C*07:02:01G | C*03:64:02+C*07:56:01  |                        |
| C*03:18+C*07:16     | C*03:64:02+C*07:60     |                        |
| C*03:18+C*07:51     | C*03:64:02+C*07:79     |                        |
| C*03:18+C*12:03:01G | C*03:64:02+C*12:58     |                        |
| C*03:18+C*12:16     | C*03:39+C*12:02:01G    |                        |
| C*03:18+C*14:03     | C*03:64:02+C*14:10     |                        |
| C*03:19+C*15:05:01G | C*03:26+C*15:02:01G    |                        |
| C*03:19+C*15:09     | C*03:40:01+C*15:02:01G | C*03:42+C*15:26        |
| C*03:21+C*03:34     | C*03:92+C*03:142       |                        |
| C*03:21+C*04:04:01  | C*03:55+C*04:94:01     |                        |
| C*03:21+C*04:04:02  | C*03:55+C*04:94:02     |                        |
| C*03:21+C*04:08     | C*03:49+C*04:94:01     |                        |
| C*03:21+C*04:32     | C*03:142+C*04:01:01G   |                        |
| C*03:21+C*05:11     | C*03:55+C*05:08        |                        |
| C*03:21+C*05:39     | C*03:49+C*05:08        |                        |
| C*03:21+C*06:04     | C*03:55+C*06:02:01G    | C*03:92+C*06:53        |
| C*03:21+C*06:06     | C*03:117+C*06:53       |                        |
| C*03:21+C*06:08     | C*03:142+C*06:02:01G   |                        |
| C*03:21+C*07:01:01G | C*03:55+C*07:22        |                        |
| C*03:21+C*07:02:01G | C*03:55+C*07:138       |                        |
| C*03:21+C*07:15     | C*03:142+C*07:02:01G   |                        |

|                     |                        |                  |
|---------------------|------------------------|------------------|
| C*03:21+C*07:207    | C*03:142+C*07:01:01G   |                  |
| C*03:21+C*08:04:01  | C*03:55+C*08:29        |                  |
| C*03:21+C*08:31     | C*03:142+C*08:29       |                  |
| C*03:21+C*12:18:01  | C*03:55+C*12:02:01G    |                  |
| C*03:21+C*12:20     | C*03:55+C*12:03:01G    | C*03:92+C*12:58  |
| C*03:21+C*12:24     | C*03:117+C*12:58       |                  |
| C*03:21+C*14:06     | C*03:55+C*14:16        |                  |
| C*03:21+C*14:20     | C*03:49+C*14:16        |                  |
| C*03:21+C*14:25     | C*03:142+C*14:02:01G   |                  |
| C*03:21+C*15:42     | C*03:142+C*15:02:01G   |                  |
| C*03:21+C*16:29     | C*03:142+C*16:04:01    |                  |
| C*03:21+C*16:35     | C*03:55+C*16:04:01     |                  |
| C*03:21+C*16:50     | C*03:142+C*16:01:01    |                  |
| C*03:23+C*06:23     | C*03:128+C*06:43       |                  |
| C*03:23+C*06:47     | C*03:90+C*06:43        |                  |
| C*03:23+C*06:69     | C*03:70+C*06:43        |                  |
| C*03:23+C*06:71     | C*03:104+C*06:43       |                  |
| C*03:23+C*06:85     | C*03:48+C*06:43        |                  |
| C*03:23+C*14:04     | C*03:130+C*14:24:02    |                  |
| C*03:23+C*14:13     | C*03:32+C*14:24:02     |                  |
| C*03:23+C*17:11     | C*03:32+C*17:08        |                  |
| C*03:26+C*04:54     | C*03:40:01+C*04:23     |                  |
| C*03:26+C*05:04     | C*03:40:01+C*05:22:01  |                  |
| C*03:26+C*06:02:01G | C*03:40:01+C*06:34     |                  |
| C*03:26+C*06:02:17  | C*03:40:03+C*06:34     |                  |
| C*03:26+C*06:53     | C*03:43:01+C*06:34     |                  |
| C*03:26+C*07:02:01G | C*03:40:01+C*07:13     |                  |
| C*03:26+C*07:02:12  | C*03:40:03+C*07:13     |                  |
| C*03:26+C*07:56:01  | C*03:43:01+C*07:13     |                  |
| C*03:26+C*08:59     | C*03:40:01+C*08:01:01G |                  |
| C*03:26+C*14:02:01G | C*03:40:01+C*14:26     |                  |
| C*03:26+C*14:02:02  | C*03:40:02+C*14:26     |                  |
| C*03:26+C*15:09     | C*03:40:01+C*15:05:01G |                  |
| C*03:27+C*05:10     | C*03:143+C*05:46       |                  |
| C*03:27+C*08:44     | C*03:38:01+C*08:08     | C*03:143+C*08:21 |
| C*03:28+C*03:30     | C*03:49+C*03:65        |                  |
| C*03:28+C*03:43:01  | C*03:40:01+C*03:49     |                  |
| C*03:28+C*03:43:02  | C*03:40:02+C*03:49     |                  |
| C*03:28+C*03:50     | C*03:49+C*03:107       |                  |
| C*03:28+C*03:59     | C*03:49+C*03:123       |                  |
| C*03:28+C*03:69     | C*03:38:02+C*03:49     |                  |
| C*03:28+C*03:103    | C*03:49+C*03:90        |                  |
| C*03:28+C*03:127    | C*03:49+C*03:70        |                  |
| C*03:28+C*03:151    | C*03:41+C*03:49        |                  |
| C*03:28+C*04:01:01G | C*03:117+C*04:08       |                  |
| C*03:28+C*04:34     | C*03:77+C*04:08        |                  |
| C*03:28+C*04:52     | C*03:49+C*04:01:01G    |                  |
| C*03:28+C*04:55     | C*03:49+C*04:11        |                  |
| C*03:28+C*04:58     | C*03:162+C*04:01:01G   |                  |
| C*03:28+C*05:01:01G | C*03:117+C*05:39       |                  |
| C*03:28+C*05:55     | C*03:49+C*05:01:01G    |                  |
| C*03:28+C*06:53     | C*03:49+C*06:02:01G    |                  |
| C*03:28+C*07:48     | C*03:93+C*07:37        |                  |
| C*03:28+C*07:49     | C*03:140+C*07:37       |                  |
| C*03:28+C*07:60     | C*03:49+C*07:16        |                  |
| C*03:28+C*07:79     | C*03:49+C*07:51        |                  |
| C*03:28+C*07:124    | C*03:70+C*07:176       |                  |
| C*03:28+C*07:136    | C*03:123+C*07:37       |                  |
| C*03:28+C*07:155    | C*03:70+C*07:37        |                  |
| C*03:28+C*07:243    | C*03:157+C*07:37       |                  |
| C*03:28+C*07:247    | C*03:140+C*07:176      |                  |
| C*03:28+C*07:250    | C*03:128+C*07:176      |                  |
| C*03:28+C*08:01:01G | C*03:117+C*08:41       |                  |
| C*03:28+C*08:39     | C*03:77+C*08:64        |                  |
| C*03:28+C*12:58     | C*03:49+C*12:03:01G    |                  |
| C*03:28+C*14:02:01G | C*03:117+C*14:20       |                  |
| C*03:28+C*14:10     | C*03:49+C*14:03        |                  |
| C*03:28+C*15:03     | C*03:38:02+C*15:08     |                  |
| C*03:28+C*15:10:02  | C*03:64:01+C*15:08     |                  |
| C*03:28+C*15:39     | C*03:51+C*15:08        |                  |
| C*03:28+C*15:45     | C*03:70+C*15:08        |                  |
| C*03:28+C*15:57     | C*03:77+C*15:08        |                  |
| C*03:30+C*03:38:02  | C*03:65+C*03:69        |                  |
| C*03:30+C*03:40:01  | C*03:43:01+C*03:65     |                  |
| C*03:30+C*03:40:02  | C*03:43:02+C*03:65     |                  |
| C*03:30+C*03:41     | C*03:65+C*03:151       |                  |
| C*03:30+C*03:70     | C*03:65+C*03:127       |                  |
| C*03:30+C*03:90     | C*03:65+C*03:103       |                  |
| C*03:30+C*03:92     | C*03:55+C*03:65        |                  |
| C*03:30+C*03:107    | C*03:50+C*03:65        |                  |
| C*03:30+C*03:123    | C*03:59+C*03:65        |                  |
| C*03:30+C*04:11     | C*03:65+C*04:55        |                  |
| C*03:30+C*04:12     | C*03:53+C*04:18        |                  |
| C*03:30+C*04:43     | C*03:52+C*04:18        |                  |
| C*03:30+C*04:49     | C*03:124+C*04:18       |                  |
| C*03:30+C*04:64:01  | C*03:96+C*04:18        |                  |
| C*03:30+C*04:109    | C*03:152+C*04:18       |                  |
| C*03:30+C*04:112    | C*03:31+C*04:18        |                  |
| C*03:30+C*05:01:01G | C*03:65+C*05:55        |                  |
| C*03:30+C*06:02:01G | C*03:65+C*06:53        |                  |
| C*03:30+C*07:01:01G | C*03:65+C*07:109       |                  |
| C*03:30+C*07:02:01G | C*03:65+C*07:56:01     |                  |
| C*03:30+C*07:16     | C*03:65+C*07:60        |                  |
| C*03:30+C*07:51     | C*03:65+C*07:79        |                  |
| C*03:30+C*12:11     | C*03:103+C*12:61       |                  |
| C*03:30+C*12:12     | C*03:127+C*12:61       |                  |
| C*03:30+C*12:13     | C*03:120+C*12:61       |                  |
| C*03:30+C*12:26     | C*03:75+C*12:61        |                  |
| C*03:30+C*12:81     | C*03:31+C*12:61        |                  |
| C*03:30+C*14:03     | C*03:65+C*14:10        |                  |
| C*03:30+C*15:02:01G | C*03:65+C*15:12        |                  |
| C*03:31+C*04:12     | C*03:53+C*04:112       |                  |
| C*03:31+C*04:43     | C*03:52+C*04:112       |                  |
| C*03:31+C*04:49     | C*03:124+C*04:112      |                  |
| C*03:31+C*04:64:01  | C*03:96+C*04:112       |                  |

|                     |                      |                      |                      |                  |
|---------------------|----------------------|----------------------|----------------------|------------------|
| C*03:31+C*04:109    | C*03:152+C*04:112    |                      |                      |                  |
| C*03:31+C*05:15     | C*03:124+C*05:36     |                      |                      |                  |
| C*03:31+C*05:43     | C*03:67+C*05:36      |                      |                      |                  |
| C*03:31+C*05:44:01  | C*03:96+C*05:36      |                      |                      |                  |
| C*03:31+C*05:46     | C*03:69+C*05:36      |                      |                      |                  |
| C*03:31+C*07:02:04  | C*03:103+C*07:01:05  |                      |                      |                  |
| C*03:31+C*07:02:11  | C*03:103+C*07:01:23  |                      |                      |                  |
| C*03:31+C*07:02:31  | C*03:103+C*07:01:22  |                      |                      |                  |
| C*03:31+C*07:10     | C*03:103+C*07:196    |                      |                      |                  |
| C*03:31+C*07:15     | C*03:103+C*07:207    |                      |                      |                  |
| C*03:31+C*07:17     | C*03:103+C*07:141:02 |                      |                      |                  |
| C*03:31+C*07:25     | C*03:150+C*07:19     |                      |                      |                  |
| C*03:31+C*07:29     | C*03:103+C*07:248    |                      |                      |                  |
| C*03:31+C*07:37     | C*03:49+C*07:19      | C*03:103+C*07:176    |                      |                  |
| C*03:31+C*07:39     | C*03:103+C*07:40     |                      |                      |                  |
| C*03:31+C*07:49     | C*03:103+C*07:247    |                      |                      |                  |
| C*03:31+C*07:56:01  | C*03:103+C*07:109    |                      |                      |                  |
| C*03:31+C*07:75     | C*03:103+C*07:254    |                      |                      |                  |
| C*03:31+C*07:76     | C*03:103+C*07:09     |                      |                      |                  |
| C*03:31+C*07:79     | C*03:103+C*07:60     |                      |                      |                  |
| C*03:31+C*07:107    | C*03:103+C*07:224    |                      |                      |                  |
| C*03:31+C*07:123    | C*03:81+C*07:19      | C*03:103+C*07:173    |                      |                  |
| C*03:31+C*07:127    | C*03:103+C*07:263    |                      |                      |                  |
| C*03:31+C*07:136    | C*03:59+C*07:19      |                      |                      |                  |
| C*03:31+C*07:138    | C*03:103+C*07:22     |                      |                      |                  |
| C*03:31+C*07:155    | C*03:103+C*07:124    | C*03:127+C*07:19     |                      |                  |
| C*03:31+C*07:161    | C*03:103+C*07:148    |                      |                      |                  |
| C*03:31+C*07:171    | C*03:103+C*07:170    |                      |                      |                  |
| C*03:31+C*07:172    | C*03:103+C*07:73     |                      |                      |                  |
| C*03:31+C*07:183    | C*03:103+C*07:94     |                      |                      |                  |
| C*03:31+C*07:186    | C*03:103+C*07:212    |                      |                      |                  |
| C*03:31+C*07:216    | C*03:103+C*07:53     |                      |                      |                  |
| C*03:31+C*07:218    | C*03:103+C*07:24     |                      |                      |                  |
| C*03:31+C*07:232    | C*03:103+C*07:128    |                      |                      |                  |
| C*03:31+C*07:238    | C*03:103+C*07:210    |                      |                      |                  |
| C*03:31+C*07:240    | C*03:103+C*07:255    | C*03:122+C*07:19     |                      |                  |
| C*03:31+C*07:241    | C*03:103+C*07:165    |                      |                      |                  |
| C*03:31+C*07:262    | C*03:124+C*07:19     |                      |                      |                  |
| C*03:31+C*12:11     | C*03:103+C*12:81     |                      |                      |                  |
| C*03:31+C*12:12     | C*03:127+C*12:81     |                      |                      |                  |
| C*03:31+C*12:13     | C*03:120+C*12:81     |                      |                      |                  |
| C*03:31+C*12:17     | C*03:53+C*12:08      |                      |                      |                  |
| C*03:31+C*12:26     | C*03:75+C*12:81      |                      |                      |                  |
| C*03:32+C*03:36     | C*03:60+C*03:77      |                      |                      |                  |
| C*03:32+C*03:130    | C*03:136+C*03:140    |                      |                      |                  |
| C*03:32+C*04:01:01G | C*03:45+C*04:29      | C*03:136+C*04:10     |                      |                  |
| C*03:32+C*04:10     | C*03:45+C*04:36      |                      |                      |                  |
| C*03:32+C*04:29     | C*03:136+C*04:36     |                      |                      |                  |
| C*03:32+C*05:01:02  | C*03:45+C*08:02:04   |                      |                      |                  |
| C*03:32+C*05:08     | C*03:45+C*08:29      |                      |                      |                  |
| C*03:32+C*05:09:01  | C*03:45+C*08:15:01   |                      |                      |                  |
| C*03:32+C*05:09:02  | C*03:45+C*08:15:02   |                      |                      |                  |
| C*03:32+C*05:11     | C*03:45+C*08:04:01   |                      |                      |                  |
| C*03:32+C*05:16     | C*03:45+C*08:12      |                      |                      |                  |
| C*03:32+C*05:18:01  | C*03:45+C*08:64      |                      |                      |                  |
| C*03:32+C*05:18:02  | C*03:45+C*08:33:01   |                      |                      |                  |
| C*03:32+C*05:20     | C*03:140+C*08:28     |                      |                      |                  |
| C*03:32+C*05:23     | C*03:45+C*08:07      |                      |                      |                  |
| C*03:32+C*05:25     | C*03:45+C*08:28      |                      |                      |                  |
| C*03:32+C*05:42     | C*03:136+C*05:25     |                      |                      |                  |
| C*03:32+C*05:43     | C*03:45+C*08:37      |                      |                      |                  |
| C*03:32+C*05:59     | C*03:128+C*05:25     |                      |                      |                  |
| C*03:32+C*05:64     | C*03:45+C*08:19      |                      |                      |                  |
| C*03:32+C*05:68     | C*03:45+C*08:57      |                      |                      |                  |
| C*03:32+C*06:02:01G | C*03:45+C*06:11      |                      |                      |                  |
| C*03:32+C*06:76:02  | C*03:45+C*12:28      |                      |                      |                  |
| C*03:32+C*07:01:01G | C*03:136+C*07:40     |                      |                      |                  |
| C*03:32+C*07:02:01G | C*03:136+C*07:39     |                      |                      |                  |
| C*03:32+C*07:09     | C*03:45+C*07:01:01G  |                      |                      |                  |
| C*03:32+C*07:49     | C*03:136+C*07:238    |                      |                      |                  |
| C*03:32+C*07:76     | C*03:45+C*07:02:01G  |                      |                      |                  |
| C*03:32+C*07:247    | C*03:136+C*07:210    |                      |                      |                  |
| C*03:32+C*08:05     | C*03:38:02+C*08:28   | C*03:136+C*08:02:01G |                      |                  |
| C*03:32+C*08:10     | C*03:45+C*08:01:01G  |                      |                      |                  |
| C*03:32+C*08:21     | C*03:136+C*08:01:01G |                      |                      |                  |
| C*03:32+C*08:47     | C*03:162+C*08:28     |                      |                      |                  |
| C*03:32+C*12:02:01G | C*03:136+C*12:49     |                      |                      |                  |
| C*03:32+C*12:11     | C*03:90+C*12:28      |                      |                      |                  |
| C*03:32+C*12:12     | C*03:70+C*12:28      |                      |                      |                  |
| C*03:32+C*12:25     | C*03:104+C*12:28     |                      |                      |                  |
| C*03:32+C*12:41     | C*03:45+C*12:02:01G  |                      |                      |                  |
| C*03:32+C*12:54     | C*03:140+C*12:28     |                      |                      |                  |
| C*03:32+C*12:61     | C*03:65+C*12:28      |                      |                      |                  |
| C*03:32+C*14:04     | C*03:130+C*14:13     |                      |                      |                  |
| C*03:32+C*15:02:01G | C*03:45+C*15:07      |                      |                      |                  |
| C*03:32+C*15:03     | C*03:136+C*15:02:01G |                      |                      |                  |
| C*03:32+C*15:16     | C*03:136+C*15:17     |                      |                      |                  |
| C*03:32+C*16:15:01  | C*03:38:02+C*16:26   | C*03:136+C*16:01:01  |                      |                  |
| C*03:32+C*16:18     | C*03:128+C*16:26     |                      |                      |                  |
| C*03:32+C*16:22     | C*03:123+C*16:26     |                      |                      |                  |
| C*03:32+C*16:25     | C*03:38:02+C*16:46   | C*03:45+C*16:15:01   | C*03:136+C*16:02:01G | C*03:163+C*16:26 |
| C*03:32+C*16:46     | C*03:45+C*16:26      |                      |                      |                  |
| C*03:32+C*16:48     | C*03:45+C*16:35      |                      |                      |                  |
| C*03:33+C*07:109    | C*03:132+C*07:201    |                      |                      |                  |
| C*03:34+C*04:01:01G | C*03:92+C*04:32      |                      |                      |                  |
| C*03:34+C*04:52     | C*03:55+C*04:32      |                      |                      |                  |
| C*03:34+C*06:02:01G | C*03:92+C*06:08      |                      |                      |                  |
| C*03:34+C*06:53     | C*03:55+C*06:08      | C*03:142+C*06:04     |                      |                  |
| C*03:34+C*07:01:01G | C*03:92+C*07:207     |                      |                      |                  |
| C*03:34+C*07:02:01G | C*03:92+C*07:15      |                      |                      |                  |
| C*03:34+C*07:37     | C*03:117+C*07:15     |                      |                      |                  |
| C*03:34+C*07:56:01  | C*03:55+C*07:15      |                      |                      |                  |
| C*03:34+C*07:109    | C*03:55+C*07:207     |                      |                      |                  |
| C*03:34+C*07:120    | C*03:98+C*07:207     |                      |                      |                  |
| C*03:34+C*07:176    | C*03:117+C*07:207    |                      |                      |                  |

|                        |                        |                      |
|------------------------|------------------------|----------------------|
| C*03:34+C*08:29        | C*03:92+C*08:31        |                      |
| C*03:34+C*12:58        | C*03:142+C*12:20       |                      |
| C*03:34+C*14:02:01G    | C*03:92+C*14:25        |                      |
| C*03:34+C*15:02:01G    | C*03:92+C*15:42        |                      |
| C*03:34+C*15:08        | C*03:117+C*15:42       |                      |
| C*03:34+C*15:12        | C*03:55+C*15:42        |                      |
| C*03:34+C*16:01:01     | C*03:92+C*16:50        |                      |
| C*03:34+C*16:04:01     | C*03:92+C*16:29        |                      |
| C*03:35+C*15:46        | C*03:90+C*15:22        |                      |
| C*03:35+C*15:59        | C*03:109+C*15:22       |                      |
| C*03:36+C*04:50        | C*03:110+C*04:113      |                      |
| C*03:36+C*04:52        | C*03:132+C*04:113      |                      |
| C*03:36+C*15:12        | C*03:132+C*15:57       |                      |
| C*03:37+C*06:28        | C*03:64:01+C*06:02:01G |                      |
| C*03:37+C*06:76:01     | C*03:64:01+C*06:03:02  |                      |
| C*03:37+C*07:73        | C*03:64:01+C*07:01:01G |                      |
| C*03:37+C*07:92        | C*03:64:01+C*07:26     |                      |
| C*03:37+C*07:172       | C*03:64:01+C*07:02:01G |                      |
| C*03:37+C*08:03:01G    | C*03:64:01+C*08:14     |                      |
| C*03:37+C*14:02:01G    | C*03:64:01+C*14:18     |                      |
| C*03:37+C*18:04        | C*03:64:01+C*18:01:01G |                      |
| C*03:38:01+C*04:15:02  | C*03:38:02+C*04:15:03  |                      |
| C*03:38:01+C*05:22:01  | C*03:38:02+C*05:22:02  |                      |
| C*03:38:01+C*05:81     | C*03:125+C*05:46       |                      |
| C*03:38:01+C*07:01:01G | C*03:38:02+C*07:01:07  |                      |
| C*03:38:01+C*07:04:01G | C*03:38:02+C*07:04:03  |                      |
| C*03:38:01+C*07:09     | C*03:163+C*07:01:07    |                      |
| C*03:38:01+C*07:27:01  | C*03:38:02+C*07:27:02  |                      |
| C*03:38:01+C*07:109    | C*03:69+C*07:01:07     |                      |
| C*03:38:01+C*07:199:01 | C*03:38:02+C*07:199:02 |                      |
| C*03:38:01+C*07:247    | C*03:130+C*07:01:07    |                      |
| C*03:38:01+C*08:10     | C*03:163+C*08:01:02    |                      |
| C*03:38:01+C*12:02:03  | C*03:38:02+C*12:02:01G |                      |
| C*03:38:01+C*12:02:08  | C*03:38:02+C*12:02:06  |                      |
| C*03:38:01+C*16:07:02  | C*03:38:02+C*16:07:01  |                      |
| C*03:38:01+C*16:13     | C*03:125+C*16:15:01    |                      |
| C*03:38:02+C*03:43:01  | C*03:40:01+C*03:69     |                      |
| C*03:38:02+C*03:43:02  | C*03:40:02+C*03:69     |                      |
| C*03:38:02+C*03:50     | C*03:69+C*03:107       |                      |
| C*03:38:02+C*03:55     | C*03:69+C*03:92        |                      |
| C*03:38:02+C*03:59     | C*03:69+C*03:123       |                      |
| C*03:38:02+C*03:103    | C*03:69+C*03:90        |                      |
| C*03:38:02+C*03:127    | C*03:69+C*03:70        |                      |
| C*03:38:02+C*03:151    | C*03:41+C*03:69        |                      |
| C*03:38:02+C*04:01:01G | C*03:136+C*04:33       | C*03:163+C*04:29     |
| C*03:38:02+C*04:03     | C*03:136+C*04:107      |                      |
| C*03:38:02+C*04:52     | C*03:69+C*04:01:01G    |                      |
| C*03:38:02+C*04:55     | C*03:69+C*04:11        |                      |
| C*03:38:02+C*04:114    | C*03:130+C*04:29       |                      |
| C*03:38:02+C*05:01:02  | C*03:163+C*08:02:04    |                      |
| C*03:38:02+C*05:08     | C*03:163+C*08:29       |                      |
| C*03:38:02+C*05:09:01  | C*03:163+C*08:15:01    |                      |
| C*03:38:02+C*05:09:02  | C*03:163+C*08:15:02    |                      |
| C*03:38:02+C*05:11     | C*03:163+C*08:04:01    |                      |
| C*03:38:02+C*05:16     | C*03:163+C*08:12       |                      |
| C*03:38:02+C*05:18:01  | C*03:163+C*08:64       |                      |
| C*03:38:02+C*05:18:02  | C*03:163+C*08:33:01    |                      |
| C*03:38:02+C*05:20     | C*03:130+C*08:02:01G   | C*03:140+C*08:05     |
| C*03:38:02+C*05:23     | C*03:163+C*08:07       |                      |
| C*03:38:02+C*05:42     | C*03:136+C*05:46       |                      |
| C*03:38:02+C*05:43     | C*03:163+C*08:37       |                      |
| C*03:38:02+C*05:46     | C*03:163+C*08:05       |                      |
| C*03:38:02+C*05:59     | C*03:128+C*05:46       |                      |
| C*03:38:02+C*05:64     | C*03:163+C*08:19       |                      |
| C*03:38:02+C*05:68     | C*03:163+C*08:57       |                      |
| C*03:38:02+C*06:02:01G | C*03:136+C*06:30       | C*03:163+C*06:11     |
| C*03:38:02+C*06:53     | C*03:69+C*06:02:01G    |                      |
| C*03:38:02+C*06:76:02  | C*03:136+C*12:04:02    | C*03:163+C*12:28     |
| C*03:38:02+C*06:82     | C*03:130+C*06:11       |                      |
| C*03:38:02+C*07:01:01G | C*03:136+C*07:16       |                      |
| C*03:38:02+C*07:02:01G | C*03:136+C*07:51       |                      |
| C*03:38:02+C*07:04:01G | C*03:136+C*07:181      |                      |
| C*03:38:02+C*07:07     | C*03:163+C*07:16       |                      |
| C*03:38:02+C*07:09     | C*03:136+C*07:07       | C*03:163+C*07:01:01G |
| C*03:38:02+C*07:49     | C*03:130+C*07:02:01G   |                      |
| C*03:38:02+C*07:56:01  | C*03:69+C*07:02:01G    | C*03:136+C*07:79     |
| C*03:38:02+C*07:60     | C*03:69+C*07:16        |                      |
| C*03:38:02+C*07:76     | C*03:163+C*07:02:01G   |                      |
| C*03:38:02+C*07:79     | C*03:69+C*07:51        |                      |
| C*03:38:02+C*07:109    | C*03:69+C*07:01:01G    | C*03:136+C*07:60     |
| C*03:38:02+C*07:247    | C*03:130+C*07:01:01G   |                      |
| C*03:38:02+C*08:47     | C*03:162+C*08:05       |                      |
| C*03:38:02+C*12:04:02  | C*03:163+C*12:03:01G   |                      |
| C*03:38:02+C*12:28     | C*03:136+C*12:03:01G   |                      |
| C*03:38:02+C*12:41     | C*03:130+C*12:72       | C*03:163+C*12:02:01G |
| C*03:38:02+C*12:54     | C*03:130+C*12:03:01G   |                      |
| C*03:38:02+C*12:58     | C*03:69+C*12:03:01G    |                      |
| C*03:38:02+C*14:10     | C*03:69+C*14:03        |                      |
| C*03:38:02+C*14:13     | C*03:136+C*14:02:01G   |                      |
| C*03:38:02+C*15:10:02  | C*03:64:01+C*15:03     |                      |
| C*03:38:02+C*15:39     | C*03:51+C*15:03        |                      |
| C*03:38:02+C*15:45     | C*03:70+C*15:03        |                      |
| C*03:38:02+C*15:57     | C*03:77+C*15:03        |                      |
| C*03:38:02+C*16:18     | C*03:128+C*16:15:01    |                      |
| C*03:38:02+C*16:22     | C*03:123+C*16:15:01    |                      |
| C*03:38:02+C*16:25     | C*03:163+C*16:15:01    |                      |
| C*03:38:02+C*16:48     | C*03:163+C*16:35       |                      |
| C*03:38:02+C*17:11     | C*03:136+C*17:01:01G   |                      |
| C*03:40:01+C*03:43:02  | C*03:40:02+C*03:43:01  |                      |
| C*03:40:01+C*03:50     | C*03:43:01+C*03:107    |                      |
| C*03:40:01+C*03:55     | C*03:43:01+C*03:92     |                      |
| C*03:40:01+C*03:59     | C*03:43:01+C*03:123    |                      |
| C*03:40:01+C*03:103    | C*03:43:01+C*03:90     |                      |
| C*03:40:01+C*03:127    | C*03:43:01+C*03:70     |                      |
| C*03:40:01+C*03:151    | C*03:41+C*03:43:01     |                      |

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| C*03:40:01+C*04:01:01G | C*03:40:03+C*04:01:30  |                        |
| C*03:40:01+C*04:01:07  | C*03:40:02+C*04:01:08  |                        |
| C*03:40:01+C*04:01:09  | C*03:40:02+C*04:01:01G |                        |
| C*03:40:01+C*04:04:02  | C*03:40:02+C*04:04:01  |                        |
| C*03:40:01+C*04:15:02  | C*03:42+C*04:17        |                        |
| C*03:40:01+C*04:15:03  | C*03:40:03+C*04:15:01  |                        |
| C*03:40:01+C*04:52     | C*03:43:01+C*04:01:01G |                        |
| C*03:40:01+C*04:55     | C*03:43:01+C*04:11     |                        |
| C*03:40:01+C*04:94:02  | C*03:40:02+C*04:94:01  |                        |
| C*03:40:01+C*05:01:01G | C*03:42+C*05:05        |                        |
| C*03:40:01+C*05:01:20  | C*03:40:03+C*05:01:02  |                        |
| C*03:40:01+C*05:55     | C*03:43:01+C*05:01:01G |                        |
| C*03:40:01+C*06:02:01G | C*03:40:02+C*06:02:08  |                        |
| C*03:40:01+C*06:02:17  | C*03:40:03+C*06:02:01G |                        |
| C*03:40:01+C*06:53     | C*03:43:01+C*06:02:01G | C*03:43:02+C*06:02:08  |
| C*03:40:01+C*07:01:01G | C*03:42+C*07:257       |                        |
| C*03:40:01+C*07:01:12  | C*03:40:03+C*07:01:01G |                        |
| C*03:40:01+C*07:02:01G | C*03:40:02+C*07:02:32  |                        |
| C*03:40:01+C*07:02:12  | C*03:40:03+C*07:02:01G |                        |
| C*03:40:01+C*07:56:01  | C*03:43:01+C*07:02:01G | C*03:43:02+C*07:02:32  |
| C*03:40:01+C*07:60     | C*03:43:01+C*07:16     |                        |
| C*03:40:01+C*07:79     | C*03:43:01+C*07:51     |                        |
| C*03:40:01+C*07:109    | C*03:43:01+C*07:01:01G |                        |
| C*03:40:01+C*08:01:06  | C*03:40:02+C*08:01:07  |                        |
| C*03:40:01+C*08:02:04  | C*03:40:02+C*08:02:07  |                        |
| C*03:40:01+C*08:02:06  | C*03:40:03+C*08:02:01G | C*03:42+C*08:62        |
| C*03:40:01+C*12:02:09  | C*03:40:03+C*12:02:01G |                        |
| C*03:40:01+C*12:03:08  | C*03:40:02+C*12:03:20  |                        |
| C*03:40:01+C*12:03:19  | C*03:71+C*12:44        |                        |
| C*03:40:01+C*12:10:01  | C*03:40:03+C*12:10:02  |                        |
| C*03:40:01+C*12:58     | C*03:43:01+C*12:03:01G |                        |
| C*03:40:01+C*14:02:02  | C*03:40:02+C*14:02:01G |                        |
| C*03:40:01+C*14:10     | C*03:43:01+C*14:03     |                        |
| C*03:40:01+C*15:58     | C*03:71+C*15:26        |                        |
| C*03:40:01+C*16:01:01  | C*03:40:02+C*16:01:06  | C*03:42+C*16:49        |
| C*03:40:01+C*17:01:02  | C*03:40:03+C*17:01:01G |                        |
| C*03:40:02+C*03:50     | C*03:43:02+C*03:107    |                        |
| C*03:40:02+C*03:55     | C*03:43:02+C*03:92     |                        |
| C*03:40:02+C*03:59     | C*03:43:02+C*03:123    |                        |
| C*03:40:02+C*03:103    | C*03:43:02+C*03:90     |                        |
| C*03:40:02+C*03:127    | C*03:43:02+C*03:70     |                        |
| C*03:40:02+C*03:151    | C*03:41+C*03:43:02     |                        |
| C*03:40:02+C*04:52     | C*03:43:01+C*04:01:09  | C*03:43:02+C*04:01:01G |
| C*03:40:02+C*04:55     | C*03:43:02+C*04:11     |                        |
| C*03:40:02+C*05:55     | C*03:43:02+C*05:01:01G |                        |
| C*03:40:02+C*06:53     | C*03:43:02+C*06:02:01G |                        |
| C*03:40:02+C*07:56:01  | C*03:43:02+C*07:02:01G |                        |
| C*03:40:02+C*07:60     | C*03:43:02+C*07:16     |                        |
| C*03:40:02+C*07:79     | C*03:43:02+C*07:51     |                        |
| C*03:40:02+C*07:109    | C*03:43:02+C*07:01:01G |                        |
| C*03:40:02+C*12:58     | C*03:43:02+C*12:03:01G |                        |
| C*03:40:02+C*14:10     | C*03:43:02+C*14:03     |                        |
| C*03:40:02+C*15:12     | C*03:43:02+C*15:02:01G |                        |
| C*03:40:03+C*06:53     | C*03:43:01+C*06:02:17  |                        |
| C*03:40:03+C*07:56:01  | C*03:43:01+C*07:02:12  |                        |
| C*03:40:03+C*07:109    | C*03:43:01+C*07:01:12  |                        |
| C*03:41+C*03:50        | C*03:107+C*03:151      |                        |
| C*03:41+C*03:55        | C*03:92+C*03:151       |                        |
| C*03:41+C*03:59        | C*03:123+C*03:151      |                        |
| C*03:41+C*03:103       | C*03:90+C*03:151       |                        |
| C*03:41+C*03:127       | C*03:70+C*03:151       |                        |
| C*03:41+C*04:52        | C*03:151+C*04:01:01G   |                        |
| C*03:41+C*04:55        | C*03:151+C*04:11       |                        |
| C*03:41+C*05:01:17     | C*03:113+C*05:39       |                        |
| C*03:41+C*05:55        | C*03:151+C*05:01:01G   |                        |
| C*03:41+C*06:53        | C*03:151+C*06:02:01G   |                        |
| C*03:41+C*07:56:01     | C*03:151+C*07:02:01G   |                        |
| C*03:41+C*07:60        | C*03:151+C*07:16       |                        |
| C*03:41+C*07:79        | C*03:151+C*07:51       |                        |
| C*03:41+C*07:109       | C*03:151+C*07:01:01G   |                        |
| C*03:41+C*12:58        | C*03:151+C*12:03:01G   |                        |
| C*03:41+C*14:10        | C*03:151+C*14:03       |                        |
| C*03:41+C*15:12        | C*03:151+C*15:02:01G   |                        |
| C*03:42+C*03:132       | C*03:43:01+C*03:139    |                        |
| C*03:42+C*05:16        | C*03:71+C*05:10        |                        |
| C*03:42+C*05:31        | C*03:139+C*05:10       |                        |
| C*03:42+C*07:31        | C*03:71+C*07:43        |                        |
| C*03:42+C*15:55        | C*03:71+C*15:06:01     |                        |
| C*03:42+C*15:58        | C*03:71+C*15:02:01G    |                        |
| C*03:43:01+C*04:01:07  | C*03:43:02+C*04:01:08  |                        |
| C*03:43:01+C*04:04:02  | C*03:43:02+C*04:04:01  |                        |
| C*03:43:01+C*04:94:02  | C*03:43:02+C*04:94:01  |                        |
| C*03:43:01+C*05:31     | C*03:132+C*05:10       |                        |
| C*03:43:01+C*08:01:06  | C*03:43:02+C*08:01:07  |                        |
| C*03:43:01+C*08:02:04  | C*03:43:02+C*08:02:07  |                        |
| C*03:43:01+C*12:03:08  | C*03:43:02+C*12:03:20  |                        |
| C*03:43:01+C*14:02:02  | C*03:43:02+C*14:02:01G |                        |
| C*03:43:01+C*16:01:01  | C*03:43:02+C*16:01:06  |                        |
| C*03:43:02+C*15:02:05  | C*03:119+C*15:26       |                        |
| C*03:45+C*05:20        | C*03:140+C*05:25       |                        |
| C*03:45+C*08:21        | C*03:136+C*08:10       |                        |
| C*03:45+C*08:25        | C*03:136+C*05:29       |                        |
| C*03:45+C*08:47        | C*03:162+C*05:25       |                        |
| C*03:45+C*12:11        | C*03:90+C*06:76:02     |                        |
| C*03:45+C*12:12        | C*03:70+C*06:76:02     |                        |
| C*03:45+C*12:25        | C*03:104+C*06:76:02    |                        |
| C*03:45+C*12:54        | C*03:140+C*06:76:02    |                        |
| C*03:45+C*12:61        | C*03:65+C*06:76:02     |                        |
| C*03:45+C*16:18        | C*03:128+C*16:46       |                        |
| C*03:45+C*16:22        | C*03:123+C*16:46       |                        |
| C*03:45+C*16:25        | C*03:163+C*16:46       |                        |
| C*03:48+C*06:23        | C*03:128+C*06:85       |                        |
| C*03:48+C*06:47        | C*03:90+C*06:85        |                        |
| C*03:48+C*06:69        | C*03:70+C*06:85        |                        |
| C*03:48+C*06:71        | C*03:104+C*06:85       |                        |

|                     |                      |
|---------------------|----------------------|
| C*03:49+C*04:58     | C*03:162+C*04:52     |
| C*03:49+C*07:25     | C*03:150+C*07:37     |
| C*03:49+C*07:123    | C*03:81+C*07:37      |
| C*03:49+C*07:124    | C*03:127+C*07:176    |
| C*03:49+C*07:131    | C*03:126+C*07:176    |
| C*03:49+C*07:136    | C*03:59+C*07:37      |
| C*03:49+C*07:155    | C*03:127+C*07:37     |
| C*03:49+C*07:173    | C*03:81+C*07:176     |
| C*03:49+C*07:182    | C*03:152+C*07:176    |
| C*03:49+C*07:240    | C*03:122+C*07:37     |
| C*03:49+C*07:255    | C*03:122+C*07:176    |
| C*03:49+C*07:262    | C*03:124+C*07:37     |
| C*03:49+C*15:03     | C*03:69+C*15:08      |
| C*03:49+C*15:18     | C*03:141+C*15:08     |
| C*03:49+C*15:45     | C*03:127+C*15:08     |
| C*03:49+C*15:53     | C*03:88+C*15:08      |
| C*03:50+C*03:70     | C*03:107+C*03:127    |
| C*03:50+C*03:90     | C*03:103+C*03:107    |
| C*03:50+C*03:92     | C*03:55+C*03:107     |
| C*03:50+C*03:123    | C*03:59+C*03:107     |
| C*03:50+C*04:01:01G | C*03:107+C*04:52     |
| C*03:50+C*04:11     | C*03:107+C*04:55     |
| C*03:50+C*05:01:01G | C*03:107+C*05:55     |
| C*03:50+C*06:02:01G | C*03:107+C*06:53     |
| C*03:50+C*07:01:01G | C*03:107+C*07:109    |
| C*03:50+C*07:02:01G | C*03:107+C*07:56:01  |
| C*03:50+C*07:16     | C*03:107+C*07:60     |
| C*03:50+C*07:51     | C*03:107+C*07:79     |
| C*03:50+C*12:03:01G | C*03:107+C*12:58     |
| C*03:50+C*14:03     | C*03:107+C*14:10     |
| C*03:50+C*15:02:01G | C*03:107+C*15:12     |
| C*03:51+C*04:52     | C*03:161+C*04:08     |
| C*03:51+C*05:55     | C*03:161+C*05:39     |
| C*03:51+C*07:56:01  | C*03:161+C*07:186    |
| C*03:51+C*07:109    | C*03:161+C*07:212    |
| C*03:51+C*15:10:02  | C*03:64:01+C*15:39   |
| C*03:51+C*15:45     | C*03:70+C*15:39      |
| C*03:51+C*15:57     | C*03:77+C*15:39      |
| C*03:52+C*04:12     | C*03:53+C*04:43      |
| C*03:52+C*04:49     | C*03:124+C*04:43     |
| C*03:52+C*04:64:01  | C*03:96+C*04:43      |
| C*03:52+C*04:109    | C*03:152+C*04:43     |
| C*03:53+C*04:49     | C*03:124+C*04:12     |
| C*03:53+C*04:64:01  | C*03:96+C*04:12      |
| C*03:53+C*04:109    | C*03:152+C*04:12     |
| C*03:54+C*04:18     | C*03:65+C*04:48      |
| C*03:54+C*04:113    | C*03:77+C*04:48      |
| C*03:55+C*03:70     | C*03:92+C*03:127     |
| C*03:55+C*03:90     | C*03:92+C*03:103     |
| C*03:55+C*03:123    | C*03:59+C*03:92      |
| C*03:55+C*04:01:01G | C*03:92+C*04:52      |
| C*03:55+C*04:11     | C*03:92+C*04:55      |
| C*03:55+C*05:01:01G | C*03:92+C*05:55      |
| C*03:55+C*07:01:01G | C*03:92+C*07:109     |
| C*03:55+C*07:02:01G | C*03:92+C*07:56:01   |
| C*03:55+C*07:16     | C*03:92+C*07:60      |
| C*03:55+C*07:37     | C*03:117+C*07:56:01  |
| C*03:55+C*07:51     | C*03:92+C*07:79      |
| C*03:55+C*07:120    | C*03:98+C*07:109     |
| C*03:55+C*07:176    | C*03:117+C*07:109    |
| C*03:55+C*08:31     | C*03:142+C*08:04:01  |
| C*03:55+C*08:51     | C*03:161+C*08:15:01  |
| C*03:55+C*14:03     | C*03:92+C*14:10      |
| C*03:55+C*15:02:01G | C*03:92+C*15:12      |
| C*03:55+C*15:08     | C*03:117+C*15:12     |
| C*03:55+C*15:39     | C*03:161+C*15:02:01G |
| C*03:55+C*16:29     | C*03:142+C*16:35     |
| C*03:58+C*07:248    | C*03:86+C*07:28      |
| C*03:59+C*03:70     | C*03:123+C*03:127    |
| C*03:59+C*03:90     | C*03:103+C*03:123    |
| C*03:59+C*04:01:01G | C*03:123+C*04:52     |
| C*03:59+C*04:11     | C*03:123+C*04:55     |
| C*03:59+C*05:01:01G | C*03:123+C*05:55     |
| C*03:59+C*06:02:01G | C*03:123+C*06:53     |
| C*03:59+C*07:01:01G | C*03:123+C*07:109    |
| C*03:59+C*07:16     | C*03:123+C*07:60     |
| C*03:59+C*07:25     | C*03:150+C*07:136    |
| C*03:59+C*07:51     | C*03:123+C*07:79     |
| C*03:59+C*07:123    | C*03:81+C*07:136     |
| C*03:59+C*07:155    | C*03:127+C*07:136    |
| C*03:59+C*07:240    | C*03:122+C*07:136    |
| C*03:59+C*07:262    | C*03:124+C*07:136    |
| C*03:59+C*12:03:01G | C*03:123+C*12:58     |
| C*03:59+C*14:03     | C*03:123+C*14:10     |
| C*03:59+C*15:02:01G | C*03:123+C*15:12     |
| C*03:59+C*16:15:01  | C*03:69+C*16:22      |
| C*03:59+C*16:20     | C*03:81+C*16:22      |
| C*03:59+C*16:21     | C*03:67+C*16:22      |
| C*03:59+C*16:24     | C*03:150+C*16:22     |
| C*03:59+C*16:28     | C*03:141+C*16:22     |
| C*03:59+C*16:32     | C*03:83+C*16:22      |
| C*03:60+C*03:69     | C*03:132+C*03:136    |
| C*03:60+C*04:55     | C*03:132+C*04:36     |
| C*03:60+C*05:55     | C*03:132+C*05:25     |
| C*03:60+C*08:63     | C*03:95+C*08:28      |
| C*03:60+C*12:58     | C*03:132+C*12:28     |
| C*03:60+C*14:32     | C*03:110+C*14:13     |
| C*03:60+C*16:24     | C*03:108+C*16:26     |
| C*03:64:01+C*15:45  | C*03:70+C*15:10:02   |
| C*03:64:01+C*15:57  | C*03:77+C*15:10:02   |
| C*03:65+C*04:113    | C*03:77+C*04:18      |
| C*03:65+C*12:11     | C*03:90+C*12:61      |
| C*03:65+C*12:12     | C*03:70+C*12:61      |
| C*03:65+C*12:25     | C*03:104+C*12:61     |
| C*03:65+C*12:54     | C*03:140+C*12:61     |



|                     |                      |
|---------------------|----------------------|
| C*03:67+C*05:15     | C*03:124+C*05:43     |
| C*03:67+C*05:44:01  | C*03:96+C*05:43      |
| C*03:67+C*05:46     | C*03:69+C*05:43      |
| C*03:67+C*08:05     | C*03:69+C*08:37      |
| C*03:67+C*16:15:01  | C*03:69+C*16:21      |
| C*03:67+C*16:20     | C*03:81+C*16:21      |
| C*03:67+C*16:24     | C*03:150+C*16:21     |
| C*03:67+C*16:28     | C*03:141+C*16:21     |
| C*03:67+C*16:32     | C*03:83+C*16:21      |
| C*03:69+C*05:15     | C*03:124+C*05:46     |
| C*03:69+C*05:44:01  | C*03:96+C*05:46      |
| C*03:69+C*07:07     | C*03:163+C*07:60     |
| C*03:69+C*07:09     | C*03:163+C*07:109    |
| C*03:69+C*07:49     | C*03:130+C*07:56:01  |
| C*03:69+C*07:76     | C*03:163+C*07:56:01  |
| C*03:69+C*07:247    | C*03:130+C*07:109    |
| C*03:69+C*08:03:01G | C*03:96+C*08:21      |
| C*03:69+C*12:04:02  | C*03:163+C*12:58     |
| C*03:69+C*12:28     | C*03:136+C*12:58     |
| C*03:69+C*12:54     | C*03:130+C*12:58     |
| C*03:69+C*15:18     | C*03:141+C*15:03     |
| C*03:69+C*15:45     | C*03:127+C*15:03     |
| C*03:69+C*15:53     | C*03:88+C*15:03      |
| C*03:69+C*16:20     | C*03:81+C*16:15:01   |
| C*03:69+C*16:24     | C*03:150+C*16:15:01  |
| C*03:69+C*16:28     | C*03:141+C*16:15:01  |
| C*03:69+C*16:32     | C*03:83+C*16:15:01   |
| C*03:70+C*03:103    | C*03:90+C*03:127     |
| C*03:70+C*04:52     | C*03:127+C*04:01:01G |
| C*03:70+C*04:55     | C*03:127+C*04:11     |
| C*03:70+C*05:55     | C*03:127+C*05:01:01G |
| C*03:70+C*06:23     | C*03:128+C*06:69     |
| C*03:70+C*06:47     | C*03:90+C*06:69      |
| C*03:70+C*06:71     | C*03:104+C*06:69     |
| C*03:70+C*07:48     | C*03:93+C*07:155     |
| C*03:70+C*07:49     | C*03:140+C*07:155    |
| C*03:70+C*07:60     | C*03:127+C*07:16     |
| C*03:70+C*07:79     | C*03:127+C*07:51     |
| C*03:70+C*07:136    | C*03:123+C*07:155    |
| C*03:70+C*07:243    | C*03:157+C*07:155    |
| C*03:70+C*07:247    | C*03:140+C*07:124    |
| C*03:70+C*07:250    | C*03:128+C*07:124    |
| C*03:70+C*12:11     | C*03:90+C*12:12      |
| C*03:70+C*12:25     | C*03:104+C*12:12     |
| C*03:70+C*12:54     | C*03:140+C*12:12     |
| C*03:70+C*14:10     | C*03:127+C*14:03     |
| C*03:70+C*15:57     | C*03:77+C*15:45      |
| C*03:71+C*05:31     | C*03:139+C*05:16     |
| C*03:75+C*12:11     | C*03:103+C*12:26     |
| C*03:75+C*12:12     | C*03:127+C*12:26     |
| C*03:75+C*12:13     | C*03:120+C*12:26     |
| C*03:77+C*04:58     | C*03:162+C*04:122    |
| C*03:81+C*07:25     | C*03:150+C*07:123    |
| C*03:81+C*07:124    | C*03:127+C*07:173    |
| C*03:81+C*07:131    | C*03:126+C*07:173    |
| C*03:81+C*07:155    | C*03:127+C*07:123    |
| C*03:81+C*07:182    | C*03:152+C*07:173    |
| C*03:81+C*07:240    | C*03:122+C*07:123    |
| C*03:81+C*07:255    | C*03:122+C*07:173    |
| C*03:81+C*07:262    | C*03:124+C*07:123    |
| C*03:81+C*16:24     | C*03:150+C*16:20     |
| C*03:81+C*16:28     | C*03:141+C*16:20     |
| C*03:81+C*16:32     | C*03:83+C*16:20      |
| C*03:83+C*16:24     | C*03:150+C*16:32     |
| C*03:83+C*16:28     | C*03:141+C*16:32     |
| C*03:88+C*15:18     | C*03:141+C*15:53     |
| C*03:88+C*15:45     | C*03:127+C*15:53     |
| C*03:89+C*05:01:01G | C*03:139+C*05:64     |
| C*03:89+C*07:01:01G | C*03:139+C*07:108    |
| C*03:89+C*08:02:01G | C*03:139+C*08:19     |
| C*03:89+C*12:02:03  | C*03:139+C*12:10:01  |
| C*03:90+C*04:52     | C*03:103+C*04:01:01G |
| C*03:90+C*04:55     | C*03:103+C*04:11     |
| C*03:90+C*05:55     | C*03:103+C*05:01:01G |
| C*03:90+C*06:23     | C*03:128+C*06:47     |
| C*03:90+C*06:71     | C*03:104+C*06:47     |
| C*03:90+C*07:56:01  | C*03:103+C*07:02:01G |
| C*03:90+C*07:79     | C*03:103+C*07:51     |
| C*03:90+C*07:250    | C*03:128+C*07:19     |
| C*03:90+C*12:25     | C*03:104+C*12:11     |
| C*03:90+C*12:54     | C*03:140+C*12:11     |
| C*03:90+C*14:10     | C*03:103+C*14:03     |
| C*03:90+C*15:12     | C*03:103+C*15:02:01G |
| C*03:90+C*15:59     | C*03:109+C*15:46     |
| C*03:92+C*04:01:01G | C*03:117+C*04:04:01  |
| C*03:92+C*04:01:09  | C*03:117+C*04:04:02  |
| C*03:92+C*04:03     | C*03:117+C*04:06     |
| C*03:92+C*04:61     | C*03:117+C*04:13     |
| C*03:92+C*04:113    | C*03:117+C*04:122    |
| C*03:92+C*05:01:01G | C*03:117+C*05:11     |
| C*03:92+C*05:76     | C*03:117+C*05:68     |
| C*03:92+C*06:06     | C*03:117+C*06:04     |
| C*03:92+C*07:37     | C*03:117+C*07:02:01G |
| C*03:92+C*07:120    | C*03:98+C*07:01:01G  |
| C*03:92+C*07:176    | C*03:117+C*07:01:01G |
| C*03:92+C*08:02:01G | C*03:117+C*08:04:01  |
| C*03:92+C*08:35     | C*03:117+C*08:54     |
| C*03:92+C*12:24     | C*03:117+C*12:20     |
| C*03:92+C*14:02:01G | C*03:117+C*14:06     |
| C*03:92+C*15:08     | C*03:117+C*15:02:01G |
| C*03:93+C*07:49     | C*03:140+C*07:48     |
| C*03:93+C*07:136    | C*03:123+C*07:48     |
| C*03:93+C*07:243    | C*03:157+C*07:48     |
| C*03:95+C*06:53     | C*03:132+C*06:66     |
| C*03:96+C*04:49     | C*03:124+C*04:64:01  |

|                         |                        |                  |                  |                     |
|-------------------------|------------------------|------------------|------------------|---------------------|
| C*03:96+C*04:109        | C*03:152+C*04:64:01    |                  |                  |                     |
| C*03:96+C*05:15         | C*03:124+C*05:44:01    |                  |                  |                     |
| C*03:98+C*07:176        | C*03:117+C*07:120      |                  |                  |                     |
| C*03:103+C*06:69        | C*03:127+C*06:47       |                  |                  |                     |
| C*03:103+C*07:131       | C*03:126+C*07:19       |                  |                  |                     |
| C*03:103+C*07:182       | C*03:152+C*07:19       |                  |                  |                     |
| C*03:103+C*12:12        | C*03:127+C*12:11       |                  |                  |                     |
| C*03:103+C*12:13        | C*03:120+C*12:11       |                  |                  |                     |
| C*03:104+C*06:23        | C*03:128+C*06:71       |                  |                  |                     |
| C*03:104+C*12:54        | C*03:140+C*12:25       |                  |                  |                     |
| C*03:108+C*03:116:01    | C*03:139+C*03:150      |                  |                  |                     |
| C*03:108+C*07:56:01     | C*03:132+C*07:25       |                  |                  |                     |
| C*03:110+C*04:52        | C*03:132+C*04:50       |                  |                  |                     |
| C*03:120+C*12:12        | C*03:127+C*12:13       |                  |                  |                     |
| C*03:122+C*07:25        | C*03:150+C*07:240      |                  |                  |                     |
| C*03:122+C*07:124       | C*03:127+C*07:255      |                  |                  |                     |
| C*03:122+C*07:131       | C*03:126+C*07:255      |                  |                  |                     |
| C*03:122+C*07:155       | C*03:127+C*07:240      |                  |                  |                     |
| C*03:122+C*07:182       | C*03:152+C*07:255      |                  |                  |                     |
| C*03:122+C*07:262       | C*03:124+C*07:240      |                  |                  |                     |
| C*03:123+C*07:49        | C*03:140+C*07:136      |                  |                  |                     |
| C*03:123+C*07:243       | C*03:157+C*07:136      |                  |                  |                     |
| C*03:123+C*16:18        | C*03:128+C*16:22       |                  |                  |                     |
| C*03:123+C*16:25        | C*03:163+C*16:22       |                  |                  |                     |
| C*03:124+C*04:109       | C*03:152+C*04:49       |                  |                  |                     |
| C*03:124+C*07:25        | C*03:150+C*07:262      |                  |                  |                     |
| C*03:124+C*07:155       | C*03:127+C*07:262      |                  |                  |                     |
| C*03:126+C*07:124       | C*03:127+C*07:131      |                  |                  |                     |
| C*03:126+C*07:182       | C*03:152+C*07:131      |                  |                  |                     |
| C*03:127+C*07:25        | C*03:150+C*07:155      |                  |                  |                     |
| C*03:127+C*07:182       | C*03:152+C*07:124      |                  |                  |                     |
| C*03:127+C*15:18        | C*03:141+C*15:45       |                  |                  |                     |
| C*03:128+C*05:42        | C*03:136+C*05:59       |                  |                  |                     |
| C*03:128+C*07:247       | C*03:140+C*07:250      |                  |                  |                     |
| C*03:128+C*16:25        | C*03:163+C*16:18       |                  |                  |                     |
| C*03:130+C*04:01:01G    | C*03:163+C*04:114      |                  |                  |                     |
| C*03:130+C*05:01:01G    | C*03:140+C*05:46       | C*03:163+C*05:20 |                  |                     |
| C*03:130+C*05:25        | C*03:140+C*05:42       |                  |                  |                     |
| C*03:130+C*06:02:01G    | C*03:163+C*06:82       |                  |                  |                     |
| C*03:130+C*07:09        | C*03:163+C*07:247      |                  |                  |                     |
| C*03:130+C*07:76        | C*03:163+C*07:49       |                  |                  |                     |
| C*03:130+C*07:210       | C*03:140+C*07:247      |                  |                  |                     |
| C*03:130+C*07:238       | C*03:140+C*07:49       |                  |                  |                     |
| C*03:130+C*08:01:01G    | C*03:140+C*08:21       |                  |                  |                     |
| C*03:130+C*08:28        | C*03:136+C*05:20       |                  |                  |                     |
| C*03:130+C*12:04:02     | C*03:163+C*12:54       |                  |                  |                     |
| C*03:130+C*12:28        | C*03:136+C*12:54       |                  |                  |                     |
| C*03:130+C*12:49        | C*03:140+C*12:02:01G   |                  |                  |                     |
| C*03:130+C*15:02:01G    | C*03:140+C*15:03       |                  |                  |                     |
| C*03:130+C*15:17        | C*03:140+C*15:16       |                  |                  |                     |
| C*03:130+C*16:01:01     | C*03:140+C*16:15:01    |                  |                  |                     |
| C*03:130+C*16:02:01G    | C*03:140+C*16:25       |                  |                  |                     |
| C*03:136+C*14:12        | C*03:163+C*14:13       |                  |                  |                     |
| C*03:137+C*07:56:01     | C*03:144+C*07:102      |                  |                  |                     |
| C*03:137+C*12:58        | C*03:144+C*12:82       |                  |                  |                     |
| C*03:140+C*07:243       | C*03:157+C*07:49       |                  |                  |                     |
| C*03:140+C*08:47        | C*03:162+C*05:20       |                  |                  |                     |
| C*03:141+C*16:24        | C*03:150+C*16:28       |                  |                  |                     |
| C*03:162+C*05:46        | C*03:163+C*08:47       |                  |                  |                     |
| C*04:01:01G+C*04:01:07  | C*04:01:08+C*04:01:09  |                  |                  |                     |
| C*04:01:01G+C*04:04:02  | C*04:01:09+C*04:04:01  |                  |                  |                     |
| C*04:01:01G+C*04:06     | C*04:03+C*04:04:01     |                  |                  |                     |
| C*04:01:01G+C*04:11     | C*04:33+C*04:36        |                  |                  |                     |
| C*04:01:01G+C*04:13     | C*04:04:01+C*04:61     |                  |                  |                     |
| C*04:01:01G+C*04:15:01  | C*04:01:30+C*04:15:03  |                  |                  |                     |
| C*04:01:01G+C*04:34     | C*04:08+C*04:122       |                  |                  |                     |
| C*04:01:01G+C*04:36     | C*04:10+C*04:29        |                  |                  |                     |
| C*04:01:01G+C*04:55     | C*04:11+C*04:52        |                  |                  |                     |
| C*04:01:01G+C*04:68     | C*04:14+C*04:61        |                  |                  |                     |
| C*04:01:01G+C*04:94:02  | C*04:01:09+C*04:94:01  |                  |                  |                     |
| C*04:01:01G+C*04:107    | C*04:03+C*04:33        |                  |                  |                     |
| C*04:01:01G+C*04:122    | C*04:04:01+C*04:113    |                  |                  |                     |
| C*04:01:01G+C*05:01:01G | C*04:10+C*05:46        | C*04:33+C*05:25  | C*04:103+C*05:78 | C*04:120+C*05:09:01 |
| C*04:01:01G+C*05:01:02  | C*04:01:30+C*05:01:20  |                  |                  |                     |
| C*04:01:01G+C*05:01:03  | C*04:15:01+C*05:64     |                  |                  |                     |
| C*04:01:01G+C*05:01:07  | C*04:01:17+C*05:01:01G |                  |                  |                     |
| C*04:01:01G+C*05:01:09  | C*04:01:40+C*05:01:01G |                  |                  |                     |
| C*04:01:01G+C*05:01:12  | C*04:01:23+C*05:01:01G |                  |                  |                     |
| C*04:01:01G+C*05:01:16  | C*04:01:41+C*05:01:01G |                  |                  |                     |
| C*04:01:01G+C*05:01:17  | C*04:120+C*05:09:02    |                  |                  |                     |
| C*04:01:01G+C*05:01:18  | C*04:01:41+C*05:01:02  |                  |                  |                     |
| C*04:01:01G+C*05:04     | C*04:54+C*05:01:01G    |                  |                  |                     |
| C*04:01:01G+C*05:08     | C*04:94:01+C*05:01:01G | C*04:120+C*05:52 |                  |                     |
| C*04:01:01G+C*05:10     | C*04:110+C*05:01:01G   |                  |                  |                     |
| C*04:01:01G+C*05:11     | C*04:04:01+C*05:01:01G |                  |                  |                     |
| C*04:01:01G+C*05:12     | C*04:113+C*05:18:01    |                  |                  |                     |
| C*04:01:01G+C*05:15     | C*04:49+C*05:01:01G    |                  |                  |                     |
| C*04:01:01G+C*05:17     | C*04:13+C*05:09:02     |                  |                  |                     |
| C*04:01:01G+C*05:18:03  | C*04:01:08+C*05:18:01  |                  |                  |                     |
| C*04:01:01G+C*05:20     | C*04:114+C*05:01:01G   |                  |                  |                     |
| C*04:01:01G+C*05:22:01  | C*04:23+C*05:01:01G    |                  |                  |                     |
| C*04:01:01G+C*05:22:02  | C*04:23+C*05:01:03     |                  |                  |                     |
| C*04:01:01G+C*05:25     | C*04:10+C*05:42        |                  |                  |                     |
| C*04:01:01G+C*05:27     | C*04:04:01+C*05:39     | C*04:08+C*05:11  |                  |                     |
| C*04:01:01G+C*05:36     | C*04:112+C*05:01:01G   |                  |                  |                     |
| C*04:01:01G+C*05:39     | C*04:08+C*05:01:01G    |                  |                  |                     |
| C*04:01:01G+C*05:41     | C*04:78+C*05:01:01G    |                  |                  |                     |
| C*04:01:01G+C*05:43     | C*04:42+C*05:78        |                  |                  |                     |
| C*04:01:01G+C*05:44:01  | C*04:64:01+C*05:01:01G |                  |                  |                     |
| C*04:01:01G+C*05:44:02  | C*04:64:02+C*05:01:01G |                  |                  |                     |
| C*04:01:01G+C*05:46     | C*04:33+C*05:42        |                  |                  |                     |
| C*04:01:01G+C*05:49     | C*04:53+C*05:01:01G    |                  |                  |                     |
| C*04:01:01G+C*05:52     | C*04:94:01+C*05:09:01  |                  |                  |                     |
| C*04:01:01G+C*05:55     | C*04:52+C*05:01:01G    |                  |                  |                     |
| C*04:01:01G+C*05:57     | C*04:70+C*05:01:01G    |                  |                  |                     |

|                         |                        |                        |                       |                     |
|-------------------------|------------------------|------------------------|-----------------------|---------------------|
| C*04:01:01G+C*05:60     | C*04:46+C*05:01:01G    |                        |                       |                     |
| C*04:01:01G+C*05:65     | C*04:96+C*05:01:01G    |                        |                       |                     |
| C*04:01:01G+C*05:67     | C*04:62+C*05:01:01G    |                        |                       |                     |
| C*04:01:01G+C*05:68     | C*04:04:01+C*05:76     | C*04:13+C*05:01:01G    | C*04:61+C*05:11       |                     |
| C*04:01:01G+C*05:73     | C*04:24+C*05:01:01G    |                        |                       |                     |
| C*04:01:01G+C*05:75     | C*04:35+C*05:01:01G    |                        |                       |                     |
| C*04:01:01G+C*05:76     | C*04:61+C*05:01:01G    |                        |                       |                     |
| C*04:01:01G+C*06:02:01G | C*04:01:09+C*06:02:08  | C*04:01:30+C*06:02:17  | C*04:54+C*06:09       | C*04:94:01+C*06:06  |
| C*04:01:01G+C*06:02:11  | C*04:01:25+C*06:02:01G |                        |                       |                     |
| C*04:01:01G+C*06:02:21  | C*04:01:11+C*06:02:01G |                        |                       |                     |
| C*04:01:01G+C*06:03:01  | C*04:01:39+C*06:03:02  |                        |                       |                     |
| C*04:01:01G+C*06:04     | C*04:04:01+C*06:06     |                        |                       |                     |
| C*04:01:01G+C*06:08     | C*04:32+C*06:02:01G    |                        |                       |                     |
| C*04:01:01G+C*06:11     | C*04:29+C*06:02:01G    |                        |                       |                     |
| C*04:01:01G+C*06:14     | C*04:110+C*06:02:01G   |                        |                       |                     |
| C*04:01:01G+C*06:25     | C*04:81+C*06:02:01G    |                        |                       |                     |
| C*04:01:01G+C*06:30     | C*04:33+C*06:02:01G    |                        |                       |                     |
| C*04:01:01G+C*06:31     | C*04:61+C*06:02:01G    |                        |                       |                     |
| C*04:01:01G+C*06:34     | C*04:23+C*06:09        |                        |                       |                     |
| C*04:01:01G+C*06:49N    | C*04:93N+C*06:02:01G   |                        |                       |                     |
| C*04:01:01G+C*06:53     | C*04:52+C*06:02:01G    |                        |                       |                     |
| C*04:01:01G+C*06:82     | C*04:114+C*06:02:01G   |                        |                       |                     |
| C*04:01:01G+C*06:84     | C*04:62+C*06:02:01G    |                        |                       |                     |
| C*04:01:01G+C*07:01:01G | C*04:01:30+C*07:01:12  | C*04:04:01+C*07:176    | C*04:29+C*07:09       | C*04:54+C*07:28     |
|                         | C*04:61+C*07:165       | C*04:112+C*07:27:01    |                       |                     |
| C*04:01:01G+C*07:01:03  | C*04:01:17+C*07:01:01G |                        |                       |                     |
| C*04:01:01G+C*07:01:07  | C*04:15:01+C*07:108    | C*04:112+C*07:27:02    |                       |                     |
| C*04:01:01G+C*07:01:08  | C*04:01:41+C*07:01:01G |                        |                       |                     |
| C*04:01:01G+C*07:01:12  | C*04:15:02+C*07:108    |                        |                       |                     |
| C*04:01:01G+C*07:02:01G | C*04:01:09+C*07:02:32  | C*04:01:23+C*07:02:09  | C*04:01:30+C*07:02:12 | C*04:04:01+C*07:37  |
|                         | C*04:07+C*07:125       | C*04:29+C*07:76        | C*04:61+C*07:241      |                     |
| C*04:01:01G+C*07:02:05  | C*04:01:40+C*07:02:01G |                        |                       |                     |
| C*04:01:01G+C*07:02:06  | C*04:01:32+C*07:02:01G |                        |                       |                     |
| C*04:01:01G+C*07:02:10  | C*04:01:39+C*07:02:01G |                        |                       |                     |
| C*04:01:01G+C*07:02:17  | C*04:01:20+C*07:02:01G |                        |                       |                     |
| C*04:01:01G+C*07:02:20  | C*04:01:06+C*07:02:01G |                        |                       |                     |
| C*04:01:01G+C*07:02:36  | C*04:01:11+C*07:02:01G |                        |                       |                     |
| C*04:01:01G+C*07:04:01G | C*04:40+C*07:199:01    | C*04:120+C*07:45       |                       |                     |
| C*04:01:01G+C*07:04:03  | C*04:40+C*07:199:02    |                        |                       |                     |
| C*04:01:01G+C*07:07     | C*04:33+C*07:09        |                        |                       |                     |
| C*04:01:01G+C*07:10     | C*04:110+C*07:02:01G   |                        |                       |                     |
| C*04:01:01G+C*07:15     | C*04:32+C*07:02:01G    |                        |                       |                     |
| C*04:01:01G+C*07:16     | C*04:29+C*07:07        | C*04:33+C*07:01:01G    |                       |                     |
| C*04:01:01G+C*07:19     | C*04:112+C*07:02:01G   |                        |                       |                     |
| C*04:01:01G+C*07:22     | C*04:94:01+C*07:176    |                        |                       |                     |
| C*04:01:01G+C*07:27:01  | C*04:15:02+C*07:08     |                        |                       |                     |
| C*04:01:01G+C*07:27:02  | C*04:15:03+C*07:08     |                        |                       |                     |
| C*04:01:01G+C*07:39     | C*04:10+C*07:02:01G    | C*04:36+C*07:76        |                       |                     |
| C*04:01:01G+C*07:40     | C*04:10+C*07:01:01G    | C*04:36+C*07:09        |                       |                     |
| C*04:01:01G+C*07:43     | C*04:110+C*07:27:01    |                        |                       |                     |
| C*04:01:01G+C*07:49     | C*04:114+C*07:76       |                        |                       |                     |
| C*04:01:01G+C*07:51     | C*04:33+C*07:02:01G    |                        |                       |                     |
| C*04:01:01G+C*07:53     | C*04:14+C*07:176       |                        |                       |                     |
| C*04:01:01G+C*07:56:01  | C*04:52+C*07:02:01G    |                        |                       |                     |
| C*04:01:01G+C*07:56:02  | C*04:27+C*07:125       |                        |                       |                     |
| C*04:01:01G+C*07:60     | C*04:33+C*07:109       | C*04:52+C*07:16        |                       |                     |
| C*04:01:01G+C*07:79     | C*04:33+C*07:56:01     | C*04:52+C*07:51        |                       |                     |
| C*04:01:01G+C*07:95     | C*04:113+C*07:165      |                        |                       |                     |
| C*04:01:01G+C*07:109    | C*04:52+C*07:01:01G    |                        |                       |                     |
| C*04:01:01G+C*07:114    | C*04:101+C*07:02:01G   |                        |                       |                     |
| C*04:01:01G+C*07:122    | C*04:53+C*07:01:01G    |                        |                       |                     |
| C*04:01:01G+C*07:126    | C*04:118+C*07:02:01G   |                        |                       |                     |
| C*04:01:01G+C*07:137:01 | C*04:94:01+C*07:137:02 |                        |                       |                     |
| C*04:01:01G+C*07:138    | C*04:94:01+C*07:37     |                        |                       |                     |
| C*04:01:01G+C*07:141:02 | C*04:01:08+C*07:141:01 |                        |                       |                     |
| C*04:01:01G+C*07:144    | C*04:78+C*07:02:01G    |                        |                       |                     |
| C*04:01:01G+C*07:181    | C*04:33+C*07:04:01G    |                        |                       |                     |
| C*04:01:01G+C*07:182    | C*04:109+C*07:01:01G   |                        |                       |                     |
| C*04:01:01G+C*07:186    | C*04:08+C*07:02:01G    |                        |                       |                     |
| C*04:01:01G+C*07:188    | C*04:99+C*07:01:01G    |                        |                       |                     |
| C*04:01:01G+C*07:189    | C*04:56+C*07:01:01G    |                        |                       |                     |
| C*04:01:01G+C*07:192    | C*04:19+C*07:02:01G    |                        |                       |                     |
| C*04:01:01G+C*07:196    | C*04:110+C*07:01:01G   | C*04:112+C*07:43       |                       |                     |
| C*04:01:01G+C*07:197    | C*04:65+C*07:01:01G    |                        |                       |                     |
| C*04:01:01G+C*07:207    | C*04:32+C*07:01:01G    |                        |                       |                     |
| C*04:01:01G+C*07:210    | C*04:10+C*07:247       |                        |                       |                     |
| C*04:01:01G+C*07:212    | C*04:08+C*07:01:01G    | C*04:85+C*07:120       |                       |                     |
| C*04:01:01G+C*07:214    | C*04:70+C*07:01:01G    |                        |                       |                     |
| C*04:01:01G+C*07:216    | C*04:14+C*07:37        |                        |                       |                     |
| C*04:01:01G+C*07:227N   | C*04:66+C*07:01:01G    |                        |                       |                     |
| C*04:01:01G+C*07:230    | C*04:20+C*07:01:01G    |                        |                       |                     |
| C*04:01:01G+C*07:238    | C*04:10+C*07:49        |                        |                       |                     |
| C*04:01:01G+C*07:247    | C*04:114+C*07:09       |                        |                       |                     |
| C*04:01:01G+C*07:260    | C*04:120+C*07:02:01G   |                        |                       |                     |
| C*04:01:01G+C*07:262    | C*04:49+C*07:02:01G    |                        |                       |                     |
| C*04:01:01G+C*08:01:01G | C*04:10+C*08:21        | C*04:29+C*08:10        |                       |                     |
| C*04:01:01G+C*08:01:06  | C*04:01:09+C*08:01:07  |                        |                       |                     |
| C*04:01:01G+C*08:02:01G | C*04:01:30+C*08:02:06  | C*04:10+C*08:05        | C*04:11+C*05:42       | C*04:29+C*05:01:01G |
|                         | C*04:33+C*08:28        | C*04:36+C*05:46        | C*04:120+C*08:15:01   |                     |
| C*04:01:01G+C*08:02:04  | C*04:01:09+C*08:02:07  | C*04:29+C*05:01:02     |                       |                     |
| C*04:01:01G+C*08:02:05  | C*04:01:20+C*08:02:01G |                        |                       |                     |
| C*04:01:01G+C*08:02:06  | C*04:15:02+C*08:19     |                        |                       |                     |
| C*04:01:01G+C*08:03:01G | C*04:64:01+C*08:01:01G |                        |                       |                     |
| C*04:01:01G+C*08:04:01  | C*04:04:01+C*08:02:01G | C*04:29+C*05:11        |                       |                     |
| C*04:01:01G+C*08:05     | C*04:29+C*05:46        |                        |                       |                     |
| C*04:01:01G+C*08:07     | C*04:29+C*05:23        |                        |                       |                     |
| C*04:01:01G+C*08:11     | C*04:23+C*08:59        | C*04:54+C*08:01:01G    |                       |                     |
| C*04:01:01G+C*08:12     | C*04:29+C*05:16        |                        |                       |                     |
| C*04:01:01G+C*08:15:01  | C*04:29+C*05:09:01     |                        |                       |                     |
| C*04:01:01G+C*08:15:02  | C*04:29+C*05:09:02     |                        |                       |                     |
| C*04:01:01G+C*08:19     | C*04:29+C*05:64        |                        |                       |                     |
| C*04:01:01G+C*08:27     | C*04:94:01+C*08:64     |                        |                       |                     |
| C*04:01:01G+C*08:28     | C*04:29+C*05:25        | C*04:36+C*05:42        |                       |                     |
| C*04:01:01G+C*08:29     | C*04:29+C*05:08        | C*04:94:01+C*08:02:01G |                       |                     |
| C*04:01:01G+C*08:31     | C*04:32+C*08:29        |                        |                       |                     |

|                         |                        |                       |                       |                     |
|-------------------------|------------------------|-----------------------|-----------------------|---------------------|
| C*04:01:01G+C*08:33:01  | C*04:01:07+C*08:33:02  | C*04:29+C*05:18:02    |                       |                     |
| C*04:01:01G+C*08:35     | C*04:64:01+C*08:64     |                       |                       |                     |
| C*04:01:01G+C*08:37     | C*04:29+C*05:43        |                       |                       |                     |
| C*04:01:01G+C*08:39     | C*04:122+C*08:64       |                       |                       |                     |
| C*04:01:01G+C*08:41     | C*04:08+C*08:01:01G    |                       |                       |                     |
| C*04:01:01G+C*08:44     | C*04:110+C*08:01:01G   |                       |                       |                     |
| C*04:01:01G+C*08:47     | C*04:61+C*08:07        |                       |                       |                     |
| C*04:01:01G+C*08:54     | C*04:04:01+C*08:35     |                       |                       |                     |
| C*04:01:01G+C*08:55N    | C*04:104+C*08:02:01G   |                       |                       |                     |
| C*04:01:01G+C*08:57     | C*04:13+C*08:02:01G    | C*04:29+C*05:68       | C*04:61+C*08:04:01    |                     |
| C*04:01:01G+C*08:61     | C*04:64:01+C*08:44     | C*04:110+C*08:03:01G  |                       |                     |
| C*04:01:01G+C*08:62     | C*04:17+C*08:19        |                       |                       |                     |
| C*04:01:01G+C*08:64     | C*04:29+C*05:18:01     |                       |                       |                     |
| C*04:01:01G+C*12:02:01G | C*04:01:30+C*12:02:09  | C*04:15:01+C*12:10:01 | C*04:15:03+C*12:10:02 | C*04:29+C*12:41     |
|                         | C*04:114+C*12:72       |                       |                       |                     |
| C*04:01:01G+C*12:02:03  | C*04:15:02+C*12:10:02  |                       |                       |                     |
| C*04:01:01G+C*12:02:09  | C*04:15:03+C*12:10:01  |                       |                       |                     |
| C*04:01:01G+C*12:03:01G | C*04:01:05+C*12:03:20  | C*04:29+C*12:04:02    | C*04:33+C*12:28       | C*04:94:01+C*12:24  |
| C*04:01:01G+C*12:03:02  | C*04:01:41+C*12:03:08  |                       |                       |                     |
| C*04:01:01G+C*12:03:03  | C*04:01:25+C*12:03:01G |                       |                       |                     |
| C*04:01:01G+C*12:03:04  | C*04:01:23+C*12:03:01G |                       |                       |                     |
| C*04:01:01G+C*12:03:08  | C*04:01:09+C*12:03:20  |                       |                       |                     |
| C*04:01:01G+C*12:03:16  | C*04:01:07+C*12:03:20  | C*04:01:08+C*12:03:08 |                       |                     |
| C*04:01:01G+C*12:04:02  | C*04:33+C*06:76:02     |                       |                       |                     |
| C*04:01:01G+C*12:05     | C*04:10+C*12:04:02     |                       |                       |                     |
| C*04:01:01G+C*12:08     | C*04:112+C*12:02:01G   |                       |                       |                     |
| C*04:01:01G+C*12:10:02  | C*04:01:30+C*12:10:01  |                       |                       |                     |
| C*04:01:01G+C*12:17     | C*04:12+C*12:02:01G    |                       |                       |                     |
| C*04:01:01G+C*12:20     | C*04:04:01+C*12:24     |                       |                       |                     |
| C*04:01:01G+C*12:28     | C*04:29+C*06:76:02     |                       |                       |                     |
| C*04:01:01G+C*12:30     | C*04:70+C*12:02:01G    |                       |                       |                     |
| C*04:01:01G+C*12:47     | C*04:104+C*12:03:01G   |                       |                       |                     |
| C*04:01:01G+C*12:49     | C*04:10+C*12:02:01G    | C*04:36+C*12:41       |                       |                     |
| C*04:01:01G+C*12:54     | C*04:114+C*12:04:02    |                       |                       |                     |
| C*04:01:01G+C*12:58     | C*04:52+C*12:03:01G    |                       |                       |                     |
| C*04:01:01G+C*12:60     | C*04:74+C*12:04:02     |                       |                       |                     |
| C*04:01:01G+C*12:61     | C*04:18+C*12:03:01G    |                       |                       |                     |
| C*04:01:01G+C*12:66     | C*04:19+C*12:03:01G    |                       |                       |                     |
| C*04:01:01G+C*12:81     | C*04:112+C*12:03:01G   |                       |                       |                     |
| C*04:01:01G+C*14:02:01G | C*04:01:23+C*14:02:03  | C*04:29+C*14:12       | C*04:33+C*14:13       |                     |
| C*04:01:01G+C*14:02:02  | C*04:01:09+C*14:02:01G |                       |                       |                     |
| C*04:01:01G+C*14:02:05  | C*04:01:08+C*14:02:01G |                       |                       |                     |
| C*04:01:01G+C*14:05     | C*04:15:02+C*14:02:01G |                       |                       |                     |
| C*04:01:01G+C*14:06     | C*04:04:01+C*14:02:01G |                       |                       |                     |
| C*04:01:01G+C*14:10     | C*04:52+C*14:03        |                       |                       |                     |
| C*04:01:01G+C*14:15     | C*04:13+C*14:02:01G    | C*04:61+C*14:06       |                       |                     |
| C*04:01:01G+C*14:16     | C*04:94:01+C*14:02:01G |                       |                       |                     |
| C*04:01:01G+C*14:20     | C*04:08+C*14:02:01G    |                       |                       |                     |
| C*04:01:01G+C*14:25     | C*04:32+C*14:02:01G    |                       |                       |                     |
| C*04:01:01G+C*14:32     | C*04:50+C*14:02:01G    |                       |                       |                     |
| C*04:01:01G+C*14:38     | C*04:85+C*14:03        |                       |                       |                     |
| C*04:01:01G+C*15:02:01G | C*04:04:01+C*15:08     | C*04:10+C*15:03       | C*04:112+C*15:17      |                     |
| C*04:01:01G+C*15:02:05  | C*04:01:08+C*15:02:01G |                       |                       |                     |
| C*04:01:01G+C*15:02:10  | C*04:01:23+C*15:02:01G |                       |                       |                     |
| C*04:01:01G+C*15:03     | C*04:112+C*15:16       |                       |                       |                     |
| C*04:01:01G+C*15:05:01G | C*04:110+C*15:22       |                       |                       |                     |
| C*04:01:01G+C*15:05:05  | C*04:01:25+C*15:05:01G |                       |                       |                     |
| C*04:01:01G+C*15:06:01  | C*04:23+C*15:24        |                       |                       |                     |
| C*04:01:01G+C*15:06:03  | C*04:01:08+C*15:06:01  |                       |                       |                     |
| C*04:01:01G+C*15:07     | C*04:29+C*15:02:01G    | C*04:36+C*15:03       | C*04:114+C*15:21      |                     |
| C*04:01:01G+C*15:10:02  | C*04:01:39+C*15:10:01  |                       |                       |                     |
| C*04:01:01G+C*15:12     | C*04:52+C*15:02:01G    |                       |                       |                     |
| C*04:01:01G+C*15:15     | C*04:08+C*15:02:01G    |                       |                       |                     |
| C*04:01:01G+C*15:17     | C*04:10+C*15:16        |                       |                       |                     |
| C*04:01:01G+C*15:23     | C*04:42+C*15:36        |                       |                       |                     |
| C*04:01:01G+C*15:31     | C*04:13+C*15:08        | C*04:61+C*15:02:01G   |                       |                     |
| C*04:01:01G+C*15:42     | C*04:32+C*15:02:01G    |                       |                       |                     |
| C*04:01:01G+C*15:52     | C*04:64:02+C*15:02:01G |                       |                       |                     |
| C*04:01:01G+C*15:57     | C*04:113+C*15:02:01G   | C*04:122+C*15:08      |                       |                     |
| C*04:01:01G+C*16:01:01  | C*04:01:09+C*16:01:06  | C*04:10+C*16:15:01    | C*04:15:02+C*16:23    | C*04:29+C*16:02:01G |
|                         | C*04:33+C*16:26        | C*04:36+C*16:25       | C*04:54+C*16:45       | C*04:114+C*16:37    |
| C*04:01:01G+C*16:01:02  | C*04:01:23+C*16:01:01  |                       |                       |                     |
| C*04:01:01G+C*16:01:03  | C*04:01:15+C*16:01:01  |                       |                       |                     |
| C*04:01:01G+C*16:02:01G | C*04:10+C*16:25        | C*04:33+C*16:46       | C*04:68+C*12:09       |                     |
| C*04:01:01G+C*16:02:03  | C*04:01:08+C*16:02:01G |                       |                       |                     |
| C*04:01:01G+C*16:12     | C*04:69+C*16:02:01G    |                       |                       |                     |
| C*04:01:01G+C*16:15:01  | C*04:29+C*16:25        |                       |                       |                     |
| C*04:01:01G+C*16:15:02  | C*04:68+C*12:24        |                       |                       |                     |
| C*04:01:01G+C*16:16Q    | C*04:59Q+C*16:01:01    |                       |                       |                     |
| C*04:01:01G+C*16:19     | C*04:101+C*16:02:01G   |                       |                       |                     |
| C*04:01:01G+C*16:26     | C*04:29+C*16:46        |                       |                       |                     |
| C*04:01:01G+C*16:29     | C*04:32+C*16:04:01     |                       |                       |                     |
| C*04:01:01G+C*16:30N    | C*04:88N+C*16:01:01    |                       |                       |                     |
| C*04:01:01G+C*16:35     | C*04:29+C*16:48        | C*04:61+C*16:40       |                       |                     |
| C*04:01:01G+C*16:44     | C*04:35+C*16:01:01     |                       |                       |                     |
| C*04:01:01G+C*16:48     | C*04:13+C*12:09        |                       |                       |                     |
| C*04:01:01G+C*16:49     | C*04:17+C*16:23        |                       |                       |                     |
| C*04:01:01G+C*16:50     | C*04:32+C*16:01:01     |                       |                       |                     |
| C*04:01:01G+C*17:01:01G | C*04:01:23+C*17:01:04  | C*04:01:30+C*17:01:02 | C*04:33+C*17:11       |                     |
| C*04:01:01G+C*17:01:03  | C*04:01:15+C*17:01:01G |                       |                       |                     |
| C*04:01:05+C*08:02:01G  | C*04:01:09+C*08:02:02  |                       |                       |                     |
| C*04:01:05+C*08:04:01   | C*04:04:02+C*08:02:02  |                       |                       |                     |
| C*04:01:05+C*08:29      | C*04:94:02+C*08:02:02  |                       |                       |                     |
| C*04:01:05+C*12:03:08   | C*04:01:09+C*12:03:01G | C*04:94:02+C*12:24    |                       |                     |
| C*04:01:05+C*12:03:16   | C*04:01:07+C*12:03:01G |                       |                       |                     |
| C*04:01:05+C*14:02:01G  | C*04:01:09+C*14:02:08  |                       |                       |                     |
| C*04:01:05+C*14:02:05   | C*04:01:07+C*14:02:08  |                       |                       |                     |
| C*04:01:05+C*14:06      | C*04:04:02+C*14:02:08  |                       |                       |                     |
| C*04:01:05+C*14:16      | C*04:94:02+C*14:02:08  |                       |                       |                     |
| C*04:01:05+C*16:01:06   | C*04:10+C*16:15:02     |                       |                       |                     |
| C*04:01:05+C*16:15:01   | C*04:01:09+C*16:15:02  |                       |                       |                     |
| C*04:01:06+C*07:02:05   | C*04:01:40+C*07:02:20  |                       |                       |                     |
| C*04:01:06+C*07:02:06   | C*04:01:32+C*07:02:20  |                       |                       |                     |
| C*04:01:06+C*07:02:10   | C*04:01:39+C*07:02:20  |                       |                       |                     |
| C*04:01:06+C*07:02:17   | C*04:01:20+C*07:02:20  |                       |                       |                     |

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| C*04:01:06+C*07:02:36  | C*04:01:11+C*07:02:20  |                        |
| C*04:01:06+C*07:10     | C*04:110+C*07:02:20    |                        |
| C*04:01:06+C*07:15     | C*04:32+C*07:02:20     |                        |
| C*04:01:06+C*07:19     | C*04:112+C*07:02:20    |                        |
| C*04:01:06+C*07:39     | C*04:10+C*07:02:20     |                        |
| C*04:01:06+C*07:51     | C*04:33+C*07:02:20     |                        |
| C*04:01:06+C*07:56:01  | C*04:52+C*07:02:20     |                        |
| C*04:01:06+C*07:114    | C*04:101+C*07:02:20    |                        |
| C*04:01:06+C*07:126    | C*04:118+C*07:02:20    |                        |
| C*04:01:06+C*07:144    | C*04:78+C*07:02:20     |                        |
| C*04:01:06+C*07:186    | C*04:08+C*07:02:20     |                        |
| C*04:01:06+C*07:192    | C*04:19+C*07:02:20     |                        |
| C*04:01:06+C*07:260    | C*04:120+C*07:02:20    |                        |
| C*04:01:06+C*07:262    | C*04:49+C*07:02:20     |                        |
| C*04:01:07+C*04:04:01  | C*04:01:08+C*04:04:02  |                        |
| C*04:01:07+C*04:94:01  | C*04:01:08+C*04:94:02  |                        |
| C*04:01:07+C*05:18:01  | C*04:01:09+C*05:18:03  |                        |
| C*04:01:07+C*06:02:08  | C*04:01:08+C*06:02:01G |                        |
| C*04:01:07+C*07:02:32  | C*04:01:08+C*07:02:01G |                        |
| C*04:01:07+C*07:141:01 | C*04:01:09+C*07:141:02 |                        |
| C*04:01:07+C*08:01:07  | C*04:01:08+C*08:01:06  |                        |
| C*04:01:07+C*08:02:07  | C*04:01:08+C*08:02:04  |                        |
| C*04:01:07+C*12:03:08  | C*04:01:09+C*12:03:16  |                        |
| C*04:01:07+C*14:02:01G | C*04:01:08+C*14:02:02  | C*04:01:09+C*14:02:05  |
| C*04:01:07+C*14:06     | C*04:04:02+C*14:02:05  |                        |
| C*04:01:07+C*14:16     | C*04:94:02+C*14:02:05  |                        |
| C*04:01:07+C*15:02:01G | C*04:01:09+C*15:02:05  |                        |
| C*04:01:07+C*15:06:01  | C*04:01:09+C*15:06:03  |                        |
| C*04:01:07+C*16:01:06  | C*04:01:08+C*16:01:01  | C*04:29+C*16:02:03     |
| C*04:01:07+C*16:02:01G | C*04:01:09+C*16:02:03  |                        |
| C*04:01:08+C*05:12     | C*04:113+C*05:18:03    |                        |
| C*04:01:08+C*08:64     | C*04:29+C*05:18:03     |                        |
| C*04:01:08+C*12:03:02  | C*04:01:41+C*12:03:16  |                        |
| C*04:01:08+C*14:05     | C*04:15:02+C*14:02:05  |                        |
| C*04:01:08+C*14:06     | C*04:04:01+C*14:02:05  |                        |
| C*04:01:08+C*14:15     | C*04:13+C*14:02:05     |                        |
| C*04:01:08+C*14:16     | C*04:94:01+C*14:02:05  |                        |
| C*04:01:08+C*14:20     | C*04:08+C*14:02:05     |                        |
| C*04:01:08+C*14:25     | C*04:32+C*14:02:05     |                        |
| C*04:01:08+C*14:32     | C*04:50+C*14:02:05     |                        |
| C*04:01:08+C*15:02:10  | C*04:01:23+C*15:02:05  |                        |
| C*04:01:08+C*15:07     | C*04:29+C*15:02:05     |                        |
| C*04:01:08+C*15:12     | C*04:52+C*15:02:05     |                        |
| C*04:01:08+C*15:15     | C*04:08+C*15:02:05     |                        |
| C*04:01:08+C*15:31     | C*04:61+C*15:02:05     |                        |
| C*04:01:08+C*15:42     | C*04:32+C*15:02:05     |                        |
| C*04:01:08+C*15:52     | C*04:64:02+C*15:02:05  |                        |
| C*04:01:08+C*15:57     | C*04:113+C*15:02:05    |                        |
| C*04:01:08+C*16:12     | C*04:69+C*16:02:03     |                        |
| C*04:01:08+C*16:19     | C*04:101+C*16:02:03    |                        |
| C*04:01:09+C*04:06     | C*04:03+C*04:04:02     |                        |
| C*04:01:09+C*04:13     | C*04:04:02+C*04:61     |                        |
| C*04:01:09+C*04:122    | C*04:04:02+C*04:113    |                        |
| C*04:01:09+C*05:08     | C*04:94:02+C*05:01:01G |                        |
| C*04:01:09+C*05:11     | C*04:04:02+C*05:01:01G |                        |
| C*04:01:09+C*05:27     | C*04:04:02+C*05:39     |                        |
| C*04:01:09+C*05:52     | C*04:94:02+C*05:09:01  |                        |
| C*04:01:09+C*05:68     | C*04:04:02+C*05:76     |                        |
| C*04:01:09+C*06:02:01G | C*04:94:02+C*06:06     |                        |
| C*04:01:09+C*06:04     | C*04:04:02+C*06:06     |                        |
| C*04:01:09+C*07:01:01G | C*04:04:02+C*07:176    |                        |
| C*04:01:09+C*07:02:01G | C*04:04:02+C*07:37     |                        |
| C*04:01:09+C*07:22     | C*04:94:02+C*07:176    |                        |
| C*04:01:09+C*07:137:01 | C*04:94:02+C*07:137:02 |                        |
| C*04:01:09+C*07:138    | C*04:94:02+C*07:37     |                        |
| C*04:01:09+C*08:04:01  | C*04:04:02+C*08:02:01G |                        |
| C*04:01:09+C*08:27     | C*04:94:02+C*08:64     |                        |
| C*04:01:09+C*08:29     | C*04:94:02+C*08:02:01G |                        |
| C*04:01:09+C*08:54     | C*04:04:02+C*08:35     |                        |
| C*04:01:09+C*12:20     | C*04:04:02+C*12:24     |                        |
| C*04:01:09+C*14:05     | C*04:15:02+C*14:02:02  |                        |
| C*04:01:09+C*14:06     | C*04:04:01+C*14:02:02  | C*04:04:02+C*14:02:01G |
| C*04:01:09+C*14:15     | C*04:13+C*14:02:02     |                        |
| C*04:01:09+C*14:16     | C*04:94:01+C*14:02:02  | C*04:94:02+C*14:02:01G |
| C*04:01:09+C*14:20     | C*04:08+C*14:02:02     |                        |
| C*04:01:09+C*14:25     | C*04:32+C*14:02:02     |                        |
| C*04:01:09+C*14:32     | C*04:50+C*14:02:02     |                        |
| C*04:01:09+C*15:02:01G | C*04:04:02+C*15:08     |                        |
| C*04:01:11+C*06:02:11  | C*04:01:25+C*06:02:21  |                        |
| C*04:01:11+C*06:08     | C*04:32+C*06:02:21     |                        |
| C*04:01:11+C*06:11     | C*04:29+C*06:02:21     |                        |
| C*04:01:11+C*06:14     | C*04:110+C*06:02:21    |                        |
| C*04:01:11+C*06:25     | C*04:81+C*06:02:21     |                        |
| C*04:01:11+C*06:30     | C*04:33+C*06:02:21     |                        |
| C*04:01:11+C*06:31     | C*04:61+C*06:02:21     |                        |
| C*04:01:11+C*06:49N    | C*04:93N+C*06:02:21    |                        |
| C*04:01:11+C*06:53     | C*04:52+C*06:02:21     |                        |
| C*04:01:11+C*06:82     | C*04:114+C*06:02:21    |                        |
| C*04:01:11+C*06:84     | C*04:62+C*06:02:21     |                        |
| C*04:01:11+C*07:02:05  | C*04:01:40+C*07:02:36  |                        |
| C*04:01:11+C*07:02:06  | C*04:01:32+C*07:02:36  |                        |
| C*04:01:11+C*07:02:10  | C*04:01:39+C*07:02:36  |                        |
| C*04:01:11+C*07:02:17  | C*04:01:20+C*07:02:36  |                        |
| C*04:01:11+C*07:10     | C*04:110+C*07:02:36    |                        |
| C*04:01:11+C*07:15     | C*04:32+C*07:02:36     |                        |
| C*04:01:11+C*07:19     | C*04:112+C*07:02:36    |                        |
| C*04:01:11+C*07:39     | C*04:10+C*07:02:36     |                        |
| C*04:01:11+C*07:51     | C*04:33+C*07:02:36     |                        |
| C*04:01:11+C*07:56:01  | C*04:52+C*07:02:36     |                        |
| C*04:01:11+C*07:114    | C*04:101+C*07:02:36    |                        |
| C*04:01:11+C*07:126    | C*04:118+C*07:02:36    |                        |
| C*04:01:11+C*07:144    | C*04:78+C*07:02:36     |                        |
| C*04:01:11+C*07:186    | C*04:08+C*07:02:36     |                        |
| C*04:01:11+C*07:192    | C*04:19+C*07:02:36     |                        |
| C*04:01:11+C*07:260    | C*04:120+C*07:02:36    |                        |

|                        |                       |
|------------------------|-----------------------|
| C*04:01:11+C*07:262    | C*04:49+C*07:02:36    |
| C*04:01:15+C*16:01:02  | C*04:01:23+C*16:01:03 |
| C*04:01:15+C*16:16Q    | C*04:59Q+C*16:01:03   |
| C*04:01:15+C*16:30N    | C*04:88N+C*16:01:03   |
| C*04:01:15+C*16:44     | C*04:35+C*16:01:03    |
| C*04:01:15+C*16:50     | C*04:32+C*16:01:03    |
| C*04:01:17+C*05:01:09  | C*04:01:40+C*05:01:07 |
| C*04:01:17+C*05:01:12  | C*04:01:23+C*05:01:07 |
| C*04:01:17+C*05:01:16  | C*04:01:41+C*05:01:07 |
| C*04:01:17+C*05:04     | C*04:54+C*05:01:07    |
| C*04:01:17+C*05:08     | C*04:94:01+C*05:01:07 |
| C*04:01:17+C*05:10     | C*04:110+C*05:01:07   |
| C*04:01:17+C*05:11     | C*04:04:01+C*05:01:07 |
| C*04:01:17+C*05:15     | C*04:49+C*05:01:07    |
| C*04:01:17+C*05:20     | C*04:114+C*05:01:07   |
| C*04:01:17+C*05:22:01  | C*04:23+C*05:01:07    |
| C*04:01:17+C*05:36     | C*04:112+C*05:01:07   |
| C*04:01:17+C*05:39     | C*04:08+C*05:01:07    |
| C*04:01:17+C*05:41     | C*04:78+C*05:01:07    |
| C*04:01:17+C*05:44:01  | C*04:64:01+C*05:01:07 |
| C*04:01:17+C*05:44:02  | C*04:64:02+C*05:01:07 |
| C*04:01:17+C*05:49     | C*04:53+C*05:01:07    |
| C*04:01:17+C*05:55     | C*04:52+C*05:01:07    |
| C*04:01:17+C*05:57     | C*04:70+C*05:01:07    |
| C*04:01:17+C*05:60     | C*04:46+C*05:01:07    |
| C*04:01:17+C*05:65     | C*04:96+C*05:01:07    |
| C*04:01:17+C*05:67     | C*04:62+C*05:01:07    |
| C*04:01:17+C*05:68     | C*04:13+C*05:01:07    |
| C*04:01:17+C*05:73     | C*04:24+C*05:01:07    |
| C*04:01:17+C*05:75     | C*04:35+C*05:01:07    |
| C*04:01:17+C*05:76     | C*04:61+C*05:01:07    |
| C*04:01:17+C*07:01:08  | C*04:01:41+C*07:01:03 |
| C*04:01:17+C*07:16     | C*04:33+C*07:01:03    |
| C*04:01:17+C*07:40     | C*04:10+C*07:01:03    |
| C*04:01:17+C*07:109    | C*04:52+C*07:01:03    |
| C*04:01:17+C*07:122    | C*04:53+C*07:01:03    |
| C*04:01:17+C*07:182    | C*04:109+C*07:01:03   |
| C*04:01:17+C*07:188    | C*04:99+C*07:01:03    |
| C*04:01:17+C*07:189    | C*04:56+C*07:01:03    |
| C*04:01:17+C*07:196    | C*04:110+C*07:01:03   |
| C*04:01:17+C*07:197    | C*04:65+C*07:01:03    |
| C*04:01:17+C*07:207    | C*04:32+C*07:01:03    |
| C*04:01:17+C*07:212    | C*04:08+C*07:01:03    |
| C*04:01:17+C*07:214    | C*04:70+C*07:01:03    |
| C*04:01:17+C*07:227N   | C*04:66+C*07:01:03    |
| C*04:01:17+C*07:230    | C*04:20+C*07:01:03    |
| C*04:01:17+C*08:02:01G | C*04:29+C*05:01:07    |
| C*04:01:20+C*07:02:05  | C*04:01:40+C*07:02:17 |
| C*04:01:20+C*07:02:06  | C*04:01:32+C*07:02:17 |
| C*04:01:20+C*07:02:10  | C*04:01:39+C*07:02:17 |
| C*04:01:20+C*07:10     | C*04:110+C*07:02:17   |
| C*04:01:20+C*07:15     | C*04:32+C*07:02:17    |
| C*04:01:20+C*07:19     | C*04:112+C*07:02:17   |
| C*04:01:20+C*07:39     | C*04:10+C*07:02:17    |
| C*04:01:20+C*07:51     | C*04:33+C*07:02:17    |
| C*04:01:20+C*07:56:01  | C*04:52+C*07:02:17    |
| C*04:01:20+C*07:114    | C*04:101+C*07:02:17   |
| C*04:01:20+C*07:126    | C*04:118+C*07:02:17   |
| C*04:01:20+C*07:144    | C*04:78+C*07:02:17    |
| C*04:01:20+C*07:186    | C*04:08+C*07:02:17    |
| C*04:01:20+C*07:192    | C*04:19+C*07:02:17    |
| C*04:01:20+C*07:260    | C*04:120+C*07:02:17   |
| C*04:01:20+C*07:262    | C*04:49+C*07:02:17    |
| C*04:01:20+C*08:04:01  | C*04:04:01+C*08:02:05 |
| C*04:01:20+C*08:29     | C*04:94:01+C*08:02:05 |
| C*04:01:20+C*08:55N    | C*04:104+C*08:02:05   |
| C*04:01:20+C*08:57     | C*04:13+C*08:02:05    |
| C*04:01:23+C*05:01:09  | C*04:01:40+C*05:01:12 |
| C*04:01:23+C*05:01:16  | C*04:01:41+C*05:01:12 |
| C*04:01:23+C*05:04     | C*04:54+C*05:01:12    |
| C*04:01:23+C*05:08     | C*04:94:01+C*05:01:12 |
| C*04:01:23+C*05:10     | C*04:110+C*05:01:12   |
| C*04:01:23+C*05:11     | C*04:04:01+C*05:01:12 |
| C*04:01:23+C*05:15     | C*04:49+C*05:01:12    |
| C*04:01:23+C*05:20     | C*04:114+C*05:01:12   |
| C*04:01:23+C*05:22:01  | C*04:23+C*05:01:12    |
| C*04:01:23+C*05:36     | C*04:112+C*05:01:12   |
| C*04:01:23+C*05:39     | C*04:08+C*05:01:12    |
| C*04:01:23+C*05:41     | C*04:78+C*05:01:12    |
| C*04:01:23+C*05:44:01  | C*04:64:01+C*05:01:12 |
| C*04:01:23+C*05:44:02  | C*04:64:02+C*05:01:12 |
| C*04:01:23+C*05:49     | C*04:53+C*05:01:12    |
| C*04:01:23+C*05:55     | C*04:52+C*05:01:12    |
| C*04:01:23+C*05:57     | C*04:70+C*05:01:12    |
| C*04:01:23+C*05:60     | C*04:46+C*05:01:12    |
| C*04:01:23+C*05:65     | C*04:96+C*05:01:12    |
| C*04:01:23+C*05:67     | C*04:62+C*05:01:12    |
| C*04:01:23+C*05:68     | C*04:13+C*05:01:12    |
| C*04:01:23+C*05:73     | C*04:24+C*05:01:12    |
| C*04:01:23+C*05:75     | C*04:35+C*05:01:12    |
| C*04:01:23+C*05:76     | C*04:61+C*05:01:12    |
| C*04:01:23+C*08:02:01G | C*04:29+C*05:01:12    |
| C*04:01:23+C*12:03:03  | C*04:01:25+C*12:03:04 |
| C*04:01:23+C*12:03:08  | C*04:29+C*12:04:01    |
| C*04:01:23+C*12:47     | C*04:104+C*12:03:04   |
| C*04:01:23+C*12:58     | C*04:52+C*12:03:04    |
| C*04:01:23+C*12:61     | C*04:18+C*12:03:04    |
| C*04:01:23+C*12:66     | C*04:19+C*12:03:04    |
| C*04:01:23+C*12:81     | C*04:112+C*12:03:04   |
| C*04:01:23+C*15:07     | C*04:29+C*15:02:10    |
| C*04:01:23+C*15:12     | C*04:52+C*15:02:10    |
| C*04:01:23+C*15:15     | C*04:08+C*15:02:10    |
| C*04:01:23+C*15:31     | C*04:61+C*15:02:10    |
| C*04:01:23+C*15:42     | C*04:32+C*15:02:10    |
| C*04:01:23+C*15:52     | C*04:64:02+C*15:02:10 |

|                        |                       |
|------------------------|-----------------------|
| C*04:01:23+C*15:57     | C*04:113+C*15:02:10   |
| C*04:01:23+C*16:16Q    | C*04:59Q+C*16:01:02   |
| C*04:01:23+C*16:30N    | C*04:88N+C*16:01:02   |
| C*04:01:23+C*16:44     | C*04:35+C*16:01:02    |
| C*04:01:23+C*16:50     | C*04:32+C*16:01:02    |
| C*04:01:25+C*06:08     | C*04:32+C*06:02:11    |
| C*04:01:25+C*06:11     | C*04:29+C*06:02:11    |
| C*04:01:25+C*06:14     | C*04:110+C*06:02:11   |
| C*04:01:25+C*06:25     | C*04:81+C*06:02:11    |
| C*04:01:25+C*06:30     | C*04:33+C*06:02:11    |
| C*04:01:25+C*06:31     | C*04:61+C*06:02:11    |
| C*04:01:25+C*06:49N    | C*04:93N+C*06:02:11   |
| C*04:01:25+C*06:53     | C*04:52+C*06:02:11    |
| C*04:01:25+C*06:82     | C*04:114+C*06:02:11   |
| C*04:01:25+C*06:84     | C*04:62+C*06:02:11    |
| C*04:01:25+C*12:47     | C*04:104+C*12:03:03   |
| C*04:01:25+C*12:58     | C*04:52+C*12:03:03    |
| C*04:01:25+C*12:61     | C*04:18+C*12:03:03    |
| C*04:01:25+C*12:66     | C*04:19+C*12:03:03    |
| C*04:01:25+C*12:81     | C*04:112+C*12:03:03   |
| C*04:01:30+C*07:27:02  | C*04:15:01+C*07:08    |
| C*04:01:30+C*07:108    | C*04:112+C*07:08      |
| C*04:01:30+C*08:62     | C*04:29+C*05:05       |
| C*04:01:30+C*12:02:01G | C*04:15:01+C*12:10:02 |
| C*04:01:32+C*07:02:05  | C*04:01:40+C*07:02:06 |
| C*04:01:32+C*07:02:10  | C*04:01:39+C*07:02:06 |
| C*04:01:32+C*07:10     | C*04:110+C*07:02:06   |
| C*04:01:32+C*07:15     | C*04:32+C*07:02:06    |
| C*04:01:32+C*07:19     | C*04:112+C*07:02:06   |
| C*04:01:32+C*07:39     | C*04:10+C*07:02:06    |
| C*04:01:32+C*07:51     | C*04:33+C*07:02:06    |
| C*04:01:32+C*07:56:01  | C*04:52+C*07:02:06    |
| C*04:01:32+C*07:114    | C*04:101+C*07:02:06   |
| C*04:01:32+C*07:126    | C*04:118+C*07:02:06   |
| C*04:01:32+C*07:144    | C*04:78+C*07:02:06    |
| C*04:01:32+C*07:186    | C*04:08+C*07:02:06    |
| C*04:01:32+C*07:192    | C*04:19+C*07:02:06    |
| C*04:01:32+C*07:260    | C*04:120+C*07:02:06   |
| C*04:01:32+C*07:262    | C*04:49+C*07:02:06    |
| C*04:01:39+C*05:58:02  | C*04:16+C*05:78       |
| C*04:01:39+C*07:02:05  | C*04:01:40+C*07:02:10 |
| C*04:01:39+C*07:10     | C*04:110+C*07:02:10   |
| C*04:01:39+C*07:15     | C*04:32+C*07:02:10    |
| C*04:01:39+C*07:19     | C*04:112+C*07:02:10   |
| C*04:01:39+C*07:39     | C*04:10+C*07:02:10    |
| C*04:01:39+C*07:51     | C*04:33+C*07:02:10    |
| C*04:01:39+C*07:56:01  | C*04:52+C*07:02:10    |
| C*04:01:39+C*07:114    | C*04:101+C*07:02:10   |
| C*04:01:39+C*07:126    | C*04:118+C*07:02:10   |
| C*04:01:39+C*07:144    | C*04:78+C*07:02:10    |
| C*04:01:39+C*07:186    | C*04:08+C*07:02:10    |
| C*04:01:39+C*07:192    | C*04:19+C*07:02:10    |
| C*04:01:39+C*07:260    | C*04:120+C*07:02:10   |
| C*04:01:39+C*07:262    | C*04:49+C*07:02:10    |
| C*04:01:40+C*05:01:16  | C*04:01:41+C*05:01:09 |
| C*04:01:40+C*05:04     | C*04:54+C*05:01:09    |
| C*04:01:40+C*05:08     | C*04:94:01+C*05:01:09 |
| C*04:01:40+C*05:10     | C*04:110+C*05:01:09   |
| C*04:01:40+C*05:11     | C*04:04:01+C*05:01:09 |
| C*04:01:40+C*05:15     | C*04:49+C*05:01:09    |
| C*04:01:40+C*05:20     | C*04:114+C*05:01:09   |
| C*04:01:40+C*05:22:01  | C*04:23+C*05:01:09    |
| C*04:01:40+C*05:36     | C*04:112+C*05:01:09   |
| C*04:01:40+C*05:39     | C*04:08+C*05:01:09    |
| C*04:01:40+C*05:41     | C*04:78+C*05:01:09    |
| C*04:01:40+C*05:44:01  | C*04:64:01+C*05:01:09 |
| C*04:01:40+C*05:44:02  | C*04:64:02+C*05:01:09 |
| C*04:01:40+C*05:49     | C*04:53+C*05:01:09    |
| C*04:01:40+C*05:55     | C*04:52+C*05:01:09    |
| C*04:01:40+C*05:57     | C*04:70+C*05:01:09    |
| C*04:01:40+C*05:60     | C*04:46+C*05:01:09    |
| C*04:01:40+C*05:65     | C*04:96+C*05:01:09    |
| C*04:01:40+C*05:67     | C*04:62+C*05:01:09    |
| C*04:01:40+C*05:68     | C*04:13+C*05:01:09    |
| C*04:01:40+C*05:73     | C*04:24+C*05:01:09    |
| C*04:01:40+C*05:75     | C*04:35+C*05:01:09    |
| C*04:01:40+C*05:76     | C*04:61+C*05:01:09    |
| C*04:01:40+C*07:10     | C*04:110+C*07:02:05   |
| C*04:01:40+C*07:15     | C*04:32+C*07:02:05    |
| C*04:01:40+C*07:19     | C*04:112+C*07:02:05   |
| C*04:01:40+C*07:39     | C*04:10+C*07:02:05    |
| C*04:01:40+C*07:51     | C*04:33+C*07:02:05    |
| C*04:01:40+C*07:56:01  | C*04:52+C*07:02:05    |
| C*04:01:40+C*07:114    | C*04:101+C*07:02:05   |
| C*04:01:40+C*07:126    | C*04:118+C*07:02:05   |
| C*04:01:40+C*07:144    | C*04:78+C*07:02:05    |
| C*04:01:40+C*07:186    | C*04:08+C*07:02:05    |
| C*04:01:40+C*07:192    | C*04:19+C*07:02:05    |
| C*04:01:40+C*07:260    | C*04:120+C*07:02:05   |
| C*04:01:40+C*07:262    | C*04:49+C*07:02:05    |
| C*04:01:40+C*08:02:01G | C*04:29+C*05:01:09    |
| C*04:01:41+C*05:04     | C*04:54+C*05:01:16    |
| C*04:01:41+C*05:08     | C*04:94:01+C*05:01:16 |
| C*04:01:41+C*05:10     | C*04:110+C*05:01:16   |
| C*04:01:41+C*05:11     | C*04:04:01+C*05:01:16 |
| C*04:01:41+C*05:15     | C*04:49+C*05:01:16    |
| C*04:01:41+C*05:20     | C*04:114+C*05:01:16   |
| C*04:01:41+C*05:22:01  | C*04:23+C*05:01:16    |
| C*04:01:41+C*05:36     | C*04:112+C*05:01:16   |
| C*04:01:41+C*05:39     | C*04:08+C*05:01:16    |
| C*04:01:41+C*05:41     | C*04:78+C*05:01:16    |
| C*04:01:41+C*05:44:01  | C*04:64:01+C*05:01:16 |
| C*04:01:41+C*05:44:02  | C*04:64:02+C*05:01:16 |
| C*04:01:41+C*05:49     | C*04:53+C*05:01:16    |
| C*04:01:41+C*05:55     | C*04:52+C*05:01:16    |

|                        |                        |                       |
|------------------------|------------------------|-----------------------|
| C*04:01:41+C*05:57     | C*04:70+C*05:01:16     |                       |
| C*04:01:41+C*05:60     | C*04:46+C*05:01:16     |                       |
| C*04:01:41+C*05:65     | C*04:96+C*05:01:16     |                       |
| C*04:01:41+C*05:67     | C*04:62+C*05:01:16     |                       |
| C*04:01:41+C*05:68     | C*04:13+C*05:01:16     |                       |
| C*04:01:41+C*05:73     | C*04:24+C*05:01:16     |                       |
| C*04:01:41+C*05:75     | C*04:35+C*05:01:16     |                       |
| C*04:01:41+C*05:76     | C*04:61+C*05:01:16     |                       |
| C*04:01:41+C*07:16     | C*04:33+C*07:01:08     |                       |
| C*04:01:41+C*07:40     | C*04:10+C*07:01:08     |                       |
| C*04:01:41+C*07:109    | C*04:52+C*07:01:08     |                       |
| C*04:01:41+C*07:122    | C*04:53+C*07:01:08     |                       |
| C*04:01:41+C*07:182    | C*04:109+C*07:01:08    |                       |
| C*04:01:41+C*07:188    | C*04:99+C*07:01:08     |                       |
| C*04:01:41+C*07:189    | C*04:56+C*07:01:08     |                       |
| C*04:01:41+C*07:196    | C*04:110+C*07:01:08    |                       |
| C*04:01:41+C*07:197    | C*04:65+C*07:01:08     |                       |
| C*04:01:41+C*07:207    | C*04:32+C*07:01:08     |                       |
| C*04:01:41+C*07:212    | C*04:08+C*07:01:08     |                       |
| C*04:01:41+C*07:214    | C*04:70+C*07:01:08     |                       |
| C*04:01:41+C*07:227N   | C*04:66+C*07:01:08     |                       |
| C*04:01:41+C*07:230    | C*04:20+C*07:01:08     |                       |
| C*04:01:41+C*08:02:01G | C*04:29+C*05:01:16     |                       |
| C*04:01:41+C*08:02:04  | C*04:29+C*05:01:18     |                       |
| C*04:03+C*04:11        | C*04:36+C*04:107       |                       |
| C*04:03+C*04:13        | C*04:06+C*04:61        |                       |
| C*04:03+C*04:100       | C*04:23+C*04:80        |                       |
| C*04:03+C*04:122       | C*04:06+C*04:113       |                       |
| C*04:03+C*05:01:01G    | C*04:107+C*05:25       |                       |
| C*04:03+C*05:11        | C*04:06+C*05:01:01G    |                       |
| C*04:03+C*05:27        | C*04:06+C*05:39        |                       |
| C*04:03+C*05:46        | C*04:107+C*05:42       |                       |
| C*04:03+C*05:68        | C*04:06+C*05:76        |                       |
| C*04:03+C*06:04        | C*04:06+C*06:06        |                       |
| C*04:03+C*06:30        | C*04:107+C*06:02:01G   |                       |
| C*04:03+C*07:01:01G    | C*04:06+C*07:176       |                       |
| C*04:03+C*07:02:01G    | C*04:06+C*07:37        |                       |
| C*04:03+C*07:07        | C*04:107+C*07:09       |                       |
| C*04:03+C*07:16        | C*04:107+C*07:01:01G   |                       |
| C*04:03+C*07:51        | C*04:107+C*07:02:01G   |                       |
| C*04:03+C*07:60        | C*04:107+C*07:109      |                       |
| C*04:03+C*07:79        | C*04:107+C*07:56:01    |                       |
| C*04:03+C*07:181       | C*04:107+C*07:04:01G   |                       |
| C*04:03+C*08:02:01G    | C*04:107+C*08:28       |                       |
| C*04:03+C*08:04:01     | C*04:06+C*08:02:01G    |                       |
| C*04:03+C*08:54        | C*04:06+C*08:35        |                       |
| C*04:03+C*12:03:01G    | C*04:107+C*12:28       |                       |
| C*04:03+C*12:04:02     | C*04:107+C*06:76:02    |                       |
| C*04:03+C*12:20        | C*04:06+C*12:24        |                       |
| C*04:03+C*12:44        | C*04:80+C*12:10:01     |                       |
| C*04:03+C*14:02:01G    | C*04:107+C*14:13       |                       |
| C*04:03+C*14:06        | C*04:06+C*14:02:01G    |                       |
| C*04:03+C*15:02:01G    | C*04:06+C*15:08        |                       |
| C*04:03+C*16:01:01     | C*04:107+C*16:26       |                       |
| C*04:03+C*16:02:01G    | C*04:107+C*16:46       |                       |
| C*04:03+C*17:01:01G    | C*04:107+C*17:11       |                       |
| C*04:04:01+C*04:68     | C*04:13+C*04:14        |                       |
| C*04:04:01+C*04:94:02  | C*04:04:02+C*04:94:01  |                       |
| C*04:04:01+C*04:107    | C*04:06+C*04:33        |                       |
| C*04:04:01+C*05:04     | C*04:54+C*05:11        |                       |
| C*04:04:01+C*05:08     | C*04:94:01+C*05:11     |                       |
| C*04:04:01+C*05:10     | C*04:110+C*05:11       |                       |
| C*04:04:01+C*05:12     | C*04:122+C*05:18:01    |                       |
| C*04:04:01+C*05:15     | C*04:49+C*05:11        |                       |
| C*04:04:01+C*05:20     | C*04:114+C*05:11       |                       |
| C*04:04:01+C*05:22:01  | C*04:23+C*05:11        |                       |
| C*04:04:01+C*05:36     | C*04:112+C*05:11       |                       |
| C*04:04:01+C*05:41     | C*04:78+C*05:11        |                       |
| C*04:04:01+C*05:44:01  | C*04:64:01+C*05:11     |                       |
| C*04:04:01+C*05:44:02  | C*04:64:02+C*05:11     |                       |
| C*04:04:01+C*05:49     | C*04:53+C*05:11        |                       |
| C*04:04:01+C*05:55     | C*04:52+C*05:11        |                       |
| C*04:04:01+C*05:57     | C*04:70+C*05:11        |                       |
| C*04:04:01+C*05:60     | C*04:46+C*05:11        |                       |
| C*04:04:01+C*05:65     | C*04:96+C*05:11        |                       |
| C*04:04:01+C*05:67     | C*04:62+C*05:11        |                       |
| C*04:04:01+C*05:68     | C*04:13+C*05:11        |                       |
| C*04:04:01+C*05:73     | C*04:24+C*05:11        |                       |
| C*04:04:01+C*05:75     | C*04:35+C*05:11        |                       |
| C*04:04:01+C*06:02:01G | C*04:04:02+C*06:02:08  | C*04:94:01+C*06:04    |
| C*04:04:01+C*06:31     | C*04:13+C*06:02:01G    |                       |
| C*04:04:01+C*07:01:01G | C*04:13+C*07:165       |                       |
| C*04:04:01+C*07:02:01G | C*04:04:02+C*07:02:32  | C*04:13+C*07:241      |
| C*04:04:01+C*07:22     | C*04:94:01+C*07:01:01G |                       |
| C*04:04:01+C*07:53     | C*04:14+C*07:01:01G    | C*04:68+C*07:165      |
| C*04:04:01+C*07:95     | C*04:122+C*07:165      |                       |
| C*04:04:01+C*07:138    | C*04:94:01+C*07:02:01G | C*04:94:02+C*07:02:32 |
| C*04:04:01+C*07:216    | C*04:14+C*07:02:01G    | C*04:68+C*07:241      |
| C*04:04:01+C*08:01:06  | C*04:04:02+C*08:01:07  |                       |
| C*04:04:01+C*08:02:04  | C*04:04:02+C*08:02:07  |                       |
| C*04:04:01+C*08:29     | C*04:94:01+C*08:04:01  |                       |
| C*04:04:01+C*08:47     | C*04:13+C*08:07        | C*04:58+C*08:02:01G   |
| C*04:04:01+C*08:55N    | C*04:104+C*08:04:01    |                       |
| C*04:04:01+C*08:57     | C*04:13+C*08:04:01     |                       |
| C*04:04:01+C*12:02:01G | C*04:94:01+C*12:18:01  |                       |
| C*04:04:01+C*12:03:01G | C*04:94:01+C*12:20     |                       |
| C*04:04:01+C*12:03:08  | C*04:04:02+C*12:03:20  |                       |
| C*04:04:01+C*12:14:02  | C*04:58+C*12:18:01     |                       |
| C*04:04:01+C*14:05     | C*04:15:02+C*14:06     |                       |
| C*04:04:01+C*14:15     | C*04:13+C*14:06        |                       |
| C*04:04:01+C*14:16     | C*04:94:01+C*14:06     |                       |
| C*04:04:01+C*14:20     | C*04:08+C*14:06        |                       |
| C*04:04:01+C*14:25     | C*04:32+C*14:06        |                       |
| C*04:04:01+C*14:32     | C*04:50+C*14:06        |                       |
| C*04:04:01+C*15:31     | C*04:13+C*15:02:01G    |                       |



|                        |                        |                  |                 |
|------------------------|------------------------|------------------|-----------------|
| C*04:04:01+C*15:57     | C*04:122+C*15:02:01G   |                  |                 |
| C*04:04:01+C*16:01:01  | C*04:04:02+C*16:01:06  | C*04:14+C*16:35  | C*04:68+C*16:40 |
| C*04:04:01+C*16:02:01G | C*04:14+C*16:48        |                  |                 |
| C*04:04:01+C*16:04:01  | C*04:94:01+C*16:35     |                  |                 |
| C*04:04:01+C*16:15:02  | C*04:68+C*12:20        |                  |                 |
| C*04:04:01+C*16:35     | C*04:13+C*16:40        |                  |                 |
| C*04:04:02+C*05:08     | C*04:94:02+C*05:11     |                  |                 |
| C*04:04:02+C*06:02:01G | C*04:94:02+C*06:04     |                  |                 |
| C*04:04:02+C*07:22     | C*04:94:02+C*07:01:01G |                  |                 |
| C*04:04:02+C*07:138    | C*04:94:02+C*07:02:01G |                  |                 |
| C*04:04:02+C*08:29     | C*04:94:02+C*08:04:01  |                  |                 |
| C*04:04:02+C*12:02:01G | C*04:94:02+C*12:18:01  |                  |                 |
| C*04:04:02+C*12:03:01G | C*04:94:02+C*12:20     |                  |                 |
| C*04:04:02+C*14:16     | C*04:94:02+C*14:06     |                  |                 |
| C*04:04:02+C*16:04:01  | C*04:94:02+C*16:35     |                  |                 |
| C*04:07+C*05:24        | C*04:87+C*05:01:01G    |                  |                 |
| C*04:07+C*05:47        | C*04:89+C*05:01:01G    |                  |                 |
| C*04:07+C*07:29        | C*04:89+C*07:13        |                  |                 |
| C*04:07+C*07:56:02     | C*04:27+C*07:02:01G    |                  |                 |
| C*04:07+C*15:06:01     | C*04:89+C*15:05:01G    |                  |                 |
| C*04:08+C*05:04        | C*04:54+C*05:39        |                  |                 |
| C*04:08+C*05:08        | C*04:94:01+C*05:39     |                  |                 |
| C*04:08+C*05:10        | C*04:110+C*05:39       |                  |                 |
| C*04:08+C*05:15        | C*04:49+C*05:39        |                  |                 |
| C*04:08+C*05:20        | C*04:114+C*05:39       |                  |                 |
| C*04:08+C*05:22:01     | C*04:23+C*05:39        |                  |                 |
| C*04:08+C*05:36        | C*04:112+C*05:39       |                  |                 |
| C*04:08+C*05:41        | C*04:78+C*05:39        |                  |                 |
| C*04:08+C*05:44:01     | C*04:64:01+C*05:39     |                  |                 |
| C*04:08+C*05:44:02     | C*04:64:02+C*05:39     |                  |                 |
| C*04:08+C*05:49        | C*04:53+C*05:39        |                  |                 |
| C*04:08+C*05:55        | C*04:52+C*05:39        |                  |                 |
| C*04:08+C*05:57        | C*04:70+C*05:39        |                  |                 |
| C*04:08+C*05:60        | C*04:46+C*05:39        |                  |                 |
| C*04:08+C*05:65        | C*04:96+C*05:39        |                  |                 |
| C*04:08+C*05:67        | C*04:62+C*05:39        |                  |                 |
| C*04:08+C*05:68        | C*04:13+C*05:39        | C*04:61+C*05:27  |                 |
| C*04:08+C*05:73        | C*04:24+C*05:39        |                  |                 |
| C*04:08+C*05:75        | C*04:35+C*05:39        |                  |                 |
| C*04:08+C*05:76        | C*04:61+C*05:39        |                  |                 |
| C*04:08+C*07:10        | C*04:110+C*07:186      |                  |                 |
| C*04:08+C*07:15        | C*04:32+C*07:186       |                  |                 |
| C*04:08+C*07:16        | C*04:33+C*07:212       |                  |                 |
| C*04:08+C*07:19        | C*04:112+C*07:186      |                  |                 |
| C*04:08+C*07:39        | C*04:10+C*07:186       |                  |                 |
| C*04:08+C*07:40        | C*04:10+C*07:212       |                  |                 |
| C*04:08+C*07:51        | C*04:33+C*07:186       |                  |                 |
| C*04:08+C*07:56:01     | C*04:52+C*07:186       |                  |                 |
| C*04:08+C*07:109       | C*04:52+C*07:212       |                  |                 |
| C*04:08+C*07:114       | C*04:101+C*07:186      |                  |                 |
| C*04:08+C*07:122       | C*04:53+C*07:212       |                  |                 |
| C*04:08+C*07:126       | C*04:118+C*07:186      |                  |                 |
| C*04:08+C*07:144       | C*04:78+C*07:186       |                  |                 |
| C*04:08+C*07:182       | C*04:109+C*07:212      |                  |                 |
| C*04:08+C*07:188       | C*04:99+C*07:212       |                  |                 |
| C*04:08+C*07:189       | C*04:56+C*07:212       |                  |                 |
| C*04:08+C*07:192       | C*04:19+C*07:186       |                  |                 |
| C*04:08+C*07:196       | C*04:110+C*07:212      |                  |                 |
| C*04:08+C*07:197       | C*04:65+C*07:212       |                  |                 |
| C*04:08+C*07:207       | C*04:32+C*07:212       |                  |                 |
| C*04:08+C*07:214       | C*04:70+C*07:212       |                  |                 |
| C*04:08+C*07:227N      | C*04:66+C*07:212       |                  |                 |
| C*04:08+C*07:230       | C*04:20+C*07:212       |                  |                 |
| C*04:08+C*07:260       | C*04:120+C*07:186      |                  |                 |
| C*04:08+C*07:262       | C*04:49+C*07:186       |                  |                 |
| C*04:08+C*08:02:01G    | C*04:29+C*05:39        |                  |                 |
| C*04:08+C*08:03:01G    | C*04:64:01+C*08:41     |                  |                 |
| C*04:08+C*08:04:01     | C*04:29+C*05:27        |                  |                 |
| C*04:08+C*08:11        | C*04:54+C*08:41        |                  |                 |
| C*04:08+C*08:39        | C*04:34+C*08:64        |                  |                 |
| C*04:08+C*08:44        | C*04:110+C*08:41       |                  |                 |
| C*04:08+C*14:05        | C*04:15:02+C*14:20     |                  |                 |
| C*04:08+C*14:15        | C*04:13+C*14:20        |                  |                 |
| C*04:08+C*14:16        | C*04:94:01+C*14:20     |                  |                 |
| C*04:08+C*14:25        | C*04:32+C*14:20        |                  |                 |
| C*04:08+C*14:32        | C*04:50+C*14:20        |                  |                 |
| C*04:08+C*15:07        | C*04:29+C*15:15        |                  |                 |
| C*04:08+C*15:12        | C*04:52+C*15:15        |                  |                 |
| C*04:08+C*15:31        | C*04:61+C*15:15        |                  |                 |
| C*04:08+C*15:42        | C*04:32+C*15:15        |                  |                 |
| C*04:08+C*15:52        | C*04:64:02+C*15:15     |                  |                 |
| C*04:08+C*15:57        | C*04:34+C*15:08        | C*04:113+C*15:15 |                 |
| C*04:10+C*06:11        | C*04:36+C*06:02:01G    |                  |                 |
| C*04:10+C*07:10        | C*04:110+C*07:39       |                  |                 |
| C*04:10+C*07:15        | C*04:32+C*07:39        |                  |                 |
| C*04:10+C*07:16        | C*04:11+C*07:09        | C*04:33+C*07:40  | C*04:36+C*07:07 |
| C*04:10+C*07:19        | C*04:112+C*07:39       |                  |                 |
| C*04:10+C*07:51        | C*04:11+C*07:76        | C*04:33+C*07:39  |                 |
| C*04:10+C*07:56:01     | C*04:52+C*07:39        |                  |                 |
| C*04:10+C*07:60        | C*04:55+C*07:09        |                  |                 |
| C*04:10+C*07:79        | C*04:55+C*07:76        |                  |                 |
| C*04:10+C*07:109       | C*04:52+C*07:40        |                  |                 |
| C*04:10+C*07:114       | C*04:101+C*07:39       |                  |                 |
| C*04:10+C*07:122       | C*04:53+C*07:40        |                  |                 |
| C*04:10+C*07:126       | C*04:118+C*07:39       |                  |                 |
| C*04:10+C*07:144       | C*04:78+C*07:39        |                  |                 |
| C*04:10+C*07:182       | C*04:109+C*07:40       |                  |                 |
| C*04:10+C*07:188       | C*04:99+C*07:40        |                  |                 |
| C*04:10+C*07:189       | C*04:56+C*07:40        |                  |                 |
| C*04:10+C*07:192       | C*04:19+C*07:39        |                  |                 |
| C*04:10+C*07:196       | C*04:110+C*07:40       |                  |                 |
| C*04:10+C*07:197       | C*04:65+C*07:40        |                  |                 |
| C*04:10+C*07:207       | C*04:32+C*07:40        |                  |                 |
| C*04:10+C*07:214       | C*04:70+C*07:40        |                  |                 |
| C*04:10+C*07:227N      | C*04:66+C*07:40        |                  |                 |

|                     |                      |                     |                    |
|---------------------|----------------------|---------------------|--------------------|
| C*04:10+C*07:230    | C*04:20+C*07:40      |                     |                    |
| C*04:10+C*07:260    | C*04:120+C*07:39     |                     |                    |
| C*04:10+C*07:262    | C*04:49+C*07:39      |                     |                    |
| C*04:10+C*08:01:01G | C*04:36+C*08:10      |                     |                    |
| C*04:10+C*08:02:01G | C*04:11+C*05:25      | C*04:36+C*05:01:01G |                    |
| C*04:10+C*08:02:04  | C*04:36+C*05:01:02   |                     |                    |
| C*04:10+C*08:04:01  | C*04:36+C*05:11      |                     |                    |
| C*04:10+C*08:07     | C*04:36+C*05:23      |                     |                    |
| C*04:10+C*08:12     | C*04:36+C*05:16      |                     |                    |
| C*04:10+C*08:15:01  | C*04:36+C*05:09:01   |                     |                    |
| C*04:10+C*08:15:02  | C*04:36+C*05:09:02   |                     |                    |
| C*04:10+C*08:19     | C*04:36+C*05:64      |                     |                    |
| C*04:10+C*08:25     | C*04:29+C*05:29      |                     |                    |
| C*04:10+C*08:28     | C*04:36+C*05:25      |                     |                    |
| C*04:10+C*08:29     | C*04:36+C*05:08      |                     |                    |
| C*04:10+C*08:33:01  | C*04:36+C*05:18:02   |                     |                    |
| C*04:10+C*08:37     | C*04:36+C*05:43      |                     |                    |
| C*04:10+C*08:57     | C*04:36+C*05:68      |                     |                    |
| C*04:10+C*08:64     | C*04:36+C*05:18:01   |                     |                    |
| C*04:10+C*12:03:01G | C*04:11+C*06:76:02   | C*04:29+C*12:05     | C*04:36+C*12:04:02 |
| C*04:10+C*12:08     | C*04:112+C*12:49     |                     |                    |
| C*04:10+C*12:17     | C*04:12+C*12:49      |                     |                    |
| C*04:10+C*12:28     | C*04:36+C*06:76:02   |                     |                    |
| C*04:10+C*12:30     | C*04:70+C*12:49      |                     |                    |
| C*04:10+C*12:54     | C*04:114+C*12:05     |                     |                    |
| C*04:10+C*12:58     | C*04:55+C*06:76:02   |                     |                    |
| C*04:10+C*12:60     | C*04:74+C*12:05      |                     |                    |
| C*04:10+C*14:02:01G | C*04:36+C*14:12      |                     |                    |
| C*04:10+C*14:04     | C*04:114+C*14:12     |                     |                    |
| C*04:10+C*15:07     | C*04:36+C*15:02:01G  |                     |                    |
| C*04:10+C*16:01:01  | C*04:11+C*16:46      | C*04:36+C*16:02:01G |                    |
| C*04:10+C*16:26     | C*04:36+C*16:46      |                     |                    |
| C*04:10+C*16:35     | C*04:36+C*16:48      |                     |                    |
| C*04:11+C*05:46     | C*04:33+C*08:02:01G  |                     |                    |
| C*04:11+C*05:55     | C*04:55+C*05:01:01G  |                     |                    |
| C*04:11+C*06:02:01G | C*04:36+C*06:30      |                     |                    |
| C*04:11+C*06:53     | C*04:55+C*06:02:01G  |                     |                    |
| C*04:11+C*07:01:01G | C*04:36+C*07:16      |                     |                    |
| C*04:11+C*07:02:01G | C*04:36+C*07:51      |                     |                    |
| C*04:11+C*07:04:01G | C*04:36+C*07:181     |                     |                    |
| C*04:11+C*07:56:01  | C*04:36+C*07:79      | C*04:55+C*07:02:01G |                    |
| C*04:11+C*07:60     | C*04:55+C*07:16      |                     |                    |
| C*04:11+C*07:79     | C*04:55+C*07:51      |                     |                    |
| C*04:11+C*07:109    | C*04:36+C*07:60      | C*04:55+C*07:01:01G |                    |
| C*04:11+C*08:28     | C*04:36+C*08:02:01G  |                     |                    |
| C*04:11+C*12:28     | C*04:36+C*12:03:01G  |                     |                    |
| C*04:11+C*12:41     | C*04:33+C*12:49      |                     |                    |
| C*04:11+C*12:58     | C*04:55+C*12:03:01G  |                     |                    |
| C*04:11+C*14:10     | C*04:55+C*14:03      |                     |                    |
| C*04:11+C*14:13     | C*04:36+C*14:02:01G  |                     |                    |
| C*04:11+C*15:03     | C*04:33+C*15:07      |                     |                    |
| C*04:11+C*15:12     | C*04:55+C*15:02:01G  |                     |                    |
| C*04:11+C*16:25     | C*04:33+C*16:01:01   |                     |                    |
| C*04:11+C*16:26     | C*04:36+C*16:01:01   |                     |                    |
| C*04:11+C*17:11     | C*04:36+C*17:01:01G  |                     |                    |
| C*04:12+C*12:08     | C*04:112+C*12:17     |                     |                    |
| C*04:12+C*12:30     | C*04:70+C*12:17      |                     |                    |
| C*04:13+C*04:113    | C*04:61+C*04:122     |                     |                    |
| C*04:13+C*05:01:17  | C*04:120+C*05:17     |                     |                    |
| C*04:13+C*05:04     | C*04:54+C*05:68      |                     |                    |
| C*04:13+C*05:08     | C*04:94:01+C*05:68   |                     |                    |
| C*04:13+C*05:10     | C*04:110+C*05:68     |                     |                    |
| C*04:13+C*05:15     | C*04:49+C*05:68      |                     |                    |
| C*04:13+C*05:20     | C*04:114+C*05:68     |                     |                    |
| C*04:13+C*05:22:01  | C*04:23+C*05:68      |                     |                    |
| C*04:13+C*05:23     | C*04:58+C*05:01:01G  |                     |                    |
| C*04:13+C*05:36     | C*04:112+C*05:68     |                     |                    |
| C*04:13+C*05:41     | C*04:78+C*05:68      |                     |                    |
| C*04:13+C*05:44:01  | C*04:64:01+C*05:68   |                     |                    |
| C*04:13+C*05:44:02  | C*04:64:02+C*05:68   |                     |                    |
| C*04:13+C*05:49     | C*04:53+C*05:68      |                     |                    |
| C*04:13+C*05:55     | C*04:52+C*05:68      |                     |                    |
| C*04:13+C*05:57     | C*04:70+C*05:68      |                     |                    |
| C*04:13+C*05:60     | C*04:46+C*05:68      |                     |                    |
| C*04:13+C*05:65     | C*04:96+C*05:68      |                     |                    |
| C*04:13+C*05:67     | C*04:62+C*05:68      |                     |                    |
| C*04:13+C*05:73     | C*04:24+C*05:68      |                     |                    |
| C*04:13+C*05:75     | C*04:35+C*05:68      |                     |                    |
| C*04:13+C*05:76     | C*04:61+C*05:68      |                     |                    |
| C*04:13+C*06:06     | C*04:61+C*06:04      |                     |                    |
| C*04:13+C*07:01:01G | C*04:58+C*07:141:02  |                     |                    |
| C*04:13+C*07:02:01G | C*04:58+C*07:17      |                     |                    |
| C*04:13+C*07:04:01G | C*04:58+C*07:12      |                     |                    |
| C*04:13+C*07:37     | C*04:61+C*07:02:01G  |                     |                    |
| C*04:13+C*07:53     | C*04:68+C*07:01:01G  |                     |                    |
| C*04:13+C*07:95     | C*04:122+C*07:01:01G |                     |                    |
| C*04:13+C*07:176    | C*04:61+C*07:01:01G  |                     |                    |
| C*04:13+C*07:216    | C*04:68+C*07:02:01G  |                     |                    |
| C*04:13+C*08:15:02  | C*04:29+C*05:17      |                     |                    |
| C*04:13+C*08:29     | C*04:94:01+C*08:57   |                     |                    |
| C*04:13+C*08:35     | C*04:61+C*08:54      |                     |                    |
| C*04:13+C*08:55N    | C*04:104+C*08:57     |                     |                    |
| C*04:13+C*12:24     | C*04:61+C*12:20      |                     |                    |
| C*04:13+C*14:05     | C*04:15:02+C*14:15   |                     |                    |
| C*04:13+C*14:16     | C*04:94:01+C*14:15   |                     |                    |
| C*04:13+C*14:25     | C*04:32+C*14:15      |                     |                    |
| C*04:13+C*14:32     | C*04:50+C*14:15      |                     |                    |
| C*04:13+C*15:57     | C*04:122+C*15:31     |                     |                    |
| C*04:13+C*16:01:01  | C*04:68+C*16:35      |                     |                    |
| C*04:13+C*16:02:01G | C*04:68+C*16:48      |                     |                    |
| C*04:13+C*16:43     | C*04:122+C*16:01:01  |                     |                    |
| C*04:14+C*05:68     | C*04:68+C*05:11      |                     |                    |
| C*04:14+C*05:76     | C*04:68+C*05:01:01G  |                     |                    |
| C*04:14+C*06:31     | C*04:68+C*06:02:01G  |                     |                    |
| C*04:14+C*07:22     | C*04:94:01+C*07:53   |                     |                    |

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| C*04:14+C*07:138       | C*04:94:01+C*07:216    |                        |
| C*04:14+C*08:47        | C*04:68+C*08:07        |                        |
| C*04:14+C*08:57        | C*04:68+C*08:04:01     |                        |
| C*04:14+C*14:15        | C*04:68+C*14:06        |                        |
| C*04:14+C*15:31        | C*04:68+C*15:02:01G    |                        |
| C*04:14+C*16:04:01     | C*04:94:01+C*16:01:01  | C*04:94:02+C*16:01:06  |
| C*04:14+C*16:29        | C*04:94:01+C*16:50     |                        |
| C*04:15:01+C*05:01:20  | C*04:15:03+C*05:01:02  |                        |
| C*04:15:01+C*06:02:17  | C*04:15:03+C*06:02:01G |                        |
| C*04:15:01+C*07:01:12  | C*04:15:02+C*07:01:07  | C*04:15:03+C*07:01:01G |
| C*04:15:01+C*07:02:12  | C*04:15:03+C*07:02:01G |                        |
| C*04:15:01+C*08:02:06  | C*04:15:03+C*08:02:01G |                        |
| C*04:15:01+C*08:19     | C*04:29+C*05:01:03     |                        |
| C*04:15:01+C*12:02:09  | C*04:15:03+C*12:02:01G |                        |
| C*04:15:01+C*16:18     | C*04:37+C*16:07:01     |                        |
| C*04:15:01+C*17:01:02  | C*04:15:03+C*17:01:01G |                        |
| C*04:15:02+C*05:01:03  | C*04:15:03+C*05:01:01G |                        |
| C*04:15:02+C*05:05     | C*04:17+C*05:01:01G    |                        |
| C*04:15:02+C*05:22:02  | C*04:15:03+C*05:22:01  |                        |
| C*04:15:02+C*07:04:03  | C*04:15:03+C*07:04:01G |                        |
| C*04:15:02+C*07:27:02  | C*04:15:03+C*07:27:01  |                        |
| C*04:15:02+C*07:199:02 | C*04:15:03+C*07:199:01 |                        |
| C*04:15:02+C*07:257    | C*04:17+C*07:01:01G    |                        |
| C*04:15:02+C*08:01:02  | C*04:15:03+C*08:01:01G |                        |
| C*04:15:02+C*08:62     | C*04:17+C*08:02:06     |                        |
| C*04:15:02+C*12:02:01G | C*04:15:03+C*12:02:03  |                        |
| C*04:15:02+C*12:02:06  | C*04:15:03+C*12:02:08  |                        |
| C*04:15:02+C*14:16     | C*04:94:01+C*14:05     |                        |
| C*04:15:02+C*14:25     | C*04:32+C*14:05        |                        |
| C*04:15:02+C*14:32     | C*04:50+C*14:05        |                        |
| C*04:15:02+C*15:26     | C*04:17+C*15:02:01G    |                        |
| C*04:15:02+C*16:07:01  | C*04:15:03+C*16:07:02  |                        |
| C*04:15:02+C*16:49     | C*04:17+C*16:01:01     |                        |
| C*04:15:03+C*05:05     | C*04:17+C*05:01:03     |                        |
| C*04:15:03+C*07:257    | C*04:17+C*07:01:07     |                        |
| C*04:16+C*07:01:23     | C*04:103+C*07:263      |                        |
| C*04:16+C*07:02:11     | C*04:103+C*07:127      |                        |
| C*04:16+C*15:10:01     | C*04:103+C*15:02:01G   |                        |
| C*04:18+C*12:47        | C*04:104+C*12:61       |                        |
| C*04:18+C*12:58        | C*04:52+C*12:61        |                        |
| C*04:18+C*12:66        | C*04:19+C*12:61        |                        |
| C*04:18+C*12:81        | C*04:112+C*12:61       |                        |
| C*04:19+C*07:10        | C*04:110+C*07:192      |                        |
| C*04:19+C*07:15        | C*04:32+C*07:192       |                        |
| C*04:19+C*07:19        | C*04:112+C*07:192      |                        |
| C*04:19+C*07:51        | C*04:33+C*07:192       |                        |
| C*04:19+C*07:56:01     | C*04:52+C*07:192       |                        |
| C*04:19+C*07:114       | C*04:101+C*07:192      |                        |
| C*04:19+C*07:126       | C*04:118+C*07:192      |                        |
| C*04:19+C*07:144       | C*04:78+C*07:192       |                        |
| C*04:19+C*07:260       | C*04:120+C*07:192      |                        |
| C*04:19+C*07:262       | C*04:49+C*07:192       |                        |
| C*04:19+C*12:47        | C*04:104+C*12:66       |                        |
| C*04:19+C*12:58        | C*04:52+C*12:66        |                        |
| C*04:19+C*12:81        | C*04:112+C*12:66       |                        |
| C*04:20+C*07:16        | C*04:33+C*07:230       |                        |
| C*04:20+C*07:109       | C*04:52+C*07:230       |                        |
| C*04:20+C*07:122       | C*04:53+C*07:230       |                        |
| C*04:20+C*07:182       | C*04:109+C*07:230      |                        |
| C*04:20+C*07:188       | C*04:99+C*07:230       |                        |
| C*04:20+C*07:189       | C*04:56+C*07:230       |                        |
| C*04:20+C*07:196       | C*04:110+C*07:230      |                        |
| C*04:20+C*07:197       | C*04:65+C*07:230       |                        |
| C*04:20+C*07:207       | C*04:32+C*07:230       |                        |
| C*04:20+C*07:214       | C*04:70+C*07:230       |                        |
| C*04:20+C*07:227N      | C*04:66+C*07:230       |                        |
| C*04:23+C*05:04        | C*04:54+C*05:22:01     |                        |
| C*04:23+C*05:08        | C*04:94:01+C*05:22:01  |                        |
| C*04:23+C*05:10        | C*04:110+C*05:22:01    |                        |
| C*04:23+C*05:15        | C*04:49+C*05:22:01     |                        |
| C*04:23+C*05:20        | C*04:114+C*05:22:01    |                        |
| C*04:23+C*05:36        | C*04:112+C*05:22:01    |                        |
| C*04:23+C*05:41        | C*04:78+C*05:22:01     |                        |
| C*04:23+C*05:44:01     | C*04:64:01+C*05:22:01  |                        |
| C*04:23+C*05:44:02     | C*04:64:02+C*05:22:01  |                        |
| C*04:23+C*05:49        | C*04:53+C*05:22:01     |                        |
| C*04:23+C*05:55        | C*04:52+C*05:22:01     |                        |
| C*04:23+C*05:57        | C*04:70+C*05:22:01     |                        |
| C*04:23+C*05:60        | C*04:46+C*05:22:01     |                        |
| C*04:23+C*05:65        | C*04:96+C*05:22:01     |                        |
| C*04:23+C*05:67        | C*04:62+C*05:22:01     |                        |
| C*04:23+C*05:73        | C*04:24+C*05:22:01     |                        |
| C*04:23+C*05:75        | C*04:35+C*05:22:01     |                        |
| C*04:23+C*05:76        | C*04:61+C*05:22:01     |                        |
| C*04:23+C*06:02:01G    | C*04:54+C*06:34        |                        |
| C*04:23+C*07:02:01G    | C*04:54+C*07:13        |                        |
| C*04:23+C*07:123       | C*04:108+C*07:02:01G   |                        |
| C*04:23+C*07:173       | C*04:108+C*07:01:01G   |                        |
| C*04:23+C*08:02:01G    | C*04:29+C*05:22:01     |                        |
| C*04:23+C*12:44        | C*04:100+C*12:10:01    |                        |
| C*04:23+C*14:02:01G    | C*04:54+C*14:26        |                        |
| C*04:23+C*15:06:01     | C*04:108+C*15:40       |                        |
| C*04:23+C*15:09        | C*04:54+C*15:05:01G    | C*04:108+C*15:04       |
| C*04:23+C*16:20        | C*04:108+C*16:01:01    |                        |
| C*04:24+C*05:04        | C*04:54+C*05:73        |                        |
| C*04:24+C*05:08        | C*04:94:01+C*05:73     |                        |
| C*04:24+C*05:10        | C*04:110+C*05:73       |                        |
| C*04:24+C*05:15        | C*04:49+C*05:73        |                        |
| C*04:24+C*05:20        | C*04:114+C*05:73       |                        |
| C*04:24+C*05:36        | C*04:112+C*05:73       |                        |
| C*04:24+C*05:41        | C*04:78+C*05:73        |                        |
| C*04:24+C*05:44:01     | C*04:64:01+C*05:73     |                        |
| C*04:24+C*05:44:02     | C*04:64:02+C*05:73     |                        |
| C*04:24+C*05:49        | C*04:53+C*05:73        |                        |
| C*04:24+C*05:55        | C*04:52+C*05:73        |                        |

|                     |                        |                  |
|---------------------|------------------------|------------------|
| C*04:24+C*05:57     | C*04:70+C*05:73        |                  |
| C*04:24+C*05:60     | C*04:46+C*05:73        |                  |
| C*04:24+C*05:65     | C*04:96+C*05:73        |                  |
| C*04:24+C*05:67     | C*04:62+C*05:73        |                  |
| C*04:24+C*05:75     | C*04:35+C*05:73        |                  |
| C*04:24+C*05:76     | C*04:61+C*05:73        |                  |
| C*04:24+C*08:02:01G | C*04:29+C*05:73        |                  |
| C*04:29+C*05:01:17  | C*04:120+C*08:15:02    |                  |
| C*04:29+C*05:04     | C*04:54+C*08:02:01G    |                  |
| C*04:29+C*05:10     | C*04:110+C*08:02:01G   |                  |
| C*04:29+C*05:12     | C*04:113+C*08:64       |                  |
| C*04:29+C*05:15     | C*04:49+C*08:02:01G    |                  |
| C*04:29+C*05:20     | C*04:114+C*08:02:01G   |                  |
| C*04:29+C*05:36     | C*04:112+C*08:02:01G   |                  |
| C*04:29+C*05:41     | C*04:78+C*08:02:01G    |                  |
| C*04:29+C*05:44:01  | C*04:64:01+C*08:02:01G |                  |
| C*04:29+C*05:44:02  | C*04:64:02+C*08:02:01G |                  |
| C*04:29+C*05:49     | C*04:53+C*08:02:01G    |                  |
| C*04:29+C*05:52     | C*04:94:01+C*08:15:01  |                  |
| C*04:29+C*05:55     | C*04:52+C*08:02:01G    | C*04:55+C*05:42  |
| C*04:29+C*05:57     | C*04:70+C*08:02:01G    |                  |
| C*04:29+C*05:60     | C*04:46+C*08:02:01G    |                  |
| C*04:29+C*05:65     | C*04:96+C*08:02:01G    |                  |
| C*04:29+C*05:67     | C*04:62+C*08:02:01G    |                  |
| C*04:29+C*05:75     | C*04:35+C*08:02:01G    |                  |
| C*04:29+C*05:76     | C*04:61+C*08:02:01G    |                  |
| C*04:29+C*06:08     | C*04:32+C*06:11        |                  |
| C*04:29+C*06:14     | C*04:110+C*06:11       |                  |
| C*04:29+C*06:25     | C*04:81+C*06:11        |                  |
| C*04:29+C*06:30     | C*04:33+C*06:11        |                  |
| C*04:29+C*06:31     | C*04:61+C*06:11        |                  |
| C*04:29+C*06:49N    | C*04:93N+C*06:11       |                  |
| C*04:29+C*06:53     | C*04:52+C*06:11        |                  |
| C*04:29+C*06:82     | C*04:114+C*06:11       |                  |
| C*04:29+C*06:84     | C*04:62+C*06:11        |                  |
| C*04:29+C*07:39     | C*04:36+C*07:02:01G    |                  |
| C*04:29+C*07:40     | C*04:36+C*07:01:01G    |                  |
| C*04:29+C*07:49     | C*04:114+C*07:02:01G   |                  |
| C*04:29+C*07:210    | C*04:36+C*07:247       | C*04:114+C*07:40 |
| C*04:29+C*07:238    | C*04:36+C*07:49        | C*04:114+C*07:39 |
| C*04:29+C*07:247    | C*04:114+C*07:01:01G   |                  |
| C*04:29+C*08:01:01G | C*04:36+C*08:21        |                  |
| C*04:29+C*08:02:01G | C*04:36+C*08:05        |                  |
| C*04:29+C*12:49     | C*04:36+C*12:02:01G    |                  |
| C*04:29+C*12:54     | C*04:114+C*12:03:01G   |                  |
| C*04:29+C*12:60     | C*04:74+C*12:03:01G    |                  |
| C*04:29+C*15:12     | C*04:52+C*15:07        |                  |
| C*04:29+C*15:17     | C*04:36+C*15:16        |                  |
| C*04:29+C*15:31     | C*04:61+C*15:07        |                  |
| C*04:29+C*15:42     | C*04:32+C*15:07        |                  |
| C*04:29+C*15:52     | C*04:64:02+C*15:07     |                  |
| C*04:29+C*15:57     | C*04:113+C*15:07       |                  |
| C*04:29+C*16:01:01  | C*04:36+C*16:15:01     |                  |
| C*04:29+C*16:12     | C*04:69+C*16:01:01     |                  |
| C*04:29+C*16:19     | C*04:101+C*16:01:01    |                  |
| C*04:32+C*06:14     | C*04:110+C*06:08       |                  |
| C*04:32+C*06:25     | C*04:81+C*06:08        |                  |
| C*04:32+C*06:30     | C*04:33+C*06:08        |                  |
| C*04:32+C*06:31     | C*04:61+C*06:08        |                  |
| C*04:32+C*06:49N    | C*04:93N+C*06:08       |                  |
| C*04:32+C*06:53     | C*04:52+C*06:08        |                  |
| C*04:32+C*06:82     | C*04:114+C*06:08       |                  |
| C*04:32+C*06:84     | C*04:62+C*06:08        |                  |
| C*04:32+C*07:10     | C*04:110+C*07:15       |                  |
| C*04:32+C*07:16     | C*04:33+C*07:207       |                  |
| C*04:32+C*07:19     | C*04:112+C*07:15       |                  |
| C*04:32+C*07:38:02  | C*04:77+C*07:02:04     |                  |
| C*04:32+C*07:51     | C*04:33+C*07:15        |                  |
| C*04:32+C*07:56:01  | C*04:52+C*07:15        |                  |
| C*04:32+C*07:109    | C*04:52+C*07:207       |                  |
| C*04:32+C*07:114    | C*04:101+C*07:15       |                  |
| C*04:32+C*07:122    | C*04:53+C*07:207       |                  |
| C*04:32+C*07:126    | C*04:118+C*07:15       |                  |
| C*04:32+C*07:144    | C*04:78+C*07:15        |                  |
| C*04:32+C*07:182    | C*04:109+C*07:207      |                  |
| C*04:32+C*07:188    | C*04:99+C*07:207       |                  |
| C*04:32+C*07:189    | C*04:56+C*07:207       |                  |
| C*04:32+C*07:196    | C*04:110+C*07:207      |                  |
| C*04:32+C*07:197    | C*04:65+C*07:207       |                  |
| C*04:32+C*07:214    | C*04:70+C*07:207       |                  |
| C*04:32+C*07:227N   | C*04:66+C*07:207       |                  |
| C*04:32+C*07:260    | C*04:120+C*07:15       |                  |
| C*04:32+C*07:262    | C*04:49+C*07:15        |                  |
| C*04:32+C*14:16     | C*04:94:01+C*14:25     |                  |
| C*04:32+C*14:32     | C*04:50+C*14:25        |                  |
| C*04:32+C*15:12     | C*04:52+C*15:42        |                  |
| C*04:32+C*15:31     | C*04:61+C*15:42        |                  |
| C*04:32+C*15:52     | C*04:64:02+C*15:42     |                  |
| C*04:32+C*15:57     | C*04:113+C*15:42       |                  |
| C*04:32+C*16:16Q    | C*04:59Q+C*16:50       |                  |
| C*04:32+C*16:30N    | C*04:88N+C*16:50       |                  |
| C*04:32+C*16:44     | C*04:35+C*16:50        |                  |
| C*04:33+C*06:14     | C*04:110+C*06:30       |                  |
| C*04:33+C*06:25     | C*04:81+C*06:30        |                  |
| C*04:33+C*06:31     | C*04:61+C*06:30        |                  |
| C*04:33+C*06:49N    | C*04:93N+C*06:30       |                  |
| C*04:33+C*06:53     | C*04:52+C*06:30        |                  |
| C*04:33+C*06:82     | C*04:114+C*06:30       |                  |
| C*04:33+C*06:84     | C*04:62+C*06:30        |                  |
| C*04:33+C*07:10     | C*04:110+C*07:51       |                  |
| C*04:33+C*07:19     | C*04:112+C*07:51       |                  |
| C*04:33+C*07:114    | C*04:101+C*07:51       |                  |
| C*04:33+C*07:122    | C*04:53+C*07:16        |                  |
| C*04:33+C*07:126    | C*04:118+C*07:51       |                  |
| C*04:33+C*07:144    | C*04:78+C*07:51        |                  |

|                     |                      |                  |
|---------------------|----------------------|------------------|
| C*04:33+C*07:182    | C*04:109+C*07:16     |                  |
| C*04:33+C*07:188    | C*04:99+C*07:16      |                  |
| C*04:33+C*07:189    | C*04:56+C*07:16      |                  |
| C*04:33+C*07:196    | C*04:110+C*07:16     |                  |
| C*04:33+C*07:197    | C*04:65+C*07:16      |                  |
| C*04:33+C*07:214    | C*04:70+C*07:16      |                  |
| C*04:33+C*07:227N   | C*04:66+C*07:16      |                  |
| C*04:33+C*07:247    | C*04:114+C*07:07     |                  |
| C*04:33+C*07:260    | C*04:120+C*07:51     |                  |
| C*04:33+C*07:262    | C*04:49+C*07:51      |                  |
| C*04:34+C*05:01:01G | C*04:113+C*05:27     | C*04:122+C*05:39 |
| C*04:34+C*05:11     | C*04:122+C*05:27     |                  |
| C*04:34+C*07:01:01G | C*04:122+C*07:212    |                  |
| C*04:34+C*07:02:01G | C*04:122+C*07:186    |                  |
| C*04:34+C*07:37     | C*04:113+C*07:186    |                  |
| C*04:34+C*07:176    | C*04:113+C*07:212    |                  |
| C*04:34+C*08:01:01G | C*04:122+C*08:41     |                  |
| C*04:34+C*14:02:01G | C*04:122+C*14:20     |                  |
| C*04:34+C*15:02:01G | C*04:122+C*15:15     |                  |
| C*04:35+C*05:04     | C*04:54+C*05:75      |                  |
| C*04:35+C*05:08     | C*04:94:01+C*05:75   |                  |
| C*04:35+C*05:10     | C*04:110+C*05:75     |                  |
| C*04:35+C*05:15     | C*04:49+C*05:75      |                  |
| C*04:35+C*05:20     | C*04:114+C*05:75     |                  |
| C*04:35+C*05:36     | C*04:112+C*05:75     |                  |
| C*04:35+C*05:41     | C*04:78+C*05:75      |                  |
| C*04:35+C*05:44:01  | C*04:64:01+C*05:75   |                  |
| C*04:35+C*05:44:02  | C*04:64:02+C*05:75   |                  |
| C*04:35+C*05:49     | C*04:53+C*05:75      |                  |
| C*04:35+C*05:55     | C*04:52+C*05:75      |                  |
| C*04:35+C*05:57     | C*04:70+C*05:75      |                  |
| C*04:35+C*05:60     | C*04:46+C*05:75      |                  |
| C*04:35+C*05:65     | C*04:96+C*05:75      |                  |
| C*04:35+C*05:67     | C*04:62+C*05:75      |                  |
| C*04:35+C*05:76     | C*04:61+C*05:75      |                  |
| C*04:35+C*16:16Q    | C*04:59Q+C*16:44     |                  |
| C*04:35+C*16:30N    | C*04:88N+C*16:44     |                  |
| C*04:36+C*05:55     | C*04:55+C*05:25      |                  |
| C*04:36+C*12:58     | C*04:55+C*12:28      |                  |
| C*04:36+C*14:04     | C*04:114+C*14:02:01G |                  |
| C*04:42+C*05:01:01G | C*04:103+C*05:43     |                  |
| C*04:42+C*06:03:02  | C*04:103+C*06:02:01G |                  |
| C*04:42+C*06:76:01  | C*04:103+C*06:28     |                  |
| C*04:42+C*07:26     | C*04:103+C*07:01:01G |                  |
| C*04:42+C*07:92     | C*04:103+C*07:73     |                  |
| C*04:42+C*08:02:01G | C*04:103+C*08:37     |                  |
| C*04:42+C*16:01:01  | C*04:103+C*16:21     |                  |
| C*04:46+C*05:04     | C*04:54+C*05:60      |                  |
| C*04:46+C*05:08     | C*04:94:01+C*05:60   |                  |
| C*04:46+C*05:10     | C*04:110+C*05:60     |                  |
| C*04:46+C*05:15     | C*04:49+C*05:60      |                  |
| C*04:46+C*05:20     | C*04:114+C*05:60     |                  |
| C*04:46+C*05:36     | C*04:112+C*05:60     |                  |
| C*04:46+C*05:41     | C*04:78+C*05:60      |                  |
| C*04:46+C*05:44:01  | C*04:64:01+C*05:60   |                  |
| C*04:46+C*05:44:02  | C*04:64:02+C*05:60   |                  |
| C*04:46+C*05:49     | C*04:53+C*05:60      |                  |
| C*04:46+C*05:55     | C*04:52+C*05:60      |                  |
| C*04:46+C*05:57     | C*04:70+C*05:60      |                  |
| C*04:46+C*05:65     | C*04:96+C*05:60      |                  |
| C*04:46+C*05:67     | C*04:62+C*05:60      |                  |
| C*04:46+C*05:76     | C*04:61+C*05:60      |                  |
| C*04:49+C*05:04     | C*04:54+C*05:15      |                  |
| C*04:49+C*05:08     | C*04:94:01+C*05:15   |                  |
| C*04:49+C*05:10     | C*04:110+C*05:15     |                  |
| C*04:49+C*05:20     | C*04:114+C*05:15     |                  |
| C*04:49+C*05:36     | C*04:112+C*05:15     |                  |
| C*04:49+C*05:41     | C*04:78+C*05:15      |                  |
| C*04:49+C*05:44:01  | C*04:64:01+C*05:15   |                  |
| C*04:49+C*05:44:02  | C*04:64:02+C*05:15   |                  |
| C*04:49+C*05:49     | C*04:53+C*05:15      |                  |
| C*04:49+C*05:55     | C*04:52+C*05:15      |                  |
| C*04:49+C*05:57     | C*04:70+C*05:15      |                  |
| C*04:49+C*05:65     | C*04:96+C*05:15      |                  |
| C*04:49+C*05:67     | C*04:62+C*05:15      |                  |
| C*04:49+C*05:76     | C*04:61+C*05:15      |                  |
| C*04:49+C*07:10     | C*04:110+C*07:262    |                  |
| C*04:49+C*07:19     | C*04:112+C*07:262    |                  |
| C*04:49+C*07:56:01  | C*04:52+C*07:262     |                  |
| C*04:49+C*07:114    | C*04:101+C*07:262    |                  |
| C*04:49+C*07:126    | C*04:118+C*07:262    |                  |
| C*04:49+C*07:144    | C*04:78+C*07:262     |                  |
| C*04:49+C*07:260    | C*04:120+C*07:262    |                  |
| C*04:50+C*14:16     | C*04:94:01+C*14:32   |                  |
| C*04:52+C*05:04     | C*04:54+C*05:55      |                  |
| C*04:52+C*05:08     | C*04:94:01+C*05:55   |                  |
| C*04:52+C*05:10     | C*04:110+C*05:55     |                  |
| C*04:52+C*05:20     | C*04:114+C*05:55     |                  |
| C*04:52+C*05:36     | C*04:112+C*05:55     |                  |
| C*04:52+C*05:41     | C*04:78+C*05:55      |                  |
| C*04:52+C*05:44:01  | C*04:64:01+C*05:55   |                  |
| C*04:52+C*05:44:02  | C*04:64:02+C*05:55   |                  |
| C*04:52+C*05:49     | C*04:53+C*05:55      |                  |
| C*04:52+C*05:57     | C*04:70+C*05:55      |                  |
| C*04:52+C*05:65     | C*04:96+C*05:55      |                  |
| C*04:52+C*05:67     | C*04:62+C*05:55      |                  |
| C*04:52+C*05:76     | C*04:61+C*05:55      |                  |
| C*04:52+C*06:14     | C*04:110+C*06:53     |                  |
| C*04:52+C*06:25     | C*04:81+C*06:53      |                  |
| C*04:52+C*06:31     | C*04:61+C*06:53      |                  |
| C*04:52+C*06:49N    | C*04:93N+C*06:53     |                  |
| C*04:52+C*06:82     | C*04:114+C*06:53     |                  |
| C*04:52+C*06:84     | C*04:62+C*06:53      |                  |
| C*04:52+C*07:10     | C*04:110+C*07:56:01  |                  |
| C*04:52+C*07:19     | C*04:112+C*07:56:01  |                  |

|                       |                       |                   |
|-----------------------|-----------------------|-------------------|
| C*04:52+C*07:114      | C*04:101+C*07:56:01   |                   |
| C*04:52+C*07:122      | C*04:53+C*07:109      |                   |
| C*04:52+C*07:126      | C*04:118+C*07:56:01   |                   |
| C*04:52+C*07:144      | C*04:78+C*07:56:01    |                   |
| C*04:52+C*07:182      | C*04:109+C*07:109     |                   |
| C*04:52+C*07:188      | C*04:99+C*07:109      |                   |
| C*04:52+C*07:189      | C*04:56+C*07:109      |                   |
| C*04:52+C*07:196      | C*04:110+C*07:109     |                   |
| C*04:52+C*07:197      | C*04:65+C*07:109      |                   |
| C*04:52+C*07:214      | C*04:70+C*07:109      |                   |
| C*04:52+C*07:227N     | C*04:66+C*07:109      |                   |
| C*04:52+C*07:260      | C*04:120+C*07:56:01   |                   |
| C*04:52+C*12:47       | C*04:104+C*12:58      |                   |
| C*04:52+C*12:81       | C*04:112+C*12:58      |                   |
| C*04:52+C*14:38       | C*04:85+C*14:10       |                   |
| C*04:52+C*15:31       | C*04:61+C*15:12       |                   |
| C*04:52+C*15:52       | C*04:64:02+C*15:12    |                   |
| C*04:52+C*15:57       | C*04:113+C*15:12      |                   |
| C*04:53+C*05:04       | C*04:54+C*05:49       |                   |
| C*04:53+C*05:08       | C*04:94:01+C*05:49    |                   |
| C*04:53+C*05:10       | C*04:110+C*05:49      |                   |
| C*04:53+C*05:20       | C*04:114+C*05:49      |                   |
| C*04:53+C*05:36       | C*04:112+C*05:49      |                   |
| C*04:53+C*05:41       | C*04:78+C*05:49       |                   |
| C*04:53+C*05:44:01    | C*04:64:01+C*05:49    |                   |
| C*04:53+C*05:44:02    | C*04:64:02+C*05:49    |                   |
| C*04:53+C*05:57       | C*04:70+C*05:49       |                   |
| C*04:53+C*05:65       | C*04:96+C*05:49       |                   |
| C*04:53+C*05:67       | C*04:62+C*05:49       |                   |
| C*04:53+C*05:76       | C*04:61+C*05:49       |                   |
| C*04:53+C*07:182      | C*04:109+C*07:122     |                   |
| C*04:53+C*07:188      | C*04:99+C*07:122      |                   |
| C*04:53+C*07:189      | C*04:56+C*07:122      |                   |
| C*04:53+C*07:196      | C*04:110+C*07:122     |                   |
| C*04:53+C*07:197      | C*04:65+C*07:122      |                   |
| C*04:53+C*07:214      | C*04:70+C*07:122      |                   |
| C*04:53+C*07:227N     | C*04:66+C*07:122      |                   |
| C*04:54+C*05:08       | C*04:94:01+C*05:04    |                   |
| C*04:54+C*05:10       | C*04:110+C*05:04      |                   |
| C*04:54+C*05:20       | C*04:114+C*05:04      |                   |
| C*04:54+C*05:36       | C*04:112+C*05:04      |                   |
| C*04:54+C*05:41       | C*04:78+C*05:04       |                   |
| C*04:54+C*05:44:01    | C*04:64:01+C*05:04    |                   |
| C*04:54+C*05:44:02    | C*04:64:02+C*05:04    |                   |
| C*04:54+C*05:57       | C*04:70+C*05:04       |                   |
| C*04:54+C*05:65       | C*04:96+C*05:04       |                   |
| C*04:54+C*05:67       | C*04:62+C*05:04       |                   |
| C*04:54+C*05:76       | C*04:61+C*05:04       |                   |
| C*04:54+C*08:03:01G   | C*04:64:01+C*08:11    |                   |
| C*04:54+C*08:44       | C*04:110+C*08:11      |                   |
| C*04:56+C*07:182      | C*04:109+C*07:189     |                   |
| C*04:56+C*07:188      | C*04:99+C*07:189      |                   |
| C*04:56+C*07:196      | C*04:110+C*07:189     |                   |
| C*04:56+C*07:197      | C*04:65+C*07:189      |                   |
| C*04:56+C*07:214      | C*04:70+C*07:189      |                   |
| C*04:56+C*07:227N     | C*04:66+C*07:189      |                   |
| C*04:58+C*12:02:01G   | C*04:94:01+C*12:14:02 |                   |
| C*04:59Q+C*16:30N     | C*04:88N+C*16:16Q     |                   |
| C*04:61+C*05:08       | C*04:94:01+C*05:76    |                   |
| C*04:61+C*05:10       | C*04:110+C*05:76      |                   |
| C*04:61+C*05:20       | C*04:114+C*05:76      |                   |
| C*04:61+C*05:36       | C*04:112+C*05:76      |                   |
| C*04:61+C*05:41       | C*04:78+C*05:76       |                   |
| C*04:61+C*05:44:01    | C*04:64:01+C*05:76    |                   |
| C*04:61+C*05:44:02    | C*04:64:02+C*05:76    |                   |
| C*04:61+C*05:57       | C*04:70+C*05:76       |                   |
| C*04:61+C*05:65       | C*04:96+C*05:76       |                   |
| C*04:61+C*05:67       | C*04:62+C*05:76       |                   |
| C*04:61+C*06:14       | C*04:110+C*06:31      |                   |
| C*04:61+C*06:25       | C*04:81+C*06:31       |                   |
| C*04:61+C*06:49N      | C*04:93N+C*06:31      |                   |
| C*04:61+C*06:82       | C*04:114+C*06:31      |                   |
| C*04:61+C*06:84       | C*04:62+C*06:31       |                   |
| C*04:61+C*07:53       | C*04:68+C*07:176      |                   |
| C*04:61+C*07:95       | C*04:113+C*07:01:01G  | C*04:122+C*07:176 |
| C*04:61+C*07:216      | C*04:68+C*07:37       |                   |
| C*04:61+C*15:52       | C*04:64:02+C*15:31    |                   |
| C*04:61+C*15:57       | C*04:113+C*15:31      |                   |
| C*04:61+C*16:43       | C*04:113+C*16:01:01   |                   |
| C*04:62+C*05:08       | C*04:94:01+C*05:67    |                   |
| C*04:62+C*05:10       | C*04:110+C*05:67      |                   |
| C*04:62+C*05:20       | C*04:114+C*05:67      |                   |
| C*04:62+C*05:36       | C*04:112+C*05:67      |                   |
| C*04:62+C*05:41       | C*04:78+C*05:67       |                   |
| C*04:62+C*05:44:01    | C*04:64:01+C*05:67    |                   |
| C*04:62+C*05:44:02    | C*04:64:02+C*05:67    |                   |
| C*04:62+C*05:57       | C*04:70+C*05:67       |                   |
| C*04:62+C*05:65       | C*04:96+C*05:67       |                   |
| C*04:62+C*06:14       | C*04:110+C*06:84      |                   |
| C*04:62+C*06:25       | C*04:81+C*06:84       |                   |
| C*04:62+C*06:49N      | C*04:93N+C*06:84      |                   |
| C*04:62+C*06:82       | C*04:114+C*06:84      |                   |
| C*04:64:01+C*05:08    | C*04:94:01+C*05:44:01 |                   |
| C*04:64:01+C*05:10    | C*04:110+C*05:44:01   |                   |
| C*04:64:01+C*05:20    | C*04:114+C*05:44:01   |                   |
| C*04:64:01+C*05:36    | C*04:112+C*05:44:01   |                   |
| C*04:64:01+C*05:41    | C*04:78+C*05:44:01    |                   |
| C*04:64:01+C*05:44:02 | C*04:64:02+C*05:44:01 |                   |
| C*04:64:01+C*05:57    | C*04:70+C*05:44:01    |                   |
| C*04:64:01+C*05:65    | C*04:96+C*05:44:01    |                   |
| C*04:64:01+C*08:27    | C*04:94:01+C*08:35    |                   |
| C*04:64:01+C*08:39    | C*04:113+C*08:54      | C*04:122+C*08:35  |
| C*04:64:02+C*05:08    | C*04:94:01+C*05:44:02 |                   |
| C*04:64:02+C*05:10    | C*04:110+C*05:44:02   |                   |
| C*04:64:02+C*05:20    | C*04:114+C*05:44:02   |                   |

|                         |                         |                    |                 |                 |
|-------------------------|-------------------------|--------------------|-----------------|-----------------|
| C*04:64:02+C*05:36      | C*04:112+C*05:44:02     |                    |                 |                 |
| C*04:64:02+C*05:41      | C*04:78+C*05:44:02      |                    |                 |                 |
| C*04:64:02+C*05:57      | C*04:70+C*05:44:02      |                    |                 |                 |
| C*04:64:02+C*05:65      | C*04:96+C*05:44:02      |                    |                 |                 |
| C*04:64:02+C*15:57      | C*04:113+C*15:52        |                    |                 |                 |
| C*04:65+C*07:182        | C*04:109+C*07:197       |                    |                 |                 |
| C*04:65+C*07:188        | C*04:99+C*07:197        |                    |                 |                 |
| C*04:65+C*07:196        | C*04:110+C*07:197       |                    |                 |                 |
| C*04:65+C*07:214        | C*04:70+C*07:197        |                    |                 |                 |
| C*04:65+C*07:227N       | C*04:66+C*07:197        |                    |                 |                 |
| C*04:66+C*07:182        | C*04:109+C*07:227N      |                    |                 |                 |
| C*04:66+C*07:188        | C*04:99+C*07:227N       |                    |                 |                 |
| C*04:66+C*07:196        | C*04:110+C*07:227N      |                    |                 |                 |
| C*04:66+C*07:214        | C*04:70+C*07:227N       |                    |                 |                 |
| C*04:68+C*07:95         | C*04:122+C*07:53        |                    |                 |                 |
| C*04:68+C*12:03:01G     | C*04:94:01+C*16:15:02   |                    |                 |                 |
| C*04:68+C*12:03:08      | C*04:94:01+C*16:15:01   |                    |                 |                 |
| C*04:69+C*16:19         | C*04:101+C*16:12        |                    |                 |                 |
| C*04:70+C*05:08         | C*04:94:01+C*05:57      |                    |                 |                 |
| C*04:70+C*05:10         | C*04:110+C*05:57        |                    |                 |                 |
| C*04:70+C*05:20         | C*04:114+C*05:57        |                    |                 |                 |
| C*04:70+C*05:36         | C*04:112+C*05:57        |                    |                 |                 |
| C*04:70+C*05:41         | C*04:78+C*05:57         |                    |                 |                 |
| C*04:70+C*05:65         | C*04:96+C*05:57         |                    |                 |                 |
| C*04:70+C*07:182        | C*04:109+C*07:214       |                    |                 |                 |
| C*04:70+C*07:188        | C*04:99+C*07:214        |                    |                 |                 |
| C*04:70+C*07:196        | C*04:110+C*07:214       |                    |                 |                 |
| C*04:70+C*12:08         | C*04:112+C*12:30        |                    |                 |                 |
| C*04:74+C*12:54         | C*04:114+C*12:60        |                    |                 |                 |
| C*04:78+C*05:08         | C*04:94:01+C*05:41      |                    |                 |                 |
| C*04:78+C*05:10         | C*04:110+C*05:41        |                    |                 |                 |
| C*04:78+C*05:20         | C*04:114+C*05:41        |                    |                 |                 |
| C*04:78+C*05:36         | C*04:112+C*05:41        |                    |                 |                 |
| C*04:78+C*05:65         | C*04:96+C*05:41         |                    |                 |                 |
| C*04:78+C*07:10         | C*04:110+C*07:144       |                    |                 |                 |
| C*04:78+C*07:19         | C*04:112+C*07:144       |                    |                 |                 |
| C*04:78+C*07:114        | C*04:101+C*07:144       |                    |                 |                 |
| C*04:78+C*07:126        | C*04:118+C*07:144       |                    |                 |                 |
| C*04:78+C*07:260        | C*04:120+C*07:144       |                    |                 |                 |
| C*04:81+C*06:14         | C*04:110+C*06:25        |                    |                 |                 |
| C*04:81+C*06:49N        | C*04:93N+C*06:25        |                    |                 |                 |
| C*04:81+C*06:82         | C*04:114+C*06:25        |                    |                 |                 |
| C*04:87+C*05:47         | C*04:89+C*05:24         |                    |                 |                 |
| C*04:93N+C*06:14        | C*04:110+C*06:49N       |                    |                 |                 |
| C*04:93N+C*06:82        | C*04:114+C*06:49N       |                    |                 |                 |
| C*04:94:01+C*05:10      | C*04:110+C*05:08        |                    |                 |                 |
| C*04:94:01+C*05:20      | C*04:114+C*05:08        |                    |                 |                 |
| C*04:94:01+C*05:36      | C*04:112+C*05:08        |                    |                 |                 |
| C*04:94:01+C*05:65      | C*04:96+C*05:08         |                    |                 |                 |
| C*04:94:01+C*06:02:01G  | C*04:94:02+C*06:02:08   |                    |                 |                 |
| C*04:94:01+C*08:01:06   | C*04:94:02+C*08:01:07   |                    |                 |                 |
| C*04:94:01+C*08:02:04   | C*04:94:02+C*08:02:07   |                    |                 |                 |
| C*04:94:01+C*08:39      | C*04:122+C*08:27        |                    |                 |                 |
| C*04:94:01+C*08:55N     | C*04:104+C*08:29        |                    |                 |                 |
| C*04:94:01+C*12:03:08   | C*04:94:02+C*12:03:20   |                    |                 |                 |
| C*04:96+C*05:10         | C*04:110+C*05:65        |                    |                 |                 |
| C*04:96+C*05:20         | C*04:114+C*05:65        |                    |                 |                 |
| C*04:96+C*05:36         | C*04:112+C*05:65        |                    |                 |                 |
| C*04:99+C*07:182        | C*04:109+C*07:188       |                    |                 |                 |
| C*04:99+C*07:196        | C*04:110+C*07:188       |                    |                 |                 |
| C*04:101+C*07:10        | C*04:110+C*07:114       |                    |                 |                 |
| C*04:101+C*07:19        | C*04:112+C*07:114       |                    |                 |                 |
| C*04:101+C*07:126       | C*04:118+C*07:114       |                    |                 |                 |
| C*04:101+C*07:260       | C*04:120+C*07:114       |                    |                 |                 |
| C*04:104+C*12:81        | C*04:112+C*12:47        |                    |                 |                 |
| C*04:109+C*07:196       | C*04:110+C*07:182       |                    |                 |                 |
| C*04:110+C*05:20        | C*04:114+C*05:10        |                    |                 |                 |
| C*04:110+C*05:36        | C*04:112+C*05:10        |                    |                 |                 |
| C*04:110+C*06:82        | C*04:114+C*06:14        |                    |                 |                 |
| C*04:110+C*07:19        | C*04:112+C*07:10        |                    |                 |                 |
| C*04:110+C*07:126       | C*04:118+C*07:10        |                    |                 |                 |
| C*04:110+C*07:260       | C*04:120+C*07:10        |                    |                 |                 |
| C*04:112+C*05:20        | C*04:114+C*05:36        |                    |                 |                 |
| C*04:112+C*07:126       | C*04:118+C*07:19        |                    |                 |                 |
| C*04:112+C*07:260       | C*04:120+C*07:19        |                    |                 |                 |
| C*04:113+C*05:11        | C*04:122+C*05:01:01G    |                    |                 |                 |
| C*04:113+C*05:68        | C*04:122+C*05:76        |                    |                 |                 |
| C*04:113+C*06:04        | C*04:122+C*06:06        |                    |                 |                 |
| C*04:113+C*07:02:01G    | C*04:122+C*07:37        |                    |                 |                 |
| C*04:113+C*08:04:01     | C*04:122+C*08:02:01G    |                    |                 |                 |
| C*04:113+C*12:20        | C*04:122+C*12:24        |                    |                 |                 |
| C*04:113+C*14:06        | C*04:122+C*14:02:01G    |                    |                 |                 |
| C*04:118+C*07:260       | C*04:120+C*07:126       |                    |                 |                 |
| C*05:01:01G+C*05:01:18  | C*05:01:02+C*05:01:16   |                    |                 |                 |
| C*05:01:01G+C*05:09:02  | C*05:01:17+C*05:09:01   |                    |                 |                 |
| C*05:01:01G+C*05:17     | C*05:09:02+C*05:68      |                    |                 |                 |
| C*05:01:01G+C*05:18:02  | C*05:01:02+C*05:18:03   |                    |                 |                 |
| C*05:01:01G+C*05:22:02  | C*05:01:03+C*05:22:01   |                    |                 |                 |
| C*05:01:01G+C*05:27     | C*05:11+C*05:39         |                    |                 |                 |
| C*05:01:01G+C*05:42     | C*05:25+C*05:46         |                    |                 |                 |
| C*05:01:01G+C*05:52     | C*05:08+C*05:09:01      |                    |                 |                 |
| C*05:01:01G+C*05:68     | C*05:11+C*05:76         |                    |                 |                 |
| C*05:01:01G+C*06:02:01G | C*05:04+C*06:09         | C*05:08+C*06:06    | C*05:25+C*06:30 | C*05:29+C*06:67 |
| C*05:01:01G+C*06:02:16  | C*05:43+C*06:03:02      |                    |                 |                 |
| C*05:01:01G+C*06:04     | C*05:01:21+C*06:02:01G  |                    |                 |                 |
| C*05:01:01G+C*06:11     | C*05:11+C*06:06         |                    |                 |                 |
| C*05:01:01G+C*06:13     | C*06:02:01G+C*08:02:01G | C*06:03:02+C*08:37 | C*06:06+C*08:29 | C*06:30+C*08:28 |
| C*05:01:01G+C*06:14     | C*05:34+C*06:02:01G     |                    |                 |                 |
| C*05:01:01G+C*06:23     | C*05:10+C*06:02:01G     |                    |                 |                 |
| C*05:01:01G+C*06:28     | C*05:59+C*06:02:01G     |                    |                 |                 |
| C*05:01:01G+C*06:31     | C*05:43+C*06:76:01      |                    |                 |                 |
| C*05:01:01G+C*06:34     | C*05:76+C*06:02:01G     |                    |                 |                 |
| C*05:01:01G+C*06:53     | C*05:22:01+C*06:09      |                    |                 |                 |
| C*05:01:01G+C*06:58     | C*05:55+C*06:02:01G     |                    |                 |                 |
|                         | C*05:69+C*06:02:01G     |                    |                 |                 |

|                         |                        |                        |                       |                     |
|-------------------------|------------------------|------------------------|-----------------------|---------------------|
| C*05:01:01G+C*06:64     | C*05:28+C*06:02:01G    |                        |                       |                     |
| C*05:01:01G+C*06:70     | C*05:58:02+C*06:02:01G |                        |                       |                     |
| C*05:01:01G+C*06:76:02  | C*05:25+C*12:04:02     | C*05:42+C*12:05        |                       |                     |
| C*05:01:01G+C*06:82     | C*05:20+C*06:02:01G    |                        |                       |                     |
| C*05:01:01G+C*06:84     | C*05:67+C*06:02:01G    |                        |                       |                     |
| C*05:01:01G+C*06:87     | C*05:81+C*06:02:01G    |                        |                       |                     |
| C*05:01:01G+C*07:01:01G | C*05:01:17+C*07:01:05  | C*05:04+C*07:28        | C*05:11+C*07:176      | C*05:23+C*07:141:02 |
|                         | C*05:25+C*07:16        | C*05:29+C*07:148       | C*05:36+C*07:27:01    | C*05:43+C*07:26     |
|                         | C*05:46+C*07:40        | C*05:76+C*07:165       | C*07:07+C*08:28       | C*07:09+C*08:02:01G |
| C*05:01:01G+C*07:01:03  | C*05:01:07+C*07:01:01G |                        |                       |                     |
| C*05:01:01G+C*07:01:07  | C*05:01:03+C*07:01:01G | C*05:36+C*07:27:02     |                       |                     |
| C*05:01:01G+C*07:01:08  | C*05:01:16+C*07:01:01G |                        |                       |                     |
| C*05:01:01G+C*07:01:12  | C*07:09+C*08:02:06     |                        |                       |                     |
| C*05:01:01G+C*07:02:01G | C*05:01:02+C*07:02:35  | C*05:01:12+C*07:02:09  | C*05:01:17+C*07:02:04 | C*05:09:01+C*07:260 |
|                         | C*05:11+C*07:37        | C*05:18:01+C*07:130    | C*05:23+C*07:17       | C*05:25+C*07:51     |
|                         | C*05:29+C*07:161       | C*05:29+C*07:39        | C*05:76+C*07:241      | C*07:76+C*08:02:01G |
| C*05:01:01G+C*07:02:05  | C*05:01:09+C*07:02:01G |                        |                       |                     |
| C*05:01:01G+C*07:02:12  | C*05:01:20+C*07:02:35  | C*07:76+C*08:02:06     |                       |                     |
| C*05:01:01G+C*07:02:17  | C*07:76+C*08:02:05     |                        |                       |                     |
| C*05:01:01G+C*07:02:29  | C*07:76+C*08:02:03     |                        |                       |                     |
| C*05:01:01G+C*07:04:01G | C*05:23+C*07:12        | C*05:25+C*07:181       | C*05:29+C*07:101      |                     |
| C*05:01:01G+C*07:04:03  | C*05:01:03+C*07:04:01G |                        |                       |                     |
| C*05:01:01G+C*07:09     | C*05:25+C*07:07        |                        |                       |                     |
| C*05:01:01G+C*07:10     | C*05:10+C*07:02:01G    |                        |                       |                     |
| C*05:01:01G+C*07:16     | C*07:07+C*08:02:01G    |                        |                       |                     |
| C*05:01:01G+C*07:19     | C*05:36+C*07:02:01G    |                        |                       |                     |
| C*05:01:01G+C*07:22     | C*05:08+C*07:176       |                        |                       |                     |
| C*05:01:01G+C*07:24     | C*05:81+C*07:01:01G    |                        |                       |                     |
| C*05:01:01G+C*07:27:02  | C*05:01:03+C*07:27:01  |                        |                       |                     |
| C*05:01:01G+C*07:29     | C*05:47+C*07:13        |                        |                       |                     |
| C*05:01:01G+C*07:31     | C*05:16+C*07:27:01     |                        |                       |                     |
| C*05:01:01G+C*07:35     | C*07:09+C*08:48        |                        |                       |                     |
| C*05:01:01G+C*07:43     | C*05:10+C*07:27:01     |                        |                       |                     |
| C*05:01:01G+C*07:45     | C*05:09:01+C*07:04:01G |                        |                       |                     |
| C*05:01:01G+C*07:49     | C*05:20+C*07:76        | C*05:46+C*07:238       |                       |                     |
| C*05:01:01G+C*07:56:01  | C*05:25+C*07:79        | C*05:55+C*07:02:01G    |                       |                     |
| C*05:01:01G+C*07:60     | C*05:55+C*07:16        |                        |                       |                     |
| C*05:01:01G+C*07:73     | C*05:43+C*07:92        |                        |                       |                     |
| C*05:01:01G+C*07:75     | C*05:21+C*07:02:01G    |                        |                       |                     |
| C*05:01:01G+C*07:79     | C*05:55+C*07:51        |                        |                       |                     |
| C*05:01:01G+C*07:89     | C*05:80+C*07:01:01G    |                        |                       |                     |
| C*05:01:01G+C*07:96     | C*05:58:01+C*07:92     |                        |                       |                     |
| C*05:01:01G+C*07:108    | C*05:64+C*07:01:01G    | C*07:09+C*08:19        |                       |                     |
| C*05:01:01G+C*07:109    | C*05:25+C*07:60        | C*05:55+C*07:01:01G    |                       |                     |
| C*05:01:01G+C*07:122    | C*05:49+C*07:01:01G    |                        |                       |                     |
| C*05:01:01G+C*07:127    | C*05:58:01+C*07:02:01G |                        |                       |                     |
| C*05:01:01G+C*07:137:01 | C*05:08+C*07:137:02    | C*05:70+C*07:138       |                       |                     |
| C*05:01:01G+C*07:137:02 | C*05:70+C*07:37        |                        |                       |                     |
| C*05:01:01G+C*07:138    | C*05:08+C*07:37        |                        |                       |                     |
| C*05:01:01G+C*07:144    | C*05:41+C*07:02:01G    |                        |                       |                     |
| C*05:01:01G+C*07:186    | C*05:27+C*07:37        | C*05:39+C*07:02:01G    |                       |                     |
| C*05:01:01G+C*07:195    | C*07:76+C*08:34        |                        |                       |                     |
| C*05:01:01G+C*07:196    | C*05:10+C*07:01:01G    | C*05:36+C*07:43        |                       |                     |
| C*05:01:01G+C*07:199:02 | C*05:01:03+C*07:199:01 |                        |                       |                     |
| C*05:01:01G+C*07:212    | C*05:27+C*07:176       | C*05:39+C*07:01:01G    |                       |                     |
| C*05:01:01G+C*07:214    | C*05:57+C*07:01:01G    |                        |                       |                     |
| C*05:01:01G+C*07:218    | C*05:81+C*07:02:01G    |                        |                       |                     |
| C*05:01:01G+C*07:225    | C*07:09+C*08:17        |                        |                       |                     |
| C*05:01:01G+C*07:229    | C*05:56+C*07:02:01G    |                        |                       |                     |
| C*05:01:01G+C*07:234    | C*05:77+C*07:02:01G    |                        |                       |                     |
| C*05:01:01G+C*07:247    | C*05:20+C*07:09        | C*05:46+C*07:210       |                       |                     |
| C*05:01:01G+C*07:250    | C*05:59+C*07:01:01G    |                        |                       |                     |
| C*05:01:01G+C*07:254    | C*05:21+C*07:01:01G    |                        |                       |                     |
| C*05:01:01G+C*07:257    | C*05:05+C*07:01:01G    |                        |                       |                     |
| C*05:01:01G+C*07:262    | C*05:15+C*07:02:01G    |                        |                       |                     |
| C*05:01:01G+C*07:263    | C*05:58:01+C*07:01:01G |                        |                       |                     |
| C*05:01:01G+C*08:01:01G | C*08:02:01G+C*08:10    |                        |                       |                     |
| C*05:01:01G+C*08:01:02  | C*05:01:03+C*08:01:01G |                        |                       |                     |
| C*05:01:01G+C*08:01:06  | C*05:01:02+C*08:01:01G | C*08:02:04+C*08:10     |                       |                     |
| C*05:01:01G+C*08:01:07  | C*08:02:07+C*08:10     |                        |                       |                     |
| C*05:01:01G+C*08:02:04  | C*05:01:02+C*08:02:01G |                        |                       |                     |
| C*05:01:01G+C*08:03:01G | C*05:44:01+C*08:01:01G | C*05:79+C*08:64        |                       |                     |
| C*05:01:01G+C*08:04:01  | C*05:11+C*08:02:01G    |                        |                       |                     |
| C*05:01:01G+C*08:05     | C*05:46+C*08:02:01G    |                        |                       |                     |
| C*05:01:01G+C*08:07     | C*05:23+C*08:02:01G    |                        |                       |                     |
| C*05:01:01G+C*08:11     | C*05:04+C*08:01:01G    | C*05:22:01+C*08:59     |                       |                     |
| C*05:01:01G+C*08:12     | C*05:16+C*08:02:01G    |                        |                       |                     |
| C*05:01:01G+C*08:13     | C*05:29+C*08:04:01     |                        |                       |                     |
| C*05:01:01G+C*08:15:01  | C*05:09:01+C*08:02:01G |                        |                       |                     |
| C*05:01:01G+C*08:15:02  | C*05:01:17+C*08:15:01  | C*05:09:02+C*08:02:01G |                       |                     |
| C*05:01:01G+C*08:16:01  | C*05:29+C*08:01:01G    |                        |                       |                     |
| C*05:01:01G+C*08:19     | C*05:64+C*08:02:01G    |                        |                       |                     |
| C*05:01:01G+C*08:21     | C*05:46+C*08:01:01G    | C*08:05+C*08:10        |                       |                     |
| C*05:01:01G+C*08:25     | C*05:29+C*08:05        |                        |                       |                     |
| C*05:01:01G+C*08:27     | C*05:08+C*08:64        | C*05:18:01+C*08:29     |                       |                     |
| C*05:01:01G+C*08:28     | C*05:25+C*08:02:01G    |                        |                       |                     |
| C*05:01:01G+C*08:29     | C*05:08+C*08:02:01G    |                        |                       |                     |
| C*05:01:01G+C*08:33:01  | C*05:18:02+C*08:02:01G | C*05:18:03+C*08:02:04  |                       |                     |
| C*05:01:01G+C*08:33:02  | C*05:18:01+C*08:02:07  |                        |                       |                     |
| C*05:01:01G+C*08:35     | C*05:44:01+C*08:64     |                        |                       |                     |
| C*05:01:01G+C*08:37     | C*05:43+C*08:02:01G    |                        |                       |                     |
| C*05:01:01G+C*08:39     | C*05:12+C*08:04:01     |                        |                       |                     |
| C*05:01:01G+C*08:41     | C*05:39+C*08:01:01G    |                        |                       |                     |
| C*05:01:01G+C*08:44     | C*05:10+C*08:01:01G    |                        |                       |                     |
| C*05:01:01G+C*08:47     | C*05:76+C*08:07        |                        |                       |                     |
| C*05:01:01G+C*08:54     | C*05:11+C*08:35        |                        |                       |                     |
| C*05:01:01G+C*08:57     | C*05:68+C*08:02:01G    | C*05:76+C*08:04:01     |                       |                     |
| C*05:01:01G+C*08:61     | C*05:10+C*08:03:01G    | C*05:44:01+C*08:44     |                       |                     |
| C*05:01:01G+C*08:62     | C*05:05+C*08:02:06     |                        |                       |                     |
| C*05:01:01G+C*08:64     | C*05:18:01+C*08:02:01G |                        |                       |                     |
| C*05:01:01G+C*12:02:01G | C*05:01:02+C*12:02:07  | C*05:01:03+C*12:02:03  | C*05:20+C*12:72       | C*05:46+C*12:49     |
|                         | C*08:02:01G+C*12:41    |                        |                       |                     |
| C*05:01:01G+C*12:02:06  | C*05:01:03+C*12:02:08  |                        |                       |                     |
| C*05:01:01G+C*12:02:08  | C*08:25+C*12:21        |                        |                       |                     |
| C*05:01:01G+C*12:02:09  | C*05:01:20+C*12:02:07  | C*08:02:06+C*12:41     |                       |                     |



|                         |                         |                         |                        |                 |
|-------------------------|-------------------------|-------------------------|------------------------|-----------------|
| C*05:01:01G+C*12:03:01G | C*05:08+C*12:24         | C*05:16+C*12:02:08      | C*08:02:01G+C*12:04:02 | C*08:05+C*12:05 |
| C*05:01:01G+C*12:03:02  | C*05:01:16+C*12:03:08   |                         |                        |                 |
| C*05:01:01G+C*12:03:04  | C*05:01:12+C*12:03:01G  | C*08:02:02+C*12:04:01   |                        |                 |
| C*05:01:01G+C*12:03:08  | C*08:25+C*12:33         |                         |                        |                 |
| C*05:01:01G+C*12:03:10  | C*05:01:17+C*12:03:01G  |                         |                        |                 |
| C*05:01:01G+C*12:03:19  | C*05:16+C*12:02:03      |                         |                        |                 |
| C*05:01:01G+C*12:04:02  | C*05:46+C*12:05         |                         |                        |                 |
| C*05:01:01G+C*12:08     | C*05:36+C*12:02:01G     |                         |                        |                 |
| C*05:01:01G+C*12:10:01  | C*05:64+C*12:02:03      |                         |                        |                 |
| C*05:01:01G+C*12:20     | C*05:11+C*12:24         |                         |                        |                 |
| C*05:01:01G+C*12:28     | C*05:25+C*12:03:01G     | C*06:76:02+C*08:02:01G  | C*08:28+C*12:04:02     |                 |
| C*05:01:01G+C*12:30     | C*05:57+C*12:02:01G     |                         |                        |                 |
| C*05:01:01G+C*12:45     | C*05:81+C*12:03:01G     |                         |                        |                 |
| C*05:01:01G+C*12:47     | C*08:55N+C*12:04:02     |                         |                        |                 |
| C*05:01:01G+C*12:54     | C*05:20+C*12:04:02      |                         |                        |                 |
| C*05:01:01G+C*12:58     | C*05:55+C*12:03:01G     |                         |                        |                 |
| C*05:01:01G+C*12:81     | C*05:36+C*12:03:01G     |                         |                        |                 |
| C*05:01:01G+C*14:02:01G | C*05:01:12+C*14:02:03   | C*08:02:01G+C*14:12     |                        |                 |
| C*05:01:01G+C*14:02:08  | C*08:02:02+C*14:12      |                         |                        |                 |
| C*05:01:01G+C*14:03     | C*05:58:02+C*14:02:03   |                         |                        |                 |
| C*05:01:01G+C*14:06     | C*05:11+C*14:02:01G     | C*08:04:01+C*14:12      |                        |                 |
| C*05:01:01G+C*14:10     | C*05:55+C*14:03         |                         |                        |                 |
| C*05:01:01G+C*14:13     | C*05:25+C*14:02:01G     | C*08:28+C*14:12         |                        |                 |
| C*05:01:01G+C*14:15     | C*05:68+C*14:02:01G     | C*05:76+C*14:06         | C*08:57+C*14:12        |                 |
| C*05:01:01G+C*14:16     | C*05:08+C*14:02:01G     | C*08:29+C*14:12         |                        |                 |
| C*05:01:01G+C*14:20     | C*05:39+C*14:02:01G     |                         |                        |                 |
| C*05:01:01G+C*14:24:01  | C*05:19+C*14:02:01G     |                         |                        |                 |
| C*05:01:01G+C*14:39     | C*05:56+C*14:02:01G     |                         |                        |                 |
| C*05:01:01G+C*15:02:01G | C*05:11+C*15:08         | C*05:36+C*15:17         | C*05:58:02+C*15:10:02  |                 |
| C*05:01:01G+C*15:02:10  | C*05:01:12+C*15:02:01G  |                         |                        |                 |
| C*05:01:01G+C*15:03     | C*05:36+C*15:16         | C*05:46+C*15:02:01G     |                        |                 |
| C*05:01:01G+C*15:05:01G | C*05:10+C*15:22         |                         |                        |                 |
| C*05:01:01G+C*15:06:01  | C*05:22:01+C*15:24      | C*05:47+C*15:05:01G     |                        |                 |
| C*05:01:01G+C*15:07     | C*05:20+C*15:21         | C*08:02:01G+C*15:02:01G | C*08:04:01+C*15:08     |                 |
| C*05:01:01G+C*15:11     | C*05:26+C*15:17         |                         |                        |                 |
| C*05:01:01G+C*15:12     | C*05:55+C*15:02:01G     |                         |                        |                 |
| C*05:01:01G+C*15:15     | C*05:27+C*15:08         | C*05:39+C*15:02:01G     |                        |                 |
| C*05:01:01G+C*15:16     | C*05:46+C*15:17         |                         |                        |                 |
| C*05:01:01G+C*15:26     | C*05:05+C*15:02:01G     | C*05:76+C*15:02:01G     |                        |                 |
| C*05:01:01G+C*15:31     | C*05:68+C*15:08         |                         |                        |                 |
| C*05:01:01G+C*15:35     | C*05:21+C*15:02:01G     |                         |                        |                 |
| C*05:01:01G+C*15:37     | C*05:59+C*15:58         |                         |                        |                 |
| C*05:01:01G+C*15:51     | C*05:70+C*15:08         |                         |                        |                 |
| C*05:01:01G+C*15:52     | C*05:44:02+C*15:02:01G  |                         |                        |                 |
| C*05:01:01G+C*16:01:01  | C*05:04+C*16:45         | C*05:16+C*16:07:02      | C*05:18:01+C*16:27     | C*05:20+C*16:37 |
|                         | C*08:02:01G+C*16:02:01G | C*08:02:04+C*16:02:05   |                        |                 |
| C*05:01:01G+C*16:01:02  | C*05:01:12+C*16:01:01   |                         |                        |                 |
| C*05:01:01G+C*16:01:06  | C*08:02:07+C*16:02:05   |                         |                        |                 |
| C*05:01:01G+C*16:02:01G | C*05:01:02+C*16:02:05   |                         |                        |                 |
| C*05:01:01G+C*16:07:01  | C*05:01:03+C*16:07:02   |                         |                        |                 |
| C*05:01:01G+C*16:13     | C*05:81+C*16:01:01      |                         |                        |                 |
| C*05:01:01G+C*16:15:01  | C*05:46+C*16:01:01      | C*08:02:01G+C*16:25     | C*08:05+C*16:02:01G    |                 |
| C*05:01:01G+C*16:15:02  | C*08:02:02+C*16:25      |                         |                        |                 |
| C*05:01:01G+C*16:18     | C*05:59+C*16:01:01      |                         |                        |                 |
| C*05:01:01G+C*16:21     | C*05:43+C*16:01:01      | C*08:37+C*16:02:01G     |                        |                 |
| C*05:01:01G+C*16:25     | C*05:46+C*16:02:01G     |                         |                        |                 |
| C*05:01:01G+C*16:26     | C*05:25+C*16:01:01      | C*08:02:01G+C*16:46     | C*08:28+C*16:02:01G    |                 |
| C*05:01:01G+C*16:35     | C*05:76+C*16:40         | C*08:02:01G+C*16:48     | C*08:57+C*12:09        |                 |
| C*05:01:01G+C*16:40     | C*08:04:01+C*12:09      |                         |                        |                 |
| C*05:01:01G+C*16:41     | C*08:43+C*16:02:01G     |                         |                        |                 |
| C*05:01:01G+C*16:42     | C*05:56+C*16:04:01      |                         |                        |                 |
| C*05:01:01G+C*16:44     | C*05:75+C*16:01:01      |                         |                        |                 |
| C*05:01:01G+C*16:46     | C*05:25+C*16:02:01G     |                         |                        |                 |
| C*05:01:01G+C*16:48     | C*05:68+C*12:09         |                         |                        |                 |
| C*05:01:01G+C*16:49     | C*05:05+C*16:01:01      |                         |                        |                 |
| C*05:01:01G+C*17:01:01G | C*05:01:12+C*17:01:04   | C*05:29+C*17:05         |                        |                 |
| C*05:01:01G+C*17:11     | C*05:25+C*17:01:01G     |                         |                        |                 |
| C*05:01:02+C*06:02:17   | C*05:01:20+C*06:02:01G  |                         |                        |                 |
| C*05:01:02+C*06:11      | C*06:02:01G+C*08:02:04  |                         |                        |                 |
| C*05:01:02+C*07:01:01G  | C*07:09+C*08:02:04      |                         |                        |                 |
| C*05:01:02+C*07:01:08   | C*05:01:18+C*07:01:01G  |                         |                        |                 |
| C*05:01:02+C*07:01:12   | C*05:01:20+C*07:01:01G  |                         |                        |                 |
| C*05:01:02+C*07:02:01G  | C*07:76+C*08:02:04      |                         |                        |                 |
| C*05:01:02+C*07:02:12   | C*05:01:20+C*07:02:01G  |                         |                        |                 |
| C*05:01:02+C*07:02:32   | C*07:76+C*08:02:07      |                         |                        |                 |
| C*05:01:02+C*07:16      | C*07:07+C*08:02:04      |                         |                        |                 |
| C*05:01:02+C*08:01:02   | C*05:01:03+C*08:01:06   |                         |                        |                 |
| C*05:01:02+C*08:02:06   | C*05:01:20+C*08:02:01G  |                         |                        |                 |
| C*05:01:02+C*08:03:01G  | C*05:44:01+C*08:01:06   |                         |                        |                 |
| C*05:01:02+C*08:04:01   | C*05:11+C*08:02:04      |                         |                        |                 |
| C*05:01:02+C*08:05      | C*05:46+C*08:02:04      |                         |                        |                 |
| C*05:01:02+C*08:07      | C*05:23+C*08:02:04      |                         |                        |                 |
| C*05:01:02+C*08:11      | C*05:04+C*08:01:06      |                         |                        |                 |
| C*05:01:02+C*08:12      | C*05:16+C*08:02:04      |                         |                        |                 |
| C*05:01:02+C*08:15:01   | C*05:09:01+C*08:02:04   |                         |                        |                 |
| C*05:01:02+C*08:15:02   | C*05:09:02+C*08:02:04   |                         |                        |                 |
| C*05:01:02+C*08:16:01   | C*05:29+C*08:01:06      |                         |                        |                 |
| C*05:01:02+C*08:19      | C*05:64+C*08:02:04      |                         |                        |                 |
| C*05:01:02+C*08:21      | C*05:46+C*08:01:06      |                         |                        |                 |
| C*05:01:02+C*08:28      | C*05:25+C*08:02:04      |                         |                        |                 |
| C*05:01:02+C*08:29      | C*05:08+C*08:02:04      |                         |                        |                 |
| C*05:01:02+C*08:33:01   | C*05:18:02+C*08:02:04   |                         |                        |                 |
| C*05:01:02+C*08:37      | C*05:43+C*08:02:04      |                         |                        |                 |
| C*05:01:02+C*08:41      | C*05:39+C*08:01:06      |                         |                        |                 |
| C*05:01:02+C*08:44      | C*05:10+C*08:01:06      |                         |                        |                 |
| C*05:01:02+C*08:57      | C*05:68+C*08:02:04      |                         |                        |                 |
| C*05:01:02+C*08:64      | C*05:18:01+C*08:02:04   |                         |                        |                 |
| C*05:01:02+C*12:02:01G  | C*08:02:04+C*12:41      |                         |                        |                 |
| C*05:01:02+C*12:02:09   | C*05:01:20+C*12:02:01G  |                         |                        |                 |
| C*05:01:02+C*12:03:01G  | C*08:02:04+C*12:04:02   |                         |                        |                 |
| C*05:01:02+C*12:03:02   | C*05:01:18+C*12:03:08   |                         |                        |                 |
| C*05:01:02+C*12:10:01   | C*05:01:20+C*12:10:02   |                         |                        |                 |
| C*05:01:02+C*12:28      | C*06:76:02+C*08:02:04   |                         |                        |                 |
| C*05:01:02+C*14:02:01G  | C*08:02:04+C*14:12      |                         |                        |                 |
| C*05:01:02+C*15:07      | C*08:02:04+C*15:02:01G  |                         |                        |                 |

|                        |                        |                    |
|------------------------|------------------------|--------------------|
| C*05:01:02+C*16:01:01  | C*08:02:04+C*16:02:01G |                    |
| C*05:01:02+C*16:01:06  | C*08:02:07+C*16:02:01G |                    |
| C*05:01:02+C*16:15:01  | C*08:02:04+C*16:25     |                    |
| C*05:01:02+C*16:26     | C*08:02:04+C*16:46     |                    |
| C*05:01:02+C*16:35     | C*08:02:04+C*16:48     |                    |
| C*05:01:02+C*17:01:02  | C*05:01:20+C*17:01:01G |                    |
| C*05:01:03+C*06:34     | C*05:22:02+C*06:09     |                    |
| C*05:01:03+C*07:01:03  | C*05:01:07+C*07:01:07  |                    |
| C*05:01:03+C*07:01:08  | C*05:01:16+C*07:01:07  |                    |
| C*05:01:03+C*07:24     | C*05:81+C*07:01:07     |                    |
| C*05:01:03+C*07:31     | C*05:16+C*07:27:02     |                    |
| C*05:01:03+C*07:43     | C*05:10+C*07:27:02     |                    |
| C*05:01:03+C*07:45     | C*05:09:01+C*07:04:03  |                    |
| C*05:01:03+C*07:89     | C*05:80+C*07:01:07     |                    |
| C*05:01:03+C*07:108    | C*05:64+C*07:01:07     |                    |
| C*05:01:03+C*07:109    | C*05:55+C*07:01:07     |                    |
| C*05:01:03+C*07:122    | C*05:49+C*07:01:07     |                    |
| C*05:01:03+C*07:196    | C*05:10+C*07:01:07     |                    |
| C*05:01:03+C*07:212    | C*05:39+C*07:01:07     |                    |
| C*05:01:03+C*07:214    | C*05:57+C*07:01:07     |                    |
| C*05:01:03+C*07:250    | C*05:59+C*07:01:07     |                    |
| C*05:01:03+C*07:254    | C*05:21+C*07:01:07     |                    |
| C*05:01:03+C*07:257    | C*05:05+C*07:01:07     |                    |
| C*05:01:03+C*07:263    | C*05:58:01+C*07:01:07  |                    |
| C*05:01:03+C*08:03:01G | C*05:44:01+C*08:01:02  |                    |
| C*05:01:03+C*08:11     | C*05:04+C*08:01:02     | C*05:22:02+C*08:59 |
| C*05:01:03+C*08:16:01  | C*05:29+C*08:01:02     |                    |
| C*05:01:03+C*08:21     | C*05:46+C*08:01:02     |                    |
| C*05:01:03+C*08:41     | C*05:39+C*08:01:02     |                    |
| C*05:01:03+C*08:44     | C*05:10+C*08:01:02     |                    |
| C*05:01:03+C*12:03:01G | C*05:16+C*12:02:06     |                    |
| C*05:01:03+C*12:03:19  | C*05:16+C*12:02:01G    | C*08:12+C*12:41    |
| C*05:01:03+C*12:10:01  | C*05:64+C*12:02:01G    | C*08:19+C*12:41    |
| C*05:01:03+C*14:05     | C*05:16+C*14:09        |                    |
| C*05:01:03+C*15:06:01  | C*05:22:02+C*15:24     |                    |
| C*05:01:03+C*16:01:01  | C*05:16+C*16:07:01     |                    |
| C*05:01:07+C*07:01:08  | C*05:01:16+C*07:01:03  |                    |
| C*05:01:07+C*07:24     | C*05:81+C*07:01:03     |                    |
| C*05:01:07+C*07:89     | C*05:80+C*07:01:03     |                    |
| C*05:01:07+C*07:108    | C*05:64+C*07:01:03     |                    |
| C*05:01:07+C*07:109    | C*05:55+C*07:01:03     |                    |
| C*05:01:07+C*07:122    | C*05:49+C*07:01:03     |                    |
| C*05:01:07+C*07:196    | C*05:10+C*07:01:03     |                    |
| C*05:01:07+C*07:212    | C*05:39+C*07:01:03     |                    |
| C*05:01:07+C*07:214    | C*05:57+C*07:01:03     |                    |
| C*05:01:07+C*07:250    | C*05:59+C*07:01:03     |                    |
| C*05:01:07+C*07:254    | C*05:21+C*07:01:03     |                    |
| C*05:01:07+C*07:257    | C*05:05+C*07:01:03     |                    |
| C*05:01:07+C*07:263    | C*05:58:01+C*07:01:03  |                    |
| C*05:01:09+C*07:10     | C*05:10+C*07:02:05     |                    |
| C*05:01:09+C*07:19     | C*05:36+C*07:02:05     |                    |
| C*05:01:09+C*07:56:01  | C*05:55+C*07:02:05     |                    |
| C*05:01:09+C*07:75     | C*05:21+C*07:02:05     |                    |
| C*05:01:09+C*07:127    | C*05:58:01+C*07:02:05  |                    |
| C*05:01:09+C*07:144    | C*05:41+C*07:02:05     |                    |
| C*05:01:09+C*07:186    | C*05:39+C*07:02:05     |                    |
| C*05:01:09+C*07:218    | C*05:81+C*07:02:05     |                    |
| C*05:01:09+C*07:229    | C*05:56+C*07:02:05     |                    |
| C*05:01:09+C*07:234    | C*05:77+C*07:02:05     |                    |
| C*05:01:09+C*07:262    | C*05:15+C*07:02:05     |                    |
| C*05:01:12+C*12:03:08  | C*08:02:01G+C*12:04:01 |                    |
| C*05:01:12+C*12:03:10  | C*05:01:17+C*12:03:04  |                    |
| C*05:01:12+C*12:28     | C*05:25+C*12:03:04     |                    |
| C*05:01:12+C*12:45     | C*05:81+C*12:03:04     |                    |
| C*05:01:12+C*12:58     | C*05:55+C*12:03:04     |                    |
| C*05:01:12+C*12:81     | C*05:36+C*12:03:04     |                    |
| C*05:01:12+C*14:03     | C*05:58:02+C*14:02:01G |                    |
| C*05:01:12+C*14:22     | C*05:58:02+C*14:27     |                    |
| C*05:01:12+C*14:41     | C*05:58:02+C*14:34     |                    |
| C*05:01:12+C*15:03     | C*05:46+C*15:02:10     |                    |
| C*05:01:12+C*15:07     | C*08:02:01G+C*15:02:10 |                    |
| C*05:01:12+C*15:12     | C*05:55+C*15:02:10     |                    |
| C*05:01:12+C*15:15     | C*05:39+C*15:02:10     |                    |
| C*05:01:12+C*15:26     | C*05:05+C*15:02:10     |                    |
| C*05:01:12+C*15:31     | C*05:76+C*15:02:10     |                    |
| C*05:01:12+C*15:35     | C*05:21+C*15:02:10     |                    |
| C*05:01:12+C*15:52     | C*05:44:02+C*15:02:10  |                    |
| C*05:01:12+C*16:13     | C*05:81+C*16:01:02     |                    |
| C*05:01:12+C*16:15:01  | C*05:46+C*16:01:02     |                    |
| C*05:01:12+C*16:18     | C*05:59+C*16:01:02     |                    |
| C*05:01:12+C*16:21     | C*05:43+C*16:01:02     |                    |
| C*05:01:12+C*16:26     | C*05:25+C*16:01:02     |                    |
| C*05:01:12+C*16:44     | C*05:75+C*16:01:02     |                    |
| C*05:01:12+C*16:49     | C*05:05+C*16:01:02     |                    |
| C*05:01:16+C*05:18:02  | C*05:01:18+C*05:18:03  |                    |
| C*05:01:16+C*07:02:01G | C*05:01:18+C*07:02:35  |                    |
| C*05:01:16+C*07:24     | C*05:81+C*07:01:08     |                    |
| C*05:01:16+C*07:89     | C*05:80+C*07:01:08     |                    |
| C*05:01:16+C*07:108    | C*05:64+C*07:01:08     |                    |
| C*05:01:16+C*07:109    | C*05:55+C*07:01:08     |                    |
| C*05:01:16+C*07:122    | C*05:49+C*07:01:08     |                    |
| C*05:01:16+C*07:196    | C*05:10+C*07:01:08     |                    |
| C*05:01:16+C*07:212    | C*05:39+C*07:01:08     |                    |
| C*05:01:16+C*07:214    | C*05:57+C*07:01:08     |                    |
| C*05:01:16+C*07:250    | C*05:59+C*07:01:08     |                    |
| C*05:01:16+C*07:254    | C*05:21+C*07:01:08     |                    |
| C*05:01:16+C*07:257    | C*05:05+C*07:01:08     |                    |
| C*05:01:16+C*07:263    | C*05:58:01+C*07:01:08  |                    |
| C*05:01:16+C*08:01:06  | C*05:01:18+C*08:01:01G |                    |
| C*05:01:16+C*08:02:04  | C*05:01:18+C*08:02:01G |                    |
| C*05:01:16+C*12:02:01G | C*05:01:18+C*12:02:07  |                    |
| C*05:01:16+C*16:02:01G | C*05:01:18+C*16:02:05  |                    |
| C*05:01:17+C*05:52     | C*05:08+C*05:09:02     |                    |
| C*05:01:17+C*07:02:01G | C*05:09:02+C*07:260    |                    |
| C*05:01:17+C*07:45     | C*05:09:02+C*07:04:01G |                    |

|                        |                        |                       |                 |
|------------------------|------------------------|-----------------------|-----------------|
| C*05:01:17+C*12:28     | C*05:25+C*12:03:10     |                       |                 |
| C*05:01:17+C*12:45     | C*05:81+C*12:03:10     |                       |                 |
| C*05:01:17+C*12:58     | C*05:55+C*12:03:10     |                       |                 |
| C*05:01:17+C*12:81     | C*05:36+C*12:03:10     |                       |                 |
| C*05:01:18+C*07:01:12  | C*05:01:20+C*07:01:08  |                       |                 |
| C*05:01:20+C*06:11     | C*06:02:17+C*08:02:04  |                       |                 |
| C*05:01:21+C*06:11     | C*06:02:16+C*08:02:01G |                       |                 |
| C*05:01:21+C*06:13     | C*05:34+C*06:02:16     |                       |                 |
| C*05:01:21+C*06:14     | C*05:10+C*06:02:16     |                       |                 |
| C*05:01:21+C*06:23     | C*05:59+C*06:02:16     |                       |                 |
| C*05:01:21+C*06:31     | C*05:76+C*06:02:16     |                       |                 |
| C*05:01:21+C*06:53     | C*05:55+C*06:02:16     |                       |                 |
| C*05:01:21+C*06:58     | C*05:69+C*06:02:16     |                       |                 |
| C*05:01:21+C*06:64     | C*05:28+C*06:02:16     |                       |                 |
| C*05:01:21+C*06:70     | C*05:58:02+C*06:02:16  |                       |                 |
| C*05:01:21+C*06:82     | C*05:20+C*06:02:16     |                       |                 |
| C*05:01:21+C*06:84     | C*05:67+C*06:02:16     |                       |                 |
| C*05:01:21+C*06:87     | C*05:81+C*06:02:16     |                       |                 |
| C*05:04+C*06:34        | C*05:22:01+C*06:02:01G |                       |                 |
| C*05:04+C*07:13        | C*05:22:01+C*07:02:01G |                       |                 |
| C*05:04+C*08:03:01G    | C*05:44:01+C*08:11     |                       |                 |
| C*05:04+C*08:16:01     | C*05:29+C*08:11        |                       |                 |
| C*05:04+C*08:21        | C*05:46+C*08:11        |                       |                 |
| C*05:04+C*08:41        | C*05:39+C*08:11        |                       |                 |
| C*05:04+C*08:44        | C*05:10+C*08:11        |                       |                 |
| C*05:04+C*12:31        | C*08:02:06+C*12:04:02  |                       |                 |
| C*05:04+C*14:26        | C*05:22:01+C*14:02:01G |                       |                 |
| C*05:04+C*15:05:01G    | C*05:22:01+C*15:09     |                       |                 |
| C*05:04+C*15:24        | C*05:47+C*15:09        |                       |                 |
| C*05:05+C*07:01:12     | C*07:09+C*08:62        |                       |                 |
| C*05:05+C*07:02:12     | C*07:76+C*08:62        |                       |                 |
| C*05:05+C*07:24        | C*05:81+C*07:257       |                       |                 |
| C*05:05+C*07:89        | C*05:80+C*07:257       |                       |                 |
| C*05:05+C*07:108       | C*05:64+C*07:257       |                       |                 |
| C*05:05+C*07:109       | C*05:55+C*07:257       |                       |                 |
| C*05:05+C*07:122       | C*05:49+C*07:257       |                       |                 |
| C*05:05+C*07:196       | C*05:10+C*07:257       |                       |                 |
| C*05:05+C*07:212       | C*05:39+C*07:257       |                       |                 |
| C*05:05+C*07:214       | C*05:57+C*07:257       |                       |                 |
| C*05:05+C*07:250       | C*05:59+C*07:257       |                       |                 |
| C*05:05+C*07:254       | C*05:21+C*07:257       |                       |                 |
| C*05:05+C*07:263       | C*05:58:01+C*07:257    |                       |                 |
| C*05:05+C*12:02:09     | C*08:62+C*12:41        |                       |                 |
| C*05:05+C*15:03        | C*05:46+C*15:26        |                       |                 |
| C*05:05+C*15:07        | C*08:02:01G+C*15:26    |                       |                 |
| C*05:05+C*15:12        | C*05:55+C*15:26        |                       |                 |
| C*05:05+C*15:15        | C*05:39+C*15:26        |                       |                 |
| C*05:05+C*15:31        | C*05:76+C*15:26        |                       |                 |
| C*05:05+C*15:35        | C*05:21+C*15:26        |                       |                 |
| C*05:05+C*15:52        | C*05:44:02+C*15:26     |                       |                 |
| C*05:05+C*16:13        | C*05:81+C*16:49        |                       |                 |
| C*05:05+C*16:15:01     | C*05:46+C*16:49        |                       |                 |
| C*05:05+C*16:18        | C*05:59+C*16:49        |                       |                 |
| C*05:05+C*16:21        | C*05:43+C*16:49        |                       |                 |
| C*05:05+C*16:26        | C*05:25+C*16:49        |                       |                 |
| C*05:05+C*16:44        | C*05:75+C*16:49        |                       |                 |
| C*05:08+C*06:04        | C*05:11+C*06:02:01G    |                       |                 |
| C*05:08+C*06:11        | C*06:02:01G+C*08:29    |                       |                 |
| C*05:08+C*07:01:01G    | C*05:11+C*07:22        | C*07:09+C*08:29       |                 |
| C*05:08+C*07:02:01G    | C*05:11+C*07:138       | C*05:52+C*07:260      | C*07:76+C*08:29 |
| C*05:08+C*07:15        | C*07:76+C*08:31        |                       |                 |
| C*05:08+C*07:16        | C*07:07+C*08:29        |                       |                 |
| C*05:08+C*07:45        | C*05:52+C*07:04:01G    |                       |                 |
| C*05:08+C*07:186       | C*05:27+C*07:138       |                       |                 |
| C*05:08+C*07:207       | C*07:09+C*08:31        |                       |                 |
| C*05:08+C*07:212       | C*05:27+C*07:22        |                       |                 |
| C*05:08+C*08:01:01G    | C*08:10+C*08:29        |                       |                 |
| C*05:08+C*08:03:01G    | C*05:79+C*08:27        |                       |                 |
| C*05:08+C*08:04:01     | C*05:11+C*08:29        |                       |                 |
| C*05:08+C*08:05        | C*05:46+C*08:29        |                       |                 |
| C*05:08+C*08:07        | C*05:23+C*08:29        |                       |                 |
| C*05:08+C*08:12        | C*05:16+C*08:29        |                       |                 |
| C*05:08+C*08:15:01     | C*05:09:01+C*08:29     | C*05:52+C*08:02:01G   |                 |
| C*05:08+C*08:15:02     | C*05:09:02+C*08:29     |                       |                 |
| C*05:08+C*08:19        | C*05:64+C*08:29        |                       |                 |
| C*05:08+C*08:28        | C*05:25+C*08:29        |                       |                 |
| C*05:08+C*08:33:01     | C*05:18:02+C*08:29     |                       |                 |
| C*05:08+C*08:35        | C*05:44:01+C*08:27     |                       |                 |
| C*05:08+C*08:37        | C*05:43+C*08:29        |                       |                 |
| C*05:08+C*08:57        | C*05:68+C*08:29        |                       |                 |
| C*05:08+C*12:02:01G    | C*08:29+C*12:41        |                       |                 |
| C*05:08+C*12:03:01G    | C*08:29+C*12:04:02     |                       |                 |
| C*05:08+C*12:09        | C*05:29+C*12:33        |                       |                 |
| C*05:08+C*12:18:01     | C*05:11+C*12:02:01G    | C*08:04:01+C*12:41    |                 |
| C*05:08+C*12:20        | C*05:11+C*12:03:01G    | C*08:04:01+C*12:04:02 |                 |
| C*05:08+C*12:28        | C*06:76:02+C*08:29     |                       |                 |
| C*05:08+C*14:06        | C*05:11+C*14:16        |                       |                 |
| C*05:08+C*14:13        | C*05:25+C*14:16        |                       |                 |
| C*05:08+C*14:15        | C*05:68+C*14:16        |                       |                 |
| C*05:08+C*14:20        | C*05:39+C*14:16        |                       |                 |
| C*05:08+C*14:24:01     | C*05:19+C*14:16        |                       |                 |
| C*05:08+C*14:25        | C*08:31+C*14:12        |                       |                 |
| C*05:08+C*14:39        | C*05:56+C*14:16        |                       |                 |
| C*05:08+C*15:07        | C*08:29+C*15:02:01G    |                       |                 |
| C*05:08+C*16:01:01     | C*08:29+C*16:02:01G    |                       |                 |
| C*05:08+C*16:15:01     | C*08:29+C*16:25        |                       |                 |
| C*05:08+C*16:26        | C*08:29+C*16:46        |                       |                 |
| C*05:08+C*16:35        | C*05:11+C*16:04:01     | C*08:29+C*16:48       |                 |
| C*05:08+C*16:40        | C*08:13+C*12:33        |                       |                 |
| C*05:08+C*16:50        | C*08:31+C*16:02:01G    |                       |                 |
| C*05:09:01+C*06:02:01G | C*05:52+C*06:06        |                       |                 |
| C*05:09:01+C*06:11     | C*06:02:01G+C*08:15:01 |                       |                 |
| C*05:09:01+C*07:01:01G | C*05:09:02+C*07:01:05  | C*07:09+C*08:15:01    |                 |
| C*05:09:01+C*07:02:01G | C*05:09:02+C*07:02:04  | C*07:76+C*08:15:01    |                 |
| C*05:09:01+C*07:16     | C*07:07+C*08:15:01     |                       |                 |

|                        |                        |                       |                 |
|------------------------|------------------------|-----------------------|-----------------|
| C*05:09:01+C*07:22     | C*05:52+C*07:176       |                       |                 |
| C*05:09:01+C*07:137:01 | C*05:52+C*07:137:02    |                       |                 |
| C*05:09:01+C*07:138    | C*05:52+C*07:37        |                       |                 |
| C*05:09:01+C*08:01:01G | C*08:10+C*08:15:01     |                       |                 |
| C*05:09:01+C*08:04:01  | C*05:11+C*08:15:01     |                       |                 |
| C*05:09:01+C*08:05     | C*05:46+C*08:15:01     |                       |                 |
| C*05:09:01+C*08:07     | C*05:23+C*08:15:01     |                       |                 |
| C*05:09:01+C*08:12     | C*05:16+C*08:15:01     |                       |                 |
| C*05:09:01+C*08:15:02  | C*05:09:02+C*08:15:01  |                       |                 |
| C*05:09:01+C*08:19     | C*05:64+C*08:15:01     |                       |                 |
| C*05:09:01+C*08:27     | C*05:52+C*08:64        |                       |                 |
| C*05:09:01+C*08:28     | C*05:25+C*08:15:01     |                       |                 |
| C*05:09:01+C*08:33:01  | C*05:18:02+C*08:15:01  |                       |                 |
| C*05:09:01+C*08:37     | C*05:43+C*08:15:01     |                       |                 |
| C*05:09:01+C*08:57     | C*05:68+C*08:15:01     |                       |                 |
| C*05:09:01+C*08:64     | C*05:18:01+C*08:15:01  |                       |                 |
| C*05:09:01+C*12:02:01G | C*08:15:01+C*12:41     |                       |                 |
| C*05:09:01+C*12:03:01G | C*05:52+C*12:24        | C*08:15:01+C*12:04:02 |                 |
| C*05:09:01+C*12:03:10  | C*05:09:02+C*12:03:01G | C*08:15:02+C*12:04:02 |                 |
| C*05:09:01+C*12:28     | C*06:76:02+C*08:15:01  |                       |                 |
| C*05:09:01+C*14:02:01G | C*08:15:01+C*14:12     |                       |                 |
| C*05:09:01+C*14:16     | C*05:52+C*14:02:01G    |                       |                 |
| C*05:09:01+C*15:07     | C*08:15:01+C*15:02:01G |                       |                 |
| C*05:09:01+C*16:01:01  | C*08:15:01+C*16:02:01G |                       |                 |
| C*05:09:01+C*16:15:01  | C*08:15:01+C*16:25     |                       |                 |
| C*05:09:01+C*16:26     | C*08:15:01+C*16:46     |                       |                 |
| C*05:09:01+C*16:35     | C*08:15:01+C*16:48     |                       |                 |
| C*05:09:02+C*06:11     | C*06:02:01G+C*08:15:02 |                       |                 |
| C*05:09:02+C*07:01:01G | C*07:09+C*08:15:02     |                       |                 |
| C*05:09:02+C*07:02:01G | C*07:76+C*08:15:02     |                       |                 |
| C*05:09:02+C*07:16     | C*07:07+C*08:15:02     |                       |                 |
| C*05:09:02+C*08:01:01G | C*08:10+C*08:15:02     |                       |                 |
| C*05:09:02+C*08:04:01  | C*05:11+C*08:15:02     |                       |                 |
| C*05:09:02+C*08:05     | C*05:46+C*08:15:02     |                       |                 |
| C*05:09:02+C*08:07     | C*05:23+C*08:15:02     |                       |                 |
| C*05:09:02+C*08:12     | C*05:16+C*08:15:02     |                       |                 |
| C*05:09:02+C*08:19     | C*05:64+C*08:15:02     |                       |                 |
| C*05:09:02+C*08:28     | C*05:25+C*08:15:02     |                       |                 |
| C*05:09:02+C*08:33:01  | C*05:18:02+C*08:15:02  |                       |                 |
| C*05:09:02+C*08:37     | C*05:43+C*08:15:02     |                       |                 |
| C*05:09:02+C*08:57     | C*05:17+C*08:02:01G    | C*05:68+C*08:15:02    |                 |
| C*05:09:02+C*08:64     | C*05:18:01+C*08:15:02  |                       |                 |
| C*05:09:02+C*12:02:01G | C*08:15:02+C*12:41     |                       |                 |
| C*05:09:02+C*12:28     | C*06:76:02+C*08:15:02  |                       |                 |
| C*05:09:02+C*14:02:01G | C*08:15:02+C*14:12     |                       |                 |
| C*05:09:02+C*14:15     | C*05:17+C*14:02:01G    |                       |                 |
| C*05:09:02+C*15:07     | C*08:15:02+C*15:02:01G |                       |                 |
| C*05:09:02+C*15:31     | C*05:17+C*15:08        |                       |                 |
| C*05:09:02+C*16:01:01  | C*08:15:02+C*16:02:01G |                       |                 |
| C*05:09:02+C*16:15:01  | C*08:15:02+C*16:25     |                       |                 |
| C*05:09:02+C*16:26     | C*08:15:02+C*16:46     |                       |                 |
| C*05:09:02+C*16:35     | C*08:15:02+C*16:48     |                       |                 |
| C*05:09:02+C*16:48     | C*05:17+C*12:09        |                       |                 |
| C*05:10+C*06:11        | C*06:14+C*08:02:01G    |                       |                 |
| C*05:10+C*06:13        | C*05:34+C*06:14        |                       |                 |
| C*05:10+C*06:23        | C*05:59+C*06:14        |                       |                 |
| C*05:10+C*06:31        | C*05:76+C*06:14        |                       |                 |
| C*05:10+C*06:53        | C*05:55+C*06:14        |                       |                 |
| C*05:10+C*06:58        | C*05:69+C*06:14        |                       |                 |
| C*05:10+C*06:64        | C*05:28+C*06:14        |                       |                 |
| C*05:10+C*06:70        | C*05:58:02+C*06:14     |                       |                 |
| C*05:10+C*06:82        | C*05:20+C*06:14        |                       |                 |
| C*05:10+C*06:84        | C*05:67+C*06:14        |                       |                 |
| C*05:10+C*06:87        | C*05:81+C*06:14        |                       |                 |
| C*05:10+C*07:19        | C*05:36+C*07:10        |                       |                 |
| C*05:10+C*07:24        | C*05:81+C*07:196       |                       |                 |
| C*05:10+C*07:31        | C*05:16+C*07:43        |                       |                 |
| C*05:10+C*07:56:01     | C*05:55+C*07:10        |                       |                 |
| C*05:10+C*07:75        | C*05:21+C*07:10        |                       |                 |
| C*05:10+C*07:89        | C*05:80+C*07:196       |                       |                 |
| C*05:10+C*07:108       | C*05:64+C*07:196       |                       |                 |
| C*05:10+C*07:109       | C*05:55+C*07:196       |                       |                 |
| C*05:10+C*07:122       | C*05:49+C*07:196       |                       |                 |
| C*05:10+C*07:127       | C*05:58:01+C*07:10     |                       |                 |
| C*05:10+C*07:144       | C*05:41+C*07:10        |                       |                 |
| C*05:10+C*07:186       | C*05:39+C*07:10        |                       |                 |
| C*05:10+C*07:212       | C*05:39+C*07:196       |                       |                 |
| C*05:10+C*07:214       | C*05:57+C*07:196       |                       |                 |
| C*05:10+C*07:218       | C*05:81+C*07:10        |                       |                 |
| C*05:10+C*07:229       | C*05:56+C*07:10        |                       |                 |
| C*05:10+C*07:234       | C*05:77+C*07:10        |                       |                 |
| C*05:10+C*07:250       | C*05:59+C*07:196       |                       |                 |
| C*05:10+C*07:254       | C*05:21+C*07:196       |                       |                 |
| C*05:10+C*07:262       | C*05:15+C*07:10        |                       |                 |
| C*05:10+C*07:263       | C*05:58:01+C*07:196    |                       |                 |
| C*05:10+C*08:16:01     | C*05:29+C*08:44        |                       |                 |
| C*05:10+C*08:21        | C*05:46+C*08:44        |                       |                 |
| C*05:10+C*08:41        | C*05:39+C*08:44        |                       |                 |
| C*05:10+C*15:55        | C*05:16+C*15:06:01     |                       |                 |
| C*05:10+C*15:58        | C*05:16+C*15:02:01G    |                       |                 |
| C*05:11+C*06:11        | C*06:02:01G+C*08:04:01 | C*06:04+C*08:29       | C*06:67+C*08:13 |
| C*05:11+C*06:31        | C*05:68+C*06:02:01G    |                       |                 |
| C*05:11+C*06:40        | C*05:70+C*06:02:01G    |                       |                 |
| C*05:11+C*07:01:01G    | C*05:68+C*07:165       | C*07:09+C*08:04:01    |                 |
| C*05:11+C*07:02:01G    | C*05:68+C*07:241       | C*07:76+C*08:04:01    |                 |
| C*05:11+C*07:16        | C*07:07+C*08:04:01     |                       |                 |
| C*05:11+C*07:137:02    | C*05:70+C*07:02:01G    |                       |                 |
| C*05:11+C*07:186       | C*05:27+C*07:02:01G    |                       |                 |
| C*05:11+C*07:212       | C*05:27+C*07:01:01G    |                       |                 |
| C*05:11+C*08:01:01G    | C*08:04:01+C*08:10     |                       |                 |
| C*05:11+C*08:05        | C*05:46+C*08:04:01     |                       |                 |
| C*05:11+C*08:07        | C*05:23+C*08:04:01     |                       |                 |
| C*05:11+C*08:12        | C*05:16+C*08:04:01     |                       |                 |
| C*05:11+C*08:16:01     | C*08:10+C*08:13        |                       |                 |
| C*05:11+C*08:19        | C*05:64+C*08:04:01     |                       |                 |

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| C*05:11+C*08:25        | C*05:46+C*08:13        |                        |
| C*05:11+C*08:28        | C*05:25+C*08:04:01     |                        |
| C*05:11+C*08:33:01     | C*05:18:02+C*08:04:01  |                        |
| C*05:11+C*08:37        | C*05:43+C*08:04:01     |                        |
| C*05:11+C*08:41        | C*05:27+C*08:01:01G    |                        |
| C*05:11+C*08:47        | C*05:23+C*08:57        | C*05:68+C*08:07        |
| C*05:11+C*08:57        | C*05:68+C*08:04:01     |                        |
| C*05:11+C*08:64        | C*05:18:01+C*08:04:01  |                        |
| C*05:11+C*12:03:11     | C*08:04:02+C*12:04:02  |                        |
| C*05:11+C*12:28        | C*06:76:02+C*08:04:01  |                        |
| C*05:11+C*14:13        | C*05:25+C*14:06        |                        |
| C*05:11+C*14:15        | C*05:68+C*14:06        |                        |
| C*05:11+C*14:20        | C*05:27+C*14:02:01G    | C*05:39+C*14:06        |
| C*05:11+C*14:24:01     | C*05:19+C*14:06        |                        |
| C*05:11+C*14:39        | C*05:56+C*14:06        |                        |
| C*05:11+C*15:07        | C*08:04:01+C*15:02:01G |                        |
| C*05:11+C*15:15        | C*05:27+C*15:02:01G    |                        |
| C*05:11+C*15:31        | C*05:68+C*15:02:01G    |                        |
| C*05:11+C*15:51        | C*05:70+C*15:02:01G    |                        |
| C*05:11+C*16:01:01     | C*08:04:01+C*16:02:01G |                        |
| C*05:11+C*16:15:01     | C*08:04:01+C*16:25     |                        |
| C*05:11+C*16:26        | C*08:04:01+C*16:46     |                        |
| C*05:11+C*16:29        | C*08:31+C*16:48        |                        |
| C*05:11+C*16:35        | C*05:68+C*16:40        | C*08:04:01+C*16:48     |
| C*05:12+C*07:165       | C*05:18:01+C*07:95     |                        |
| C*05:12+C*08:13        | C*05:29+C*08:39        |                        |
| C*05:12+C*08:57        | C*05:76+C*08:39        |                        |
| C*05:12+C*14:06        | C*08:39+C*14:12        |                        |
| C*05:12+C*15:02:01G    | C*05:18:01+C*15:57     |                        |
| C*05:12+C*15:02:05     | C*05:18:03+C*15:57     |                        |
| C*05:12+C*15:07        | C*08:39+C*15:08        | C*08:64+C*15:57        |
| C*05:12+C*16:27        | C*05:76+C*16:43        |                        |
| C*05:12+C*16:40        | C*08:39+C*12:09        |                        |
| C*05:15+C*07:19        | C*05:36+C*07:262       |                        |
| C*05:15+C*07:56:01     | C*05:55+C*07:262       |                        |
| C*05:15+C*07:75        | C*05:21+C*07:262       |                        |
| C*05:15+C*07:127       | C*05:58:01+C*07:262    |                        |
| C*05:15+C*07:144       | C*05:41+C*07:262       |                        |
| C*05:15+C*07:186       | C*05:39+C*07:262       |                        |
| C*05:15+C*07:218       | C*05:81+C*07:262       |                        |
| C*05:15+C*07:229       | C*05:56+C*07:262       |                        |
| C*05:15+C*07:234       | C*05:77+C*07:262       |                        |
| C*05:16+C*06:11        | C*06:02:01G+C*08:12    |                        |
| C*05:16+C*07:01:01G    | C*05:36+C*07:31        | C*07:09+C*08:12        |
| C*05:16+C*07:02:01G    | C*07:76+C*08:12        |                        |
| C*05:16+C*07:16        | C*07:07+C*08:12        |                        |
| C*05:16+C*08:01:01G    | C*08:10+C*08:12        |                        |
| C*05:16+C*08:05        | C*05:46+C*08:12        |                        |
| C*05:16+C*08:07        | C*05:23+C*08:12        |                        |
| C*05:16+C*08:19        | C*05:64+C*08:12        |                        |
| C*05:16+C*08:28        | C*05:25+C*08:12        |                        |
| C*05:16+C*08:33:01     | C*05:18:02+C*08:12     |                        |
| C*05:16+C*08:37        | C*05:43+C*08:12        |                        |
| C*05:16+C*08:57        | C*05:68+C*08:12        |                        |
| C*05:16+C*08:64        | C*05:18:01+C*08:12     |                        |
| C*05:16+C*12:03:01G    | C*08:12+C*12:04:02     |                        |
| C*05:16+C*12:10:01     | C*05:64+C*12:03:19     |                        |
| C*05:16+C*12:28        | C*06:76:02+C*08:12     |                        |
| C*05:16+C*14:02:01G    | C*08:12+C*14:12        |                        |
| C*05:16+C*15:07        | C*08:12+C*15:02:01G    |                        |
| C*05:16+C*16:01:01     | C*08:12+C*16:02:01G    |                        |
| C*05:16+C*16:15:01     | C*08:12+C*16:25        |                        |
| C*05:16+C*16:26        | C*08:12+C*16:46        |                        |
| C*05:16+C*16:35        | C*08:12+C*16:48        |                        |
| C*05:18:01+C*05:79     | C*05:44:01+C*08:10     |                        |
| C*05:18:01+C*06:11     | C*06:02:01G+C*08:64    | C*06:06+C*08:27        |
| C*05:18:01+C*07:01:01G | C*07:09+C*08:64        |                        |
| C*05:18:01+C*07:02:01G | C*07:76+C*08:64        |                        |
| C*05:18:01+C*07:16     | C*07:07+C*08:64        |                        |
| C*05:18:01+C*07:141:02 | C*05:18:03+C*07:141:01 |                        |
| C*05:18:01+C*08:01:01G | C*08:10+C*08:64        |                        |
| C*05:18:01+C*08:01:07  | C*08:10+C*08:33:02     |                        |
| C*05:18:01+C*08:03:01G | C*08:10+C*08:35        |                        |
| C*05:18:01+C*08:05     | C*05:46+C*08:64        |                        |
| C*05:18:01+C*08:07     | C*05:23+C*08:64        |                        |
| C*05:18:01+C*08:19     | C*05:64+C*08:64        |                        |
| C*05:18:01+C*08:28     | C*05:25+C*08:64        |                        |
| C*05:18:01+C*08:33:01  | C*05:18:02+C*08:64     |                        |
| C*05:18:01+C*08:37     | C*05:43+C*08:64        |                        |
| C*05:18:01+C*08:57     | C*05:68+C*08:64        |                        |
| C*05:18:01+C*12:02:01G | C*08:64+C*12:41        |                        |
| C*05:18:01+C*12:03:01G | C*08:64+C*12:04:02     |                        |
| C*05:18:01+C*12:03:16  | C*05:18:03+C*12:03:08  |                        |
| C*05:18:01+C*12:28     | C*06:76:02+C*08:64     |                        |
| C*05:18:01+C*14:02:01G | C*08:64+C*14:12        |                        |
| C*05:18:01+C*14:02:05  | C*05:18:03+C*14:02:01G |                        |
| C*05:18:01+C*14:16     | C*08:27+C*14:12        |                        |
| C*05:18:01+C*15:02:05  | C*05:18:03+C*15:02:01G |                        |
| C*05:18:01+C*15:06:03  | C*05:18:03+C*15:06:01  |                        |
| C*05:18:01+C*15:07     | C*08:64+C*15:02:01G    |                        |
| C*05:18:01+C*16:01:01  | C*08:64+C*16:02:01G    |                        |
| C*05:18:01+C*16:01:06  | C*08:33:02+C*16:02:05  |                        |
| C*05:18:01+C*16:02:03  | C*05:18:02+C*16:02:05  | C*05:18:03+C*16:02:01G |
| C*05:18:01+C*16:15:01  | C*08:64+C*16:25        |                        |
| C*05:18:01+C*16:26     | C*08:64+C*16:46        |                        |
| C*05:18:01+C*16:35     | C*08:64+C*16:48        |                        |
| C*05:18:02+C*06:11     | C*06:02:01G+C*08:33:01 |                        |
| C*05:18:02+C*07:01:01G | C*07:09+C*08:33:01     |                        |
| C*05:18:02+C*07:02:01G | C*07:76+C*08:33:01     |                        |
| C*05:18:02+C*07:02:35  | C*05:18:03+C*07:02:01G |                        |
| C*05:18:02+C*07:16     | C*07:07+C*08:33:01     |                        |
| C*05:18:02+C*08:01:01G | C*05:18:03+C*08:01:06  | C*08:10+C*08:33:01     |
| C*05:18:02+C*08:05     | C*05:46+C*08:33:01     |                        |
| C*05:18:02+C*08:07     | C*05:23+C*08:33:01     |                        |
| C*05:18:02+C*08:19     | C*05:64+C*08:33:01     |                        |

|                        |                        |                      |
|------------------------|------------------------|----------------------|
| C*05:18:02+C*08:28     | C*05:25+C*08:33:01     |                      |
| C*05:18:02+C*08:37     | C*05:43+C*08:33:01     |                      |
| C*05:18:02+C*08:57     | C*05:68+C*08:33:01     |                      |
| C*05:18:02+C*12:02:01G | C*08:33:01+C*12:41     |                      |
| C*05:18:02+C*12:02:07  | C*05:18:03+C*12:02:01G |                      |
| C*05:18:02+C*12:03:01G | C*08:33:01+C*12:04:02  |                      |
| C*05:18:02+C*12:28     | C*06:76:02+C*08:33:01  |                      |
| C*05:18:02+C*14:02:01G | C*08:33:01+C*14:12     |                      |
| C*05:18:02+C*15:07     | C*08:33:01+C*15:02:01G |                      |
| C*05:18:02+C*16:01:01  | C*08:33:01+C*16:02:01G |                      |
| C*05:18:02+C*16:01:06  | C*08:33:02+C*16:02:03  |                      |
| C*05:18:02+C*16:15:01  | C*08:33:01+C*16:25     |                      |
| C*05:18:02+C*16:26     | C*08:33:01+C*16:46     |                      |
| C*05:18:02+C*16:27     | C*08:02:04+C*16:02:03  |                      |
| C*05:18:02+C*16:35     | C*08:33:01+C*16:48     |                      |
| C*05:18:03+C*15:07     | C*08:64+C*15:02:05     |                      |
| C*05:18:03+C*16:01:01  | C*08:33:01+C*16:02:05  | C*08:64+C*16:02:03   |
| C*05:18:03+C*16:27     | C*08:02:01G+C*16:02:03 |                      |
| C*05:19+C*14:13        | C*05:25+C*14:24:01     |                      |
| C*05:19+C*14:15        | C*05:68+C*14:24:01     |                      |
| C*05:19+C*14:20        | C*05:39+C*14:24:01     |                      |
| C*05:19+C*14:39        | C*05:56+C*14:24:01     |                      |
| C*05:20+C*06:11        | C*06:82+C*08:02:01G    |                      |
| C*05:20+C*06:13        | C*05:34+C*06:82        |                      |
| C*05:20+C*06:23        | C*05:59+C*06:82        |                      |
| C*05:20+C*06:31        | C*05:76+C*06:82        |                      |
| C*05:20+C*06:53        | C*05:55+C*06:82        |                      |
| C*05:20+C*06:58        | C*05:69+C*06:82        |                      |
| C*05:20+C*06:64        | C*05:28+C*06:82        |                      |
| C*05:20+C*06:70        | C*05:58:02+C*06:82     |                      |
| C*05:20+C*06:76:02     | C*05:25+C*12:54        |                      |
| C*05:20+C*06:84        | C*05:67+C*06:82        |                      |
| C*05:20+C*06:87        | C*05:81+C*06:82        |                      |
| C*05:20+C*07:01:01G    | C*07:210+C*08:05       | C*07:247+C*08:02:01G |
| C*05:20+C*07:01:12     | C*07:247+C*08:02:06    |                      |
| C*05:20+C*07:02:01G    | C*07:49+C*08:02:01G    | C*07:238+C*08:05     |
| C*05:20+C*07:02:12     | C*07:49+C*08:02:06     |                      |
| C*05:20+C*07:02:17     | C*07:49+C*08:02:05     |                      |
| C*05:20+C*07:02:29     | C*07:49+C*08:02:03     |                      |
| C*05:20+C*07:35        | C*07:247+C*08:48       |                      |
| C*05:20+C*07:39        | C*07:238+C*08:02:01G   |                      |
| C*05:20+C*07:40        | C*07:210+C*08:02:01G   |                      |
| C*05:20+C*07:108       | C*07:247+C*08:19       |                      |
| C*05:20+C*07:195       | C*07:49+C*08:34        |                      |
| C*05:20+C*07:225       | C*07:247+C*08:17       |                      |
| C*05:20+C*12:03:01G    | C*08:02:01G+C*12:54    |                      |
| C*05:20+C*12:28        | C*08:28+C*12:54        |                      |
| C*05:20+C*12:47        | C*08:55N+C*12:54       |                      |
| C*05:21+C*07:19        | C*05:36+C*07:75        |                      |
| C*05:21+C*07:24        | C*05:81+C*07:254       |                      |
| C*05:21+C*07:56:01     | C*05:55+C*07:75        |                      |
| C*05:21+C*07:89        | C*05:80+C*07:254       |                      |
| C*05:21+C*07:108       | C*05:64+C*07:254       |                      |
| C*05:21+C*07:109       | C*05:55+C*07:254       |                      |
| C*05:21+C*07:122       | C*05:49+C*07:254       |                      |
| C*05:21+C*07:127       | C*05:58:01+C*07:75     |                      |
| C*05:21+C*07:144       | C*05:41+C*07:75        |                      |
| C*05:21+C*07:186       | C*05:39+C*07:75        |                      |
| C*05:21+C*07:212       | C*05:39+C*07:254       |                      |
| C*05:21+C*07:214       | C*05:57+C*07:254       |                      |
| C*05:21+C*07:218       | C*05:81+C*07:75        |                      |
| C*05:21+C*07:229       | C*05:56+C*07:75        |                      |
| C*05:21+C*07:234       | C*05:77+C*07:75        |                      |
| C*05:21+C*07:250       | C*05:59+C*07:254       |                      |
| C*05:21+C*07:263       | C*05:58:01+C*07:254    |                      |
| C*05:21+C*15:03        | C*05:46+C*15:35        |                      |
| C*05:21+C*15:07        | C*08:02:01G+C*15:35    |                      |
| C*05:21+C*15:12        | C*05:55+C*15:35        |                      |
| C*05:21+C*15:15        | C*05:39+C*15:35        |                      |
| C*05:21+C*15:31        | C*05:76+C*15:35        |                      |
| C*05:21+C*15:52        | C*05:44:02+C*15:35     |                      |
| C*05:22:01+C*07:01:07  | C*05:22:02+C*07:01:01G |                      |
| C*05:22:01+C*07:04:03  | C*05:22:02+C*07:04:01G |                      |
| C*05:22:01+C*07:27:02  | C*05:22:02+C*07:27:01  |                      |
| C*05:22:01+C*07:199:02 | C*05:22:02+C*07:199:01 |                      |
| C*05:22:01+C*08:01:02  | C*05:22:02+C*08:01:01G |                      |
| C*05:22:01+C*12:02:01G | C*05:22:02+C*12:02:03  |                      |
| C*05:22:01+C*12:02:06  | C*05:22:02+C*12:02:08  |                      |
| C*05:22:01+C*16:07:01  | C*05:22:02+C*16:07:02  |                      |
| C*05:23+C*06:11        | C*06:02:01G+C*08:07    |                      |
| C*05:23+C*07:01:01G    | C*07:09+C*08:07        |                      |
| C*05:23+C*07:02:01G    | C*07:76+C*08:07        |                      |
| C*05:23+C*07:16        | C*07:07+C*08:07        |                      |
| C*05:23+C*08:01:01G    | C*08:07+C*08:10        |                      |
| C*05:23+C*08:05        | C*05:46+C*08:07        |                      |
| C*05:23+C*08:19        | C*05:64+C*08:07        |                      |
| C*05:23+C*08:28        | C*05:25+C*08:07        |                      |
| C*05:23+C*08:37        | C*05:43+C*08:07        |                      |
| C*05:23+C*12:02:01G    | C*08:07+C*12:41        |                      |
| C*05:23+C*12:03:01G    | C*08:07+C*12:04:02     |                      |
| C*05:23+C*12:28        | C*06:76:02+C*08:07     |                      |
| C*05:23+C*14:02:01G    | C*08:07+C*14:12        |                      |
| C*05:23+C*15:07        | C*08:07+C*15:02:01G    |                      |
| C*05:23+C*16:01:01     | C*08:07+C*16:02:01G    |                      |
| C*05:23+C*16:15:01     | C*08:07+C*16:25        |                      |
| C*05:23+C*16:26        | C*08:07+C*16:46        |                      |
| C*05:23+C*16:35        | C*08:07+C*16:48        |                      |
| C*05:25+C*06:11        | C*06:02:01G+C*08:28    |                      |
| C*05:25+C*07:01:01G    | C*05:42+C*07:40        | C*07:09+C*08:28      |
| C*05:25+C*07:02:01G    | C*05:42+C*07:39        | C*07:76+C*08:28      |
| C*05:25+C*07:49        | C*05:42+C*07:238       |                      |
| C*05:25+C*07:247       | C*05:42+C*07:210       |                      |
| C*05:25+C*08:01:01G    | C*08:10+C*08:28        |                      |
| C*05:25+C*08:05        | C*05:42+C*08:02:01G    | C*05:46+C*08:28      |
| C*05:25+C*08:19        | C*05:64+C*08:28        |                      |

|                     |                       |                 |                 |                 |
|---------------------|-----------------------|-----------------|-----------------|-----------------|
| C*05:25+C*08:21     | C*05:42+C*08:01:01G   |                 |                 |                 |
| C*05:25+C*08:37     | C*05:43+C*08:28       |                 |                 |                 |
| C*05:25+C*08:57     | C*05:68+C*08:28       |                 |                 |                 |
| C*05:25+C*12:02:01G | C*05:42+C*12:49       | C*08:28+C*12:41 |                 |                 |
| C*05:25+C*12:03:09  | C*06:76:01+C*08:02:02 |                 |                 |                 |
| C*05:25+C*12:28     | C*06:76:02+C*08:28    |                 |                 |                 |
| C*05:25+C*12:45     | C*05:81+C*12:28       |                 |                 |                 |
| C*05:25+C*12:47     | C*06:76:02+C*08:55N   |                 |                 |                 |
| C*05:25+C*12:58     | C*05:55+C*12:28       |                 |                 |                 |
| C*05:25+C*12:81     | C*05:36+C*12:28       |                 |                 |                 |
| C*05:25+C*14:15     | C*05:68+C*14:13       |                 |                 |                 |
| C*05:25+C*14:20     | C*05:39+C*14:13       |                 |                 |                 |
| C*05:25+C*14:39     | C*05:56+C*14:13       |                 |                 |                 |
| C*05:25+C*15:03     | C*05:42+C*15:02:01G   |                 |                 |                 |
| C*05:25+C*15:07     | C*08:28+C*15:02:01G   |                 |                 |                 |
| C*05:25+C*15:16     | C*05:42+C*15:17       |                 |                 |                 |
| C*05:25+C*16:13     | C*05:81+C*16:26       |                 |                 |                 |
| C*05:25+C*16:15:01  | C*05:42+C*16:01:01    | C*05:46+C*16:26 | C*08:05+C*16:46 | C*08:28+C*16:25 |
| C*05:25+C*16:18     | C*05:59+C*16:26       |                 |                 |                 |
| C*05:25+C*16:21     | C*05:43+C*16:26       | C*08:37+C*16:46 |                 |                 |
| C*05:25+C*16:25     | C*05:42+C*16:02:01G   | C*05:46+C*16:46 |                 |                 |
| C*05:25+C*16:26     | C*08:28+C*16:46       |                 |                 |                 |
| C*05:25+C*16:35     | C*08:28+C*16:48       |                 |                 |                 |
| C*05:25+C*16:41     | C*08:43+C*16:46       |                 |                 |                 |
| C*05:25+C*16:44     | C*05:75+C*16:26       |                 |                 |                 |
| C*05:26+C*15:02:01G | C*05:36+C*15:11       |                 |                 |                 |
| C*05:26+C*15:16     | C*05:46+C*15:11       |                 |                 |                 |
| C*05:27+C*05:76     | C*05:39+C*05:68       |                 |                 |                 |
| C*05:27+C*06:06     | C*05:39+C*06:04       |                 |                 |                 |
| C*05:27+C*07:137:02 | C*05:70+C*07:186      |                 |                 |                 |
| C*05:27+C*08:02:01G | C*05:39+C*08:04:01    |                 |                 |                 |
| C*05:27+C*08:35     | C*05:39+C*08:54       |                 |                 |                 |
| C*05:27+C*12:24     | C*05:39+C*12:20       |                 |                 |                 |
| C*05:27+C*15:07     | C*08:04:01+C*15:15    |                 |                 |                 |
| C*05:27+C*15:31     | C*05:68+C*15:15       |                 |                 |                 |
| C*05:27+C*15:51     | C*05:70+C*15:15       |                 |                 |                 |
| C*05:28+C*06:11     | C*06:64+C*08:02:01G   |                 |                 |                 |
| C*05:28+C*06:13     | C*05:34+C*06:64       |                 |                 |                 |
| C*05:28+C*06:23     | C*05:59+C*06:64       |                 |                 |                 |
| C*05:28+C*06:31     | C*05:76+C*06:64       |                 |                 |                 |
| C*05:28+C*06:53     | C*05:55+C*06:64       |                 |                 |                 |
| C*05:28+C*06:58     | C*05:69+C*06:64       |                 |                 |                 |
| C*05:28+C*06:70     | C*05:58:02+C*06:64    |                 |                 |                 |
| C*05:28+C*06:84     | C*05:67+C*06:64       |                 |                 |                 |
| C*05:28+C*06:87     | C*05:81+C*06:64       |                 |                 |                 |
| C*05:29+C*08:03:01G | C*05:44:01+C*08:16:01 |                 |                 |                 |
| C*05:29+C*08:21     | C*05:46+C*08:16:01    | C*08:10+C*08:25 |                 |                 |
| C*05:29+C*08:41     | C*05:39+C*08:16:01    |                 |                 |                 |
| C*05:29+C*08:57     | C*05:76+C*08:13       |                 |                 |                 |
| C*05:29+C*12:03:01G | C*08:25+C*12:05       |                 |                 |                 |
| C*05:29+C*14:06     | C*08:13+C*14:12       |                 |                 |                 |
| C*05:29+C*15:07     | C*08:13+C*15:08       |                 |                 |                 |
| C*05:29+C*16:15:01  | C*08:25+C*16:02:01G   |                 |                 |                 |
| C*05:29+C*16:40     | C*08:13+C*12:09       |                 |                 |                 |
| C*05:34+C*06:11     | C*06:13+C*08:02:01G   |                 |                 |                 |
| C*05:34+C*06:23     | C*05:59+C*06:13       |                 |                 |                 |
| C*05:34+C*06:31     | C*05:76+C*06:13       |                 |                 |                 |
| C*05:34+C*06:53     | C*05:55+C*06:13       |                 |                 |                 |
| C*05:34+C*06:58     | C*05:69+C*06:13       |                 |                 |                 |
| C*05:34+C*06:70     | C*05:58:02+C*06:13    |                 |                 |                 |
| C*05:34+C*06:84     | C*05:67+C*06:13       |                 |                 |                 |
| C*05:34+C*06:87     | C*05:81+C*06:13       |                 |                 |                 |
| C*05:36+C*06:02:01G | C*05:46+C*06:44       |                 |                 |                 |
| C*05:36+C*06:11     | C*06:44+C*08:05       |                 |                 |                 |
| C*05:36+C*07:56:01  | C*05:55+C*07:19       |                 |                 |                 |
| C*05:36+C*07:127    | C*05:58:01+C*07:19    |                 |                 |                 |
| C*05:36+C*07:144    | C*05:41+C*07:19       |                 |                 |                 |
| C*05:36+C*07:186    | C*05:39+C*07:19       |                 |                 |                 |
| C*05:36+C*07:218    | C*05:81+C*07:19       |                 |                 |                 |
| C*05:36+C*07:229    | C*05:56+C*07:19       |                 |                 |                 |
| C*05:36+C*07:234    | C*05:77+C*07:19       |                 |                 |                 |
| C*05:36+C*12:30     | C*05:57+C*12:08       |                 |                 |                 |
| C*05:36+C*12:45     | C*05:81+C*12:81       |                 |                 |                 |
| C*05:36+C*12:58     | C*05:55+C*12:81       |                 |                 |                 |
| C*05:39+C*07:24     | C*05:81+C*07:212      |                 |                 |                 |
| C*05:39+C*07:56:01  | C*05:55+C*07:186      |                 |                 |                 |
| C*05:39+C*07:89     | C*05:80+C*07:212      |                 |                 |                 |
| C*05:39+C*07:108    | C*05:64+C*07:212      |                 |                 |                 |
| C*05:39+C*07:109    | C*05:55+C*07:212      |                 |                 |                 |
| C*05:39+C*07:122    | C*05:49+C*07:212      |                 |                 |                 |
| C*05:39+C*07:127    | C*05:58:01+C*07:186   |                 |                 |                 |
| C*05:39+C*07:144    | C*05:41+C*07:186      |                 |                 |                 |
| C*05:39+C*07:214    | C*05:57+C*07:212      |                 |                 |                 |
| C*05:39+C*07:218    | C*05:81+C*07:186      |                 |                 |                 |
| C*05:39+C*07:229    | C*05:56+C*07:186      |                 |                 |                 |
| C*05:39+C*07:234    | C*05:77+C*07:186      |                 |                 |                 |
| C*05:39+C*07:250    | C*05:59+C*07:212      |                 |                 |                 |
| C*05:39+C*07:263    | C*05:58:01+C*07:212   |                 |                 |                 |
| C*05:39+C*08:03:01G | C*05:44:01+C*08:41    |                 |                 |                 |
| C*05:39+C*08:21     | C*05:46+C*08:41       |                 |                 |                 |
| C*05:39+C*14:15     | C*05:68+C*14:20       |                 |                 |                 |
| C*05:39+C*14:39     | C*05:56+C*14:20       |                 |                 |                 |
| C*05:39+C*15:03     | C*05:46+C*15:15       |                 |                 |                 |
| C*05:39+C*15:07     | C*08:02:01G+C*15:15   |                 |                 |                 |
| C*05:39+C*15:12     | C*05:55+C*15:15       |                 |                 |                 |
| C*05:39+C*15:31     | C*05:76+C*15:15       |                 |                 |                 |
| C*05:39+C*15:52     | C*05:44:02+C*15:15    |                 |                 |                 |
| C*05:41+C*07:56:01  | C*05:55+C*07:144      |                 |                 |                 |
| C*05:41+C*07:127    | C*05:58:01+C*07:144   |                 |                 |                 |
| C*05:41+C*07:218    | C*05:81+C*07:144      |                 |                 |                 |
| C*05:41+C*07:229    | C*05:56+C*07:144      |                 |                 |                 |
| C*05:41+C*07:234    | C*05:77+C*07:144      |                 |                 |                 |
| C*05:42+C*06:30     | C*05:46+C*06:02:01G   |                 |                 |                 |
| C*05:42+C*07:07     | C*05:46+C*07:09       |                 |                 |                 |
| C*05:42+C*07:16     | C*05:46+C*07:01:01G   | C*07:09+C*08:05 |                 |                 |

|                        |                       |                     |
|------------------------|-----------------------|---------------------|
| C*05:42+C*07:51        | C*05:46+C*07:02:01G   | C*07:76+C*08:05     |
| C*05:42+C*07:60        | C*05:46+C*07:109      |                     |
| C*05:42+C*07:79        | C*05:46+C*07:56:01    |                     |
| C*05:42+C*07:181       | C*05:46+C*07:04:01G   |                     |
| C*05:42+C*12:03:01G    | C*05:46+C*12:28       | C*06:76:02+C*08:05  |
| C*05:42+C*12:04:02     | C*05:46+C*06:76:02    |                     |
| C*05:42+C*14:02:01G    | C*05:46+C*14:13       |                     |
| C*05:42+C*15:07        | C*08:28+C*15:03       |                     |
| C*05:42+C*17:01:01G    | C*05:46+C*17:11       |                     |
| C*05:43+C*06:11        | C*06:02:01G+C*08:37   |                     |
| C*05:43+C*07:01:01G    | C*07:09+C*08:37       |                     |
| C*05:43+C*07:02:01G    | C*07:76+C*08:37       |                     |
| C*05:43+C*07:16        | C*07:07+C*08:37       |                     |
| C*05:43+C*07:96        | C*05:58:01+C*07:73    |                     |
| C*05:43+C*08:01:01G    | C*08:10+C*08:37       |                     |
| C*05:43+C*08:05        | C*05:46+C*08:37       |                     |
| C*05:43+C*08:19        | C*05:64+C*08:37       |                     |
| C*05:43+C*08:57        | C*05:68+C*08:37       |                     |
| C*05:43+C*12:02:01G    | C*08:37+C*12:41       |                     |
| C*05:43+C*12:03:01G    | C*08:37+C*12:04:02    |                     |
| C*05:43+C*12:28        | C*06:76:02+C*08:37    |                     |
| C*05:43+C*14:02:01G    | C*08:37+C*14:12       |                     |
| C*05:43+C*15:07        | C*08:37+C*15:02:01G   |                     |
| C*05:43+C*15:36        | C*05:78+C*15:23       |                     |
| C*05:43+C*16:13        | C*05:81+C*16:21       |                     |
| C*05:43+C*16:15:01     | C*05:46+C*16:21       | C*08:37+C*16:25     |
| C*05:43+C*16:18        | C*05:59+C*16:21       |                     |
| C*05:43+C*16:35        | C*08:37+C*16:48       |                     |
| C*05:43+C*16:44        | C*05:75+C*16:21       |                     |
| C*05:44:01+C*08:01:07  | C*05:79+C*08:33:02    |                     |
| C*05:44:01+C*08:03:01G | C*05:79+C*08:35       |                     |
| C*05:44:01+C*08:21     | C*05:46+C*08:03:01G   |                     |
| C*05:44:02+C*15:03     | C*05:46+C*15:52       |                     |
| C*05:44:02+C*15:07     | C*08:02:01G+C*15:52   |                     |
| C*05:44:02+C*15:12     | C*05:55+C*15:52       |                     |
| C*05:44:02+C*15:31     | C*05:76+C*15:52       |                     |
| C*05:46+C*06:11        | C*06:02:01G+C*08:05   | C*06:67+C*08:25     |
| C*05:46+C*07:16        | C*07:07+C*08:05       |                     |
| C*05:46+C*08:19        | C*05:64+C*08:05       |                     |
| C*05:46+C*08:57        | C*05:68+C*08:05       |                     |
| C*05:46+C*12:02:01G    | C*08:05+C*12:41       |                     |
| C*05:46+C*12:03:01G    | C*08:05+C*12:04:02    |                     |
| C*05:46+C*14:02:01G    | C*08:05+C*14:12       |                     |
| C*05:46+C*15:07        | C*08:02:01G+C*15:03   | C*08:05+C*15:02:01G |
| C*05:46+C*15:12        | C*05:55+C*15:03       |                     |
| C*05:46+C*15:31        | C*05:76+C*15:03       |                     |
| C*05:46+C*16:04:01     | C*05:76+C*12:03:08    |                     |
| C*05:46+C*16:13        | C*05:81+C*16:15:01    |                     |
| C*05:46+C*16:15:01     | C*08:05+C*16:25       |                     |
| C*05:46+C*16:18        | C*05:59+C*16:15:01    |                     |
| C*05:46+C*16:35        | C*08:05+C*16:48       |                     |
| C*05:46+C*16:41        | C*08:43+C*16:25       |                     |
| C*05:46+C*16:44        | C*05:75+C*16:15:01    |                     |
| C*05:49+C*07:24        | C*05:81+C*07:122      |                     |
| C*05:49+C*07:89        | C*05:80+C*07:122      |                     |
| C*05:49+C*07:108       | C*05:64+C*07:122      |                     |
| C*05:49+C*07:109       | C*05:55+C*07:122      |                     |
| C*05:49+C*07:214       | C*05:57+C*07:122      |                     |
| C*05:49+C*07:250       | C*05:59+C*07:122      |                     |
| C*05:49+C*07:263       | C*05:58:01+C*07:122   |                     |
| C*05:55+C*06:11        | C*06:53+C*08:02:01G   |                     |
| C*05:55+C*06:23        | C*05:59+C*06:53       |                     |
| C*05:55+C*06:31        | C*05:76+C*06:53       |                     |
| C*05:55+C*06:58        | C*05:69+C*06:53       |                     |
| C*05:55+C*06:70        | C*05:58:02+C*06:53    |                     |
| C*05:55+C*06:84        | C*05:67+C*06:53       |                     |
| C*05:55+C*06:87        | C*05:81+C*06:53       |                     |
| C*05:55+C*07:24        | C*05:81+C*07:109      |                     |
| C*05:55+C*07:89        | C*05:80+C*07:109      |                     |
| C*05:55+C*07:108       | C*05:64+C*07:109      |                     |
| C*05:55+C*07:127       | C*05:58:01+C*07:56:01 |                     |
| C*05:55+C*07:214       | C*05:57+C*07:109      |                     |
| C*05:55+C*07:218       | C*05:81+C*07:56:01    |                     |
| C*05:55+C*07:229       | C*05:56+C*07:56:01    |                     |
| C*05:55+C*07:234       | C*05:77+C*07:56:01    |                     |
| C*05:55+C*07:250       | C*05:59+C*07:109      |                     |
| C*05:55+C*07:263       | C*05:58:01+C*07:109   |                     |
| C*05:55+C*12:45        | C*05:81+C*12:58       |                     |
| C*05:55+C*15:07        | C*08:02:01G+C*15:12   |                     |
| C*05:55+C*15:31        | C*05:76+C*15:12       |                     |
| C*05:56+C*07:127       | C*05:58:01+C*07:229   |                     |
| C*05:56+C*07:218       | C*05:81+C*07:229      |                     |
| C*05:56+C*07:234       | C*05:77+C*07:229      |                     |
| C*05:56+C*14:15        | C*05:68+C*14:39       |                     |
| C*05:57+C*07:24        | C*05:81+C*07:214      |                     |
| C*05:57+C*07:89        | C*05:80+C*07:214      |                     |
| C*05:57+C*07:108       | C*05:64+C*07:214      |                     |
| C*05:57+C*07:250       | C*05:59+C*07:214      |                     |
| C*05:57+C*07:263       | C*05:58:01+C*07:214   |                     |
| C*05:58:01+C*07:24     | C*05:81+C*07:263      |                     |
| C*05:58:01+C*07:89     | C*05:80+C*07:263      |                     |
| C*05:58:01+C*07:108    | C*05:64+C*07:263      |                     |
| C*05:58:01+C*07:218    | C*05:81+C*07:127      |                     |
| C*05:58:01+C*07:234    | C*05:77+C*07:127      |                     |
| C*05:58:01+C*07:250    | C*05:59+C*07:263      |                     |
| C*05:58:02+C*06:11     | C*06:70+C*08:02:01G   |                     |
| C*05:58:02+C*06:23     | C*05:59+C*06:70       |                     |
| C*05:58:02+C*06:31     | C*05:76+C*06:70       |                     |
| C*05:58:02+C*06:58     | C*05:69+C*06:70       |                     |
| C*05:58:02+C*06:84     | C*05:67+C*06:70       |                     |
| C*05:58:02+C*06:87     | C*05:81+C*06:70       |                     |
| C*05:59+C*06:11        | C*06:23+C*08:02:01G   |                     |
| C*05:59+C*06:31        | C*05:76+C*06:23       |                     |
| C*05:59+C*06:58        | C*05:69+C*06:23       |                     |
| C*05:59+C*06:84        | C*05:67+C*06:23       |                     |



|                         |                        |                     |                        |                    |
|-------------------------|------------------------|---------------------|------------------------|--------------------|
| C*05:59+C*06:87         | C*05:81+C*06:23        |                     |                        |                    |
| C*05:59+C*07:24         | C*05:81+C*07:250       |                     |                        |                    |
| C*05:59+C*07:89         | C*05:80+C*07:250       |                     |                        |                    |
| C*05:59+C*07:108        | C*05:64+C*07:250       |                     |                        |                    |
| C*05:59+C*16:13         | C*05:81+C*16:18        |                     |                        |                    |
| C*05:59+C*16:44         | C*05:75+C*16:18        |                     |                        |                    |
| C*05:62+C*07:141:02     | C*05:68+C*07:151       |                     |                        |                    |
| C*05:64+C*06:11         | C*06:02:01G+C*08:19    |                     |                        |                    |
| C*05:64+C*07:02:01G     | C*07:76+C*08:19        |                     |                        |                    |
| C*05:64+C*07:16         | C*07:07+C*08:19        |                     |                        |                    |
| C*05:64+C*07:24         | C*05:81+C*07:108       |                     |                        |                    |
| C*05:64+C*07:89         | C*05:80+C*07:108       |                     |                        |                    |
| C*05:64+C*08:01:01G     | C*08:10+C*08:19        |                     |                        |                    |
| C*05:64+C*08:57         | C*05:68+C*08:19        |                     |                        |                    |
| C*05:64+C*12:03:01G     | C*08:19+C*12:04:02     |                     |                        |                    |
| C*05:64+C*12:28         | C*06:76:02+C*08:19     |                     |                        |                    |
| C*05:64+C*14:02:01G     | C*08:19+C*14:12        |                     |                        |                    |
| C*05:64+C*14:05         | C*08:02:06+C*14:12     |                     |                        |                    |
| C*05:64+C*15:07         | C*08:19+C*15:02:01G    |                     |                        |                    |
| C*05:64+C*16:01:01      | C*08:19+C*16:02:01G    |                     |                        |                    |
| C*05:64+C*16:15:01      | C*08:19+C*16:25        |                     |                        |                    |
| C*05:64+C*16:26         | C*08:19+C*16:46        |                     |                        |                    |
| C*05:64+C*16:35         | C*08:19+C*16:48        |                     |                        |                    |
| C*05:67+C*06:11         | C*06:84+C*08:02:01G    |                     |                        |                    |
| C*05:67+C*06:31         | C*05:76+C*06:84        |                     |                        |                    |
| C*05:67+C*06:58         | C*05:69+C*06:84        |                     |                        |                    |
| C*05:67+C*06:87         | C*05:81+C*06:84        |                     |                        |                    |
| C*05:68+C*06:06         | C*05:76+C*06:04        |                     |                        |                    |
| C*05:68+C*06:11         | C*06:02:01G+C*08:57    | C*06:31+C*08:04:01  |                        |                    |
| C*05:68+C*06:40         | C*05:70+C*06:31        |                     |                        |                    |
| C*05:68+C*07:01:01G     | C*07:09+C*08:57        |                     |                        |                    |
| C*05:68+C*07:02:01G     | C*07:76+C*08:57        |                     |                        |                    |
| C*05:68+C*07:16         | C*07:07+C*08:57        |                     |                        |                    |
| C*05:68+C*07:37         | C*05:76+C*07:02:01G    |                     |                        |                    |
| C*05:68+C*07:176        | C*05:76+C*07:01:01G    |                     |                        |                    |
| C*05:68+C*08:01:01G     | C*08:10+C*08:57        |                     |                        |                    |
| C*05:68+C*08:35         | C*05:76+C*08:54        |                     |                        |                    |
| C*05:68+C*12:02:01G     | C*08:57+C*12:41        |                     |                        |                    |
| C*05:68+C*12:03:01G     | C*08:57+C*12:04:02     |                     |                        |                    |
| C*05:68+C*12:24         | C*05:76+C*12:20        |                     |                        |                    |
| C*05:68+C*12:28         | C*06:76:02+C*08:57     |                     |                        |                    |
| C*05:68+C*15:07         | C*08:04:01+C*15:31     | C*08:57+C*15:02:01G |                        |                    |
| C*05:68+C*15:51         | C*05:70+C*15:31        |                     |                        |                    |
| C*05:68+C*16:01:01      | C*08:57+C*16:02:01G    |                     |                        |                    |
| C*05:68+C*16:15:01      | C*08:57+C*16:25        |                     |                        |                    |
| C*05:68+C*16:26         | C*08:57+C*16:46        |                     |                        |                    |
| C*05:68+C*16:35         | C*08:57+C*16:48        |                     |                        |                    |
| C*05:69+C*06:11         | C*06:58+C*08:02:01G    |                     |                        |                    |
| C*05:69+C*06:31         | C*05:76+C*06:58        |                     |                        |                    |
| C*05:69+C*06:87         | C*05:81+C*06:58        |                     |                        |                    |
| C*05:70+C*06:11         | C*06:40+C*08:04:01     |                     |                        |                    |
| C*05:70+C*15:07         | C*08:04:01+C*15:51     |                     |                        |                    |
| C*05:75+C*16:13         | C*05:81+C*16:44        |                     |                        |                    |
| C*05:76+C*06:11         | C*06:31+C*08:02:01G    |                     |                        |                    |
| C*05:76+C*06:87         | C*05:81+C*06:31        |                     |                        |                    |
| C*05:76+C*15:07         | C*08:02:01G+C*15:31    | C*08:57+C*15:08     |                        |                    |
| C*05:77+C*07:218        | C*05:81+C*07:234       |                     |                        |                    |
| C*05:80+C*07:24         | C*05:81+C*07:89        |                     |                        |                    |
| C*05:81+C*06:11         | C*06:87+C*08:02:01G    |                     |                        |                    |
| C*06:02:01G+C*06:76:01  | C*06:03:02+C*06:28     |                     |                        |                    |
| C*06:02:01G+C*07:01:01G | C*06:04+C*07:22        | C*06:11+C*07:09     | C*06:17+C*07:01:13     | C*06:31+C*07:165   |
| C*06:02:01G+C*07:01:12  | C*06:02:17+C*07:01:01G |                     |                        |                    |
| C*06:02:01G+C*07:01:16  | C*06:42+C*07:01:01G    |                     |                        |                    |
| C*06:02:01G+C*07:01:23  | C*06:02:10+C*07:01:01G |                     |                        |                    |
| C*06:02:01G+C*07:02:01G | C*06:04+C*07:138       | C*06:11+C*07:76     | C*06:31+C*07:241       | C*06:47+C*07:27:01 |
| C*06:02:01G+C*07:02:11  | C*06:02:10+C*07:02:01G |                     |                        |                    |
| C*06:02:01G+C*07:02:12  | C*06:02:17+C*07:02:01G |                     |                        |                    |
| C*06:02:01G+C*07:02:32  | C*06:02:08+C*07:02:01G |                     |                        |                    |
| C*06:02:01G+C*07:02:36  | C*06:02:21+C*07:02:01G |                     |                        |                    |
| C*06:02:01G+C*07:04:05  | C*06:02:10+C*07:04:01G |                     |                        |                    |
| C*06:02:01G+C*07:07     | C*06:30+C*07:09        |                     |                        |                    |
| C*06:02:01G+C*07:10     | C*06:14+C*07:02:01G    | C*06:47+C*07:43     |                        |                    |
| C*06:02:01G+C*07:13     | C*06:34+C*07:02:01G    |                     |                        |                    |
| C*06:02:01G+C*07:15     | C*06:08+C*07:02:01G    |                     |                        |                    |
| C*06:02:01G+C*07:16     | C*06:11+C*07:07        | C*06:30+C*07:01:01G |                        |                    |
| C*06:02:01G+C*07:19     | C*06:47+C*07:01:01G    |                     |                        |                    |
| C*06:02:01G+C*07:24     | C*06:87+C*07:01:01G    |                     |                        |                    |
| C*06:02:01G+C*07:26     | C*06:03:02+C*07:01:01G |                     |                        |                    |
| C*06:02:01G+C*07:28     | C*06:09+C*07:01:01G    |                     |                        |                    |
| C*06:02:01G+C*07:37     | C*06:06+C*07:138       |                     |                        |                    |
| C*06:02:01G+C*07:40     | C*06:44+C*07:27:01     |                     |                        |                    |
| C*06:02:01G+C*07:43     | C*06:14+C*07:27:01     |                     |                        |                    |
| C*06:02:01G+C*07:49     | C*06:82+C*07:76        |                     |                        |                    |
| C*06:02:01G+C*07:51     | C*06:30+C*07:02:01G    |                     |                        |                    |
| C*06:02:01G+C*07:56:01  | C*06:53+C*07:02:01G    |                     |                        |                    |
| C*06:02:01G+C*07:60     | C*06:30+C*07:109       | C*06:53+C*07:16     |                        |                    |
| C*06:02:01G+C*07:70     | C*06:36+C*07:01:01G    |                     |                        |                    |
| C*06:02:01G+C*07:73     | C*06:28+C*07:01:01G    |                     |                        |                    |
| C*06:02:01G+C*07:79     | C*06:30+C*07:56:01     | C*06:53+C*07:51     |                        |                    |
| C*06:02:01G+C*07:83     | C*06:57+C*07:01:01G    |                     |                        |                    |
| C*06:02:01G+C*07:92     | C*06:03:02+C*07:73     | C*06:28+C*07:26     | C*06:76:01+C*07:01:01G |                    |
| C*06:02:01G+C*07:94     | C*06:50+C*07:01:01G    |                     |                        |                    |
| C*06:02:01G+C*07:96     | C*06:03:01+C*07:20     | C*06:76:01+C*07:263 |                        |                    |
| C*06:02:01G+C*07:101    | C*06:67+C*07:04:01G    |                     |                        |                    |
| C*06:02:01G+C*07:105    | C*06:61+C*07:02:01G    |                     |                        |                    |
| C*06:02:01G+C*07:107    | C*06:22+C*07:02:01G    |                     |                        |                    |
| C*06:02:01G+C*07:109    | C*06:53+C*07:01:01G    |                     |                        |                    |
| C*06:02:01G+C*07:124    | C*06:69+C*07:01:01G    |                     |                        |                    |
| C*06:02:01G+C*07:134    | C*06:29+C*07:01:01G    |                     |                        |                    |
| C*06:02:01G+C*07:137:02 | C*06:06+C*07:137:01    | C*06:40+C*07:02:01G |                        |                    |
| C*06:02:01G+C*07:148    | C*06:67+C*07:01:01G    |                     |                        |                    |
| C*06:02:01G+C*07:155    | C*06:69+C*07:02:01G    |                     |                        |                    |
| C*06:02:01G+C*07:161    | C*06:67+C*07:02:01G    |                     |                        |                    |
| C*06:02:01G+C*07:168    | C*06:20+C*07:02:01G    |                     |                        |                    |
| C*06:02:01G+C*07:172    | C*06:28+C*07:02:01G    |                     |                        |                    |

|                         |                        |                     |                 |                    |
|-------------------------|------------------------|---------------------|-----------------|--------------------|
| C*06:02:01G+C*07:176    | C*06:06+C*07:22        |                     |                 |                    |
| C*06:02:01G+C*07:179    | C*06:07+C*07:01:01G    |                     |                 |                    |
| C*06:02:01G+C*07:181    | C*06:30+C*07:04:01G    |                     |                 |                    |
| C*06:02:01G+C*07:183    | C*06:50+C*07:02:01G    |                     |                 |                    |
| C*06:02:01G+C*07:196    | C*06:14+C*07:01:01G    |                     |                 |                    |
| C*06:02:01G+C*07:207    | C*06:08+C*07:01:01G    |                     |                 |                    |
| C*06:02:01G+C*07:211    | C*06:41+C*07:02:01G    |                     |                 |                    |
| C*06:02:01G+C*07:217    | C*06:62+C*07:02:01G    |                     |                 |                    |
| C*06:02:01G+C*07:218    | C*06:87+C*07:02:01G    |                     |                 |                    |
| C*06:02:01G+C*07:224    | C*06:22+C*07:01:01G    |                     |                 |                    |
| C*06:02:01G+C*07:247    | C*06:82+C*07:09        |                     |                 |                    |
| C*06:02:01G+C*07:250    | C*06:23+C*07:01:01G    |                     |                 |                    |
| C*06:02:01G+C*08:01:01G | C*06:09+C*08:11        | C*06:11+C*08:10     | C*06:34+C*08:59 | C*06:67+C*08:16:01 |
| C*06:02:01G+C*08:01:05  | C*06:02:07+C*08:01:01G |                     |                 |                    |
| C*06:02:01G+C*08:01:07  | C*06:02:08+C*08:01:06  |                     |                 |                    |
| C*06:02:01G+C*08:02:06  | C*06:02:17+C*08:02:01G |                     |                 |                    |
| C*06:02:01G+C*08:02:07  | C*06:02:08+C*08:02:04  |                     |                 |                    |
| C*06:02:01G+C*08:03:01G | C*06:28+C*08:14        |                     |                 |                    |
| C*06:02:01G+C*08:31     | C*06:08+C*08:29        |                     |                 |                    |
| C*06:02:01G+C*08:38     | C*06:47+C*08:03:01G    |                     |                 |                    |
| C*06:02:01G+C*08:44     | C*06:14+C*08:01:01G    |                     |                 |                    |
| C*06:02:01G+C*08:47     | C*06:31+C*08:07        |                     |                 |                    |
| C*06:02:01G+C*08:56     | C*06:63+C*08:01:01G    |                     |                 |                    |
| C*06:02:01G+C*08:61     | C*06:14+C*08:03:01G    |                     |                 |                    |
| C*06:02:01G+C*08:63     | C*06:66+C*08:02:01G    |                     |                 |                    |
| C*06:02:01G+C*12:02:01G | C*06:11+C*12:41        | C*06:76:01+C*12:16  | C*06:82+C*12:72 |                    |
| C*06:02:01G+C*12:02:09  | C*06:02:17+C*12:02:01G |                     |                 |                    |
| C*06:02:01G+C*12:03:01G | C*06:11+C*12:04:02     | C*06:30+C*12:28     |                 |                    |
| C*06:02:01G+C*12:03:03  | C*06:02:11+C*12:03:01G |                     |                 |                    |
| C*06:02:01G+C*12:03:04  | C*06:17+C*12:03:09     |                     |                 |                    |
| C*06:02:01G+C*12:03:20  | C*06:02:08+C*12:03:08  |                     |                 |                    |
| C*06:02:01G+C*12:04:02  | C*06:30+C*06:76:02     |                     |                 |                    |
| C*06:02:01G+C*12:10:01  | C*06:02:17+C*12:10:02  |                     |                 |                    |
| C*06:02:01G+C*12:11     | C*06:47+C*12:03:01G    |                     |                 |                    |
| C*06:02:01G+C*12:12     | C*06:69+C*12:03:01G    |                     |                 |                    |
| C*06:02:01G+C*12:18:01  | C*06:04+C*12:02:01G    |                     |                 |                    |
| C*06:02:01G+C*12:20     | C*06:04+C*12:03:01G    |                     |                 |                    |
| C*06:02:01G+C*12:24     | C*06:06+C*12:03:01G    |                     |                 |                    |
| C*06:02:01G+C*12:25     | C*06:71+C*12:03:01G    |                     |                 |                    |
| C*06:02:01G+C*12:27     | C*06:52+C*12:02:01G    |                     |                 |                    |
| C*06:02:01G+C*12:28     | C*06:11+C*06:76:02     |                     |                 |                    |
| C*06:02:01G+C*12:32     | C*06:41+C*12:03:01G    |                     |                 |                    |
| C*06:02:01G+C*12:40     | C*06:32+C*12:02:01G    |                     |                 |                    |
| C*06:02:01G+C*12:45     | C*06:87+C*12:03:01G    |                     |                 |                    |
| C*06:02:01G+C*12:50     | C*06:20+C*12:03:01G    |                     |                 |                    |
| C*06:02:01G+C*12:53     | C*06:50+C*12:03:01G    |                     |                 |                    |
| C*06:02:01G+C*12:54     | C*06:82+C*12:04:02     |                     |                 |                    |
| C*06:02:01G+C*12:56     | C*06:36+C*12:64        |                     |                 |                    |
| C*06:02:01G+C*12:58     | C*06:53+C*12:03:01G    |                     |                 |                    |
| C*06:02:01G+C*12:64     | C*06:07+C*12:02:01G    |                     |                 |                    |
| C*06:02:01G+C*12:67     | C*06:60+C*12:02:01G    |                     |                 |                    |
| C*06:02:01G+C*12:78     | C*06:80+C*12:03:01G    |                     |                 |                    |
| C*06:02:01G+C*14:02:01G | C*06:02:08+C*14:02:02  | C*06:06+C*14:16     | C*06:11+C*14:12 | C*06:28+C*14:18    |
|                         | C*06:30+C*14:13        |                     |                 |                    |
| C*06:02:01G+C*14:03     | C*06:70+C*14:02:03     |                     |                 |                    |
| C*06:02:01G+C*14:06     | C*06:04+C*14:16        |                     |                 |                    |
| C*06:02:01G+C*14:10     | C*06:53+C*14:03        |                     |                 |                    |
| C*06:02:01G+C*14:15     | C*06:31+C*14:06        |                     |                 |                    |
| C*06:02:01G+C*14:24:02  | C*06:43+C*14:02:01G    |                     |                 |                    |
| C*06:02:01G+C*14:25     | C*06:08+C*14:02:01G    |                     |                 |                    |
| C*06:02:01G+C*14:26     | C*06:34+C*14:02:01G    |                     |                 |                    |
| C*06:02:01G+C*14:29     | C*06:42+C*14:02:01G    |                     |                 |                    |
| C*06:02:01G+C*14:36     | C*06:15+C*14:02:01G    |                     |                 |                    |
| C*06:02:01G+C*15:02:01G | C*06:44+C*15:16        | C*06:70+C*15:10:02  |                 |                    |
| C*06:02:01G+C*15:05:01G | C*06:03:01+C*15:23     | C*06:14+C*15:22     | C*06:34+C*15:09 |                    |
| C*06:02:01G+C*15:05:05  | C*06:02:11+C*15:05:01G |                     |                 |                    |
| C*06:02:01G+C*15:06:02  | C*06:02:19+C*15:06:01  |                     |                 |                    |
| C*06:02:01G+C*15:07     | C*06:11+C*15:02:01G    | C*06:82+C*15:21     |                 |                    |
| C*06:02:01G+C*15:12     | C*06:53+C*15:02:01G    |                     |                 |                    |
| C*06:02:01G+C*15:31     | C*06:31+C*15:02:01G    |                     |                 |                    |
| C*06:02:01G+C*15:32Q    | C*06:74+C*15:02:01G    |                     |                 |                    |
| C*06:02:01G+C*15:37     | C*06:23+C*15:58        |                     |                 |                    |
| C*06:02:01G+C*15:42     | C*06:08+C*15:02:01G    |                     |                 |                    |
| C*06:02:01G+C*15:45     | C*06:69+C*15:02:01G    |                     |                 |                    |
| C*06:02:01G+C*15:46     | C*06:47+C*15:05:01G    |                     |                 |                    |
| C*06:02:01G+C*15:51     | C*06:40+C*15:02:01G    |                     |                 |                    |
| C*06:02:01G+C*16:01:01  | C*06:03:02+C*16:21     | C*06:11+C*16:02:01G | C*06:30+C*16:26 | C*06:82+C*16:37    |
| C*06:02:01G+C*16:01:04  | C*06:02:05+C*16:01:01  |                     |                 |                    |
| C*06:02:01G+C*16:01:06  | C*06:02:08+C*16:01:01  |                     |                 |                    |
| C*06:02:01G+C*16:02:01G | C*06:30+C*16:46        |                     |                 |                    |
| C*06:02:01G+C*16:02:02  | C*06:02:10+C*16:02:01G |                     |                 |                    |
| C*06:02:01G+C*16:06     | C*06:47+C*16:07:02     |                     |                 |                    |
| C*06:02:01G+C*16:11     | C*06:18+C*16:01:01     |                     |                 |                    |
| C*06:02:01G+C*16:13     | C*06:87+C*16:01:01     |                     |                 |                    |
| C*06:02:01G+C*16:14     | C*06:32+C*16:01:01     |                     |                 |                    |
| C*06:02:01G+C*16:15:01  | C*06:11+C*16:25        |                     |                 |                    |
| C*06:02:01G+C*16:18     | C*06:23+C*16:01:01     |                     |                 |                    |
| C*06:02:01G+C*16:26     | C*06:11+C*16:46        |                     |                 |                    |
| C*06:02:01G+C*16:29     | C*06:08+C*16:04:01     |                     |                 |                    |
| C*06:02:01G+C*16:31     | C*06:22+C*16:01:01     | C*06:11+C*16:48     | C*06:31+C*16:40 |                    |
| C*06:02:01G+C*16:35     | C*06:04+C*16:04:01     |                     |                 |                    |
| C*06:02:01G+C*16:45     | C*06:09+C*16:01:01     |                     |                 |                    |
| C*06:02:01G+C*16:47     | C*06:27+C*16:02:01G    |                     |                 |                    |
| C*06:02:01G+C*16:50     | C*06:08+C*16:01:01     |                     |                 |                    |
| C*06:02:01G+C*17:01:01G | C*06:30+C*17:11        |                     |                 |                    |
| C*06:02:01G+C*17:01:02  | C*06:02:17+C*17:01:01G |                     |                 |                    |
| C*06:02:01G+C*17:01:09  | C*06:02:09+C*17:01:01G |                     |                 |                    |
| C*06:02:01G+C*17:05     | C*06:67+C*17:01:01G    |                     |                 |                    |
| C*06:02:01G+C*17:08     | C*06:43+C*17:01:01G    |                     |                 |                    |
| C*06:02:01G+C*17:13     | C*06:81+C*17:01:01G    |                     |                 |                    |
| C*06:02:01G+C*18:04     | C*06:28+C*18:01:01G    |                     |                 |                    |
| C*06:02:05+C*16:01:06   | C*06:02:08+C*16:01:04  |                     |                 |                    |
| C*06:02:05+C*16:11      | C*06:18+C*16:01:04     |                     |                 |                    |
| C*06:02:05+C*16:13      | C*06:87+C*16:01:04     |                     |                 |                    |
| C*06:02:05+C*16:14      | C*06:32+C*16:01:04     |                     |                 |                    |

|                        |                       |
|------------------------|-----------------------|
| C*06:02:05+C*16:18     | C*06:23+C*16:01:04    |
| C*06:02:05+C*16:31     | C*06:22+C*16:01:04    |
| C*06:02:05+C*16:45     | C*06:09+C*16:01:04    |
| C*06:02:05+C*16:50     | C*06:08+C*16:01:04    |
| C*06:02:07+C*08:44     | C*06:14+C*08:01:05    |
| C*06:02:07+C*08:56     | C*06:63+C*08:01:05    |
| C*06:02:08+C*07:02:11  | C*06:02:10+C*07:02:32 |
| C*06:02:08+C*07:02:12  | C*06:02:17+C*07:02:32 |
| C*06:02:08+C*07:02:36  | C*06:02:21+C*07:02:32 |
| C*06:02:08+C*07:10     | C*06:14+C*07:02:32    |
| C*06:02:08+C*07:13     | C*06:34+C*07:02:32    |
| C*06:02:08+C*07:15     | C*06:08+C*07:02:32    |
| C*06:02:08+C*07:51     | C*06:30+C*07:02:32    |
| C*06:02:08+C*07:56:01  | C*06:53+C*07:02:32    |
| C*06:02:08+C*07:105    | C*06:61+C*07:02:32    |
| C*06:02:08+C*07:107    | C*06:22+C*07:02:32    |
| C*06:02:08+C*07:137:02 | C*06:40+C*07:02:32    |
| C*06:02:08+C*07:155    | C*06:69+C*07:02:32    |
| C*06:02:08+C*07:161    | C*06:67+C*07:02:32    |
| C*06:02:08+C*07:168    | C*06:20+C*07:02:32    |
| C*06:02:08+C*07:172    | C*06:28+C*07:02:32    |
| C*06:02:08+C*07:183    | C*06:50+C*07:02:32    |
| C*06:02:08+C*07:211    | C*06:41+C*07:02:32    |
| C*06:02:08+C*07:217    | C*06:62+C*07:02:32    |
| C*06:02:08+C*07:218    | C*06:87+C*07:02:32    |
| C*06:02:08+C*16:11     | C*06:18+C*16:01:06    |
| C*06:02:08+C*16:13     | C*06:87+C*16:01:06    |
| C*06:02:08+C*16:14     | C*06:32+C*16:01:06    |
| C*06:02:08+C*16:18     | C*06:23+C*16:01:06    |
| C*06:02:08+C*16:31     | C*06:22+C*16:01:06    |
| C*06:02:08+C*16:45     | C*06:09+C*16:01:06    |
| C*06:02:08+C*16:50     | C*06:08+C*16:01:06    |
| C*06:02:09+C*17:01:02  | C*06:02:17+C*17:01:09 |
| C*06:02:09+C*17:05     | C*06:67+C*17:01:09    |
| C*06:02:09+C*17:08     | C*06:43+C*17:01:09    |
| C*06:02:09+C*17:13     | C*06:81+C*17:01:09    |
| C*06:02:10+C*07:01:12  | C*06:02:17+C*07:01:23 |
| C*06:02:10+C*07:01:16  | C*06:42+C*07:01:23    |
| C*06:02:10+C*07:02:12  | C*06:02:17+C*07:02:11 |
| C*06:02:10+C*07:02:36  | C*06:02:21+C*07:02:11 |
| C*06:02:10+C*07:10     | C*06:14+C*07:02:11    |
| C*06:02:10+C*07:13     | C*06:34+C*07:02:11    |
| C*06:02:10+C*07:15     | C*06:08+C*07:02:11    |
| C*06:02:10+C*07:16     | C*06:30+C*07:01:23    |
| C*06:02:10+C*07:19     | C*06:47+C*07:01:23    |
| C*06:02:10+C*07:24     | C*06:87+C*07:01:23    |
| C*06:02:10+C*07:26     | C*06:03:02+C*07:01:23 |
| C*06:02:10+C*07:28     | C*06:09+C*07:01:23    |
| C*06:02:10+C*07:51     | C*06:30+C*07:02:11    |
| C*06:02:10+C*07:56:01  | C*06:53+C*07:02:11    |
| C*06:02:10+C*07:70     | C*06:36+C*07:01:23    |
| C*06:02:10+C*07:73     | C*06:28+C*07:01:23    |
| C*06:02:10+C*07:83     | C*06:57+C*07:01:23    |
| C*06:02:10+C*07:92     | C*06:76:01+C*07:01:23 |
| C*06:02:10+C*07:94     | C*06:50+C*07:01:23    |
| C*06:02:10+C*07:101    | C*06:67+C*07:04:05    |
| C*06:02:10+C*07:105    | C*06:61+C*07:02:11    |
| C*06:02:10+C*07:107    | C*06:22+C*07:02:11    |
| C*06:02:10+C*07:109    | C*06:53+C*07:01:23    |
| C*06:02:10+C*07:124    | C*06:69+C*07:01:23    |
| C*06:02:10+C*07:134    | C*06:29+C*07:01:23    |
| C*06:02:10+C*07:137:02 | C*06:40+C*07:02:11    |
| C*06:02:10+C*07:148    | C*06:67+C*07:01:23    |
| C*06:02:10+C*07:155    | C*06:69+C*07:02:11    |
| C*06:02:10+C*07:161    | C*06:67+C*07:02:11    |
| C*06:02:10+C*07:168    | C*06:20+C*07:02:11    |
| C*06:02:10+C*07:172    | C*06:28+C*07:02:11    |
| C*06:02:10+C*07:179    | C*06:07+C*07:01:23    |
| C*06:02:10+C*07:181    | C*06:30+C*07:04:05    |
| C*06:02:10+C*07:183    | C*06:50+C*07:02:11    |
| C*06:02:10+C*07:196    | C*06:14+C*07:01:23    |
| C*06:02:10+C*07:207    | C*06:08+C*07:01:23    |
| C*06:02:10+C*07:211    | C*06:41+C*07:02:11    |
| C*06:02:10+C*07:217    | C*06:62+C*07:02:11    |
| C*06:02:10+C*07:218    | C*06:87+C*07:02:11    |
| C*06:02:10+C*07:224    | C*06:22+C*07:01:23    |
| C*06:02:10+C*07:250    | C*06:23+C*07:01:23    |
| C*06:02:10+C*16:01:01  | C*06:11+C*16:02:02    |
| C*06:02:10+C*16:47     | C*06:27+C*16:02:02    |
| C*06:02:11+C*12:11     | C*06:47+C*12:03:03    |
| C*06:02:11+C*12:12     | C*06:69+C*12:03:03    |
| C*06:02:11+C*12:20     | C*06:04+C*12:03:03    |
| C*06:02:11+C*12:24     | C*06:06+C*12:03:03    |
| C*06:02:11+C*12:25     | C*06:71+C*12:03:03    |
| C*06:02:11+C*12:32     | C*06:41+C*12:03:03    |
| C*06:02:11+C*12:45     | C*06:87+C*12:03:03    |
| C*06:02:11+C*12:50     | C*06:20+C*12:03:03    |
| C*06:02:11+C*12:53     | C*06:50+C*12:03:03    |
| C*06:02:11+C*12:58     | C*06:53+C*12:03:03    |
| C*06:02:11+C*12:78     | C*06:80+C*12:03:03    |
| C*06:02:11+C*15:46     | C*06:47+C*15:05:05    |
| C*06:02:17+C*07:01:16  | C*06:42+C*07:01:12    |
| C*06:02:17+C*07:02:36  | C*06:02:21+C*07:02:12 |
| C*06:02:17+C*07:10     | C*06:14+C*07:02:12    |
| C*06:02:17+C*07:13     | C*06:34+C*07:02:12    |
| C*06:02:17+C*07:15     | C*06:08+C*07:02:12    |
| C*06:02:17+C*07:16     | C*06:30+C*07:01:12    |
| C*06:02:17+C*07:19     | C*06:47+C*07:01:12    |
| C*06:02:17+C*07:24     | C*06:87+C*07:01:12    |
| C*06:02:17+C*07:26     | C*06:03:02+C*07:01:12 |
| C*06:02:17+C*07:28     | C*06:09+C*07:01:12    |
| C*06:02:17+C*07:51     | C*06:30+C*07:02:12    |
| C*06:02:17+C*07:56:01  | C*06:53+C*07:02:12    |
| C*06:02:17+C*07:70     | C*06:36+C*07:01:12    |
| C*06:02:17+C*07:73     | C*06:28+C*07:01:12    |

|                        |                        |
|------------------------|------------------------|
| C*06:02:17+C*07:83     | C*06:57+C*07:01:12     |
| C*06:02:17+C*07:92     | C*06:76:01+C*07:01:12  |
| C*06:02:17+C*07:94     | C*06:50+C*07:01:12     |
| C*06:02:17+C*07:105    | C*06:61+C*07:02:12     |
| C*06:02:17+C*07:107    | C*06:22+C*07:02:12     |
| C*06:02:17+C*07:109    | C*06:53+C*07:01:12     |
| C*06:02:17+C*07:124    | C*06:69+C*07:01:12     |
| C*06:02:17+C*07:134    | C*06:29+C*07:01:12     |
| C*06:02:17+C*07:137:02 | C*06:40+C*07:02:12     |
| C*06:02:17+C*07:148    | C*06:67+C*07:01:12     |
| C*06:02:17+C*07:155    | C*06:69+C*07:02:12     |
| C*06:02:17+C*07:161    | C*06:67+C*07:02:12     |
| C*06:02:17+C*07:168    | C*06:20+C*07:02:12     |
| C*06:02:17+C*07:172    | C*06:28+C*07:02:12     |
| C*06:02:17+C*07:179    | C*06:07+C*07:01:12     |
| C*06:02:17+C*07:183    | C*06:50+C*07:02:12     |
| C*06:02:17+C*07:196    | C*06:14+C*07:01:12     |
| C*06:02:17+C*07:207    | C*06:08+C*07:01:12     |
| C*06:02:17+C*07:211    | C*06:41+C*07:02:12     |
| C*06:02:17+C*07:217    | C*06:62+C*07:02:12     |
| C*06:02:17+C*07:218    | C*06:87+C*07:02:12     |
| C*06:02:17+C*07:224    | C*06:22+C*07:01:12     |
| C*06:02:17+C*07:250    | C*06:23+C*07:01:12     |
| C*06:02:17+C*08:63     | C*06:66+C*08:02:06     |
| C*06:02:17+C*12:18:01  | C*06:04+C*12:02:09     |
| C*06:02:17+C*12:27     | C*06:52+C*12:02:09     |
| C*06:02:17+C*12:40     | C*06:32+C*12:02:09     |
| C*06:02:17+C*12:64     | C*06:07+C*12:02:09     |
| C*06:02:17+C*12:67     | C*06:60+C*12:02:09     |
| C*06:02:17+C*17:05     | C*06:67+C*17:01:02     |
| C*06:02:17+C*17:08     | C*06:43+C*17:01:02     |
| C*06:02:17+C*17:13     | C*06:81+C*17:01:02     |
| C*06:02:21+C*07:10     | C*06:14+C*07:02:36     |
| C*06:02:21+C*07:13     | C*06:34+C*07:02:36     |
| C*06:02:21+C*07:15     | C*06:08+C*07:02:36     |
| C*06:02:21+C*07:51     | C*06:30+C*07:02:36     |
| C*06:02:21+C*07:56:01  | C*06:53+C*07:02:36     |
| C*06:02:21+C*07:105    | C*06:61+C*07:02:36     |
| C*06:02:21+C*07:107    | C*06:22+C*07:02:36     |
| C*06:02:21+C*07:137:02 | C*06:40+C*07:02:36     |
| C*06:02:21+C*07:155    | C*06:69+C*07:02:36     |
| C*06:02:21+C*07:161    | C*06:67+C*07:02:36     |
| C*06:02:21+C*07:168    | C*06:20+C*07:02:36     |
| C*06:02:21+C*07:172    | C*06:28+C*07:02:36     |
| C*06:02:21+C*07:183    | C*06:50+C*07:02:36     |
| C*06:02:21+C*07:211    | C*06:41+C*07:02:36     |
| C*06:02:21+C*07:217    | C*06:62+C*07:02:36     |
| C*06:02:21+C*07:218    | C*06:87+C*07:02:36     |
| C*06:03:01+C*07:02:01G | C*06:03:02+C*07:02:10  |
| C*06:03:01+C*07:172    | C*06:76:01+C*07:02:10  |
| C*06:03:01+C*15:10:01  | C*06:03:02+C*15:10:02  |
| C*06:03:02+C*07:01:16  | C*06:42+C*07:26        |
| C*06:03:02+C*07:16     | C*06:30+C*07:26        |
| C*06:03:02+C*07:19     | C*06:47+C*07:26        |
| C*06:03:02+C*07:24     | C*06:87+C*07:26        |
| C*06:03:02+C*07:28     | C*06:09+C*07:26        |
| C*06:03:02+C*07:70     | C*06:36+C*07:26        |
| C*06:03:02+C*07:83     | C*06:57+C*07:26        |
| C*06:03:02+C*07:92     | C*06:76:01+C*07:26     |
| C*06:03:02+C*07:94     | C*06:50+C*07:26        |
| C*06:03:02+C*07:109    | C*06:53+C*07:26        |
| C*06:03:02+C*07:124    | C*06:69+C*07:26        |
| C*06:03:02+C*07:134    | C*06:29+C*07:26        |
| C*06:03:02+C*07:148    | C*06:67+C*07:26        |
| C*06:03:02+C*07:172    | C*06:76:01+C*07:02:01G |
| C*06:03:02+C*07:179    | C*06:07+C*07:26        |
| C*06:03:02+C*07:196    | C*06:14+C*07:26        |
| C*06:03:02+C*07:207    | C*06:08+C*07:26        |
| C*06:03:02+C*07:224    | C*06:22+C*07:26        |
| C*06:03:02+C*07:250    | C*06:23+C*07:26        |
| C*06:03:02+C*08:03:01G | C*06:76:01+C*08:14     |
| C*06:03:02+C*14:02:01G | C*06:76:01+C*14:18     |
| C*06:03:02+C*18:04     | C*06:76:01+C*18:01:01G |
| C*06:04+C*07:37        | C*06:06+C*07:02:01G    |
| C*06:04+C*07:176       | C*06:06+C*07:01:01G    |
| C*06:04+C*08:02:01G    | C*06:06+C*08:04:01     |
| C*06:04+C*08:31        | C*06:08+C*08:04:01     |
| C*06:04+C*08:35        | C*06:06+C*08:54        |
| C*06:04+C*12:11        | C*06:47+C*12:20        |
| C*06:04+C*12:12        | C*06:69+C*12:20        |
| C*06:04+C*12:24        | C*06:06+C*12:20        |
| C*06:04+C*12:25        | C*06:71+C*12:20        |
| C*06:04+C*12:27        | C*06:52+C*12:18:01     |
| C*06:04+C*12:32        | C*06:41+C*12:20        |
| C*06:04+C*12:40        | C*06:32+C*12:18:01     |
| C*06:04+C*12:45        | C*06:87+C*12:20        |
| C*06:04+C*12:50        | C*06:20+C*12:20        |
| C*06:04+C*12:53        | C*06:50+C*12:20        |
| C*06:04+C*12:58        | C*06:53+C*12:20        |
| C*06:04+C*12:64        | C*06:07+C*12:18:01     |
| C*06:04+C*12:67        | C*06:60+C*12:18:01     |
| C*06:04+C*12:78        | C*06:80+C*12:20        |
| C*06:04+C*14:02:01G    | C*06:06+C*14:06        |
| C*06:04+C*15:08        | C*06:06+C*15:02:01G    |
| C*06:04+C*16:29        | C*06:08+C*16:35        |
| C*06:05+C*12:04:01     | C*06:06+C*12:33        |
| C*06:06+C*08:31        | C*06:08+C*08:02:01G    |
| C*06:06+C*12:11        | C*06:47+C*12:24        |
| C*06:06+C*12:12        | C*06:69+C*12:24        |
| C*06:06+C*12:25        | C*06:71+C*12:24        |
| C*06:06+C*12:32        | C*06:41+C*12:24        |
| C*06:06+C*12:45        | C*06:87+C*12:24        |
| C*06:06+C*12:50        | C*06:20+C*12:24        |
| C*06:06+C*12:53        | C*06:50+C*12:24        |
| C*06:06+C*12:58        | C*06:53+C*12:24        |

C\*06:67+C\*12:09

|                     |                     |
|---------------------|---------------------|
| C*06:06+C*12:78     | C*06:80+C*12:24     |
| C*06:06+C*18:03     | C*06:08+C*18:01:01G |
| C*06:07+C*07:01:16  | C*06:42+C*07:179    |
| C*06:07+C*07:16     | C*06:30+C*07:179    |
| C*06:07+C*07:19     | C*06:47+C*07:179    |
| C*06:07+C*07:24     | C*06:87+C*07:179    |
| C*06:07+C*07:28     | C*06:09+C*07:179    |
| C*06:07+C*07:70     | C*06:36+C*07:179    |
| C*06:07+C*07:73     | C*06:28+C*07:179    |
| C*06:07+C*07:83     | C*06:57+C*07:179    |
| C*06:07+C*07:92     | C*06:76:01+C*07:179 |
| C*06:07+C*07:94     | C*06:50+C*07:179    |
| C*06:07+C*07:109    | C*06:53+C*07:179    |
| C*06:07+C*07:124    | C*06:69+C*07:179    |
| C*06:07+C*07:134    | C*06:29+C*07:179    |
| C*06:07+C*07:148    | C*06:67+C*07:179    |
| C*06:07+C*07:196    | C*06:14+C*07:179    |
| C*06:07+C*07:207    | C*06:08+C*07:179    |
| C*06:07+C*07:224    | C*06:22+C*07:179    |
| C*06:07+C*07:250    | C*06:23+C*07:179    |
| C*06:07+C*12:27     | C*06:52+C*12:64     |
| C*06:07+C*12:40     | C*06:32+C*12:64     |
| C*06:07+C*12:67     | C*06:60+C*12:64     |
| C*06:08+C*07:01:16  | C*06:42+C*07:207    |
| C*06:08+C*07:10     | C*06:14+C*07:15     |
| C*06:08+C*07:13     | C*06:34+C*07:15     |
| C*06:08+C*07:16     | C*06:30+C*07:207    |
| C*06:08+C*07:19     | C*06:47+C*07:207    |
| C*06:08+C*07:24     | C*06:87+C*07:207    |
| C*06:08+C*07:28     | C*06:09+C*07:207    |
| C*06:08+C*07:51     | C*06:30+C*07:15     |
| C*06:08+C*07:56:01  | C*06:53+C*07:15     |
| C*06:08+C*07:70     | C*06:36+C*07:207    |
| C*06:08+C*07:73     | C*06:28+C*07:207    |
| C*06:08+C*07:83     | C*06:57+C*07:207    |
| C*06:08+C*07:92     | C*06:76:01+C*07:207 |
| C*06:08+C*07:94     | C*06:50+C*07:207    |
| C*06:08+C*07:105    | C*06:61+C*07:15     |
| C*06:08+C*07:107    | C*06:22+C*07:15     |
| C*06:08+C*07:109    | C*06:53+C*07:207    |
| C*06:08+C*07:124    | C*06:69+C*07:207    |
| C*06:08+C*07:134    | C*06:29+C*07:207    |
| C*06:08+C*07:137:02 | C*06:40+C*07:15     |
| C*06:08+C*07:148    | C*06:67+C*07:207    |
| C*06:08+C*07:155    | C*06:69+C*07:15     |
| C*06:08+C*07:161    | C*06:67+C*07:15     |
| C*06:08+C*07:168    | C*06:20+C*07:15     |
| C*06:08+C*07:172    | C*06:28+C*07:15     |
| C*06:08+C*07:183    | C*06:50+C*07:15     |
| C*06:08+C*07:196    | C*06:14+C*07:207    |
| C*06:08+C*07:211    | C*06:41+C*07:15     |
| C*06:08+C*07:217    | C*06:62+C*07:15     |
| C*06:08+C*07:218    | C*06:87+C*07:15     |
| C*06:08+C*07:224    | C*06:22+C*07:207    |
| C*06:08+C*07:250    | C*06:23+C*07:207    |
| C*06:08+C*14:24:02  | C*06:43+C*14:25     |
| C*06:08+C*14:26     | C*06:34+C*14:25     |
| C*06:08+C*14:29     | C*06:42+C*14:25     |
| C*06:08+C*14:36     | C*06:15+C*14:25     |
| C*06:08+C*15:07     | C*06:11+C*15:42     |
| C*06:08+C*15:12     | C*06:53+C*15:42     |
| C*06:08+C*15:31     | C*06:31+C*15:42     |
| C*06:08+C*15:32Q    | C*06:74+C*15:42     |
| C*06:08+C*15:45     | C*06:69+C*15:42     |
| C*06:08+C*15:51     | C*06:40+C*15:42     |
| C*06:08+C*16:11     | C*06:18+C*16:50     |
| C*06:08+C*16:13     | C*06:87+C*16:50     |
| C*06:08+C*16:14     | C*06:32+C*16:50     |
| C*06:08+C*16:18     | C*06:23+C*16:50     |
| C*06:08+C*16:31     | C*06:22+C*16:50     |
| C*06:08+C*16:45     | C*06:09+C*16:50     |
| C*06:09+C*07:01:16  | C*06:42+C*07:28     |
| C*06:09+C*07:16     | C*06:30+C*07:28     |
| C*06:09+C*07:19     | C*06:47+C*07:28     |
| C*06:09+C*07:24     | C*06:87+C*07:28     |
| C*06:09+C*07:70     | C*06:36+C*07:28     |
| C*06:09+C*07:73     | C*06:28+C*07:28     |
| C*06:09+C*07:83     | C*06:57+C*07:28     |
| C*06:09+C*07:92     | C*06:76:01+C*07:28  |
| C*06:09+C*07:94     | C*06:50+C*07:28     |
| C*06:09+C*07:109    | C*06:53+C*07:28     |
| C*06:09+C*07:124    | C*06:69+C*07:28     |
| C*06:09+C*07:134    | C*06:29+C*07:28     |
| C*06:09+C*07:148    | C*06:67+C*07:28     |
| C*06:09+C*07:196    | C*06:14+C*07:28     |
| C*06:09+C*07:224    | C*06:22+C*07:28     |
| C*06:09+C*07:250    | C*06:23+C*07:28     |
| C*06:09+C*15:06:01  | C*06:34+C*15:24     |
| C*06:09+C*16:11     | C*06:18+C*16:45     |
| C*06:09+C*16:13     | C*06:87+C*16:45     |
| C*06:09+C*16:14     | C*06:32+C*16:45     |
| C*06:09+C*16:18     | C*06:23+C*16:45     |
| C*06:09+C*16:31     | C*06:22+C*16:45     |
| C*06:11+C*07:49     | C*06:82+C*07:02:01G |
| C*06:11+C*07:210    | C*06:82+C*07:40     |
| C*06:11+C*07:238    | C*06:82+C*07:39     |
| C*06:11+C*07:247    | C*06:82+C*07:01:01G |
| C*06:11+C*12:54     | C*06:82+C*12:03:01G |
| C*06:11+C*15:12     | C*06:53+C*15:07     |
| C*06:11+C*15:31     | C*06:31+C*15:07     |
| C*06:11+C*15:32Q    | C*06:74+C*15:07     |
| C*06:11+C*15:45     | C*06:69+C*15:07     |
| C*06:11+C*15:51     | C*06:40+C*15:07     |
| C*06:11+C*16:47     | C*06:27+C*16:01:01  |
| C*06:14+C*07:01:16  | C*06:42+C*07:196    |

|                     |                     |
|---------------------|---------------------|
| C*06:14+C*07:13     | C*06:34+C*07:10     |
| C*06:14+C*07:16     | C*06:30+C*07:196    |
| C*06:14+C*07:19     | C*06:47+C*07:196    |
| C*06:14+C*07:24     | C*06:87+C*07:196    |
| C*06:14+C*07:40     | C*06:44+C*07:43     |
| C*06:14+C*07:51     | C*06:30+C*07:10     |
| C*06:14+C*07:56:01  | C*06:53+C*07:10     |
| C*06:14+C*07:70     | C*06:36+C*07:196    |
| C*06:14+C*07:73     | C*06:28+C*07:196    |
| C*06:14+C*07:83     | C*06:57+C*07:196    |
| C*06:14+C*07:92     | C*06:76:01+C*07:196 |
| C*06:14+C*07:94     | C*06:50+C*07:196    |
| C*06:14+C*07:105    | C*06:61+C*07:10     |
| C*06:14+C*07:107    | C*06:22+C*07:10     |
| C*06:14+C*07:109    | C*06:53+C*07:196    |
| C*06:14+C*07:124    | C*06:69+C*07:196    |
| C*06:14+C*07:134    | C*06:29+C*07:196    |
| C*06:14+C*07:137:02 | C*06:40+C*07:10     |
| C*06:14+C*07:148    | C*06:67+C*07:196    |
| C*06:14+C*07:155    | C*06:69+C*07:10     |
| C*06:14+C*07:161    | C*06:67+C*07:10     |
| C*06:14+C*07:168    | C*06:20+C*07:10     |
| C*06:14+C*07:172    | C*06:28+C*07:10     |
| C*06:14+C*07:183    | C*06:50+C*07:10     |
| C*06:14+C*07:211    | C*06:41+C*07:10     |
| C*06:14+C*07:217    | C*06:62+C*07:10     |
| C*06:14+C*07:218    | C*06:87+C*07:10     |
| C*06:14+C*07:224    | C*06:22+C*07:196    |
| C*06:14+C*07:250    | C*06:23+C*07:196    |
| C*06:14+C*08:38     | C*06:47+C*08:61     |
| C*06:14+C*08:56     | C*06:63+C*08:44     |
| C*06:15+C*14:24:02  | C*06:43+C*14:36     |
| C*06:15+C*14:26     | C*06:34+C*14:36     |
| C*06:15+C*14:29     | C*06:42+C*14:36     |
| C*06:17+C*08:02:01G | C*07:41+C*12:33     |
| C*06:18+C*16:13     | C*06:87+C*16:11     |
| C*06:18+C*16:14     | C*06:32+C*16:11     |
| C*06:18+C*16:18     | C*06:23+C*16:11     |
| C*06:18+C*16:31     | C*06:22+C*16:11     |
| C*06:20+C*07:13     | C*06:34+C*07:168    |
| C*06:20+C*07:51     | C*06:30+C*07:168    |
| C*06:20+C*07:56:01  | C*06:53+C*07:168    |
| C*06:20+C*07:105    | C*06:61+C*07:168    |
| C*06:20+C*07:107    | C*06:22+C*07:168    |
| C*06:20+C*07:137:02 | C*06:40+C*07:168    |
| C*06:20+C*07:155    | C*06:69+C*07:168    |
| C*06:20+C*07:161    | C*06:67+C*07:168    |
| C*06:20+C*07:172    | C*06:28+C*07:168    |
| C*06:20+C*07:183    | C*06:50+C*07:168    |
| C*06:20+C*07:211    | C*06:41+C*07:168    |
| C*06:20+C*07:217    | C*06:62+C*07:168    |
| C*06:20+C*07:218    | C*06:87+C*07:168    |
| C*06:20+C*12:11     | C*06:47+C*12:50     |
| C*06:20+C*12:12     | C*06:69+C*12:50     |
| C*06:20+C*12:25     | C*06:71+C*12:50     |
| C*06:20+C*12:32     | C*06:41+C*12:50     |
| C*06:20+C*12:45     | C*06:87+C*12:50     |
| C*06:20+C*12:53     | C*06:50+C*12:50     |
| C*06:20+C*12:58     | C*06:53+C*12:50     |
| C*06:20+C*12:78     | C*06:80+C*12:50     |
| C*06:22+C*07:01:16  | C*06:42+C*07:224    |
| C*06:22+C*07:13     | C*06:34+C*07:107    |
| C*06:22+C*07:16     | C*06:30+C*07:224    |
| C*06:22+C*07:19     | C*06:47+C*07:224    |
| C*06:22+C*07:24     | C*06:87+C*07:224    |
| C*06:22+C*07:51     | C*06:30+C*07:107    |
| C*06:22+C*07:56:01  | C*06:53+C*07:107    |
| C*06:22+C*07:70     | C*06:36+C*07:224    |
| C*06:22+C*07:73     | C*06:28+C*07:224    |
| C*06:22+C*07:83     | C*06:57+C*07:224    |
| C*06:22+C*07:92     | C*06:76:01+C*07:224 |
| C*06:22+C*07:94     | C*06:50+C*07:224    |
| C*06:22+C*07:105    | C*06:61+C*07:107    |
| C*06:22+C*07:109    | C*06:53+C*07:224    |
| C*06:22+C*07:124    | C*06:69+C*07:224    |
| C*06:22+C*07:134    | C*06:29+C*07:224    |
| C*06:22+C*07:137:02 | C*06:40+C*07:107    |
| C*06:22+C*07:148    | C*06:67+C*07:224    |
| C*06:22+C*07:155    | C*06:69+C*07:107    |
| C*06:22+C*07:161    | C*06:67+C*07:107    |
| C*06:22+C*07:172    | C*06:28+C*07:107    |
| C*06:22+C*07:183    | C*06:50+C*07:107    |
| C*06:22+C*07:211    | C*06:41+C*07:107    |
| C*06:22+C*07:217    | C*06:62+C*07:107    |
| C*06:22+C*07:218    | C*06:87+C*07:107    |
| C*06:22+C*07:250    | C*06:23+C*07:224    |
| C*06:22+C*16:13     | C*06:87+C*16:31     |
| C*06:22+C*16:14     | C*06:32+C*16:31     |
| C*06:22+C*16:18     | C*06:23+C*16:31     |
| C*06:23+C*07:01:16  | C*06:42+C*07:250    |
| C*06:23+C*07:16     | C*06:30+C*07:250    |
| C*06:23+C*07:19     | C*06:47+C*07:250    |
| C*06:23+C*07:24     | C*06:87+C*07:250    |
| C*06:23+C*07:70     | C*06:36+C*07:250    |
| C*06:23+C*07:73     | C*06:28+C*07:250    |
| C*06:23+C*07:83     | C*06:57+C*07:250    |
| C*06:23+C*07:92     | C*06:76:01+C*07:250 |
| C*06:23+C*07:94     | C*06:50+C*07:250    |
| C*06:23+C*07:109    | C*06:53+C*07:250    |
| C*06:23+C*07:124    | C*06:69+C*07:250    |
| C*06:23+C*07:134    | C*06:29+C*07:250    |
| C*06:23+C*07:148    | C*06:67+C*07:250    |
| C*06:23+C*16:13     | C*06:87+C*16:18     |
| C*06:23+C*16:14     | C*06:32+C*16:18     |
| C*06:28+C*07:01:16  | C*06:42+C*07:73     |

|                     |                     |                       |
|---------------------|---------------------|-----------------------|
| C*06:28+C*07:13     | C*06:34+C*07:172    |                       |
| C*06:28+C*07:16     | C*06:30+C*07:73     |                       |
| C*06:28+C*07:19     | C*06:47+C*07:73     |                       |
| C*06:28+C*07:24     | C*06:87+C*07:73     |                       |
| C*06:28+C*07:51     | C*06:30+C*07:172    |                       |
| C*06:28+C*07:56:01  | C*06:53+C*07:172    |                       |
| C*06:28+C*07:70     | C*06:36+C*07:73     |                       |
| C*06:28+C*07:83     | C*06:57+C*07:73     |                       |
| C*06:28+C*07:92     | C*06:76:01+C*07:73  |                       |
| C*06:28+C*07:94     | C*06:50+C*07:73     |                       |
| C*06:28+C*07:105    | C*06:61+C*07:172    |                       |
| C*06:28+C*07:109    | C*06:53+C*07:73     |                       |
| C*06:28+C*07:124    | C*06:69+C*07:73     |                       |
| C*06:28+C*07:134    | C*06:29+C*07:73     |                       |
| C*06:28+C*07:137:02 | C*06:40+C*07:172    |                       |
| C*06:28+C*07:148    | C*06:67+C*07:73     |                       |
| C*06:28+C*07:155    | C*06:69+C*07:172    |                       |
| C*06:28+C*07:161    | C*06:67+C*07:172    |                       |
| C*06:28+C*07:183    | C*06:50+C*07:172    |                       |
| C*06:28+C*07:211    | C*06:41+C*07:172    |                       |
| C*06:28+C*07:217    | C*06:62+C*07:172    |                       |
| C*06:28+C*07:218    | C*06:87+C*07:172    |                       |
| C*06:28+C*08:02:01G | C*06:76:01+C*08:37  |                       |
| C*06:28+C*16:01:01  | C*06:76:01+C*16:21  |                       |
| C*06:29+C*07:01:16  | C*06:42+C*07:134    |                       |
| C*06:29+C*07:16     | C*06:30+C*07:134    |                       |
| C*06:29+C*07:19     | C*06:47+C*07:134    |                       |
| C*06:29+C*07:24     | C*06:87+C*07:134    |                       |
| C*06:29+C*07:70     | C*06:36+C*07:134    |                       |
| C*06:29+C*07:83     | C*06:57+C*07:134    |                       |
| C*06:29+C*07:92     | C*06:76:01+C*07:134 |                       |
| C*06:29+C*07:94     | C*06:50+C*07:134    |                       |
| C*06:29+C*07:109    | C*06:53+C*07:134    |                       |
| C*06:29+C*07:124    | C*06:69+C*07:134    |                       |
| C*06:29+C*07:148    | C*06:67+C*07:134    |                       |
| C*06:30+C*07:01:16  | C*06:42+C*07:16     |                       |
| C*06:30+C*07:13     | C*06:34+C*07:51     |                       |
| C*06:30+C*07:19     | C*06:47+C*07:16     |                       |
| C*06:30+C*07:24     | C*06:87+C*07:16     |                       |
| C*06:30+C*07:70     | C*06:36+C*07:16     |                       |
| C*06:30+C*07:83     | C*06:57+C*07:16     |                       |
| C*06:30+C*07:92     | C*06:76:01+C*07:16  | C*07:01:13+C*12:04:01 |
| C*06:30+C*07:94     | C*06:50+C*07:16     |                       |
| C*06:30+C*07:101    | C*06:67+C*07:181    |                       |
| C*06:30+C*07:105    | C*06:61+C*07:51     |                       |
| C*06:30+C*07:124    | C*06:69+C*07:16     |                       |
| C*06:30+C*07:137:02 | C*06:40+C*07:51     |                       |
| C*06:30+C*07:148    | C*06:67+C*07:16     |                       |
| C*06:30+C*07:155    | C*06:69+C*07:51     |                       |
| C*06:30+C*07:161    | C*06:67+C*07:51     |                       |
| C*06:30+C*07:183    | C*06:50+C*07:51     |                       |
| C*06:30+C*07:211    | C*06:41+C*07:51     |                       |
| C*06:30+C*07:217    | C*06:62+C*07:51     |                       |
| C*06:30+C*07:218    | C*06:87+C*07:51     |                       |
| C*06:30+C*07:247    | C*06:82+C*07:07     |                       |
| C*06:31+C*15:12     | C*06:53+C*15:31     |                       |
| C*06:31+C*15:32Q    | C*06:74+C*15:31     |                       |
| C*06:31+C*15:45     | C*06:69+C*15:31     |                       |
| C*06:31+C*15:51     | C*06:40+C*15:31     |                       |
| C*06:32+C*12:27     | C*06:52+C*12:40     |                       |
| C*06:32+C*12:67     | C*06:60+C*12:40     |                       |
| C*06:32+C*16:13     | C*06:87+C*16:14     |                       |
| C*06:34+C*07:56:01  | C*06:53+C*07:13     |                       |
| C*06:34+C*07:68     | C*06:47+C*07:199:01 |                       |
| C*06:34+C*07:105    | C*06:61+C*07:13     |                       |
| C*06:34+C*07:137:02 | C*06:40+C*07:13     |                       |
| C*06:34+C*07:155    | C*06:69+C*07:13     |                       |
| C*06:34+C*07:161    | C*06:67+C*07:13     |                       |
| C*06:34+C*07:183    | C*06:50+C*07:13     |                       |
| C*06:34+C*07:211    | C*06:41+C*07:13     |                       |
| C*06:34+C*07:217    | C*06:62+C*07:13     |                       |
| C*06:34+C*07:218    | C*06:87+C*07:13     |                       |
| C*06:34+C*14:24:02  | C*06:43+C*14:26     |                       |
| C*06:34+C*14:29     | C*06:42+C*14:26     |                       |
| C*06:36+C*07:01:16  | C*06:42+C*07:70     |                       |
| C*06:36+C*07:19     | C*06:47+C*07:70     |                       |
| C*06:36+C*07:24     | C*06:87+C*07:70     |                       |
| C*06:36+C*07:83     | C*06:57+C*07:70     |                       |
| C*06:36+C*07:92     | C*06:76:01+C*07:70  |                       |
| C*06:36+C*07:94     | C*06:50+C*07:70     |                       |
| C*06:36+C*07:109    | C*06:53+C*07:70     |                       |
| C*06:36+C*07:124    | C*06:69+C*07:70     |                       |
| C*06:36+C*07:148    | C*06:67+C*07:70     |                       |
| C*06:40+C*07:56:01  | C*06:53+C*07:137:02 |                       |
| C*06:40+C*07:105    | C*06:61+C*07:137:02 |                       |
| C*06:40+C*07:155    | C*06:69+C*07:137:02 |                       |
| C*06:40+C*07:161    | C*06:67+C*07:137:02 |                       |
| C*06:40+C*07:183    | C*06:50+C*07:137:02 |                       |
| C*06:40+C*07:211    | C*06:41+C*07:137:02 |                       |
| C*06:40+C*07:217    | C*06:62+C*07:137:02 |                       |
| C*06:40+C*07:218    | C*06:87+C*07:137:02 |                       |
| C*06:40+C*15:12     | C*06:53+C*15:51     |                       |
| C*06:40+C*15:32Q    | C*06:74+C*15:51     |                       |
| C*06:40+C*15:45     | C*06:69+C*15:51     |                       |
| C*06:41+C*07:56:01  | C*06:53+C*07:211    |                       |
| C*06:41+C*07:105    | C*06:61+C*07:211    |                       |
| C*06:41+C*07:155    | C*06:69+C*07:211    |                       |
| C*06:41+C*07:161    | C*06:67+C*07:211    |                       |
| C*06:41+C*07:183    | C*06:50+C*07:211    |                       |
| C*06:41+C*07:217    | C*06:62+C*07:211    |                       |
| C*06:41+C*07:218    | C*06:87+C*07:211    |                       |
| C*06:41+C*12:11     | C*06:47+C*12:32     |                       |
| C*06:41+C*12:12     | C*06:69+C*12:32     |                       |
| C*06:41+C*12:25     | C*06:71+C*12:32     |                       |
| C*06:41+C*12:45     | C*06:87+C*12:32     |                       |

|                        |                        |                     |                     |
|------------------------|------------------------|---------------------|---------------------|
| C*06:41+C*12:53        | C*06:50+C*12:32        |                     |                     |
| C*06:41+C*12:58        | C*06:53+C*12:32        |                     |                     |
| C*06:41+C*12:78        | C*06:80+C*12:32        |                     |                     |
| C*06:42+C*07:19        | C*06:47+C*07:01:16     |                     |                     |
| C*06:42+C*07:24        | C*06:87+C*07:01:16     |                     |                     |
| C*06:42+C*07:83        | C*06:57+C*07:01:16     |                     |                     |
| C*06:42+C*07:92        | C*06:76:01+C*07:01:16  |                     |                     |
| C*06:42+C*07:94        | C*06:50+C*07:01:16     |                     |                     |
| C*06:42+C*07:109       | C*06:53+C*07:01:16     |                     |                     |
| C*06:42+C*07:124       | C*06:69+C*07:01:16     |                     |                     |
| C*06:42+C*07:148       | C*06:67+C*07:01:16     |                     |                     |
| C*06:42+C*14:24:02     | C*06:43+C*14:29        |                     |                     |
| C*06:43+C*17:05        | C*06:67+C*17:08        |                     |                     |
| C*06:43+C*17:13        | C*06:81+C*17:08        |                     |                     |
| C*06:44+C*07:02:01G    | C*06:47+C*07:40        |                     |                     |
| C*06:44+C*07:49        | C*06:47+C*07:210       |                     |                     |
| C*06:47+C*07:24        | C*06:87+C*07:19        |                     |                     |
| C*06:47+C*07:83        | C*06:57+C*07:19        |                     |                     |
| C*06:47+C*07:92        | C*06:76:01+C*07:19     |                     |                     |
| C*06:47+C*07:94        | C*06:50+C*07:19        |                     |                     |
| C*06:47+C*07:109       | C*06:53+C*07:19        |                     |                     |
| C*06:47+C*07:124       | C*06:69+C*07:19        |                     |                     |
| C*06:47+C*07:148       | C*06:67+C*07:19        |                     |                     |
| C*06:47+C*12:12        | C*06:69+C*12:11        |                     |                     |
| C*06:47+C*12:25        | C*06:71+C*12:11        |                     |                     |
| C*06:47+C*12:45        | C*06:87+C*12:11        |                     |                     |
| C*06:47+C*12:53        | C*06:50+C*12:11        |                     |                     |
| C*06:47+C*12:58        | C*06:53+C*12:11        |                     |                     |
| C*06:47+C*12:78        | C*06:80+C*12:11        |                     |                     |
| C*06:50+C*07:24        | C*06:87+C*07:94        |                     |                     |
| C*06:50+C*07:56:01     | C*06:53+C*07:183       |                     |                     |
| C*06:50+C*07:83        | C*06:57+C*07:94        |                     |                     |
| C*06:50+C*07:92        | C*06:76:01+C*07:94     |                     |                     |
| C*06:50+C*07:105       | C*06:61+C*07:183       |                     |                     |
| C*06:50+C*07:109       | C*06:53+C*07:94        |                     |                     |
| C*06:50+C*07:124       | C*06:69+C*07:94        |                     |                     |
| C*06:50+C*07:148       | C*06:67+C*07:94        |                     |                     |
| C*06:50+C*07:155       | C*06:69+C*07:183       |                     |                     |
| C*06:50+C*07:161       | C*06:67+C*07:183       |                     |                     |
| C*06:50+C*07:217       | C*06:62+C*07:183       |                     |                     |
| C*06:50+C*07:218       | C*06:87+C*07:183       |                     |                     |
| C*06:50+C*12:12        | C*06:69+C*12:53        |                     |                     |
| C*06:50+C*12:25        | C*06:71+C*12:53        |                     |                     |
| C*06:50+C*12:45        | C*06:87+C*12:53        |                     |                     |
| C*06:50+C*12:58        | C*06:53+C*12:53        |                     |                     |
| C*06:50+C*12:78        | C*06:80+C*12:53        |                     |                     |
| C*06:52+C*12:67        | C*06:60+C*12:27        |                     |                     |
| C*06:53+C*07:24        | C*06:87+C*07:109       |                     |                     |
| C*06:53+C*07:83        | C*06:57+C*07:109       |                     |                     |
| C*06:53+C*07:92        | C*06:76:01+C*07:109    |                     |                     |
| C*06:53+C*07:105       | C*06:61+C*07:56:01     |                     |                     |
| C*06:53+C*07:124       | C*06:69+C*07:109       |                     |                     |
| C*06:53+C*07:148       | C*06:67+C*07:109       |                     |                     |
| C*06:53+C*07:155       | C*06:69+C*07:56:01     |                     |                     |
| C*06:53+C*07:161       | C*06:67+C*07:56:01     |                     |                     |
| C*06:53+C*07:217       | C*06:62+C*07:56:01     |                     |                     |
| C*06:53+C*07:218       | C*06:87+C*07:56:01     |                     |                     |
| C*06:53+C*12:12        | C*06:69+C*12:58        |                     |                     |
| C*06:53+C*12:25        | C*06:71+C*12:58        |                     |                     |
| C*06:53+C*12:45        | C*06:87+C*12:58        |                     |                     |
| C*06:53+C*12:78        | C*06:80+C*12:58        |                     |                     |
| C*06:53+C*15:32Q       | C*06:74+C*15:12        |                     |                     |
| C*06:53+C*15:45        | C*06:69+C*15:12        |                     |                     |
| C*06:57+C*07:24        | C*06:87+C*07:83        |                     |                     |
| C*06:57+C*07:92        | C*06:76:01+C*07:83     |                     |                     |
| C*06:57+C*07:124       | C*06:69+C*07:83        |                     |                     |
| C*06:57+C*07:148       | C*06:67+C*07:83        |                     |                     |
| C*06:61+C*07:155       | C*06:69+C*07:105       |                     |                     |
| C*06:61+C*07:161       | C*06:67+C*07:105       |                     |                     |
| C*06:61+C*07:217       | C*06:62+C*07:105       |                     |                     |
| C*06:61+C*07:218       | C*06:87+C*07:105       |                     |                     |
| C*06:62+C*07:155       | C*06:69+C*07:217       |                     |                     |
| C*06:62+C*07:161       | C*06:67+C*07:217       |                     |                     |
| C*06:62+C*07:218       | C*06:87+C*07:217       |                     |                     |
| C*06:67+C*07:24        | C*06:87+C*07:148       |                     |                     |
| C*06:67+C*07:92        | C*06:76:01+C*07:148    |                     |                     |
| C*06:67+C*07:124       | C*06:69+C*07:148       |                     |                     |
| C*06:67+C*07:155       | C*06:69+C*07:161       |                     |                     |
| C*06:67+C*07:218       | C*06:87+C*07:161       |                     |                     |
| C*06:67+C*17:13        | C*06:81+C*17:05        |                     |                     |
| C*06:69+C*07:24        | C*06:87+C*07:124       |                     |                     |
| C*06:69+C*07:92        | C*06:76:01+C*07:124    |                     |                     |
| C*06:69+C*07:218       | C*06:87+C*07:155       |                     |                     |
| C*06:69+C*12:25        | C*06:71+C*12:12        |                     |                     |
| C*06:69+C*12:45        | C*06:87+C*12:12        |                     |                     |
| C*06:69+C*12:78        | C*06:80+C*12:12        |                     |                     |
| C*06:69+C*15:32Q       | C*06:74+C*15:45        |                     |                     |
| C*06:71+C*12:45        | C*06:87+C*12:25        |                     |                     |
| C*06:71+C*12:78        | C*06:80+C*12:25        |                     |                     |
| C*06:76:01+C*07:24     | C*06:87+C*07:92        |                     |                     |
| C*06:76:02+C*07:01:01G | C*07:09+C*12:28        |                     |                     |
| C*06:76:02+C*07:02:01G | C*07:76+C*12:28        |                     |                     |
| C*06:76:02+C*07:07     | C*07:09+C*12:04:02     |                     |                     |
| C*06:76:02+C*07:16     | C*07:01:01G+C*12:04:02 | C*07:07+C*12:28     | C*07:09+C*12:03:01G |
| C*06:76:02+C*07:51     | C*07:02:01G+C*12:04:02 | C*07:76+C*12:03:01G |                     |
| C*06:76:02+C*07:60     | C*07:09+C*12:58        | C*07:109+C*12:04:02 |                     |
| C*06:76:02+C*07:79     | C*07:56:01+C*12:04:02  | C*07:76+C*12:58     |                     |
| C*06:76:02+C*07:181    | C*07:04:01G+C*12:04:02 |                     |                     |
| C*06:76:02+C*08:01:01G | C*08:10+C*12:28        |                     |                     |
| C*06:76:02+C*12:02:01G | C*12:28+C*12:41        |                     |                     |
| C*06:76:02+C*12:03:01G | C*12:04:02+C*12:28     |                     |                     |
| C*06:76:02+C*14:02:01G | C*12:04:02+C*14:13     | C*12:28+C*14:12     |                     |
| C*06:76:02+C*15:07     | C*12:28+C*15:02:01G    |                     |                     |
| C*06:76:02+C*16:01:01  | C*12:03:01G+C*16:46    | C*12:04:02+C*16:26  | C*12:28+C*16:02:01G |
| C*06:76:02+C*16:01:02  | C*12:03:04+C*16:46     |                     |                     |



|                         |                         |                      |                     |                     |
|-------------------------|-------------------------|----------------------|---------------------|---------------------|
| C*06:76:02+C*16:01:09   | C*12:03:15+C*16:46      |                      |                     |                     |
| C*06:76:02+C*16:02:01G  | C*12:04:02+C*16:46      |                      |                     |                     |
| C*06:76:02+C*16:07:01   | C*12:02:06+C*16:46      |                      |                     |                     |
| C*06:76:02+C*16:07:02   | C*12:02:08+C*16:46      |                      |                     |                     |
| C*06:76:02+C*16:13      | C*12:45+C*16:46         |                      |                     |                     |
| C*06:76:02+C*16:15:01   | C*12:28+C*16:25         |                      |                     |                     |
| C*06:76:02+C*16:26      | C*12:28+C*16:46         |                      |                     |                     |
| C*06:76:02+C*16:35      | C*12:28+C*16:48         |                      |                     |                     |
| C*06:76:02+C*17:01:01G  | C*12:04:02+C*17:11      |                      |                     |                     |
| C*06:80+C*12:45         | C*06:87+C*12:78         |                      |                     |                     |
| C*07:01:01G+C*07:02:01G | C*07:19+C*07:27:01      |                      |                     |                     |
| C*07:01:01G+C*07:02:04  | C*07:01:05+C*07:02:01G  |                      |                     |                     |
| C*07:01:01G+C*07:02:11  | C*07:01:23+C*07:02:01G  |                      |                     |                     |
| C*07:01:01G+C*07:02:12  | C*07:01:12+C*07:02:01G  |                      |                     |                     |
| C*07:01:01G+C*07:02:31  | C*07:01:22+C*07:02:01G  |                      |                     |                     |
| C*07:01:01G+C*07:04:03  | C*07:01:07+C*07:04:01G  |                      |                     |                     |
| C*07:01:01G+C*07:04:05  | C*07:01:23+C*07:04:01G  |                      |                     |                     |
| C*07:01:01G+C*07:04:08  | C*07:01:20G+C*07:04:01G |                      |                     |                     |
| C*07:01:01G+C*07:07     | C*07:09+C*07:16         |                      |                     |                     |
| C*07:01:01G+C*07:10     | C*07:02:01G+C*07:196    | C*07:19+C*07:43      |                     |                     |
| C*07:01:01G+C*07:12     | C*07:04:01G+C*07:141:02 |                      |                     |                     |
| C*07:01:01G+C*07:15     | C*07:02:01G+C*07:207    |                      |                     |                     |
| C*07:01:01G+C*07:17     | C*07:02:01G+C*07:141:02 |                      |                     |                     |
| C*07:01:01G+C*07:27:02  | C*07:01:07+C*07:27:01   |                      |                     |                     |
| C*07:01:01G+C*07:29     | C*07:02:01G+C*07:248    |                      |                     |                     |
| C*07:01:01G+C*07:37     | C*07:02:01G+C*07:176    |                      |                     |                     |
| C*07:01:01G+C*07:39     | C*07:02:01G+C*07:40     |                      |                     |                     |
| C*07:01:01G+C*07:43     | C*07:27:01+C*07:196     |                      |                     |                     |
| C*07:01:01G+C*07:49     | C*07:02:01G+C*07:247    |                      |                     |                     |
| C*07:01:01G+C*07:51     | C*07:02:01G+C*07:16     |                      |                     |                     |
| C*07:01:01G+C*07:56:01  | C*07:02:01G+C*07:109    |                      |                     |                     |
| C*07:01:01G+C*07:60     | C*07:16+C*07:109        |                      |                     |                     |
| C*07:01:01G+C*07:75     | C*07:02:01G+C*07:254    |                      |                     |                     |
| C*07:01:01G+C*07:76     | C*07:02:01G+C*07:09     |                      |                     |                     |
| C*07:01:01G+C*07:79     | C*07:02:01G+C*07:60     | C*07:16+C*07:56:01   | C*07:51+C*07:109    |                     |
| C*07:01:01G+C*07:92     | C*07:26+C*07:73         |                      |                     |                     |
| C*07:01:01G+C*07:96     | C*07:92+C*07:263        |                      |                     |                     |
| C*07:01:01G+C*07:101    | C*07:04:01G+C*07:148    |                      |                     |                     |
| C*07:01:01G+C*07:107    | C*07:02:01G+C*07:224    |                      |                     |                     |
| C*07:01:01G+C*07:123    | C*07:02:01G+C*07:173    |                      |                     |                     |
| C*07:01:01G+C*07:127    | C*07:02:01G+C*07:263    |                      |                     |                     |
| C*07:01:01G+C*07:138    | C*07:02:01G+C*07:22     |                      |                     |                     |
| C*07:01:01G+C*07:155    | C*07:02:01G+C*07:124    |                      |                     |                     |
| C*07:01:01G+C*07:161    | C*07:02:01G+C*07:148    |                      |                     |                     |
| C*07:01:01G+C*07:171    | C*07:02:01G+C*07:170    |                      |                     |                     |
| C*07:01:01G+C*07:172    | C*07:02:01G+C*07:73     |                      |                     |                     |
| C*07:01:01G+C*07:181    | C*07:04:01G+C*07:16     |                      |                     |                     |
| C*07:01:01G+C*07:183    | C*07:02:01G+C*07:94     |                      |                     |                     |
| C*07:01:01G+C*07:186    | C*07:02:01G+C*07:212    |                      |                     |                     |
| C*07:01:01G+C*07:199:02 | C*07:01:07+C*07:199:01  |                      |                     |                     |
| C*07:01:01G+C*07:210    | C*07:40+C*07:247        |                      |                     |                     |
| C*07:01:01G+C*07:216    | C*07:02:01G+C*07:53     |                      |                     |                     |
| C*07:01:01G+C*07:218    | C*07:02:01G+C*07:24     |                      |                     |                     |
| C*07:01:01G+C*07:232    | C*07:02:01G+C*07:128    |                      |                     |                     |
| C*07:01:01G+C*07:238    | C*07:02:01G+C*07:210    | C*07:39+C*07:247     | C*07:40+C*07:49     |                     |
| C*07:01:01G+C*07:240    | C*07:02:01G+C*07:255    |                      |                     |                     |
| C*07:01:01G+C*07:241    | C*07:02:01G+C*07:165    |                      |                     |                     |
| C*07:01:01G+C*08:01:01G | C*07:28+C*08:11         | C*07:40+C*08:21      | C*07:148+C*08:16:01 |                     |
| C*07:01:01G+C*08:01:02  | C*07:01:07+C*08:01:01G  |                      |                     |                     |
| C*07:01:01G+C*08:02:01G | C*07:16+C*08:28         | C*07:26+C*08:37      | C*07:40+C*08:05     | C*07:141:02+C*08:07 |
|                         | C*07:176+C*08:04:01     |                      |                     |                     |
| C*07:01:01G+C*08:02:06  | C*07:01:12+C*08:02:01G  |                      |                     |                     |
| C*07:01:01G+C*08:03:01G | C*07:73+C*08:14         |                      |                     |                     |
| C*07:01:01G+C*08:04:01  | C*07:148+C*08:13        | C*07:165+C*08:57     |                     |                     |
| C*07:01:01G+C*08:05     | C*07:148+C*08:25        |                      |                     |                     |
| C*07:01:01G+C*08:07     | C*07:165+C*08:47        |                      |                     |                     |
| C*07:01:01G+C*08:10     | C*07:09+C*08:01:01G     |                      |                     |                     |
| C*07:01:01G+C*08:15:01  | C*07:01:05+C*08:15:02   |                      |                     |                     |
| C*07:01:01G+C*08:17     | C*07:225+C*08:02:01G    |                      |                     |                     |
| C*07:01:01G+C*08:19     | C*07:108+C*08:02:01G    |                      |                     |                     |
| C*07:01:01G+C*08:29     | C*07:22+C*08:04:01      |                      |                     |                     |
| C*07:01:01G+C*08:31     | C*07:207+C*08:29        |                      |                     |                     |
| C*07:01:01G+C*08:35     | C*07:176+C*08:54        |                      |                     |                     |
| C*07:01:01G+C*08:38     | C*07:19+C*08:03:01G     |                      |                     |                     |
| C*07:01:01G+C*08:41     | C*07:212+C*08:01:01G    |                      |                     |                     |
| C*07:01:01G+C*08:44     | C*07:196+C*08:01:01G    |                      |                     |                     |
| C*07:01:01G+C*08:48     | C*07:35+C*08:02:01G     |                      |                     |                     |
| C*07:01:01G+C*08:61     | C*07:196+C*08:03:01G    |                      |                     |                     |
| C*07:01:01G+C*08:62     | C*07:257+C*08:02:06     |                      |                     |                     |
| C*07:01:01G+C*12:02:01G | C*07:01:07+C*12:02:03   | C*07:22+C*12:18:01   | C*07:27:01+C*12:08  | C*07:92+C*12:16     |
| C*07:01:01G+C*12:02:06  | C*07:01:07+C*12:02:08   |                      |                     |                     |
| C*07:01:01G+C*12:02:09  | C*07:01:12+C*12:02:01G  |                      |                     |                     |
| C*07:01:01G+C*12:03:01G | C*07:01:05+C*12:03:10   | C*07:16+C*12:28      | C*07:22+C*12:20     | C*07:27:01+C*12:81  |
| C*07:01:01G+C*12:03:02  | C*07:01:08+C*12:03:08   |                      |                     |                     |
| C*07:01:01G+C*12:03:09  | C*07:01:13+C*12:03:04   |                      |                     |                     |
| C*07:01:01G+C*12:03:19  | C*07:01:20G+C*12:03:08  |                      |                     |                     |
| C*07:01:01G+C*12:05     | C*07:40+C*12:04:02      |                      |                     |                     |
| C*07:01:01G+C*12:06     | C*07:82+C*12:03:01G     |                      |                     |                     |
| C*07:01:01G+C*12:10:01  | C*07:01:12+C*12:10:02   | C*07:108+C*12:02:03  |                     |                     |
| C*07:01:01G+C*12:11     | C*07:02:01G+C*12:81     | C*07:19+C*12:03:01G  |                     |                     |
| C*07:01:01G+C*12:12     | C*07:124+C*12:03:01G    |                      |                     |                     |
| C*07:01:01G+C*12:18:01  | C*07:01:20G+C*12:18:02  |                      |                     |                     |
| C*07:01:01G+C*12:24     | C*07:176+C*12:20        |                      |                     |                     |
| C*07:01:01G+C*12:30     | C*07:214+C*12:02:01G    |                      |                     |                     |
| C*07:01:01G+C*12:37     | C*07:204+C*12:03:01G    |                      |                     |                     |
| C*07:01:01G+C*12:38     | C*07:200+C*12:03:01G    |                      |                     |                     |
| C*07:01:01G+C*12:41     | C*07:09+C*12:02:01G     | C*07:247+C*12:72     |                     |                     |
| C*07:01:01G+C*12:45     | C*07:24+C*12:03:01G     |                      |                     |                     |
| C*07:01:01G+C*12:46N    | C*07:104N+C*12:03:01G   |                      |                     |                     |
| C*07:01:01G+C*12:49     | C*07:40+C*12:02:01G     |                      |                     |                     |
| C*07:01:01G+C*12:53     | C*07:94+C*12:03:01G     |                      |                     |                     |
| C*07:01:01G+C*12:54     | C*07:247+C*12:03:01G    |                      |                     |                     |
| C*07:01:01G+C*12:56     | C*07:70+C*12:64         |                      |                     |                     |
| C*07:01:01G+C*12:58     | C*07:60+C*12:28         | C*07:109+C*12:03:01G |                     |                     |
| C*07:01:01G+C*12:64     | C*07:179+C*12:02:01G    |                      |                     |                     |

|                         |                        |                     |                    |                  |
|-------------------------|------------------------|---------------------|--------------------|------------------|
| C*07:01:01G+C*12:69     | C*07:203+C*12:02:01G   |                     |                    |                  |
| C*07:01:01G+C*14:02:01G | C*07:16+C*14:13        | C*07:73+C*14:18     | C*07:176+C*14:06   |                  |
| C*07:01:01G+C*14:06     | C*07:165+C*14:15       |                     |                    |                  |
| C*07:01:01G+C*14:10     | C*07:109+C*14:03       |                     |                    |                  |
| C*07:01:01G+C*14:12     | C*07:07+C*14:13        | C*07:09+C*14:02:01G |                    |                  |
| C*07:01:01G+C*14:16     | C*07:22+C*14:06        |                     |                    |                  |
| C*07:01:01G+C*14:20     | C*07:212+C*14:02:01G   |                     |                    |                  |
| C*07:01:01G+C*14:25     | C*07:207+C*14:02:01G   |                     |                    |                  |
| C*07:01:01G+C*14:29     | C*07:01:16+C*14:02:01G |                     |                    |                  |
| C*07:01:01G+C*14:42     | C*07:203+C*14:02:01G   |                     |                    |                  |
| C*07:01:01G+C*15:02:01G | C*07:09+C*15:07        | C*07:40+C*15:03     | C*07:165+C*15:31   | C*07:247+C*15:21 |
| C*07:01:01G+C*15:02:06  | C*07:01:22+C*15:02:01G |                     |                    |                  |
| C*07:01:01G+C*15:05:01G | C*07:196+C*15:22       |                     |                    |                  |
| C*07:01:01G+C*15:06:01  | C*07:173+C*15:40       | C*07:248+C*15:09    |                    |                  |
| C*07:01:01G+C*15:08     | C*07:176+C*15:02:01G   |                     |                    |                  |
| C*07:01:01G+C*15:09     | C*07:173+C*15:04       |                     |                    |                  |
| C*07:01:01G+C*15:12     | C*07:109+C*15:02:01G   |                     |                    |                  |
| C*07:01:01G+C*15:15     | C*07:212+C*15:02:01G   |                     |                    |                  |
| C*07:01:01G+C*15:16     | C*07:27:01+C*15:03     |                     |                    |                  |
| C*07:01:01G+C*15:17     | C*07:27:01+C*15:02:01G | C*07:40+C*15:16     |                    |                  |
| C*07:01:01G+C*15:26     | C*07:257+C*15:02:01G   |                     |                    |                  |
| C*07:01:01G+C*15:35     | C*07:254+C*15:02:01G   |                     |                    |                  |
| C*07:01:01G+C*15:37     | C*07:250+C*15:58       |                     |                    |                  |
| C*07:01:01G+C*15:40     | C*07:248+C*15:04       |                     |                    |                  |
| C*07:01:01G+C*15:42     | C*07:207+C*15:02:01G   |                     |                    |                  |
| C*07:01:01G+C*15:45     | C*07:124+C*15:02:01G   |                     |                    |                  |
| C*07:01:01G+C*15:46     | C*07:19+C*15:05:01G    |                     |                    |                  |
| C*07:01:01G+C*15:49     | C*07:35+C*15:02:01G    |                     |                    |                  |
| C*07:01:01G+C*15:50     | C*07:36+C*15:02:01G    |                     |                    |                  |
| C*07:01:01G+C*15:57     | C*07:95+C*15:31        |                     |                    |                  |
| C*07:01:01G+C*16:01:01  | C*07:16+C*16:26        | C*07:26+C*16:21     | C*07:40+C*16:15:01 | C*07:53+C*16:35  |
| C*07:01:01G+C*16:02:01G | C*07:07+C*16:26        | C*07:09+C*16:01:01  | C*07:16+C*16:46    | C*07:40+C*16:25  |
|                         | C*07:53+C*16:48        | C*07:247+C*16:37    |                    |                  |
| C*07:01:01G+C*16:02:02  | C*07:01:23+C*16:02:01G |                     |                    |                  |
| C*07:01:01G+C*16:04:01  | C*07:22+C*16:35        |                     |                    |                  |
| C*07:01:01G+C*16:06     | C*07:19+C*16:07:02     |                     |                    |                  |
| C*07:01:01G+C*16:07:01  | C*07:01:07+C*16:07:02  |                     |                    |                  |
| C*07:01:01G+C*16:09     | C*07:129+C*16:02:01G   |                     |                    |                  |
| C*07:01:01G+C*16:10     | C*07:231+C*16:01:01    |                     |                    |                  |
| C*07:01:01G+C*16:13     | C*07:24+C*16:01:01     |                     |                    |                  |
| C*07:01:01G+C*16:18     | C*07:250+C*16:01:01    |                     |                    |                  |
| C*07:01:01G+C*16:20     | C*07:173+C*16:01:01    |                     |                    |                  |
| C*07:01:01G+C*16:25     | C*07:09+C*16:15:01     |                     |                    |                  |
| C*07:01:01G+C*16:29     | C*07:207+C*16:04:01    |                     |                    |                  |
| C*07:01:01G+C*16:31     | C*07:224+C*16:01:01    |                     |                    |                  |
| C*07:01:01G+C*16:40     | C*07:165+C*16:35       |                     |                    |                  |
| C*07:01:01G+C*16:43     | C*07:95+C*16:01:01     |                     |                    |                  |
| C*07:01:01G+C*16:45     | C*07:28+C*16:01:01     |                     |                    |                  |
| C*07:01:01G+C*16:46     | C*07:09+C*16:26        |                     |                    |                  |
| C*07:01:01G+C*16:48     | C*07:09+C*16:35        |                     |                    |                  |
| C*07:01:01G+C*16:49     | C*07:257+C*16:01:01    |                     |                    |                  |
| C*07:01:01G+C*16:50     | C*07:207+C*16:01:01    |                     |                    |                  |
| C*07:01:01G+C*17:01:01G | C*07:16+C*17:11        |                     |                    |                  |
| C*07:01:01G+C*17:01:02  | C*07:01:12+C*17:01:01G |                     |                    |                  |
| C*07:01:01G+C*17:05     | C*07:148+C*17:01:01G   |                     |                    |                  |
| C*07:01:01G+C*17:09     | C*07:93+C*17:01:01G    |                     |                    |                  |
| C*07:01:01G+C*18:04     | C*07:73+C*18:01:01G    |                     |                    |                  |
| C*07:01:05+C*07:02:11   | C*07:01:23+C*07:02:04  |                     |                    |                  |
| C*07:01:05+C*07:02:12   | C*07:01:12+C*07:02:04  |                     |                    |                  |
| C*07:01:05+C*07:02:31   | C*07:01:22+C*07:02:04  |                     |                    |                  |
| C*07:01:05+C*07:10      | C*07:02:04+C*07:196    |                     |                    |                  |
| C*07:01:05+C*07:14      | C*07:27:02+C*07:57     |                     |                    |                  |
| C*07:01:05+C*07:15      | C*07:02:04+C*07:207    |                     |                    |                  |
| C*07:01:05+C*07:17      | C*07:02:04+C*07:141:02 |                     |                    |                  |
| C*07:01:05+C*07:29      | C*07:02:04+C*07:248    |                     |                    |                  |
| C*07:01:05+C*07:37      | C*07:02:04+C*07:176    |                     |                    |                  |
| C*07:01:05+C*07:39      | C*07:02:04+C*07:40     |                     |                    |                  |
| C*07:01:05+C*07:49      | C*07:02:04+C*07:247    |                     |                    |                  |
| C*07:01:05+C*07:51      | C*07:02:04+C*07:16     |                     |                    |                  |
| C*07:01:05+C*07:56:01   | C*07:02:04+C*07:109    |                     |                    |                  |
| C*07:01:05+C*07:75      | C*07:02:04+C*07:254    |                     |                    |                  |
| C*07:01:05+C*07:76      | C*07:02:04+C*07:09     |                     |                    |                  |
| C*07:01:05+C*07:79      | C*07:02:04+C*07:60     |                     |                    |                  |
| C*07:01:05+C*07:107     | C*07:02:04+C*07:224    |                     |                    |                  |
| C*07:01:05+C*07:123     | C*07:02:04+C*07:173    |                     |                    |                  |
| C*07:01:05+C*07:127     | C*07:02:04+C*07:263    |                     |                    |                  |
| C*07:01:05+C*07:138     | C*07:02:04+C*07:22     |                     |                    |                  |
| C*07:01:05+C*07:155     | C*07:02:04+C*07:124    |                     |                    |                  |
| C*07:01:05+C*07:161     | C*07:02:04+C*07:148    |                     |                    |                  |
| C*07:01:05+C*07:171     | C*07:02:04+C*07:170    |                     |                    |                  |
| C*07:01:05+C*07:172     | C*07:02:04+C*07:73     |                     |                    |                  |
| C*07:01:05+C*07:183     | C*07:02:04+C*07:94     |                     |                    |                  |
| C*07:01:05+C*07:186     | C*07:02:04+C*07:212    |                     |                    |                  |
| C*07:01:05+C*07:216     | C*07:02:04+C*07:53     |                     |                    |                  |
| C*07:01:05+C*07:218     | C*07:02:04+C*07:24     |                     |                    |                  |
| C*07:01:05+C*07:232     | C*07:02:04+C*07:128    |                     |                    |                  |
| C*07:01:05+C*07:238     | C*07:02:04+C*07:210    |                     |                    |                  |
| C*07:01:05+C*07:240     | C*07:02:04+C*07:255    |                     |                    |                  |
| C*07:01:05+C*07:241     | C*07:02:04+C*07:165    |                     |                    |                  |
| C*07:01:05+C*12:11      | C*07:02:04+C*12:81     |                     |                    |                  |
| C*07:01:05+C*12:74      | C*07:57+C*12:02:01G    |                     |                    |                  |
| C*07:01:07+C*07:02:01G  | C*07:19+C*07:27:02     |                     |                    |                  |
| C*07:01:07+C*07:04:05   | C*07:01:23+C*07:04:03  |                     |                    |                  |
| C*07:01:07+C*07:04:08   | C*07:01:20G+C*07:04:03 |                     |                    |                  |
| C*07:01:07+C*07:12      | C*07:04:03+C*07:141:02 |                     |                    |                  |
| C*07:01:07+C*07:43      | C*07:27:02+C*07:196    |                     |                    |                  |
| C*07:01:07+C*07:101     | C*07:04:03+C*07:148    |                     |                    |                  |
| C*07:01:07+C*07:181     | C*07:04:03+C*07:16     |                     |                    |                  |
| C*07:01:07+C*08:10      | C*07:09+C*08:01:02     |                     |                    |                  |
| C*07:01:07+C*08:41      | C*07:212+C*08:01:02    |                     |                    |                  |
| C*07:01:07+C*08:44      | C*07:196+C*08:01:02    |                     |                    |                  |
| C*07:01:07+C*12:02:01G  | C*07:27:02+C*12:08     |                     |                    |                  |
| C*07:01:07+C*12:03:01G  | C*07:27:02+C*12:81     |                     |                    |                  |
| C*07:01:07+C*12:03:19   | C*07:31+C*12:08        |                     |                    |                  |
| C*07:01:07+C*12:10:01   | C*07:108+C*12:02:01G   |                     |                    |                  |

|                        |                        |
|------------------------|------------------------|
| C*07:01:07+C*12:10:02  | C*07:08+C*12:08        |
| C*07:01:07+C*12:74     | C*07:14+C*12:08        |
| C*07:01:07+C*15:16     | C*07:27:02+C*15:03     |
| C*07:01:07+C*15:17     | C*07:27:02+C*15:02:01G |
| C*07:01:07+C*16:06     | C*07:19+C*16:07:01     |
| C*07:01:08+C*12:03:19  | C*07:01:20G+C*12:03:02 |
| C*07:01:12+C*07:02:11  | C*07:01:23+C*07:02:12  |
| C*07:01:12+C*07:02:31  | C*07:01:22+C*07:02:12  |
| C*07:01:12+C*07:08     | C*07:27:01+C*07:108    |
| C*07:01:12+C*07:10     | C*07:02:12+C*07:196    |
| C*07:01:12+C*07:15     | C*07:02:12+C*07:207    |
| C*07:01:12+C*07:17     | C*07:02:12+C*07:141:02 |
| C*07:01:12+C*07:29     | C*07:02:12+C*07:248    |
| C*07:01:12+C*07:37     | C*07:02:12+C*07:176    |
| C*07:01:12+C*07:39     | C*07:02:12+C*07:40     |
| C*07:01:12+C*07:49     | C*07:02:12+C*07:247    |
| C*07:01:12+C*07:51     | C*07:02:12+C*07:16     |
| C*07:01:12+C*07:56:01  | C*07:02:12+C*07:109    |
| C*07:01:12+C*07:75     | C*07:02:12+C*07:254    |
| C*07:01:12+C*07:76     | C*07:02:12+C*07:09     |
| C*07:01:12+C*07:79     | C*07:02:12+C*07:60     |
| C*07:01:12+C*07:107    | C*07:02:12+C*07:224    |
| C*07:01:12+C*07:123    | C*07:02:12+C*07:173    |
| C*07:01:12+C*07:127    | C*07:02:12+C*07:263    |
| C*07:01:12+C*07:138    | C*07:02:12+C*07:22     |
| C*07:01:12+C*07:155    | C*07:02:12+C*07:124    |
| C*07:01:12+C*07:161    | C*07:02:12+C*07:148    |
| C*07:01:12+C*07:171    | C*07:02:12+C*07:170    |
| C*07:01:12+C*07:172    | C*07:02:12+C*07:73     |
| C*07:01:12+C*07:183    | C*07:02:12+C*07:94     |
| C*07:01:12+C*07:186    | C*07:02:12+C*07:212    |
| C*07:01:12+C*07:216    | C*07:02:12+C*07:53     |
| C*07:01:12+C*07:218    | C*07:02:12+C*07:24     |
| C*07:01:12+C*07:232    | C*07:02:12+C*07:128    |
| C*07:01:12+C*07:238    | C*07:02:12+C*07:210    |
| C*07:01:12+C*07:240    | C*07:02:12+C*07:255    |
| C*07:01:12+C*07:241    | C*07:02:12+C*07:165    |
| C*07:01:12+C*08:17     | C*07:225+C*08:02:06    |
| C*07:01:12+C*08:19     | C*07:108+C*08:02:06    |
| C*07:01:12+C*08:48     | C*07:35+C*08:02:06     |
| C*07:01:12+C*12:11     | C*07:02:12+C*12:81     |
| C*07:01:12+C*12:30     | C*07:214+C*12:02:09    |
| C*07:01:12+C*12:41     | C*07:09+C*12:02:09     |
| C*07:01:12+C*12:49     | C*07:40+C*12:02:09     |
| C*07:01:12+C*12:64     | C*07:179+C*12:02:09    |
| C*07:01:12+C*12:69     | C*07:203+C*12:02:09    |
| C*07:01:12+C*14:02:01G | C*07:108+C*14:05       |
| C*07:01:12+C*16:23     | C*07:108+C*16:01:01    |
| C*07:01:12+C*17:05     | C*07:148+C*17:01:02    |
| C*07:01:12+C*17:09     | C*07:93+C*17:01:02     |
| C*07:01:16+C*14:12     | C*07:09+C*14:29        |
| C*07:01:16+C*14:20     | C*07:212+C*14:29       |
| C*07:01:16+C*14:25     | C*07:207+C*14:29       |
| C*07:01:16+C*14:42     | C*07:203+C*14:29       |
| C*07:01:20G+C*07:04:05 | C*07:01:23+C*07:04:08  |
| C*07:01:20G+C*07:12    | C*07:04:08+C*07:141:02 |
| C*07:01:20G+C*07:101   | C*07:04:08+C*07:148    |
| C*07:01:20G+C*07:181   | C*07:04:08+C*07:16     |
| C*07:01:22+C*07:02:11  | C*07:01:23+C*07:02:31  |
| C*07:01:22+C*07:10     | C*07:02:31+C*07:196    |
| C*07:01:22+C*07:15     | C*07:02:31+C*07:207    |
| C*07:01:22+C*07:17     | C*07:02:31+C*07:141:02 |
| C*07:01:22+C*07:29     | C*07:02:31+C*07:248    |
| C*07:01:22+C*07:37     | C*07:02:31+C*07:176    |
| C*07:01:22+C*07:39     | C*07:02:31+C*07:40     |
| C*07:01:22+C*07:49     | C*07:02:31+C*07:247    |
| C*07:01:22+C*07:51     | C*07:02:31+C*07:16     |
| C*07:01:22+C*07:56:01  | C*07:02:31+C*07:109    |
| C*07:01:22+C*07:75     | C*07:02:31+C*07:254    |
| C*07:01:22+C*07:76     | C*07:02:31+C*07:09     |
| C*07:01:22+C*07:79     | C*07:02:31+C*07:60     |
| C*07:01:22+C*07:107    | C*07:02:31+C*07:224    |
| C*07:01:22+C*07:123    | C*07:02:31+C*07:173    |
| C*07:01:22+C*07:127    | C*07:02:31+C*07:263    |
| C*07:01:22+C*07:138    | C*07:02:31+C*07:22     |
| C*07:01:22+C*07:155    | C*07:02:31+C*07:124    |
| C*07:01:22+C*07:161    | C*07:02:31+C*07:148    |
| C*07:01:22+C*07:171    | C*07:02:31+C*07:170    |
| C*07:01:22+C*07:172    | C*07:02:31+C*07:73     |
| C*07:01:22+C*07:183    | C*07:02:31+C*07:94     |
| C*07:01:22+C*07:186    | C*07:02:31+C*07:212    |
| C*07:01:22+C*07:216    | C*07:02:31+C*07:53     |
| C*07:01:22+C*07:218    | C*07:02:31+C*07:24     |
| C*07:01:22+C*07:232    | C*07:02:31+C*07:128    |
| C*07:01:22+C*07:238    | C*07:02:31+C*07:210    |
| C*07:01:22+C*07:240    | C*07:02:31+C*07:255    |
| C*07:01:22+C*07:241    | C*07:02:31+C*07:165    |
| C*07:01:22+C*12:11     | C*07:02:31+C*12:81     |
| C*07:01:22+C*15:08     | C*07:176+C*15:02:06    |
| C*07:01:22+C*15:12     | C*07:109+C*15:02:06    |
| C*07:01:22+C*15:15     | C*07:212+C*15:02:06    |
| C*07:01:22+C*15:17     | C*07:27:01+C*15:02:06  |
| C*07:01:22+C*15:26     | C*07:257+C*15:02:06    |
| C*07:01:22+C*15:35     | C*07:254+C*15:02:06    |
| C*07:01:22+C*15:42     | C*07:207+C*15:02:06    |
| C*07:01:22+C*15:45     | C*07:124+C*15:02:06    |
| C*07:01:22+C*15:49     | C*07:35+C*15:02:06     |
| C*07:01:22+C*15:50     | C*07:36+C*15:02:06     |
| C*07:01:23+C*07:10     | C*07:02:11+C*07:196    |
| C*07:01:23+C*07:12     | C*07:04:05+C*07:141:02 |
| C*07:01:23+C*07:15     | C*07:02:11+C*07:207    |
| C*07:01:23+C*07:17     | C*07:02:11+C*07:141:02 |
| C*07:01:23+C*07:29     | C*07:02:11+C*07:248    |
| C*07:01:23+C*07:37     | C*07:02:11+C*07:176    |
| C*07:01:23+C*07:39     | C*07:02:11+C*07:40     |

|                         |                        |                       |                     |                     |
|-------------------------|------------------------|-----------------------|---------------------|---------------------|
| C*07:01:23+C*07:49      | C*07:02:11+C*07:247    |                       |                     |                     |
| C*07:01:23+C*07:51      | C*07:02:11+C*07:16     |                       |                     |                     |
| C*07:01:23+C*07:56:01   | C*07:02:11+C*07:109    |                       |                     |                     |
| C*07:01:23+C*07:75      | C*07:02:11+C*07:254    |                       |                     |                     |
| C*07:01:23+C*07:76      | C*07:02:11+C*07:09     |                       |                     |                     |
| C*07:01:23+C*07:79      | C*07:02:11+C*07:60     |                       |                     |                     |
| C*07:01:23+C*07:101     | C*07:04:05+C*07:148    |                       |                     |                     |
| C*07:01:23+C*07:107     | C*07:02:11+C*07:224    |                       |                     |                     |
| C*07:01:23+C*07:123     | C*07:02:11+C*07:173    |                       |                     |                     |
| C*07:01:23+C*07:127     | C*07:02:11+C*07:263    |                       |                     |                     |
| C*07:01:23+C*07:138     | C*07:02:11+C*07:22     |                       |                     |                     |
| C*07:01:23+C*07:155     | C*07:02:11+C*07:124    |                       |                     |                     |
| C*07:01:23+C*07:161     | C*07:02:11+C*07:148    |                       |                     |                     |
| C*07:01:23+C*07:171     | C*07:02:11+C*07:170    |                       |                     |                     |
| C*07:01:23+C*07:172     | C*07:02:11+C*07:73     |                       |                     |                     |
| C*07:01:23+C*07:181     | C*07:04:05+C*07:16     |                       |                     |                     |
| C*07:01:23+C*07:183     | C*07:02:11+C*07:94     |                       |                     |                     |
| C*07:01:23+C*07:186     | C*07:02:11+C*07:212    |                       |                     |                     |
| C*07:01:23+C*07:216     | C*07:02:11+C*07:53     |                       |                     |                     |
| C*07:01:23+C*07:218     | C*07:02:11+C*07:24     |                       |                     |                     |
| C*07:01:23+C*07:232     | C*07:02:11+C*07:128    |                       |                     |                     |
| C*07:01:23+C*07:238     | C*07:02:11+C*07:210    |                       |                     |                     |
| C*07:01:23+C*07:240     | C*07:02:11+C*07:255    |                       |                     |                     |
| C*07:01:23+C*07:241     | C*07:02:11+C*07:165    |                       |                     |                     |
| C*07:01:23+C*12:11      | C*07:02:11+C*12:81     |                       |                     |                     |
| C*07:01:23+C*15:02:01G  | C*07:263+C*15:10:01    |                       |                     |                     |
| C*07:01:23+C*16:09      | C*07:129+C*16:02:02    |                       |                     |                     |
| C*07:02:01G+C*07:04:01G | C*07:45+C*07:260       |                       |                     |                     |
| C*07:02:01G+C*07:04:02  | C*07:02:18+C*07:04:01G |                       |                     |                     |
| C*07:02:01G+C*07:04:05  | C*07:02:11+C*07:04:01G |                       |                     |                     |
| C*07:02:01G+C*07:07     | C*07:09+C*07:51        | C*07:16+C*07:76       |                     |                     |
| C*07:02:01G+C*07:12     | C*07:04:01G+C*07:17    |                       |                     |                     |
| C*07:02:01G+C*07:43     | C*07:10+C*07:27:01     |                       |                     |                     |
| C*07:02:01G+C*07:79     | C*07:51+C*07:56:01     |                       |                     |                     |
| C*07:02:01G+C*07:92     | C*07:26+C*07:172       |                       |                     |                     |
| C*07:02:01G+C*07:96     | C*07:92+C*07:127       |                       |                     |                     |
| C*07:02:01G+C*07:101    | C*07:04:01G+C*07:161   |                       |                     |                     |
| C*07:02:01G+C*07:181    | C*07:04:01G+C*07:51    |                       |                     |                     |
| C*07:02:01G+C*07:238    | C*07:39+C*07:49        |                       |                     |                     |
| C*07:02:01G+C*08:01:01G | C*07:02:35+C*08:01:06  | C*07:13+C*08:59       | C*07:39+C*08:21     | C*07:161+C*08:16:01 |
| C*07:02:01G+C*08:01:07  | C*07:02:32+C*08:01:06  |                       |                     |                     |
| C*07:02:01G+C*08:02:01G | C*07:02:35+C*08:02:04  | C*07:17+C*08:07       | C*07:37+C*08:04:01  | C*07:39+C*08:05     |
|                         | C*07:51+C*08:28        | C*07:130+C*08:64      | C*07:260+C*08:15:01 |                     |
| C*07:02:01G+C*08:02:03  | C*07:02:29+C*08:02:01G |                       |                     |                     |
| C*07:02:01G+C*08:02:05  | C*07:02:17+C*08:02:01G |                       |                     |                     |
| C*07:02:01G+C*08:02:06  | C*07:02:12+C*08:02:01G |                       |                     |                     |
| C*07:02:01G+C*08:02:07  | C*07:02:32+C*08:02:04  | C*07:130+C*08:33:02   |                     |                     |
| C*07:02:01G+C*08:03:01G | C*07:27:01+C*08:38     | C*07:172+C*08:14      |                     |                     |
| C*07:02:01G+C*08:04:01  | C*07:161+C*08:13       | C*07:241+C*08:57      |                     |                     |
| C*07:02:01G+C*08:05     | C*07:161+C*08:25       |                       |                     |                     |
| C*07:02:01G+C*08:07     | C*07:241+C*08:47       |                       |                     |                     |
| C*07:02:01G+C*08:10     | C*07:76+C*08:01:01G    |                       |                     |                     |
| C*07:02:01G+C*08:15:01  | C*07:02:04+C*08:15:02  |                       |                     |                     |
| C*07:02:01G+C*08:29     | C*07:130+C*08:27       | C*07:138+C*08:04:01   |                     |                     |
| C*07:02:01G+C*08:31     | C*07:15+C*08:29        |                       |                     |                     |
| C*07:02:01G+C*08:34     | C*07:195+C*08:02:01G   |                       |                     |                     |
| C*07:02:01G+C*08:35     | C*07:37+C*08:54        |                       |                     |                     |
| C*07:02:01G+C*08:41     | C*07:186+C*08:01:01G   |                       |                     |                     |
| C*07:02:01G+C*08:44     | C*07:10+C*08:01:01G    |                       |                     |                     |
| C*07:02:01G+C*08:60     | C*07:157+C*08:01:01G   |                       |                     |                     |
| C*07:02:01G+C*08:61     | C*07:10+C*08:03:01G    | C*07:43+C*08:38       |                     |                     |
| C*07:02:01G+C*12:02:01G | C*07:138+C*12:18:01    |                       |                     |                     |
| C*07:02:01G+C*12:02:07  | C*07:02:35+C*12:02:01G |                       |                     |                     |
| C*07:02:01G+C*12:02:09  | C*07:02:12+C*12:02:01G |                       |                     |                     |
| C*07:02:01G+C*12:03:01G | C*07:02:04+C*12:03:10  | C*07:02:09+C*12:03:04 | C*07:27:01+C*12:11  | C*07:51+C*12:28     |
|                         | C*07:138+C*12:20       |                       |                     |                     |
| C*07:02:01G+C*12:03:05  | C*07:02:13+C*12:03:01G |                       |                     |                     |
| C*07:02:01G+C*12:03:20  | C*07:02:32+C*12:03:08  |                       |                     |                     |
| C*07:02:01G+C*12:03:21  | C*07:02:03+C*12:03:01G |                       |                     |                     |
| C*07:02:01G+C*12:05     | C*07:39+C*12:04:02     |                       |                     |                     |
| C*07:02:01G+C*12:08     | C*07:19+C*12:02:01G    |                       |                     |                     |
| C*07:02:01G+C*12:10:01  | C*07:02:12+C*12:10:02  |                       |                     |                     |
| C*07:02:01G+C*12:12     | C*07:155+C*12:03:01G   |                       |                     |                     |
| C*07:02:01G+C*12:24     | C*07:37+C*12:20        |                       |                     |                     |
| C*07:02:01G+C*12:32     | C*07:211+C*12:03:01G   |                       |                     |                     |
| C*07:02:01G+C*12:41     | C*07:49+C*12:72        | C*07:76+C*12:02:01G   |                     |                     |
| C*07:02:01G+C*12:45     | C*07:218+C*12:03:01G   |                       |                     |                     |
| C*07:02:01G+C*12:49     | C*07:39+C*12:02:01G    |                       |                     |                     |
| C*07:02:01G+C*12:50     | C*07:168+C*12:03:01G   |                       |                     |                     |
| C*07:02:01G+C*12:53     | C*07:183+C*12:03:01G   |                       |                     |                     |
| C*07:02:01G+C*12:54     | C*07:49+C*12:03:01G    |                       |                     |                     |
| C*07:02:01G+C*12:58     | C*07:56:01+C*12:03:01G | C*07:79+C*12:28       |                     |                     |
| C*07:02:01G+C*12:66     | C*07:192+C*12:03:01G   |                       |                     |                     |
| C*07:02:01G+C*12:82     | C*07:102+C*12:03:01G   |                       |                     |                     |
| C*07:02:01G+C*14:02:01G | C*07:02:32+C*14:02:02  | C*07:37+C*14:06       | C*07:51+C*14:13     | C*07:172+C*14:18    |
| C*07:02:01G+C*14:02:03  | C*07:02:09+C*14:02:01G |                       |                     |                     |
| C*07:02:01G+C*14:02:09  | C*07:02:15+C*14:02:01G |                       |                     |                     |
| C*07:02:01G+C*14:02:11  | C*07:02:07+C*14:02:01G |                       |                     |                     |
| C*07:02:01G+C*14:06     | C*07:241+C*14:15       |                       |                     |                     |
| C*07:02:01G+C*14:10     | C*07:56:01+C*14:03     |                       |                     |                     |
| C*07:02:01G+C*14:12     | C*07:76+C*14:02:01G    |                       |                     |                     |
| C*07:02:01G+C*14:14     | C*07:147+C*14:02:01G   |                       |                     |                     |
| C*07:02:01G+C*14:16     | C*07:138+C*14:06       |                       |                     |                     |
| C*07:02:01G+C*14:20     | C*07:186+C*14:02:01G   |                       |                     |                     |
| C*07:02:01G+C*14:25     | C*07:15+C*14:02:01G    |                       |                     |                     |
| C*07:02:01G+C*14:26     | C*07:13+C*14:02:01G    |                       |                     |                     |
| C*07:02:01G+C*14:30     | C*07:117+C*14:02:01G   |                       |                     |                     |
| C*07:02:01G+C*14:39     | C*07:229+C*14:02:01G   |                       |                     |                     |
| C*07:02:01G+C*15:02:01G | C*07:02:09+C*15:02:10  | C*07:19+C*15:17       | C*07:39+C*15:03     | C*07:49+C*15:21     |
|                         | C*07:76+C*15:07        | C*07:241+C*15:31      |                     |                     |
| C*07:02:01G+C*15:02:02  | C*07:02:26+C*15:02:01G |                       |                     |                     |
| C*07:02:01G+C*15:02:06  | C*07:02:31+C*15:02:01G |                       |                     |                     |
| C*07:02:01G+C*15:03     | C*07:19+C*15:16        |                       |                     |                     |
| C*07:02:01G+C*15:05:01G | C*07:10+C*15:22        | C*07:13+C*15:09       | C*07:27:01+C*15:46  |                     |
| C*07:02:01G+C*15:06:01  | C*07:29+C*15:09        | C*07:123+C*15:40      |                     |                     |

|                         |                         |                   |                    |                    |
|-------------------------|-------------------------|-------------------|--------------------|--------------------|
| C*07:02:01G+C*15:08     | C*07:37+C*15:02:01G     |                   |                    |                    |
| C*07:02:01G+C*15:09     | C*07:123+C*15:04        |                   |                    |                    |
| C*07:02:01G+C*15:10:02  | C*07:02:10+C*15:10:01   |                   |                    |                    |
| C*07:02:01G+C*15:12     | C*07:56:01+C*15:02:01G  |                   |                    |                    |
| C*07:02:01G+C*15:15     | C*07:186+C*15:02:01G    |                   |                    |                    |
| C*07:02:01G+C*15:17     | C*07:39+C*15:16         |                   |                    |                    |
| C*07:02:01G+C*15:19     | C*07:88+C*15:09         |                   |                    |                    |
| C*07:02:01G+C*15:30     | C*07:174+C*15:04        |                   |                    |                    |
| C*07:02:01G+C*15:35     | C*07:75+C*15:02:01G     |                   |                    |                    |
| C*07:02:01G+C*15:40     | C*07:29+C*15:04         |                   |                    |                    |
| C*07:02:01G+C*15:42     | C*07:15+C*15:02:01G     |                   |                    |                    |
| C*07:02:01G+C*15:45     | C*07:155+C*15:02:01G    |                   |                    |                    |
| C*07:02:01G+C*15:51     | C*07:137:02+C*15:02:01G |                   |                    |                    |
| C*07:02:01G+C*16:01:01  | C*07:02:09+C*16:01:02   | C*07:31+C*16:06   | C*07:39+C*16:15:01 | C*07:51+C*16:26    |
|                         | C*07:216+C*16:35        |                   |                    |                    |
| C*07:02:01G+C*16:01:06  | C*07:02:32+C*16:01:01   |                   |                    |                    |
| C*07:02:01G+C*16:02:01G | C*07:39+C*16:25         | C*07:49+C*16:37   | C*07:51+C*16:46    | C*07:76+C*16:01:01 |
|                         | C*07:216+C*16:48        |                   |                    |                    |
| C*07:02:01G+C*16:02:02  | C*07:02:11+C*16:02:01G  |                   |                    |                    |
| C*07:02:01G+C*16:02:05  | C*07:02:35+C*16:02:01G  |                   |                    |                    |
| C*07:02:01G+C*16:04:01  | C*07:138+C*16:35        |                   |                    |                    |
| C*07:02:01G+C*16:07:01  | C*07:27:02+C*16:06      |                   |                    |                    |
| C*07:02:01G+C*16:07:02  | C*07:27:01+C*16:06      |                   |                    |                    |
| C*07:02:01G+C*16:13     | C*07:218+C*16:01:01     |                   |                    |                    |
| C*07:02:01G+C*16:19     | C*07:114+C*16:02:01G    |                   |                    |                    |
| C*07:02:01G+C*16:20     | C*07:123+C*16:01:01     |                   |                    |                    |
| C*07:02:01G+C*16:22     | C*07:136+C*16:01:01     |                   |                    |                    |
| C*07:02:01G+C*16:24     | C*07:25+C*16:01:01      |                   |                    |                    |
| C*07:02:01G+C*16:25     | C*07:76+C*16:15:01      |                   |                    |                    |
| C*07:02:01G+C*16:27     | C*07:130+C*16:01:01     |                   |                    |                    |
| C*07:02:01G+C*16:29     | C*07:15+C*16:04:01      | C*07:220+C*16:33  |                    |                    |
| C*07:02:01G+C*16:31     | C*07:107+C*16:01:01     |                   |                    |                    |
| C*07:02:01G+C*16:40     | C*07:241+C*16:35        |                   |                    |                    |
| C*07:02:01G+C*16:42     | C*07:229+C*16:04:01     |                   |                    |                    |
| C*07:02:01G+C*16:46     | C*07:76+C*16:26         |                   |                    |                    |
| C*07:02:01G+C*16:48     | C*07:76+C*16:35         |                   |                    |                    |
| C*07:02:01G+C*16:50     | C*07:15+C*16:01:01      |                   |                    |                    |
| C*07:02:01G+C*16:51     | C*07:178+C*16:01:01     |                   |                    |                    |
| C*07:02:01G+C*17:01:01G | C*07:51+C*17:11         |                   |                    |                    |
| C*07:02:01G+C*17:01:02  | C*07:02:12+C*17:01:01G  |                   |                    |                    |
| C*07:02:01G+C*17:01:04  | C*07:02:09+C*17:01:01G  |                   |                    |                    |
| C*07:02:01G+C*17:05     | C*07:161+C*17:01:01G    |                   |                    |                    |
| C*07:02:01G+C*18:04     | C*07:172+C*18:01:01G    |                   |                    |                    |
| C*07:02:03+C*12:03:05   | C*07:02:13+C*12:03:21   |                   |                    |                    |
| C*07:02:03+C*12:04:02   | C*07:76+C*12:03:21      |                   |                    |                    |
| C*07:02:03+C*12:12      | C*07:155+C*12:03:21     |                   |                    |                    |
| C*07:02:03+C*12:32      | C*07:211+C*12:03:21     |                   |                    |                    |
| C*07:02:03+C*12:45      | C*07:218+C*12:03:21     |                   |                    |                    |
| C*07:02:03+C*12:50      | C*07:168+C*12:03:21     |                   |                    |                    |
| C*07:02:03+C*12:53      | C*07:183+C*12:03:21     |                   |                    |                    |
| C*07:02:03+C*12:54      | C*07:49+C*12:03:21      |                   |                    |                    |
| C*07:02:03+C*12:58      | C*07:56:01+C*12:03:21   |                   |                    |                    |
| C*07:02:03+C*12:66      | C*07:192+C*12:03:21     |                   |                    |                    |
| C*07:02:03+C*12:81      | C*07:19+C*12:03:21      |                   |                    |                    |
| C*07:02:03+C*12:82      | C*07:102+C*12:03:21     |                   |                    |                    |
| C*07:02:07+C*14:02:03   | C*07:02:09+C*14:02:11   |                   |                    |                    |
| C*07:02:07+C*14:02:09   | C*07:02:15+C*14:02:11   |                   |                    |                    |
| C*07:02:07+C*14:12      | C*07:76+C*14:02:11      |                   |                    |                    |
| C*07:02:07+C*14:14      | C*07:147+C*14:02:11     |                   |                    |                    |
| C*07:02:07+C*14:20      | C*07:186+C*14:02:11     |                   |                    |                    |
| C*07:02:07+C*14:25      | C*07:15+C*14:02:11      |                   |                    |                    |
| C*07:02:07+C*14:26      | C*07:13+C*14:02:11      |                   |                    |                    |
| C*07:02:07+C*14:30      | C*07:117+C*14:02:11     |                   |                    |                    |
| C*07:02:07+C*14:39      | C*07:229+C*14:02:11     |                   |                    |                    |
| C*07:02:09+C*12:04:01   | C*07:76+C*12:03:08      |                   |                    |                    |
| C*07:02:09+C*14:02:09   | C*07:02:15+C*14:02:03   |                   |                    |                    |
| C*07:02:09+C*14:12      | C*07:76+C*14:02:03      |                   |                    |                    |
| C*07:02:09+C*14:14      | C*07:147+C*14:02:03     |                   |                    |                    |
| C*07:02:09+C*14:20      | C*07:186+C*14:02:03     |                   |                    |                    |
| C*07:02:09+C*14:25      | C*07:15+C*14:02:03      |                   |                    |                    |
| C*07:02:09+C*14:26      | C*07:13+C*14:02:03      |                   |                    |                    |
| C*07:02:09+C*14:30      | C*07:117+C*14:02:03     |                   |                    |                    |
| C*07:02:09+C*14:39      | C*07:229+C*14:02:03     |                   |                    |                    |
| C*07:02:09+C*17:01:02   | C*07:02:12+C*17:01:04   |                   |                    |                    |
| C*07:02:09+C*17:05      | C*07:161+C*17:01:04     |                   |                    |                    |
| C*07:02:10+C*07:20      | C*07:73+C*07:127        | C*07:172+C*07:263 |                    |                    |
| C*07:02:11+C*07:04:02   | C*07:02:18+C*07:04:05   |                   |                    |                    |
| C*07:02:11+C*07:12      | C*07:04:05+C*07:17      |                   |                    |                    |
| C*07:02:11+C*07:101     | C*07:04:05+C*07:161     |                   |                    |                    |
| C*07:02:11+C*07:181     | C*07:04:05+C*07:51      |                   |                    |                    |
| C*07:02:11+C*15:02:01G  | C*07:127+C*15:10:01     |                   |                    |                    |
| C*07:02:11+C*16:02:05   | C*07:02:35+C*16:02:02   |                   |                    |                    |
| C*07:02:11+C*16:19      | C*07:114+C*16:02:02     |                   |                    |                    |
| C*07:02:12+C*08:02:03   | C*07:02:29+C*08:02:06   |                   |                    |                    |
| C*07:02:12+C*08:02:05   | C*07:02:17+C*08:02:06   |                   |                    |                    |
| C*07:02:12+C*08:34      | C*07:195+C*08:02:06     |                   |                    |                    |
| C*07:02:12+C*12:02:07   | C*07:02:35+C*12:02:09   |                   |                    |                    |
| C*07:02:12+C*12:08      | C*07:19+C*12:02:09      |                   |                    |                    |
| C*07:02:12+C*12:41      | C*07:76+C*12:02:09      |                   |                    |                    |
| C*07:02:12+C*12:49      | C*07:39+C*12:02:09      |                   |                    |                    |
| C*07:02:12+C*17:05      | C*07:161+C*17:01:02     |                   |                    |                    |
| C*07:02:13+C*12:04:02   | C*07:76+C*12:03:05      |                   |                    |                    |
| C*07:02:13+C*12:12      | C*07:155+C*12:03:05     |                   |                    |                    |
| C*07:02:13+C*12:32      | C*07:211+C*12:03:05     |                   |                    |                    |
| C*07:02:13+C*12:45      | C*07:218+C*12:03:05     |                   |                    |                    |
| C*07:02:13+C*12:50      | C*07:168+C*12:03:05     |                   |                    |                    |
| C*07:02:13+C*12:53      | C*07:183+C*12:03:05     |                   |                    |                    |
| C*07:02:13+C*12:54      | C*07:49+C*12:03:05      |                   |                    |                    |
| C*07:02:13+C*12:58      | C*07:56:01+C*12:03:05   |                   |                    |                    |
| C*07:02:13+C*12:66      | C*07:192+C*12:03:05     |                   |                    |                    |
| C*07:02:13+C*12:81      | C*07:19+C*12:03:05      |                   |                    |                    |
| C*07:02:13+C*12:82      | C*07:102+C*12:03:05     |                   |                    |                    |
| C*07:02:15+C*14:12      | C*07:76+C*14:02:09      |                   |                    |                    |
| C*07:02:15+C*14:14      | C*07:147+C*14:02:09     |                   |                    |                    |
| C*07:02:15+C*14:20      | C*07:186+C*14:02:09     |                   |                    |                    |

|                         |                        |                  |
|-------------------------|------------------------|------------------|
| C*07:02:15+C*14:25      | C*07:15+C*14:02:09     |                  |
| C*07:02:15+C*14:26      | C*07:13+C*14:02:09     |                  |
| C*07:02:15+C*14:30      | C*07:117+C*14:02:09    |                  |
| C*07:02:15+C*14:39      | C*07:229+C*14:02:09    |                  |
| C*07:02:17+C*08:02:03   | C*07:02:29+C*08:02:05  |                  |
| C*07:02:17+C*08:34      | C*07:195+C*08:02:05    |                  |
| C*07:02:18+C*07:12      | C*07:04:02+C*07:17     |                  |
| C*07:02:18+C*07:101     | C*07:04:02+C*07:161    |                  |
| C*07:02:18+C*07:181     | C*07:04:02+C*07:51     |                  |
| C*07:02:26+C*15:02:06   | C*07:02:31+C*15:02:02  |                  |
| C*07:02:26+C*15:08      | C*07:37+C*15:02:02     |                  |
| C*07:02:26+C*15:12      | C*07:56:01+C*15:02:02  |                  |
| C*07:02:26+C*15:15      | C*07:186+C*15:02:02    |                  |
| C*07:02:26+C*15:35      | C*07:75+C*15:02:02     |                  |
| C*07:02:26+C*15:42      | C*07:15+C*15:02:02     |                  |
| C*07:02:26+C*15:45      | C*07:155+C*15:02:02    |                  |
| C*07:02:26+C*15:51      | C*07:137:02+C*15:02:02 |                  |
| C*07:02:29+C*08:34      | C*07:195+C*08:02:03    |                  |
| C*07:02:31+C*15:08      | C*07:37+C*15:02:06     |                  |
| C*07:02:31+C*15:12      | C*07:56:01+C*15:02:06  |                  |
| C*07:02:31+C*15:15      | C*07:186+C*15:02:06    |                  |
| C*07:02:31+C*15:35      | C*07:75+C*15:02:06     |                  |
| C*07:02:31+C*15:42      | C*07:15+C*15:02:06     |                  |
| C*07:02:31+C*15:45      | C*07:155+C*15:02:06    |                  |
| C*07:02:31+C*15:51      | C*07:137:02+C*15:02:06 |                  |
| C*07:02:32+C*08:01:01G  | C*07:02:35+C*08:01:07  |                  |
| C*07:02:32+C*08:02:01G  | C*07:02:35+C*08:02:07  |                  |
| C*07:02:32+C*08:64      | C*07:02:35+C*08:33:02  |                  |
| C*07:02:32+C*16:02:01G  | C*07:76+C*16:01:06     |                  |
| C*07:02:32+C*16:13      | C*07:218+C*16:01:06    |                  |
| C*07:02:32+C*16:20      | C*07:123+C*16:01:06    |                  |
| C*07:02:32+C*16:22      | C*07:136+C*16:01:06    |                  |
| C*07:02:32+C*16:24      | C*07:25+C*16:01:06     |                  |
| C*07:02:32+C*16:27      | C*07:130+C*16:01:06    |                  |
| C*07:02:32+C*16:31      | C*07:107+C*16:01:06    |                  |
| C*07:02:32+C*16:50      | C*07:15+C*16:01:06     |                  |
| C*07:02:32+C*16:51      | C*07:178+C*16:01:06    |                  |
| C*07:02:35+C*12:08      | C*07:19+C*12:02:07     |                  |
| C*07:02:35+C*12:41      | C*07:76+C*12:02:07     |                  |
| C*07:02:35+C*12:49      | C*07:39+C*12:02:07     |                  |
| C*07:02:35+C*16:19      | C*07:114+C*16:02:05    |                  |
| C*07:04:01G+C*07:07     | C*07:09+C*07:181       |                  |
| C*07:04:01G+C*07:27:02  | C*07:04:03+C*07:27:01  |                  |
| C*07:04:01G+C*07:60     | C*07:109+C*07:181      |                  |
| C*07:04:01G+C*07:79     | C*07:56:01+C*07:181    |                  |
| C*07:04:01G+C*07:199:02 | C*07:04:03+C*07:199:01 |                  |
| C*07:04:01G+C*08:01:01G | C*07:101+C*08:16:01    |                  |
| C*07:04:01G+C*08:01:02  | C*07:04:03+C*08:01:01G |                  |
| C*07:04:01G+C*08:02:01G | C*07:12+C*08:07        | C*07:181+C*08:28 |
| C*07:04:01G+C*08:04:01  | C*07:101+C*08:13       |                  |
| C*07:04:01G+C*08:05     | C*07:101+C*08:25       |                  |
| C*07:04:01G+C*08:15:01  | C*07:45+C*08:02:01G    |                  |
| C*07:04:01G+C*12:02:01G | C*07:04:03+C*12:02:03  |                  |
| C*07:04:01G+C*12:02:06  | C*07:04:03+C*12:02:08  |                  |
| C*07:04:01G+C*12:03:01G | C*07:181+C*12:28       |                  |
| C*07:04:01G+C*12:03:19  | C*07:04:08+C*12:03:08  |                  |
| C*07:04:01G+C*12:18:01  | C*07:04:08+C*12:18:02  |                  |
| C*07:04:01G+C*14:02:01G | C*07:181+C*14:13       |                  |
| C*07:04:01G+C*15:54     | C*07:63+C*15:05:01G    |                  |
| C*07:04:01G+C*16:01:01  | C*07:181+C*16:26       |                  |
| C*07:04:01G+C*16:02:01G | C*07:181+C*16:46       |                  |
| C*07:04:01G+C*16:02:02  | C*07:04:05+C*16:02:01G |                  |
| C*07:04:01G+C*16:02:04  | C*07:04:07+C*16:02:01G |                  |
| C*07:04:01G+C*16:07:01  | C*07:04:03+C*16:07:02  |                  |
| C*07:04:01G+C*17:01:01G | C*07:181+C*17:11       |                  |
| C*07:04:01G+C*17:05     | C*07:101+C*17:01:01G   |                  |
| C*07:04:05+C*16:02:04   | C*07:04:07+C*16:02:02  |                  |
| C*07:07+C*07:56:01      | C*07:09+C*07:79        | C*07:60+C*07:76  |
| C*07:07+C*07:109        | C*07:09+C*07:60        |                  |
| C*07:07+C*08:01:01G     | C*07:16+C*08:10        |                  |
| C*07:07+C*12:02:01G     | C*07:16+C*12:41        |                  |
| C*07:07+C*12:03:01G     | C*07:16+C*12:04:02     |                  |
| C*07:07+C*12:58         | C*07:60+C*12:04:02     |                  |
| C*07:07+C*14:02:01G     | C*07:16+C*14:12        |                  |
| C*07:07+C*15:07         | C*07:16+C*15:02:01G    |                  |
| C*07:07+C*16:01:01      | C*07:16+C*16:02:01G    |                  |
| C*07:07+C*16:15:01      | C*07:16+C*16:25        |                  |
| C*07:07+C*16:35         | C*07:16+C*16:48        |                  |
| C*07:07+C*16:46         | C*07:09+C*16:02:01G    |                  |
| C*07:07+C*17:11         | C*07:09+C*17:01:01G    |                  |
| C*07:08+C*08:02:06      | C*07:27:01+C*08:19     |                  |
| C*07:08+C*12:02:01G     | C*07:27:02+C*12:10:02  |                  |
| C*07:08+C*12:02:03      | C*07:27:01+C*12:10:02  |                  |
| C*07:08+C*12:02:09      | C*07:27:02+C*12:10:01  |                  |
| C*07:08+C*12:03:19      | C*07:31+C*12:10:02     |                  |
| C*07:08+C*12:74         | C*07:14+C*12:10:02     |                  |
| C*07:08+C*14:05         | C*07:27:01+C*14:02:01G |                  |
| C*07:08+C*16:01:01      | C*07:27:01+C*16:23     |                  |
| C*07:09+C*07:10         | C*07:76+C*07:196       |                  |
| C*07:09+C*07:15         | C*07:76+C*07:207       |                  |
| C*07:09+C*07:17         | C*07:76+C*07:141:02    |                  |
| C*07:09+C*07:29         | C*07:76+C*07:248       |                  |
| C*07:09+C*07:37         | C*07:76+C*07:176       |                  |
| C*07:09+C*07:39         | C*07:40+C*07:76        |                  |
| C*07:09+C*07:49         | C*07:76+C*07:247       |                  |
| C*07:09+C*07:56:01      | C*07:76+C*07:109       |                  |
| C*07:09+C*07:75         | C*07:76+C*07:254       |                  |
| C*07:09+C*07:107        | C*07:76+C*07:224       |                  |
| C*07:09+C*07:123        | C*07:76+C*07:173       |                  |
| C*07:09+C*07:127        | C*07:76+C*07:263       |                  |
| C*07:09+C*07:138        | C*07:22+C*07:76        |                  |
| C*07:09+C*07:155        | C*07:76+C*07:124       |                  |
| C*07:09+C*07:161        | C*07:76+C*07:148       |                  |
| C*07:09+C*07:171        | C*07:76+C*07:170       |                  |
| C*07:09+C*07:172        | C*07:73+C*07:76        |                  |

|                     |                      |                  |
|---------------------|----------------------|------------------|
| C*07:09+C*07:183    | C*07:76+C*07:94      |                  |
| C*07:09+C*07:186    | C*07:76+C*07:212     |                  |
| C*07:09+C*07:216    | C*07:53+C*07:76      |                  |
| C*07:09+C*07:218    | C*07:24+C*07:76      |                  |
| C*07:09+C*07:232    | C*07:76+C*07:128     |                  |
| C*07:09+C*07:238    | C*07:76+C*07:210     |                  |
| C*07:09+C*07:240    | C*07:76+C*07:255     |                  |
| C*07:09+C*07:241    | C*07:76+C*07:165     |                  |
| C*07:09+C*08:41     | C*07:212+C*08:10     |                  |
| C*07:09+C*08:44     | C*07:196+C*08:10     |                  |
| C*07:09+C*12:06     | C*07:82+C*12:04:02   |                  |
| C*07:09+C*12:11     | C*07:19+C*12:04:02   | C*07:76+C*12:81  |
| C*07:09+C*12:12     | C*07:124+C*12:04:02  |                  |
| C*07:09+C*12:30     | C*07:214+C*12:41     |                  |
| C*07:09+C*12:37     | C*07:204+C*12:04:02  |                  |
| C*07:09+C*12:38     | C*07:200+C*12:04:02  |                  |
| C*07:09+C*12:45     | C*07:24+C*12:04:02   |                  |
| C*07:09+C*12:46N    | C*07:104N+C*12:04:02 |                  |
| C*07:09+C*12:49     | C*07:40+C*12:41      | C*07:210+C*12:72 |
| C*07:09+C*12:53     | C*07:94+C*12:04:02   |                  |
| C*07:09+C*12:54     | C*07:247+C*12:04:02  |                  |
| C*07:09+C*12:64     | C*07:179+C*12:41     |                  |
| C*07:09+C*12:69     | C*07:203+C*12:41     |                  |
| C*07:09+C*14:20     | C*07:212+C*14:12     |                  |
| C*07:09+C*14:25     | C*07:207+C*14:12     |                  |
| C*07:09+C*14:42     | C*07:203+C*14:12     |                  |
| C*07:09+C*16:04:01  | C*07:22+C*16:48      |                  |
| C*07:09+C*16:10     | C*07:231+C*16:02:01G |                  |
| C*07:09+C*16:13     | C*07:24+C*16:02:01G  |                  |
| C*07:09+C*16:18     | C*07:250+C*16:02:01G |                  |
| C*07:09+C*16:20     | C*07:173+C*16:02:01G |                  |
| C*07:09+C*16:31     | C*07:224+C*16:02:01G |                  |
| C*07:09+C*16:40     | C*07:165+C*16:48     |                  |
| C*07:09+C*16:43     | C*07:95+C*16:02:01G  |                  |
| C*07:09+C*16:45     | C*07:28+C*16:02:01G  |                  |
| C*07:09+C*16:49     | C*07:257+C*16:02:01G |                  |
| C*07:09+C*16:50     | C*07:207+C*16:02:01G |                  |
| C*07:10+C*07:16     | C*07:51+C*07:196     |                  |
| C*07:10+C*07:22     | C*07:138+C*07:196    |                  |
| C*07:10+C*07:24     | C*07:196+C*07:218    |                  |
| C*07:10+C*07:40     | C*07:39+C*07:196     |                  |
| C*07:10+C*07:53     | C*07:196+C*07:216    |                  |
| C*07:10+C*07:60     | C*07:79+C*07:196     |                  |
| C*07:10+C*07:73     | C*07:172+C*07:196    |                  |
| C*07:10+C*07:94     | C*07:183+C*07:196    |                  |
| C*07:10+C*07:109    | C*07:56:01+C*07:196  |                  |
| C*07:10+C*07:124    | C*07:155+C*07:196    |                  |
| C*07:10+C*07:128    | C*07:196+C*07:232    |                  |
| C*07:10+C*07:141:02 | C*07:17+C*07:196     |                  |
| C*07:10+C*07:148    | C*07:161+C*07:196    |                  |
| C*07:10+C*07:165    | C*07:196+C*07:241    |                  |
| C*07:10+C*07:170    | C*07:171+C*07:196    |                  |
| C*07:10+C*07:173    | C*07:123+C*07:196    |                  |
| C*07:10+C*07:176    | C*07:37+C*07:196     |                  |
| C*07:10+C*07:207    | C*07:15+C*07:196     |                  |
| C*07:10+C*07:210    | C*07:196+C*07:238    |                  |
| C*07:10+C*07:212    | C*07:186+C*07:196    |                  |
| C*07:10+C*07:224    | C*07:107+C*07:196    |                  |
| C*07:10+C*07:247    | C*07:49+C*07:196     |                  |
| C*07:10+C*07:248    | C*07:29+C*07:196     |                  |
| C*07:10+C*07:254    | C*07:75+C*07:196     |                  |
| C*07:10+C*07:255    | C*07:196+C*07:240    |                  |
| C*07:10+C*07:263    | C*07:127+C*07:196    |                  |
| C*07:10+C*08:10     | C*07:76+C*08:44      |                  |
| C*07:10+C*08:41     | C*07:186+C*08:44     |                  |
| C*07:10+C*08:60     | C*07:157+C*08:44     |                  |
| C*07:10+C*12:03:01G | C*07:43+C*12:11      |                  |
| C*07:10+C*12:81     | C*07:196+C*12:11     |                  |
| C*07:10+C*15:05:01G | C*07:43+C*15:46      |                  |
| C*07:10+C*16:07:02  | C*07:43+C*16:06      |                  |
| C*07:12+C*07:16     | C*07:141:02+C*07:181 |                  |
| C*07:12+C*07:51     | C*07:17+C*07:181     |                  |
| C*07:12+C*07:148    | C*07:101+C*07:141:02 |                  |
| C*07:12+C*07:161    | C*07:17+C*07:101     |                  |
| C*07:13+C*14:12     | C*07:76+C*14:26      |                  |
| C*07:13+C*14:14     | C*07:147+C*14:26     |                  |
| C*07:13+C*14:20     | C*07:186+C*14:26     |                  |
| C*07:13+C*14:25     | C*07:15+C*14:26      |                  |
| C*07:13+C*14:30     | C*07:117+C*14:26     |                  |
| C*07:13+C*14:39     | C*07:229+C*14:26     |                  |
| C*07:13+C*15:06:01  | C*07:29+C*15:05:01G  |                  |
| C*07:13+C*15:19     | C*07:88+C*15:05:01G  |                  |
| C*07:14+C*12:02:01G | C*07:27:02+C*12:74   |                  |
| C*07:14+C*12:02:03  | C*07:27:01+C*12:74   |                  |
| C*07:14+C*12:03:19  | C*07:31+C*12:74      |                  |
| C*07:15+C*07:16     | C*07:51+C*07:207     |                  |
| C*07:15+C*07:22     | C*07:138+C*07:207    |                  |
| C*07:15+C*07:24     | C*07:207+C*07:218    |                  |
| C*07:15+C*07:40     | C*07:39+C*07:207     |                  |
| C*07:15+C*07:53     | C*07:207+C*07:216    |                  |
| C*07:15+C*07:60     | C*07:79+C*07:207     |                  |
| C*07:15+C*07:73     | C*07:172+C*07:207    |                  |
| C*07:15+C*07:94     | C*07:183+C*07:207    |                  |
| C*07:15+C*07:109    | C*07:56:01+C*07:207  |                  |
| C*07:15+C*07:124    | C*07:155+C*07:207    |                  |
| C*07:15+C*07:128    | C*07:207+C*07:232    |                  |
| C*07:15+C*07:141:02 | C*07:17+C*07:207     |                  |
| C*07:15+C*07:148    | C*07:161+C*07:207    |                  |
| C*07:15+C*07:165    | C*07:207+C*07:241    |                  |
| C*07:15+C*07:170    | C*07:171+C*07:207    |                  |
| C*07:15+C*07:173    | C*07:123+C*07:207    |                  |
| C*07:15+C*07:176    | C*07:37+C*07:207     |                  |
| C*07:15+C*07:210    | C*07:207+C*07:238    |                  |
| C*07:15+C*07:212    | C*07:186+C*07:207    |                  |
| C*07:15+C*07:224    | C*07:107+C*07:207    |                  |

|                     |                        |                  |
|---------------------|------------------------|------------------|
| C*07:15+C*07:247    | C*07:49+C*07:207       |                  |
| C*07:15+C*07:248    | C*07:29+C*07:207       |                  |
| C*07:15+C*07:254    | C*07:75+C*07:207       |                  |
| C*07:15+C*07:255    | C*07:207+C*07:240      |                  |
| C*07:15+C*07:263    | C*07:127+C*07:207      |                  |
| C*07:15+C*08:03:01G | C*07:220+C*08:06       |                  |
| C*07:15+C*12:81     | C*07:207+C*12:11       |                  |
| C*07:15+C*14:12     | C*07:76+C*14:25        |                  |
| C*07:15+C*14:14     | C*07:147+C*14:25       |                  |
| C*07:15+C*14:20     | C*07:186+C*14:25       |                  |
| C*07:15+C*14:30     | C*07:117+C*14:25       |                  |
| C*07:15+C*14:39     | C*07:229+C*14:25       |                  |
| C*07:15+C*15:08     | C*07:37+C*15:42        |                  |
| C*07:15+C*15:12     | C*07:56:01+C*15:42     |                  |
| C*07:15+C*15:15     | C*07:186+C*15:42       |                  |
| C*07:15+C*15:35     | C*07:75+C*15:42        |                  |
| C*07:15+C*15:45     | C*07:155+C*15:42       |                  |
| C*07:15+C*15:51     | C*07:137:02+C*15:42    |                  |
| C*07:15+C*16:02:01G | C*07:76+C*16:50        |                  |
| C*07:15+C*16:13     | C*07:218+C*16:50       |                  |
| C*07:15+C*16:20     | C*07:123+C*16:50       |                  |
| C*07:15+C*16:22     | C*07:136+C*16:50       |                  |
| C*07:15+C*16:24     | C*07:25+C*16:50        |                  |
| C*07:15+C*16:27     | C*07:130+C*16:50       |                  |
| C*07:15+C*16:31     | C*07:107+C*16:50       |                  |
| C*07:15+C*16:42     | C*07:229+C*16:29       |                  |
| C*07:15+C*16:51     | C*07:178+C*16:50       |                  |
| C*07:16+C*07:17     | C*07:51+C*07:141:02    |                  |
| C*07:16+C*07:29     | C*07:51+C*07:248       |                  |
| C*07:16+C*07:37     | C*07:51+C*07:176       |                  |
| C*07:16+C*07:39     | C*07:40+C*07:51        |                  |
| C*07:16+C*07:49     | C*07:51+C*07:247       |                  |
| C*07:16+C*07:75     | C*07:51+C*07:254       |                  |
| C*07:16+C*07:79     | C*07:51+C*07:60        |                  |
| C*07:16+C*07:101    | C*07:148+C*07:181      |                  |
| C*07:16+C*07:107    | C*07:51+C*07:224       |                  |
| C*07:16+C*07:123    | C*07:51+C*07:173       |                  |
| C*07:16+C*07:127    | C*07:51+C*07:263       |                  |
| C*07:16+C*07:138    | C*07:22+C*07:51        |                  |
| C*07:16+C*07:155    | C*07:51+C*07:124       |                  |
| C*07:16+C*07:161    | C*07:51+C*07:148       |                  |
| C*07:16+C*07:171    | C*07:51+C*07:170       |                  |
| C*07:16+C*07:172    | C*07:51+C*07:73        |                  |
| C*07:16+C*07:183    | C*07:51+C*07:94        |                  |
| C*07:16+C*07:186    | C*07:51+C*07:212       |                  |
| C*07:16+C*07:216    | C*07:51+C*07:53        |                  |
| C*07:16+C*07:218    | C*07:24+C*07:51        |                  |
| C*07:16+C*07:232    | C*07:51+C*07:128       |                  |
| C*07:16+C*07:238    | C*07:51+C*07:210       |                  |
| C*07:16+C*07:240    | C*07:51+C*07:255       |                  |
| C*07:16+C*07:241    | C*07:51+C*07:165       |                  |
| C*07:16+C*12:11     | C*07:51+C*12:81        |                  |
| C*07:16+C*12:58     | C*07:60+C*12:03:01G    |                  |
| C*07:16+C*14:10     | C*07:60+C*14:03        |                  |
| C*07:16+C*15:12     | C*07:60+C*15:02:01G    |                  |
| C*07:17+C*07:22     | C*07:138+C*07:141:02   |                  |
| C*07:17+C*07:24     | C*07:141:02+C*07:218   |                  |
| C*07:17+C*07:40     | C*07:39+C*07:141:02    |                  |
| C*07:17+C*07:53     | C*07:141:02+C*07:216   |                  |
| C*07:17+C*07:60     | C*07:79+C*07:141:02    |                  |
| C*07:17+C*07:73     | C*07:141:02+C*07:172   |                  |
| C*07:17+C*07:94     | C*07:141:02+C*07:183   |                  |
| C*07:17+C*07:109    | C*07:56:01+C*07:141:02 |                  |
| C*07:17+C*07:124    | C*07:141:02+C*07:155   |                  |
| C*07:17+C*07:128    | C*07:141:02+C*07:232   |                  |
| C*07:17+C*07:148    | C*07:141:02+C*07:161   |                  |
| C*07:17+C*07:165    | C*07:141:02+C*07:241   |                  |
| C*07:17+C*07:170    | C*07:141:02+C*07:171   |                  |
| C*07:17+C*07:173    | C*07:123+C*07:141:02   |                  |
| C*07:17+C*07:176    | C*07:37+C*07:141:02    |                  |
| C*07:17+C*07:210    | C*07:141:02+C*07:238   |                  |
| C*07:17+C*07:212    | C*07:141:02+C*07:186   |                  |
| C*07:17+C*07:224    | C*07:107+C*07:141:02   |                  |
| C*07:17+C*07:247    | C*07:49+C*07:141:02    |                  |
| C*07:17+C*07:248    | C*07:29+C*07:141:02    |                  |
| C*07:17+C*07:254    | C*07:75+C*07:141:02    |                  |
| C*07:17+C*07:255    | C*07:141:02+C*07:240   |                  |
| C*07:17+C*07:263    | C*07:127+C*07:141:02   |                  |
| C*07:17+C*08:47     | C*07:37+C*08:57        |                  |
| C*07:17+C*12:81     | C*07:141:02+C*12:11    |                  |
| C*07:19+C*08:61     | C*07:196+C*08:38       |                  |
| C*07:19+C*12:06     | C*07:82+C*12:11        |                  |
| C*07:19+C*12:12     | C*07:124+C*12:11       | C*07:155+C*12:81 |
| C*07:19+C*12:32     | C*07:211+C*12:81       |                  |
| C*07:19+C*12:37     | C*07:204+C*12:11       |                  |
| C*07:19+C*12:38     | C*07:200+C*12:11       |                  |
| C*07:19+C*12:41     | C*07:76+C*12:08        |                  |
| C*07:19+C*12:45     | C*07:24+C*12:11        | C*07:218+C*12:81 |
| C*07:19+C*12:46N    | C*07:104N+C*12:11      |                  |
| C*07:19+C*12:49     | C*07:39+C*12:08        |                  |
| C*07:19+C*12:50     | C*07:168+C*12:81       |                  |
| C*07:19+C*12:53     | C*07:94+C*12:11        | C*07:183+C*12:81 |
| C*07:19+C*12:54     | C*07:49+C*12:81        | C*07:247+C*12:11 |
| C*07:19+C*12:58     | C*07:56:01+C*12:81     | C*07:109+C*12:11 |
| C*07:19+C*12:66     | C*07:192+C*12:81       |                  |
| C*07:19+C*12:82     | C*07:102+C*12:81       |                  |
| C*07:20+C*15:05:01G | C*07:96+C*15:23        |                  |
| C*07:22+C*07:29     | C*07:138+C*07:248      |                  |
| C*07:22+C*07:37     | C*07:138+C*07:176      |                  |
| C*07:22+C*07:39     | C*07:40+C*07:138       |                  |
| C*07:22+C*07:49     | C*07:138+C*07:247      |                  |
| C*07:22+C*07:56:01  | C*07:109+C*07:138      |                  |
| C*07:22+C*07:75     | C*07:138+C*07:254      |                  |
| C*07:22+C*07:79     | C*07:60+C*07:138       |                  |
| C*07:22+C*07:107    | C*07:138+C*07:224      |                  |



|                        |                        |                     |
|------------------------|------------------------|---------------------|
| C*07:22+C*07:123       | C*07:138+C*07:173      |                     |
| C*07:22+C*07:127       | C*07:138+C*07:263      |                     |
| C*07:22+C*07:137:02    | C*07:137:01+C*07:176   |                     |
| C*07:22+C*07:155       | C*07:124+C*07:138      |                     |
| C*07:22+C*07:161       | C*07:138+C*07:148      |                     |
| C*07:22+C*07:171       | C*07:138+C*07:170      |                     |
| C*07:22+C*07:172       | C*07:73+C*07:138       |                     |
| C*07:22+C*07:183       | C*07:94+C*07:138       |                     |
| C*07:22+C*07:186       | C*07:138+C*07:212      |                     |
| C*07:22+C*07:216       | C*07:53+C*07:138       |                     |
| C*07:22+C*07:218       | C*07:24+C*07:138       |                     |
| C*07:22+C*07:232       | C*07:128+C*07:138      |                     |
| C*07:22+C*07:238       | C*07:138+C*07:210      |                     |
| C*07:22+C*07:240       | C*07:138+C*07:255      |                     |
| C*07:22+C*07:241       | C*07:138+C*07:165      |                     |
| C*07:22+C*08:02:01G    | C*07:176+C*08:29       |                     |
| C*07:22+C*08:64        | C*07:176+C*08:27       |                     |
| C*07:22+C*12:11        | C*07:138+C*12:81       |                     |
| C*07:22+C*12:24        | C*07:176+C*12:03:01G   |                     |
| C*07:22+C*14:02:01G    | C*07:176+C*14:16       |                     |
| C*07:22+C*16:01:01     | C*07:53+C*16:04:01     |                     |
| C*07:22+C*16:40        | C*07:40+C*12:03:08     | C*07:165+C*16:04:01 |
| C*07:22+C*16:50        | C*07:53+C*16:29        |                     |
| C*07:24+C*07:29        | C*07:218+C*07:248      |                     |
| C*07:24+C*07:37        | C*07:176+C*07:218      |                     |
| C*07:24+C*07:39        | C*07:40+C*07:218       |                     |
| C*07:24+C*07:49        | C*07:218+C*07:247      |                     |
| C*07:24+C*07:56:01     | C*07:109+C*07:218      |                     |
| C*07:24+C*07:75        | C*07:218+C*07:254      |                     |
| C*07:24+C*07:79        | C*07:60+C*07:218       |                     |
| C*07:24+C*07:107       | C*07:218+C*07:224      |                     |
| C*07:24+C*07:123       | C*07:173+C*07:218      |                     |
| C*07:24+C*07:127       | C*07:218+C*07:263      |                     |
| C*07:24+C*07:155       | C*07:124+C*07:218      |                     |
| C*07:24+C*07:161       | C*07:148+C*07:218      |                     |
| C*07:24+C*07:171       | C*07:170+C*07:218      |                     |
| C*07:24+C*07:172       | C*07:73+C*07:218       |                     |
| C*07:24+C*07:183       | C*07:94+C*07:218       |                     |
| C*07:24+C*07:186       | C*07:212+C*07:218      |                     |
| C*07:24+C*07:216       | C*07:53+C*07:218       |                     |
| C*07:24+C*07:232       | C*07:128+C*07:218      |                     |
| C*07:24+C*07:238       | C*07:210+C*07:218      |                     |
| C*07:24+C*07:240       | C*07:218+C*07:255      |                     |
| C*07:24+C*07:241       | C*07:165+C*07:218      |                     |
| C*07:24+C*12:06        | C*07:82+C*12:45        |                     |
| C*07:24+C*12:12        | C*07:124+C*12:45       |                     |
| C*07:24+C*12:37        | C*07:204+C*12:45       |                     |
| C*07:24+C*12:38        | C*07:200+C*12:45       |                     |
| C*07:24+C*12:46N       | C*07:104N+C*12:45      |                     |
| C*07:24+C*12:53        | C*07:94+C*12:45        |                     |
| C*07:24+C*12:54        | C*07:247+C*12:45       |                     |
| C*07:24+C*12:58        | C*07:109+C*12:45       |                     |
| C*07:24+C*16:10        | C*07:231+C*16:13       |                     |
| C*07:24+C*16:18        | C*07:250+C*16:13       |                     |
| C*07:24+C*16:20        | C*07:173+C*16:13       |                     |
| C*07:24+C*16:31        | C*07:224+C*16:13       |                     |
| C*07:24+C*16:43        | C*07:95+C*16:13        |                     |
| C*07:24+C*16:45        | C*07:28+C*16:13        |                     |
| C*07:24+C*16:49        | C*07:257+C*16:13       |                     |
| C*07:24+C*16:50        | C*07:207+C*16:13       |                     |
| C*07:25+C*16:02:01G    | C*07:76+C*16:24        |                     |
| C*07:25+C*16:13        | C*07:218+C*16:24       |                     |
| C*07:25+C*16:20        | C*07:123+C*16:24       |                     |
| C*07:25+C*16:22        | C*07:136+C*16:24       |                     |
| C*07:25+C*16:27        | C*07:130+C*16:24       |                     |
| C*07:25+C*16:31        | C*07:107+C*16:24       |                     |
| C*07:25+C*16:51        | C*07:178+C*16:24       |                     |
| C*07:26+C*08:03:01G    | C*07:92+C*08:14        |                     |
| C*07:26+C*14:02:01G    | C*07:92+C*14:18        |                     |
| C*07:26+C*18:04        | C*07:92+C*18:01:01G    |                     |
| C*07:27:01+C*07:199:02 | C*07:27:02+C*07:199:01 |                     |
| C*07:27:01+C*08:01:02  | C*07:27:02+C*08:01:01G |                     |
| C*07:27:01+C*08:12     | C*07:31+C*08:02:01G    |                     |
| C*07:27:01+C*08:44     | C*07:43+C*08:01:01G    |                     |
| C*07:27:01+C*08:61     | C*07:43+C*08:03:01G    |                     |
| C*07:27:01+C*12:02:01G | C*07:27:02+C*12:02:03  |                     |
| C*07:27:01+C*12:02:06  | C*07:27:02+C*12:02:08  |                     |
| C*07:27:01+C*12:03:01G | C*07:31+C*12:02:08     |                     |
| C*07:27:01+C*12:03:19  | C*07:31+C*12:02:03     |                     |
| C*07:27:01+C*15:05:01G | C*07:43+C*15:22        |                     |
| C*07:27:01+C*15:08     | C*07:176+C*15:17       |                     |
| C*07:27:01+C*15:12     | C*07:109+C*15:17       |                     |
| C*07:27:01+C*15:15     | C*07:212+C*15:17       |                     |
| C*07:27:01+C*15:26     | C*07:257+C*15:17       |                     |
| C*07:27:01+C*15:35     | C*07:254+C*15:17       |                     |
| C*07:27:01+C*15:42     | C*07:207+C*15:17       |                     |
| C*07:27:01+C*15:45     | C*07:124+C*15:17       |                     |
| C*07:27:01+C*15:49     | C*07:35+C*15:17        |                     |
| C*07:27:01+C*15:50     | C*07:36+C*15:17        |                     |
| C*07:27:01+C*16:01:01  | C*07:31+C*16:07:02     |                     |
| C*07:27:01+C*16:07:01  | C*07:27:02+C*16:07:02  |                     |
| C*07:27:02+C*08:44     | C*07:43+C*08:01:02     |                     |
| C*07:27:02+C*12:03:01G | C*07:31+C*12:02:06     |                     |
| C*07:27:02+C*12:03:19  | C*07:31+C*12:02:01G    |                     |
| C*07:27:02+C*14:05     | C*07:31+C*14:09        |                     |
| C*07:27:02+C*16:01:01  | C*07:31+C*16:07:01     |                     |
| C*07:28+C*16:10        | C*07:231+C*16:45       |                     |
| C*07:28+C*16:18        | C*07:250+C*16:45       |                     |
| C*07:28+C*16:20        | C*07:173+C*16:45       |                     |
| C*07:28+C*16:31        | C*07:224+C*16:45       |                     |
| C*07:28+C*16:43        | C*07:95+C*16:45        |                     |
| C*07:28+C*16:49        | C*07:257+C*16:45       |                     |
| C*07:28+C*16:50        | C*07:207+C*16:45       |                     |
| C*07:29+C*07:40        | C*07:39+C*07:248       |                     |
| C*07:29+C*07:53        | C*07:216+C*07:248      |                     |

|                     |                      |                     |
|---------------------|----------------------|---------------------|
| C*07:29+C*07:60     | C*07:79+C*07:248     |                     |
| C*07:29+C*07:73     | C*07:172+C*07:248    |                     |
| C*07:29+C*07:94     | C*07:183+C*07:248    |                     |
| C*07:29+C*07:109    | C*07:56:01+C*07:248  |                     |
| C*07:29+C*07:124    | C*07:155+C*07:248    |                     |
| C*07:29+C*07:128    | C*07:232+C*07:248    |                     |
| C*07:29+C*07:148    | C*07:161+C*07:248    |                     |
| C*07:29+C*07:165    | C*07:241+C*07:248    |                     |
| C*07:29+C*07:170    | C*07:171+C*07:248    |                     |
| C*07:29+C*07:173    | C*07:123+C*07:248    |                     |
| C*07:29+C*07:176    | C*07:37+C*07:248     |                     |
| C*07:29+C*07:210    | C*07:238+C*07:248    |                     |
| C*07:29+C*07:212    | C*07:186+C*07:248    |                     |
| C*07:29+C*07:224    | C*07:107+C*07:248    |                     |
| C*07:29+C*07:247    | C*07:49+C*07:248     |                     |
| C*07:29+C*07:254    | C*07:75+C*07:248     |                     |
| C*07:29+C*07:255    | C*07:240+C*07:248    |                     |
| C*07:29+C*07:263    | C*07:127+C*07:248    |                     |
| C*07:29+C*12:81     | C*07:248+C*12:11     |                     |
| C*07:29+C*15:19     | C*07:88+C*15:06:01   |                     |
| C*07:29+C*15:30     | C*07:174+C*15:40     |                     |
| C*07:31+C*15:02:01G | C*07:43+C*15:58      |                     |
| C*07:31+C*15:06:01  | C*07:43+C*15:55      |                     |
| C*07:35+C*08:17     | C*07:225+C*08:48     |                     |
| C*07:35+C*08:19     | C*07:108+C*08:48     |                     |
| C*07:35+C*15:08     | C*07:176+C*15:49     |                     |
| C*07:35+C*15:12     | C*07:109+C*15:49     |                     |
| C*07:35+C*15:15     | C*07:212+C*15:49     |                     |
| C*07:35+C*15:26     | C*07:257+C*15:49     |                     |
| C*07:35+C*15:35     | C*07:254+C*15:49     |                     |
| C*07:35+C*15:42     | C*07:207+C*15:49     |                     |
| C*07:35+C*15:45     | C*07:124+C*15:49     |                     |
| C*07:35+C*15:50     | C*07:36+C*15:49      |                     |
| C*07:36+C*15:08     | C*07:176+C*15:50     |                     |
| C*07:36+C*15:12     | C*07:109+C*15:50     |                     |
| C*07:36+C*15:15     | C*07:212+C*15:50     |                     |
| C*07:36+C*15:26     | C*07:257+C*15:50     |                     |
| C*07:36+C*15:35     | C*07:254+C*15:50     |                     |
| C*07:36+C*15:42     | C*07:207+C*15:50     |                     |
| C*07:36+C*15:45     | C*07:124+C*15:50     |                     |
| C*07:37+C*07:40     | C*07:39+C*07:176     |                     |
| C*07:37+C*07:53     | C*07:176+C*07:216    |                     |
| C*07:37+C*07:60     | C*07:79+C*07:176     |                     |
| C*07:37+C*07:73     | C*07:172+C*07:176    |                     |
| C*07:37+C*07:94     | C*07:176+C*07:183    |                     |
| C*07:37+C*07:109    | C*07:56:01+C*07:176  |                     |
| C*07:37+C*07:124    | C*07:155+C*07:176    |                     |
| C*07:37+C*07:128    | C*07:176+C*07:232    |                     |
| C*07:37+C*07:137:01 | C*07:137:02+C*07:138 |                     |
| C*07:37+C*07:148    | C*07:161+C*07:176    |                     |
| C*07:37+C*07:165    | C*07:176+C*07:241    |                     |
| C*07:37+C*07:170    | C*07:171+C*07:176    |                     |
| C*07:37+C*07:173    | C*07:123+C*07:176    |                     |
| C*07:37+C*07:210    | C*07:176+C*07:238    |                     |
| C*07:37+C*07:212    | C*07:176+C*07:186    |                     |
| C*07:37+C*07:224    | C*07:107+C*07:176    |                     |
| C*07:37+C*07:247    | C*07:49+C*07:176     |                     |
| C*07:37+C*07:254    | C*07:75+C*07:176     |                     |
| C*07:37+C*07:255    | C*07:176+C*07:240    |                     |
| C*07:37+C*07:263    | C*07:127+C*07:176    |                     |
| C*07:37+C*08:13     | C*07:39+C*08:25      |                     |
| C*07:37+C*08:27     | C*07:138+C*08:64     |                     |
| C*07:37+C*08:29     | C*07:138+C*08:02:01G |                     |
| C*07:37+C*12:03:01G | C*07:138+C*12:24     |                     |
| C*07:37+C*12:81     | C*07:176+C*12:11     |                     |
| C*07:37+C*14:16     | C*07:138+C*14:02:01G |                     |
| C*07:37+C*15:12     | C*07:56:01+C*15:08   |                     |
| C*07:37+C*15:15     | C*07:186+C*15:08     |                     |
| C*07:37+C*15:35     | C*07:75+C*15:08      |                     |
| C*07:37+C*15:45     | C*07:155+C*15:08     |                     |
| C*07:37+C*15:51     | C*07:137:02+C*15:08  |                     |
| C*07:39+C*07:53     | C*07:40+C*07:216     |                     |
| C*07:39+C*07:60     | C*07:40+C*07:79      |                     |
| C*07:39+C*07:73     | C*07:40+C*07:172     |                     |
| C*07:39+C*07:94     | C*07:40+C*07:183     |                     |
| C*07:39+C*07:109    | C*07:40+C*07:56:01   |                     |
| C*07:39+C*07:124    | C*07:40+C*07:155     |                     |
| C*07:39+C*07:128    | C*07:40+C*07:232     |                     |
| C*07:39+C*07:148    | C*07:40+C*07:161     |                     |
| C*07:39+C*07:165    | C*07:40+C*07:241     |                     |
| C*07:39+C*07:170    | C*07:40+C*07:171     |                     |
| C*07:39+C*07:173    | C*07:40+C*07:123     |                     |
| C*07:39+C*07:210    | C*07:40+C*07:238     |                     |
| C*07:39+C*07:212    | C*07:40+C*07:186     |                     |
| C*07:39+C*07:224    | C*07:40+C*07:107     |                     |
| C*07:39+C*07:254    | C*07:40+C*07:75      |                     |
| C*07:39+C*07:255    | C*07:40+C*07:240     |                     |
| C*07:39+C*07:263    | C*07:40+C*07:127     |                     |
| C*07:39+C*12:03:08  | C*07:138+C*16:40     | C*07:241+C*16:04:01 |
| C*07:39+C*12:41     | C*07:76+C*12:49      | C*07:238+C*12:72    |
| C*07:39+C*12:54     | C*07:238+C*12:03:01G |                     |
| C*07:39+C*12:81     | C*07:40+C*12:11      |                     |
| C*07:39+C*14:04     | C*07:49+C*14:02:01G  |                     |
| C*07:39+C*15:02:01G | C*07:238+C*15:21     |                     |
| C*07:39+C*16:02:01G | C*07:238+C*16:37     |                     |
| C*07:40+C*08:25     | C*07:176+C*08:13     |                     |
| C*07:40+C*12:30     | C*07:214+C*12:49     |                     |
| C*07:40+C*12:54     | C*07:210+C*12:03:01G |                     |
| C*07:40+C*12:64     | C*07:179+C*12:49     |                     |
| C*07:40+C*12:69     | C*07:203+C*12:49     |                     |
| C*07:40+C*14:04     | C*07:247+C*14:02:01G |                     |
| C*07:40+C*15:02:01G | C*07:210+C*15:21     |                     |
| C*07:40+C*16:02:01G | C*07:210+C*16:37     |                     |
| C*07:43+C*12:08     | C*07:196+C*12:02:01G |                     |
| C*07:43+C*12:81     | C*07:196+C*12:03:01G |                     |

|                        |                      |
|------------------------|----------------------|
| C*07:43+C*15:02:01G    | C*07:196+C*15:17     |
| C*07:43+C*15:03        | C*07:196+C*15:16     |
| C*07:49+C*07:53        | C*07:216+C*07:247    |
| C*07:49+C*07:60        | C*07:79+C*07:247     |
| C*07:49+C*07:73        | C*07:172+C*07:247    |
| C*07:49+C*07:94        | C*07:183+C*07:247    |
| C*07:49+C*07:109       | C*07:56:01+C*07:247  |
| C*07:49+C*07:124       | C*07:155+C*07:247    |
| C*07:49+C*07:128       | C*07:232+C*07:247    |
| C*07:49+C*07:148       | C*07:161+C*07:247    |
| C*07:49+C*07:165       | C*07:241+C*07:247    |
| C*07:49+C*07:170       | C*07:171+C*07:247    |
| C*07:49+C*07:173       | C*07:123+C*07:247    |
| C*07:49+C*07:210       | C*07:238+C*07:247    |
| C*07:49+C*07:212       | C*07:186+C*07:247    |
| C*07:49+C*07:224       | C*07:107+C*07:247    |
| C*07:49+C*07:254       | C*07:75+C*07:247     |
| C*07:49+C*07:255       | C*07:240+C*07:247    |
| C*07:49+C*07:263       | C*07:127+C*07:247    |
| C*07:49+C*08:01:01G    | C*07:238+C*08:21     |
| C*07:49+C*12:04:02     | C*07:76+C*12:54      |
| C*07:49+C*12:05        | C*07:238+C*12:04:02  |
| C*07:49+C*12:12        | C*07:155+C*12:54     |
| C*07:49+C*12:32        | C*07:211+C*12:54     |
| C*07:49+C*12:45        | C*07:218+C*12:54     |
| C*07:49+C*12:49        | C*07:238+C*12:02:01G |
| C*07:49+C*12:50        | C*07:168+C*12:54     |
| C*07:49+C*12:53        | C*07:183+C*12:54     |
| C*07:49+C*12:58        | C*07:56:01+C*12:54   |
| C*07:49+C*12:66        | C*07:192+C*12:54     |
| C*07:49+C*12:82        | C*07:102+C*12:54     |
| C*07:49+C*15:02:01G    | C*07:238+C*15:03     |
| C*07:49+C*15:17        | C*07:238+C*15:16     |
| C*07:49+C*16:01:01     | C*07:238+C*16:15:01  |
| C*07:49+C*16:02:01G    | C*07:238+C*16:25     |
| C*07:51+C*07:101       | C*07:161+C*07:181    |
| C*07:51+C*12:58        | C*07:79+C*12:03:01G  |
| C*07:51+C*14:10        | C*07:79+C*14:03      |
| C*07:51+C*15:12        | C*07:79+C*15:02:01G  |
| C*07:53+C*07:56:01     | C*07:109+C*07:216    |
| C*07:53+C*07:75        | C*07:216+C*07:254    |
| C*07:53+C*07:79        | C*07:60+C*07:216     |
| C*07:53+C*07:107       | C*07:216+C*07:224    |
| C*07:53+C*07:123       | C*07:173+C*07:216    |
| C*07:53+C*07:127       | C*07:216+C*07:263    |
| C*07:53+C*07:155       | C*07:124+C*07:216    |
| C*07:53+C*07:161       | C*07:148+C*07:216    |
| C*07:53+C*07:171       | C*07:170+C*07:216    |
| C*07:53+C*07:172       | C*07:73+C*07:216     |
| C*07:53+C*07:183       | C*07:94+C*07:216     |
| C*07:53+C*07:186       | C*07:212+C*07:216    |
| C*07:53+C*07:232       | C*07:128+C*07:216    |
| C*07:53+C*07:238       | C*07:210+C*07:216    |
| C*07:53+C*07:240       | C*07:216+C*07:255    |
| C*07:53+C*07:241       | C*07:165+C*07:216    |
| C*07:53+C*12:11        | C*07:216+C*12:81     |
| C*07:53+C*12:20        | C*07:165+C*16:15:02  |
| C*07:53+C*16:40        | C*07:165+C*16:01:01  |
| C*07:56:01+C*07:60     | C*07:79+C*07:109     |
| C*07:56:01+C*07:73     | C*07:109+C*07:172    |
| C*07:56:01+C*07:94     | C*07:109+C*07:183    |
| C*07:56:01+C*07:124    | C*07:109+C*07:155    |
| C*07:56:01+C*07:128    | C*07:109+C*07:232    |
| C*07:56:01+C*07:148    | C*07:109+C*07:161    |
| C*07:56:01+C*07:165    | C*07:109+C*07:241    |
| C*07:56:01+C*07:170    | C*07:109+C*07:171    |
| C*07:56:01+C*07:173    | C*07:109+C*07:123    |
| C*07:56:01+C*07:210    | C*07:109+C*07:238    |
| C*07:56:01+C*07:212    | C*07:109+C*07:186    |
| C*07:56:01+C*07:224    | C*07:107+C*07:109    |
| C*07:56:01+C*07:254    | C*07:75+C*07:109     |
| C*07:56:01+C*07:255    | C*07:109+C*07:240    |
| C*07:56:01+C*07:263    | C*07:109+C*07:127    |
| C*07:56:01+C*08:02:01G | C*07:79+C*08:28      |
| C*07:56:01+C*12:12     | C*07:155+C*12:58     |
| C*07:56:01+C*12:32     | C*07:211+C*12:58     |
| C*07:56:01+C*12:45     | C*07:218+C*12:58     |
| C*07:56:01+C*12:50     | C*07:168+C*12:58     |
| C*07:56:01+C*12:53     | C*07:183+C*12:58     |
| C*07:56:01+C*12:66     | C*07:192+C*12:58     |
| C*07:56:01+C*12:82     | C*07:102+C*12:58     |
| C*07:56:01+C*14:02:01G | C*07:79+C*14:13      |
| C*07:56:01+C*15:15     | C*07:186+C*15:12     |
| C*07:56:01+C*15:35     | C*07:75+C*15:12      |
| C*07:56:01+C*15:45     | C*07:155+C*15:12     |
| C*07:56:01+C*15:51     | C*07:137:02+C*15:12  |
| C*07:56:01+C*16:01:01  | C*07:79+C*16:26      |
| C*07:56:01+C*16:02:01G | C*07:79+C*16:46      |
| C*07:56:01+C*17:01:01G | C*07:79+C*17:11      |
| C*07:60+C*07:75        | C*07:79+C*07:254     |
| C*07:60+C*07:107       | C*07:79+C*07:224     |
| C*07:60+C*07:123       | C*07:79+C*07:173     |
| C*07:60+C*07:127       | C*07:79+C*07:263     |
| C*07:60+C*07:155       | C*07:79+C*07:124     |
| C*07:60+C*07:161       | C*07:79+C*07:148     |
| C*07:60+C*07:171       | C*07:79+C*07:170     |
| C*07:60+C*07:172       | C*07:73+C*07:79      |
| C*07:60+C*07:183       | C*07:79+C*07:94      |
| C*07:60+C*07:186       | C*07:79+C*07:212     |
| C*07:60+C*07:232       | C*07:79+C*07:128     |
| C*07:60+C*07:238       | C*07:79+C*07:210     |
| C*07:60+C*07:240       | C*07:79+C*07:255     |
| C*07:60+C*07:241       | C*07:79+C*07:165     |
| C*07:60+C*08:28        | C*07:109+C*08:02:01G |
| C*07:60+C*12:11        | C*07:79+C*12:81      |

|                     |                      |
|---------------------|----------------------|
| C*07:60+C*14:13     | C*07:109+C*14:02:01G |
| C*07:60+C*16:26     | C*07:109+C*16:01:01  |
| C*07:60+C*16:46     | C*07:109+C*16:02:01G |
| C*07:60+C*17:11     | C*07:109+C*17:01:01G |
| C*07:73+C*07:75     | C*07:172+C*07:254    |
| C*07:73+C*07:107    | C*07:172+C*07:224    |
| C*07:73+C*07:123    | C*07:172+C*07:173    |
| C*07:73+C*07:155    | C*07:124+C*07:172    |
| C*07:73+C*07:161    | C*07:148+C*07:172    |
| C*07:73+C*07:171    | C*07:170+C*07:172    |
| C*07:73+C*07:183    | C*07:94+C*07:172     |
| C*07:73+C*07:186    | C*07:172+C*07:212    |
| C*07:73+C*07:232    | C*07:128+C*07:172    |
| C*07:73+C*07:238    | C*07:172+C*07:210    |
| C*07:73+C*07:240    | C*07:172+C*07:255    |
| C*07:73+C*07:241    | C*07:165+C*07:172    |
| C*07:73+C*08:02:01G | C*07:92+C*08:37      |
| C*07:73+C*12:11     | C*07:172+C*12:81     |
| C*07:73+C*16:01:01  | C*07:92+C*16:21      |
| C*07:75+C*07:94     | C*07:183+C*07:254    |
| C*07:75+C*07:124    | C*07:155+C*07:254    |
| C*07:75+C*07:128    | C*07:232+C*07:254    |
| C*07:75+C*07:148    | C*07:161+C*07:254    |
| C*07:75+C*07:165    | C*07:241+C*07:254    |
| C*07:75+C*07:170    | C*07:171+C*07:254    |
| C*07:75+C*07:173    | C*07:123+C*07:254    |
| C*07:75+C*07:210    | C*07:238+C*07:254    |
| C*07:75+C*07:212    | C*07:186+C*07:254    |
| C*07:75+C*07:224    | C*07:107+C*07:254    |
| C*07:75+C*07:255    | C*07:240+C*07:254    |
| C*07:75+C*07:263    | C*07:127+C*07:254    |
| C*07:75+C*12:81     | C*07:254+C*12:11     |
| C*07:75+C*15:15     | C*07:186+C*15:35     |
| C*07:75+C*15:45     | C*07:155+C*15:35     |
| C*07:75+C*15:51     | C*07:137:02+C*15:35  |
| C*07:76+C*08:41     | C*07:186+C*08:10     |
| C*07:76+C*08:60     | C*07:157+C*08:10     |
| C*07:76+C*12:12     | C*07:155+C*12:04:02  |
| C*07:76+C*12:32     | C*07:211+C*12:04:02  |
| C*07:76+C*12:45     | C*07:218+C*12:04:02  |
| C*07:76+C*12:50     | C*07:168+C*12:04:02  |
| C*07:76+C*12:53     | C*07:183+C*12:04:02  |
| C*07:76+C*12:66     | C*07:192+C*12:04:02  |
| C*07:76+C*12:82     | C*07:102+C*12:04:02  |
| C*07:76+C*14:14     | C*07:147+C*14:12     |
| C*07:76+C*14:20     | C*07:186+C*14:12     |
| C*07:76+C*14:30     | C*07:117+C*14:12     |
| C*07:76+C*14:39     | C*07:229+C*14:12     |
| C*07:76+C*16:04:01  | C*07:138+C*16:48     |
| C*07:76+C*16:13     | C*07:218+C*16:02:01G |
| C*07:76+C*16:20     | C*07:123+C*16:02:01G |
| C*07:76+C*16:22     | C*07:136+C*16:02:01G |
| C*07:76+C*16:27     | C*07:130+C*16:02:01G |
| C*07:76+C*16:31     | C*07:107+C*16:02:01G |
| C*07:76+C*16:40     | C*07:241+C*16:48     |
| C*07:76+C*16:51     | C*07:178+C*16:02:01G |
| C*07:82+C*12:12     | C*07:124+C*12:06     |
| C*07:82+C*12:37     | C*07:204+C*12:06     |
| C*07:82+C*12:38     | C*07:200+C*12:06     |
| C*07:82+C*12:46N    | C*07:104N+C*12:06    |
| C*07:82+C*12:53     | C*07:94+C*12:06      |
| C*07:82+C*12:54     | C*07:247+C*12:06     |
| C*07:82+C*12:58     | C*07:109+C*12:06     |
| C*07:93+C*17:05     | C*07:148+C*17:09     |
| C*07:94+C*07:107    | C*07:183+C*07:224    |
| C*07:94+C*07:123    | C*07:173+C*07:183    |
| C*07:94+C*07:127    | C*07:183+C*07:263    |
| C*07:94+C*07:155    | C*07:124+C*07:183    |
| C*07:94+C*07:161    | C*07:148+C*07:183    |
| C*07:94+C*07:171    | C*07:170+C*07:183    |
| C*07:94+C*07:186    | C*07:183+C*07:212    |
| C*07:94+C*07:232    | C*07:128+C*07:183    |
| C*07:94+C*07:238    | C*07:183+C*07:210    |
| C*07:94+C*07:240    | C*07:183+C*07:255    |
| C*07:94+C*07:241    | C*07:165+C*07:183    |
| C*07:94+C*12:12     | C*07:124+C*12:53     |
| C*07:94+C*12:37     | C*07:204+C*12:53     |
| C*07:94+C*12:38     | C*07:200+C*12:53     |
| C*07:94+C*12:46N    | C*07:104N+C*12:53    |
| C*07:94+C*12:54     | C*07:247+C*12:53     |
| C*07:94+C*12:58     | C*07:109+C*12:53     |
| C*07:95+C*15:02:01G | C*07:165+C*15:57     |
| C*07:95+C*16:10     | C*07:231+C*16:43     |
| C*07:95+C*16:18     | C*07:250+C*16:43     |
| C*07:95+C*16:20     | C*07:173+C*16:43     |
| C*07:95+C*16:31     | C*07:224+C*16:43     |
| C*07:95+C*16:49     | C*07:257+C*16:43     |
| C*07:95+C*16:50     | C*07:207+C*16:43     |
| C*07:96+C*12:16     | C*07:263+C*12:02:01G |
| C*07:102+C*12:12    | C*07:155+C*12:82     |
| C*07:102+C*12:32    | C*07:211+C*12:82     |
| C*07:102+C*12:45    | C*07:218+C*12:82     |
| C*07:102+C*12:50    | C*07:168+C*12:82     |
| C*07:102+C*12:53    | C*07:183+C*12:82     |
| C*07:102+C*12:66    | C*07:192+C*12:82     |
| C*07:104N+C*12:12   | C*07:124+C*12:46N    |
| C*07:104N+C*12:37   | C*07:204+C*12:46N    |
| C*07:104N+C*12:38   | C*07:200+C*12:46N    |
| C*07:104N+C*12:54   | C*07:247+C*12:46N    |
| C*07:104N+C*12:58   | C*07:109+C*12:46N    |
| C*07:107+C*07:124   | C*07:155+C*07:224    |
| C*07:107+C*07:128   | C*07:224+C*07:232    |
| C*07:107+C*07:148   | C*07:161+C*07:224    |
| C*07:107+C*07:165   | C*07:224+C*07:241    |
| C*07:107+C*07:170   | C*07:171+C*07:224    |

|                         |                         |
|-------------------------|-------------------------|
| C*07:107+C*07:173       | C*07:123+C*07:224       |
| C*07:107+C*07:210       | C*07:224+C*07:238       |
| C*07:107+C*07:212       | C*07:186+C*07:224       |
| C*07:107+C*07:255       | C*07:224+C*07:240       |
| C*07:107+C*07:263       | C*07:127+C*07:224       |
| C*07:107+C*12:81        | C*07:224+C*12:11        |
| C*07:107+C*16:13        | C*07:218+C*16:31        |
| C*07:107+C*16:20        | C*07:123+C*16:31        |
| C*07:107+C*16:22        | C*07:136+C*16:31        |
| C*07:107+C*16:27        | C*07:130+C*16:31        |
| C*07:107+C*16:51        | C*07:178+C*16:31        |
| C*07:108+C*08:17        | C*07:225+C*08:19        |
| C*07:109+C*12:12        | C*07:124+C*12:58        |
| C*07:109+C*12:37        | C*07:204+C*12:58        |
| C*07:109+C*12:38        | C*07:200+C*12:58        |
| C*07:109+C*12:54        | C*07:247+C*12:58        |
| C*07:109+C*15:08        | C*07:176+C*15:12        |
| C*07:109+C*15:15        | C*07:212+C*15:12        |
| C*07:109+C*15:26        | C*07:257+C*15:12        |
| C*07:109+C*15:35        | C*07:254+C*15:12        |
| C*07:109+C*15:42        | C*07:207+C*15:12        |
| C*07:109+C*15:45        | C*07:124+C*15:12        |
| C*07:117+C*14:14        | C*07:147+C*14:30        |
| C*07:117+C*14:20        | C*07:186+C*14:30        |
| C*07:117+C*14:39        | C*07:229+C*14:30        |
| C*07:120+C*14:38        | C*07:212+C*14:03        |
| C*07:123+C*07:124       | C*07:155+C*07:173       |
| C*07:123+C*07:128       | C*07:173+C*07:232       |
| C*07:123+C*07:148       | C*07:161+C*07:173       |
| C*07:123+C*07:165       | C*07:173+C*07:241       |
| C*07:123+C*07:170       | C*07:171+C*07:173       |
| C*07:123+C*07:210       | C*07:173+C*07:238       |
| C*07:123+C*07:212       | C*07:173+C*07:186       |
| C*07:123+C*07:255       | C*07:173+C*07:240       |
| C*07:123+C*07:263       | C*07:127+C*07:173       |
| C*07:123+C*12:81        | C*07:173+C*12:11        |
| C*07:123+C*15:30        | C*07:174+C*15:09        |
| C*07:123+C*16:13        | C*07:218+C*16:20        |
| C*07:123+C*16:22        | C*07:136+C*16:20        |
| C*07:123+C*16:27        | C*07:130+C*16:20        |
| C*07:123+C*16:51        | C*07:178+C*16:20        |
| C*07:124+C*07:127       | C*07:155+C*07:263       |
| C*07:124+C*07:161       | C*07:148+C*07:155       |
| C*07:124+C*07:171       | C*07:155+C*07:170       |
| C*07:124+C*07:186       | C*07:155+C*07:212       |
| C*07:124+C*07:232       | C*07:128+C*07:155       |
| C*07:124+C*07:238       | C*07:155+C*07:210       |
| C*07:124+C*07:240       | C*07:155+C*07:255       |
| C*07:124+C*07:241       | C*07:155+C*07:165       |
| C*07:124+C*12:37        | C*07:204+C*12:12        |
| C*07:124+C*12:38        | C*07:200+C*12:12        |
| C*07:124+C*12:54        | C*07:247+C*12:12        |
| C*07:124+C*15:08        | C*07:176+C*15:45        |
| C*07:124+C*15:15        | C*07:212+C*15:45        |
| C*07:124+C*15:26        | C*07:257+C*15:45        |
| C*07:124+C*15:35        | C*07:254+C*15:45        |
| C*07:124+C*15:42        | C*07:207+C*15:45        |
| C*07:127+C*07:128       | C*07:232+C*07:263       |
| C*07:127+C*07:148       | C*07:161+C*07:263       |
| C*07:127+C*07:165       | C*07:241+C*07:263       |
| C*07:127+C*07:170       | C*07:171+C*07:263       |
| C*07:127+C*07:210       | C*07:238+C*07:263       |
| C*07:127+C*07:212       | C*07:186+C*07:263       |
| C*07:127+C*07:255       | C*07:240+C*07:263       |
| C*07:127+C*12:81        | C*07:263+C*12:11        |
| C*07:128+C*07:161       | C*07:148+C*07:232       |
| C*07:128+C*07:171       | C*07:170+C*07:232       |
| C*07:128+C*07:186       | C*07:212+C*07:232       |
| C*07:128+C*07:238       | C*07:210+C*07:232       |
| C*07:128+C*07:240       | C*07:232+C*07:255       |
| C*07:128+C*07:241       | C*07:165+C*07:232       |
| C*07:128+C*12:11        | C*07:232+C*12:81        |
| C*07:130+C*16:13        | C*07:218+C*16:27        |
| C*07:130+C*16:22        | C*07:136+C*16:27        |
| C*07:130+C*16:51        | C*07:178+C*16:27        |
| C*07:136+C*16:13        | C*07:218+C*16:22        |
| C*07:136+C*16:51        | C*07:178+C*16:22        |
| C*07:137:01+C*08:02:01G | C*07:137:02+C*08:29     |
| C*07:137:01+C*08:64     | C*07:137:02+C*08:27     |
| C*07:137:01+C*12:24     | C*07:137:02+C*12:03:01G |
| C*07:137:01+C*14:02:01G | C*07:137:02+C*14:16     |
| C*07:137:01+C*15:08     | C*07:138+C*15:51        |
| C*07:137:02+C*15:15     | C*07:186+C*15:51        |
| C*07:137:02+C*15:45     | C*07:155+C*15:51        |
| C*07:138+C*16:01:01     | C*07:216+C*16:04:01     |
| C*07:138+C*16:50        | C*07:216+C*16:29        |
| C*07:141:01+C*12:03:16  | C*07:141:02+C*12:03:08  |
| C*07:141:01+C*14:02:05  | C*07:141:02+C*14:02:01G |
| C*07:141:01+C*15:02:05  | C*07:141:02+C*15:02:01G |
| C*07:141:01+C*15:06:03  | C*07:141:02+C*15:06:01  |
| C*07:141:01+C*16:02:03  | C*07:141:02+C*16:02:01G |
| C*07:141:02+C*08:47     | C*07:176+C*08:57        |
| C*07:147+C*14:20        | C*07:186+C*14:14        |
| C*07:147+C*14:39        | C*07:229+C*14:14        |
| C*07:148+C*07:171       | C*07:161+C*07:170       |
| C*07:148+C*07:186       | C*07:161+C*07:212       |
| C*07:148+C*07:238       | C*07:161+C*07:210       |
| C*07:148+C*07:240       | C*07:161+C*07:255       |
| C*07:148+C*07:241       | C*07:161+C*07:165       |
| C*07:148+C*12:11        | C*07:161+C*12:81        |
| C*07:155+C*12:32        | C*07:211+C*12:12        |
| C*07:155+C*12:45        | C*07:218+C*12:12        |
| C*07:155+C*12:50        | C*07:168+C*12:12        |
| C*07:155+C*12:53        | C*07:183+C*12:12        |
| C*07:155+C*12:66        | C*07:192+C*12:12        |

|                         |                         |                       |                 |
|-------------------------|-------------------------|-----------------------|-----------------|
| C*07:155+C*15:15        | C*07:186+C*15:45        |                       |                 |
| C*07:157+C*08:41        | C*07:186+C*08:60        |                       |                 |
| C*07:165+C*07:171       | C*07:170+C*07:241       |                       |                 |
| C*07:165+C*07:186       | C*07:212+C*07:241       |                       |                 |
| C*07:165+C*07:238       | C*07:210+C*07:241       |                       |                 |
| C*07:165+C*07:240       | C*07:241+C*07:255       |                       |                 |
| C*07:165+C*12:11        | C*07:241+C*12:81        |                       |                 |
| C*07:168+C*12:32        | C*07:211+C*12:50        |                       |                 |
| C*07:168+C*12:45        | C*07:218+C*12:50        |                       |                 |
| C*07:168+C*12:53        | C*07:183+C*12:50        |                       |                 |
| C*07:168+C*12:66        | C*07:192+C*12:50        |                       |                 |
| C*07:170+C*07:186       | C*07:171+C*07:212       |                       |                 |
| C*07:170+C*07:238       | C*07:171+C*07:210       |                       |                 |
| C*07:170+C*07:240       | C*07:171+C*07:255       |                       |                 |
| C*07:170+C*12:11        | C*07:171+C*12:81        |                       |                 |
| C*07:173+C*16:10        | C*07:231+C*16:20        |                       |                 |
| C*07:173+C*16:18        | C*07:250+C*16:20        |                       |                 |
| C*07:173+C*16:31        | C*07:224+C*16:20        |                       |                 |
| C*07:173+C*16:49        | C*07:257+C*16:20        |                       |                 |
| C*07:173+C*16:50        | C*07:207+C*16:20        |                       |                 |
| C*07:176+C*15:15        | C*07:212+C*15:08        |                       |                 |
| C*07:176+C*15:26        | C*07:257+C*15:08        |                       |                 |
| C*07:176+C*15:35        | C*07:254+C*15:08        |                       |                 |
| C*07:176+C*15:42        | C*07:207+C*15:08        |                       |                 |
| C*07:178+C*16:13        | C*07:218+C*16:51        |                       |                 |
| C*07:179+C*12:30        | C*07:214+C*12:64        |                       |                 |
| C*07:179+C*12:69        | C*07:203+C*12:64        |                       |                 |
| C*07:183+C*12:32        | C*07:211+C*12:53        |                       |                 |
| C*07:183+C*12:45        | C*07:218+C*12:53        |                       |                 |
| C*07:183+C*12:66        | C*07:192+C*12:53        |                       |                 |
| C*07:186+C*07:210       | C*07:212+C*07:238       |                       |                 |
| C*07:186+C*07:255       | C*07:212+C*07:240       |                       |                 |
| C*07:186+C*12:81        | C*07:212+C*12:11        |                       |                 |
| C*07:186+C*14:39        | C*07:229+C*14:20        |                       |                 |
| C*07:192+C*12:32        | C*07:211+C*12:66        |                       |                 |
| C*07:192+C*12:45        | C*07:218+C*12:66        |                       |                 |
| C*07:196+C*08:41        | C*07:212+C*08:44        |                       |                 |
| C*07:199:01+C*08:01:02  | C*07:199:02+C*08:01:01G |                       |                 |
| C*07:199:01+C*12:02:01G | C*07:199:02+C*12:02:03  |                       |                 |
| C*07:199:01+C*12:02:06  | C*07:199:02+C*12:02:08  |                       |                 |
| C*07:199:01+C*16:07:01  | C*07:199:02+C*16:07:02  |                       |                 |
| C*07:200+C*12:37        | C*07:204+C*12:38        |                       |                 |
| C*07:200+C*12:54        | C*07:247+C*12:38        |                       |                 |
| C*07:203+C*12:30        | C*07:214+C*12:69        |                       |                 |
| C*07:203+C*14:20        | C*07:212+C*14:42        |                       |                 |
| C*07:203+C*14:25        | C*07:207+C*14:42        |                       |                 |
| C*07:204+C*12:54        | C*07:247+C*12:37        |                       |                 |
| C*07:207+C*14:20        | C*07:212+C*14:25        |                       |                 |
| C*07:207+C*15:15        | C*07:212+C*15:42        |                       |                 |
| C*07:207+C*15:26        | C*07:257+C*15:42        |                       |                 |
| C*07:207+C*15:35        | C*07:254+C*15:42        |                       |                 |
| C*07:207+C*16:10        | C*07:231+C*16:50        |                       |                 |
| C*07:207+C*16:18        | C*07:250+C*16:50        |                       |                 |
| C*07:207+C*16:31        | C*07:224+C*16:50        |                       |                 |
| C*07:207+C*16:49        | C*07:257+C*16:50        |                       |                 |
| C*07:210+C*07:240       | C*07:238+C*07:255       |                       |                 |
| C*07:210+C*08:21        | C*07:247+C*08:01:01G    |                       |                 |
| C*07:210+C*12:02:01G    | C*07:247+C*12:49        |                       |                 |
| C*07:210+C*12:04:02     | C*07:247+C*12:05        |                       |                 |
| C*07:210+C*12:11        | C*07:238+C*12:81        |                       |                 |
| C*07:210+C*15:03        | C*07:247+C*15:02:01G    |                       |                 |
| C*07:210+C*15:16        | C*07:247+C*15:17        |                       |                 |
| C*07:210+C*16:15:01     | C*07:247+C*16:01:01     |                       |                 |
| C*07:210+C*16:25        | C*07:247+C*16:02:01G    |                       |                 |
| C*07:211+C*12:45        | C*07:218+C*12:32        |                       |                 |
| C*07:212+C*15:26        | C*07:257+C*15:15        |                       |                 |
| C*07:212+C*15:35        | C*07:254+C*15:15        |                       |                 |
| C*07:216+C*12:20        | C*07:241+C*16:15:02     |                       |                 |
| C*07:216+C*16:40        | C*07:241+C*16:01:01     |                       |                 |
| C*07:224+C*16:10        | C*07:231+C*16:31        |                       |                 |
| C*07:224+C*16:18        | C*07:250+C*16:31        |                       |                 |
| C*07:224+C*16:49        | C*07:257+C*16:31        |                       |                 |
| C*07:231+C*16:18        | C*07:250+C*16:10        |                       |                 |
| C*07:231+C*16:49        | C*07:257+C*16:10        |                       |                 |
| C*07:240+C*12:81        | C*07:255+C*12:11        |                       |                 |
| C*07:250+C*16:49        | C*07:257+C*16:18        |                       |                 |
| C*07:254+C*15:26        | C*07:257+C*15:35        |                       |                 |
| C*08:01:01G+C*08:02:04  | C*08:01:06+C*08:02:01G  |                       |                 |
| C*08:01:01G+C*08:02:07  | C*08:01:07+C*08:02:01G  |                       |                 |
| C*08:01:01G+C*08:05     | C*08:02:01G+C*08:21     |                       |                 |
| C*08:01:01G+C*08:13     | C*08:04:01+C*08:16:01   |                       |                 |
| C*08:01:01G+C*08:25     | C*08:05+C*08:16:01      |                       |                 |
| C*08:01:01G+C*08:33:02  | C*08:01:07+C*08:64      |                       |                 |
| C*08:01:01G+C*08:35     | C*08:03:01G+C*08:64     |                       |                 |
| C*08:01:01G+C*08:61     | C*08:03:01G+C*08:44     |                       |                 |
| C*08:01:01G+C*12:02:01G | C*08:01:02+C*12:02:03   | C*08:01:06+C*12:02:07 | C*08:21+C*12:49 |
| C*08:01:01G+C*12:02:06  | C*08:01:02+C*12:02:08   |                       |                 |
| C*08:01:01G+C*12:04:02  | C*08:10+C*12:03:01G     | C*08:21+C*12:05       |                 |
| C*08:01:01G+C*12:41     | C*08:10+C*12:02:01G     |                       |                 |
| C*08:01:01G+C*14:02:01G | C*08:59+C*14:26         |                       |                 |
| C*08:01:01G+C*14:12     | C*08:10+C*14:02:01G     |                       |                 |
| C*08:01:01G+C*14:20     | C*08:41+C*14:02:01G     |                       |                 |
| C*08:01:01G+C*15:02:01G | C*08:10+C*15:07         |                       |                 |
| C*08:01:01G+C*15:03     | C*08:21+C*15:02:01G     |                       |                 |
| C*08:01:01G+C*15:05:01G | C*08:44+C*15:22         |                       |                 |
| C*08:01:01G+C*15:09     | C*08:59+C*15:05:01G     |                       |                 |
| C*08:01:01G+C*15:15     | C*08:41+C*15:02:01G     |                       |                 |
| C*08:01:01G+C*15:16     | C*08:21+C*15:17         |                       |                 |
| C*08:01:01G+C*16:01:01  | C*08:11+C*16:45         |                       |                 |
| C*08:01:01G+C*16:02:01G | C*08:01:06+C*16:02:05   | C*08:10+C*16:01:01    |                 |
| C*08:01:01G+C*16:07:01  | C*08:01:02+C*16:07:02   |                       |                 |
| C*08:01:01G+C*16:15:01  | C*08:21+C*16:01:01      |                       |                 |
| C*08:01:01G+C*16:25     | C*08:10+C*16:15:01      | C*08:21+C*16:02:01G   |                 |
| C*08:01:01G+C*16:46     | C*08:10+C*16:26         |                       |                 |
| C*08:01:01G+C*16:48     | C*08:10+C*16:35         |                       |                 |

|                         |                        |                    |                 |
|-------------------------|------------------------|--------------------|-----------------|
| C*08:01:01G+C*17:01:01G | C*08:16:01+C*17:05     |                    |                 |
| C*08:01:06+C*08:02:07   | C*08:01:07+C*08:02:04  |                    |                 |
| C*08:01:06+C*08:05      | C*08:02:04+C*08:21     |                    |                 |
| C*08:01:06+C*12:03:20   | C*08:01:07+C*12:03:08  |                    |                 |
| C*08:01:06+C*14:02:01G  | C*08:01:07+C*14:02:02  |                    |                 |
| C*08:01:06+C*16:01:06   | C*08:01:07+C*16:01:01  |                    |                 |
| C*08:01:07+C*08:05      | C*08:02:07+C*08:21     |                    |                 |
| C*08:01:07+C*08:35      | C*08:03:01G+C*08:33:02 |                    |                 |
| C*08:01:07+C*16:02:05   | C*08:10+C*16:01:06     |                    |                 |
| C*08:02:01G+C*08:27     | C*08:29+C*08:64        |                    |                 |
| C*08:02:01G+C*08:33:02  | C*08:02:07+C*08:64     |                    |                 |
| C*08:02:01G+C*08:54     | C*08:04:01+C*08:35     |                    |                 |
| C*08:02:01G+C*12:02:01G | C*08:02:04+C*12:02:07  | C*08:05+C*12:49    |                 |
| C*08:02:01G+C*12:02:09  | C*08:02:06+C*12:02:01G |                    |                 |
| C*08:02:01G+C*12:03:01G | C*08:02:02+C*12:03:08  | C*08:12+C*12:02:08 | C*08:29+C*12:24 |
| C*08:02:01G+C*12:03:19  | C*08:12+C*12:02:03     |                    |                 |
| C*08:02:01G+C*12:10:01  | C*08:02:06+C*12:10:02  | C*08:19+C*12:02:03 |                 |
| C*08:02:01G+C*12:14:02  | C*08:47+C*12:18:01     |                    |                 |
| C*08:02:01G+C*12:20     | C*08:04:01+C*12:24     |                    |                 |
| C*08:02:01G+C*12:28     | C*08:28+C*12:03:01G    |                    |                 |
| C*08:02:01G+C*12:47     | C*08:55N+C*12:03:01G   |                    |                 |
| C*08:02:01G+C*14:02:08  | C*08:02:02+C*14:02:01G |                    |                 |
| C*08:02:01G+C*14:06     | C*08:04:01+C*14:02:01G |                    |                 |
| C*08:02:01G+C*14:13     | C*08:28+C*14:02:01G    |                    |                 |
| C*08:02:01G+C*14:15     | C*08:57+C*14:02:01G    |                    |                 |
| C*08:02:01G+C*14:16     | C*08:29+C*14:02:01G    |                    |                 |
| C*08:02:01G+C*15:16     | C*08:05+C*15:17        |                    |                 |
| C*08:02:01G+C*15:49     | C*08:48+C*15:02:01G    |                    |                 |
| C*08:02:01G+C*16:01:01  | C*08:12+C*16:07:02     | C*08:64+C*16:27    |                 |
| C*08:02:01G+C*16:15:01  | C*08:05+C*16:01:01     |                    |                 |
| C*08:02:01G+C*16:15:02  | C*08:02:02+C*16:15:01  |                    |                 |
| C*08:02:01G+C*16:21     | C*08:37+C*16:01:01     |                    |                 |
| C*08:02:01G+C*16:26     | C*08:28+C*16:01:01     |                    |                 |
| C*08:02:01G+C*16:41     | C*08:43+C*16:01:01     |                    |                 |
| C*08:02:01G+C*17:01:02  | C*08:02:06+C*17:01:01G |                    |                 |
| C*08:02:01G+C*17:11     | C*08:28+C*17:01:01G    |                    |                 |
| C*08:02:01G+C*18:03     | C*08:31+C*18:01:01G    |                    |                 |
| C*08:02:02+C*12:33      | C*08:12+C*12:21        |                    |                 |
| C*08:02:02+C*14:06      | C*08:04:01+C*14:02:08  |                    |                 |
| C*08:02:02+C*14:13      | C*08:28+C*14:02:08     |                    |                 |
| C*08:02:02+C*14:15      | C*08:57+C*14:02:08     |                    |                 |
| C*08:02:02+C*14:16      | C*08:29+C*14:02:08     |                    |                 |
| C*08:02:04+C*12:03:20   | C*08:02:07+C*12:03:08  |                    |                 |
| C*08:02:04+C*14:02:01G  | C*08:02:07+C*14:02:02  |                    |                 |
| C*08:02:04+C*16:01:06   | C*08:02:07+C*16:01:01  | C*08:33:02+C*16:27 |                 |
| C*08:02:06+C*14:02:01G  | C*08:19+C*14:05        |                    |                 |
| C*08:02:06+C*15:26      | C*08:62+C*15:02:01G    |                    |                 |
| C*08:02:06+C*16:23      | C*08:19+C*16:01:01     |                    |                 |
| C*08:02:06+C*16:49      | C*08:62+C*16:01:01     |                    |                 |
| C*08:02:06+C*17:11      | C*08:28+C*17:01:02     |                    |                 |
| C*08:02:07+C*08:27      | C*08:29+C*08:33:02     |                    |                 |
| C*08:03:01G+C*12:11     | C*08:38+C*12:03:01G    |                    |                 |
| C*08:03:01G+C*14:18     | C*08:14+C*14:02:01G    |                    |                 |
| C*08:03:01G+C*15:05:01G | C*08:61+C*15:22        |                    |                 |
| C*08:03:01G+C*15:46     | C*08:38+C*15:05:01G    |                    |                 |
| C*08:03:01G+C*16:06     | C*08:38+C*16:07:02     |                    |                 |
| C*08:03:01G+C*16:33     | C*08:06+C*16:04:01     |                    |                 |
| C*08:03:01G+C*18:01:01G | C*08:14+C*18:04        |                    |                 |
| C*08:04:01+C*08:25      | C*08:05+C*08:13        |                    |                 |
| C*08:04:01+C*08:47      | C*08:07+C*08:57        |                    |                 |
| C*08:04:01+C*12:02:01G  | C*08:29+C*12:18:01     |                    |                 |
| C*08:04:01+C*12:03:01G  | C*08:29+C*12:20        |                    |                 |
| C*08:04:01+C*12:03:11   | C*08:04:02+C*12:03:01G |                    |                 |
| C*08:04:01+C*14:13      | C*08:28+C*14:06        |                    |                 |
| C*08:04:01+C*14:15      | C*08:57+C*14:06        |                    |                 |
| C*08:04:01+C*14:16      | C*08:29+C*14:06        |                    |                 |
| C*08:04:01+C*16:04:01   | C*08:29+C*16:35        |                    |                 |
| C*08:04:01+C*16:29      | C*08:31+C*16:35        |                    |                 |
| C*08:04:01+C*16:35      | C*08:57+C*16:40        |                    |                 |
| C*08:04:01+C*17:01:01G  | C*08:13+C*17:05        |                    |                 |
| C*08:05+C*15:49         | C*08:48+C*15:03        |                    |                 |
| C*08:05+C*16:21         | C*08:37+C*16:15:01     |                    |                 |
| C*08:05+C*16:26         | C*08:28+C*16:15:01     |                    |                 |
| C*08:05+C*16:41         | C*08:43+C*16:15:01     |                    |                 |
| C*08:05+C*17:01:01G     | C*08:25+C*17:05        |                    |                 |
| C*08:07+C*14:15         | C*08:47+C*14:06        |                    |                 |
| C*08:07+C*15:31         | C*08:47+C*15:02:01G    |                    |                 |
| C*08:07+C*16:35         | C*08:47+C*16:40        |                    |                 |
| C*08:10+C*14:20         | C*08:41+C*14:12        |                    |                 |
| C*08:11+C*15:24         | C*08:59+C*15:06:01     |                    |                 |
| C*08:12+C*12:10:01      | C*08:19+C*12:03:19     |                    |                 |
| C*08:15:01+C*12:03:10   | C*08:15:02+C*12:03:01G |                    |                 |
| C*08:15:01+C*15:39      | C*08:51+C*15:02:01G    |                    |                 |
| C*08:19+C*16:49         | C*08:62+C*16:23        |                    |                 |
| C*08:21+C*15:15         | C*08:41+C*15:03        |                    |                 |
| C*08:27+C*12:24         | C*08:64+C*12:03:01G    |                    |                 |
| C*08:27+C*14:02:01G     | C*08:64+C*14:16        |                    |                 |
| C*08:27+C*16:27         | C*08:29+C*16:01:01     |                    |                 |
| C*08:28+C*12:47         | C*08:55N+C*12:28       |                    |                 |
| C*08:28+C*14:15         | C*08:57+C*14:13        |                    |                 |
| C*08:28+C*14:16         | C*08:29+C*14:13        |                    |                 |
| C*08:28+C*16:21         | C*08:37+C*16:26        |                    |                 |
| C*08:28+C*16:41         | C*08:43+C*16:26        |                    |                 |
| C*08:29+C*14:15         | C*08:57+C*14:16        |                    |                 |
| C*08:29+C*14:25         | C*08:31+C*14:02:01G    |                    |                 |
| C*08:29+C*15:42         | C*08:31+C*15:02:01G    |                    |                 |
| C*08:29+C*16:29         | C*08:31+C*16:04:01     |                    |                 |
| C*08:29+C*16:50         | C*08:31+C*16:01:01     |                    |                 |
| C*08:33:01+C*12:03:20   | C*08:33:02+C*12:03:16  |                    |                 |
| C*08:35+C*08:44         | C*08:61+C*08:64        |                    |                 |
| C*08:35+C*12:20         | C*08:54+C*12:24        |                    |                 |
| C*08:35+C*14:06         | C*08:54+C*14:02:01G    |                    |                 |
| C*08:35+C*15:02:01G     | C*08:54+C*15:08        |                    |                 |
| C*08:37+C*16:41         | C*08:43+C*16:21        |                    |                 |
| C*08:39+C*16:27         | C*08:57+C*16:43        |                    |                 |

|                         |                        |                       |                 |                 |
|-------------------------|------------------------|-----------------------|-----------------|-----------------|
| C*12:02:01G+C*12:02:08  | C*12:02:03+C*12:02:06  |                       |                 |                 |
| C*12:02:01G+C*12:03:01G | C*12:02:06+C*12:03:19  |                       |                 |                 |
| C*12:02:01G+C*12:04:02  | C*12:03:01G+C*12:41    | C*12:54+C*12:72       |                 |                 |
| C*12:02:01G+C*12:05     | C*12:04:02+C*12:49     |                       |                 |                 |
| C*12:02:01G+C*12:10:01  | C*12:02:09+C*12:10:02  |                       |                 |                 |
| C*12:02:01G+C*12:20     | C*12:03:01G+C*12:18:01 |                       |                 |                 |
| C*12:02:01G+C*12:81     | C*12:03:01G+C*12:08    |                       |                 |                 |
| C*12:02:01G+C*14:05     | C*12:03:19+C*14:09     |                       |                 |                 |
| C*12:02:01G+C*14:06     | C*12:18:01+C*14:16     |                       |                 |                 |
| C*12:02:01G+C*14:12     | C*12:41+C*14:02:01G    |                       |                 |                 |
| C*12:02:01G+C*14:42     | C*12:69+C*14:02:01G    |                       |                 |                 |
| C*12:02:01G+C*15:02:01G | C*12:08+C*15:17        | C*12:41+C*15:07       | C*12:49+C*15:03 |                 |
| C*12:02:01G+C*15:03     | C*12:08+C*15:16        |                       |                 |                 |
| C*12:02:01G+C*15:17     | C*12:49+C*15:16        |                       |                 |                 |
| C*12:02:01G+C*15:21     | C*12:72+C*15:07        |                       |                 |                 |
| C*12:02:01G+C*16:01:01  | C*12:03:19+C*16:07:01  | C*12:49+C*16:15:01    |                 |                 |
| C*12:02:01G+C*16:02:01G | C*12:41+C*16:01:01     | C*12:49+C*16:25       |                 |                 |
| C*12:02:01G+C*16:02:05  | C*12:02:07+C*16:02:01G |                       |                 |                 |
| C*12:02:01G+C*16:07:02  | C*12:02:03+C*16:07:01  |                       |                 |                 |
| C*12:02:01G+C*16:14     | C*12:40+C*16:01:01     |                       |                 |                 |
| C*12:02:01G+C*16:25     | C*12:41+C*16:15:01     |                       |                 |                 |
| C*12:02:01G+C*16:35     | C*12:18:01+C*16:04:01  |                       |                 |                 |
| C*12:02:01G+C*16:37     | C*12:72+C*16:01:01     |                       |                 |                 |
| C*12:02:01G+C*16:46     | C*12:41+C*16:26        |                       |                 |                 |
| C*12:02:01G+C*16:48     | C*12:41+C*16:35        |                       |                 |                 |
| C*12:02:01G+C*17:01:02  | C*12:02:09+C*17:01:01G |                       |                 |                 |
| C*12:02:03+C*12:03:01G  | C*12:02:08+C*12:03:19  |                       |                 |                 |
| C*12:02:03+C*14:02:01G  | C*12:10:02+C*14:05     |                       |                 |                 |
| C*12:02:03+C*16:01:01   | C*12:03:19+C*16:07:02  |                       |                 |                 |
| C*12:02:03+C*16:23      | C*12:10:02+C*16:01:01  |                       |                 |                 |
| C*12:02:06+C*14:05      | C*12:03:01G+C*14:09    |                       |                 |                 |
| C*12:02:06+C*16:01:01   | C*12:03:01G+C*16:07:01 |                       |                 |                 |
| C*12:02:06+C*16:01:02   | C*12:03:04+C*16:07:01  |                       |                 |                 |
| C*12:02:06+C*16:01:09   | C*12:03:15+C*16:07:01  |                       |                 |                 |
| C*12:02:06+C*16:02:01G  | C*12:04:02+C*16:07:01  |                       |                 |                 |
| C*12:02:06+C*16:07:02   | C*12:02:08+C*16:07:01  |                       |                 |                 |
| C*12:02:06+C*16:13      | C*12:45+C*16:07:01     |                       |                 |                 |
| C*12:02:06+C*16:26      | C*12:28+C*16:07:01     |                       |                 |                 |
| C*12:02:08+C*12:33      | C*12:03:08+C*12:21     |                       |                 |                 |
| C*12:02:08+C*16:01:01   | C*12:03:01G+C*16:07:02 |                       |                 |                 |
| C*12:02:08+C*16:01:02   | C*12:03:04+C*16:07:02  |                       |                 |                 |
| C*12:02:08+C*16:01:09   | C*12:03:15+C*16:07:02  |                       |                 |                 |
| C*12:02:08+C*16:02:01G  | C*12:04:02+C*16:07:02  |                       |                 |                 |
| C*12:02:08+C*16:13      | C*12:45+C*16:07:02     |                       |                 |                 |
| C*12:02:08+C*16:26      | C*12:28+C*16:07:02     |                       |                 |                 |
| C*12:03:01G+C*14:02:01G | C*12:03:04+C*14:02:03  | C*12:03:08+C*14:02:08 | C*12:24+C*14:16 |                 |
| C*12:03:01G+C*14:02:05  | C*12:03:16+C*14:02:08  |                       |                 |                 |
| C*12:03:01G+C*14:06     | C*12:20+C*14:16        |                       |                 |                 |
| C*12:03:01G+C*14:10     | C*12:58+C*14:03        |                       |                 |                 |
| C*12:03:01G+C*14:12     | C*12:04:02+C*14:02:01G |                       |                 |                 |
| C*12:03:01G+C*14:13     | C*12:28+C*14:02:01G    |                       |                 |                 |
| C*12:03:01G+C*15:02:01G | C*12:04:02+C*15:07     | C*12:15+C*15:04       | C*12:54+C*15:21 | C*12:81+C*15:17 |
| C*12:03:01G+C*15:02:10  | C*12:03:04+C*15:02:01G |                       |                 |                 |
| C*12:03:01G+C*15:03     | C*12:81+C*15:16        |                       |                 |                 |
| C*12:03:01G+C*15:05:05  | C*12:03:03+C*15:05:01G |                       |                 |                 |
| C*12:03:01G+C*15:12     | C*12:58+C*15:02:01G    |                       |                 |                 |
| C*12:03:01G+C*15:45     | C*12:12+C*15:02:01G    |                       |                 |                 |
| C*12:03:01G+C*15:46     | C*12:11+C*15:05:01G    |                       |                 |                 |
| C*12:03:01G+C*16:01:02  | C*12:03:04+C*16:01:01  |                       |                 |                 |
| C*12:03:01G+C*16:01:09  | C*12:03:15+C*16:01:01  |                       |                 |                 |
| C*12:03:01G+C*16:02:01G | C*12:04:02+C*16:01:01  | C*12:05+C*16:15:01    | C*12:54+C*16:37 |                 |
| C*12:03:01G+C*16:06     | C*12:11+C*16:07:02     |                       |                 |                 |
| C*12:03:01G+C*16:13     | C*12:45+C*16:01:01     |                       |                 |                 |
| C*12:03:01G+C*16:15:01  | C*12:03:08+C*16:15:02  |                       |                 |                 |
| C*12:03:01G+C*16:25     | C*12:04:02+C*16:15:01  |                       |                 |                 |
| C*12:03:01G+C*16:26     | C*12:28+C*16:01:01     |                       |                 |                 |
| C*12:03:01G+C*16:35     | C*12:20+C*16:04:01     |                       |                 |                 |
| C*12:03:01G+C*16:48     | C*12:04:02+C*16:35     |                       |                 |                 |
| C*12:03:01G+C*17:01:01G | C*12:03:04+C*17:01:04  |                       |                 |                 |
| C*12:03:01G+C*17:11     | C*12:28+C*17:01:01G    |                       |                 |                 |
| C*12:03:03+C*15:46      | C*12:11+C*15:05:05     |                       |                 |                 |
| C*12:03:04+C*14:12      | C*12:04:01+C*14:02:08  |                       |                 |                 |
| C*12:03:04+C*15:12      | C*12:58+C*15:02:10     |                       |                 |                 |
| C*12:03:04+C*15:45      | C*12:12+C*15:02:10     |                       |                 |                 |
| C*12:03:04+C*16:01:09   | C*12:03:15+C*16:01:02  |                       |                 |                 |
| C*12:03:04+C*16:02:01G  | C*12:04:02+C*16:01:02  |                       |                 |                 |
| C*12:03:04+C*16:13      | C*12:45+C*16:01:02     |                       |                 |                 |
| C*12:03:04+C*16:25      | C*12:04:01+C*16:15:02  |                       |                 |                 |
| C*12:03:04+C*16:26      | C*12:28+C*16:01:02     |                       |                 |                 |
| C*12:03:08+C*12:18:01   | C*12:03:19+C*12:18:02  |                       |                 |                 |
| C*12:03:08+C*14:02:01G  | C*12:03:20+C*14:02:02  |                       |                 |                 |
| C*12:03:08+C*14:02:05   | C*12:03:16+C*14:02:01G |                       |                 |                 |
| C*12:03:08+C*14:12      | C*12:04:01+C*14:02:03  |                       |                 |                 |
| C*12:03:08+C*15:02:05   | C*12:03:16+C*15:02:01G |                       |                 |                 |
| C*12:03:08+C*15:02:10   | C*12:04:01+C*15:07     |                       |                 |                 |
| C*12:03:08+C*15:06:03   | C*12:03:16+C*15:06:01  |                       |                 |                 |
| C*12:03:08+C*15:31      | C*15:03+C*16:04:01     |                       |                 |                 |
| C*12:03:08+C*16:01:06   | C*12:03:20+C*16:01:01  |                       |                 |                 |
| C*12:03:08+C*16:02:03   | C*12:03:16+C*16:02:01G |                       |                 |                 |
| C*12:03:15+C*16:02:01G  | C*12:04:02+C*16:01:09  |                       |                 |                 |
| C*12:03:15+C*16:13      | C*12:45+C*16:01:09     |                       |                 |                 |
| C*12:03:15+C*16:26      | C*12:28+C*16:01:09     |                       |                 |                 |
| C*12:03:16+C*12:14:02   | C*12:03:19+C*12:14:01  |                       |                 |                 |
| C*12:03:19+C*15:26      | C*12:44+C*15:58        |                       |                 |                 |
| C*12:04:02+C*12:08      | C*12:41+C*12:81        |                       |                 |                 |
| C*12:04:02+C*12:18:01   | C*12:20+C*12:41        |                       |                 |                 |
| C*12:04:02+C*15:02:01G  | C*12:05+C*15:03        |                       |                 |                 |
| C*12:04:02+C*15:17      | C*12:05+C*15:16        |                       |                 |                 |
| C*12:04:02+C*16:02:01G  | C*12:05+C*16:25        |                       |                 |                 |
| C*12:04:02+C*16:13      | C*12:45+C*16:02:01G    |                       |                 |                 |
| C*12:05+C*14:04         | C*12:54+C*14:12        |                       |                 |                 |
| C*12:08+C*12:20         | C*12:18:01+C*12:81     |                       |                 |                 |
| C*12:09+C*14:06         | C*14:12+C*16:40        |                       |                 |                 |
| C*12:09+C*14:15         | C*14:02:01G+C*16:48    | C*14:12+C*16:35       |                 |                 |
| C*12:09+C*15:07         | C*15:08+C*16:40        |                       |                 |                 |



|                         |                        |                       |                 |
|-------------------------|------------------------|-----------------------|-----------------|
| C*12:09+C*15:31         | C*15:08+C*16:48        |                       |                 |
| C*12:09+C*16:15:02      | C*12:24+C*16:02:01G    |                       |                 |
| C*12:10:01+C*17:01:01G  | C*12:10:02+C*17:01:02  |                       |                 |
| C*12:12+C*15:12         | C*12:58+C*15:45        |                       |                 |
| C*12:14:01+C*14:02:02   | C*12:18:02+C*14:17     |                       |                 |
| C*12:20+C*14:02:01G     | C*12:24+C*14:06        |                       |                 |
| C*12:20+C*15:08         | C*12:24+C*15:02:01G    |                       |                 |
| C*12:20+C*16:01:01      | C*16:15:02+C*16:40     |                       |                 |
| C*12:28+C*16:13         | C*12:45+C*16:26        |                       |                 |
| C*12:40+C*16:02:01G     | C*12:41+C*16:14        |                       |                 |
| C*12:40+C*16:37         | C*12:72+C*16:14        |                       |                 |
| C*12:41+C*14:42         | C*12:69+C*14:12        |                       |                 |
| C*12:41+C*15:21         | C*12:72+C*15:02:01G    |                       |                 |
| C*12:41+C*16:37         | C*12:72+C*16:02:01G    |                       |                 |
| C*14:02:01G+C*14:22     | C*14:03+C*14:27        |                       |                 |
| C*14:02:01G+C*14:41     | C*14:03+C*14:34        |                       |                 |
| C*14:02:01G+C*15:02:01G | C*14:02:03+C*15:02:10  | C*14:06+C*15:08       | C*14:12+C*15:07 |
| C*14:02:01G+C*15:02:05  | C*14:02:05+C*15:02:01G |                       |                 |
| C*14:02:01G+C*15:03     | C*14:04+C*15:21        |                       |                 |
| C*14:02:01G+C*15:05:01G | C*14:26+C*15:09        |                       |                 |
| C*14:02:01G+C*15:06:03  | C*14:02:05+C*15:06:01  |                       |                 |
| C*14:02:01G+C*15:15     | C*14:20+C*15:02:01G    |                       |                 |
| C*14:02:01G+C*15:31     | C*14:15+C*15:08        |                       |                 |
| C*14:02:01G+C*15:42     | C*14:25+C*15:02:01G    |                       |                 |
| C*14:02:01G+C*15:53     | C*14:19+C*15:02:01G    |                       |                 |
| C*14:02:01G+C*16:01:01  | C*14:02:02+C*16:01:06  | C*14:02:03+C*16:01:02 | C*14:05+C*16:23 |
| C*14:02:01G+C*16:02:01G | C*14:12+C*16:01:01     |                       |                 |
| C*14:02:01G+C*16:02:03  | C*14:02:05+C*16:02:01G |                       |                 |
| C*14:02:01G+C*16:07:01  | C*14:09+C*16:23        |                       |                 |
| C*14:02:01G+C*16:15:02  | C*14:02:08+C*16:15:01  |                       |                 |
| C*14:02:01G+C*16:25     | C*14:04+C*16:37        | C*14:12+C*16:15:01    |                 |
| C*14:02:01G+C*16:26     | C*14:13+C*16:01:01     |                       |                 |
| C*14:02:01G+C*16:29     | C*14:25+C*16:04:01     |                       |                 |
| C*14:02:01G+C*16:38     | C*14:27+C*16:01:01     |                       |                 |
| C*14:02:01G+C*16:42     | C*14:39+C*16:04:01     |                       |                 |
| C*14:02:01G+C*16:46     | C*14:12+C*16:26        | C*14:13+C*16:02:01G   |                 |
| C*14:02:01G+C*16:50     | C*14:25+C*16:01:01     |                       |                 |
| C*14:02:01G+C*17:01:04  | C*14:02:03+C*17:01:01G |                       |                 |
| C*14:02:01G+C*17:08     | C*14:24:02+C*17:01:01G |                       |                 |
| C*14:02:01G+C*17:11     | C*14:13+C*17:01:01G    |                       |                 |
| C*14:02:01G+C*18:01:01G | C*14:18+C*18:04        |                       |                 |
| C*14:02:03+C*15:02:01G  | C*14:03+C*15:10:02     |                       |                 |
| C*14:02:03+C*15:12      | C*14:10+C*15:10:02     |                       |                 |
| C*14:02:03+C*17:08      | C*14:24:02+C*17:01:04  |                       |                 |
| C*14:02:03+C*17:11      | C*14:13+C*17:01:04     |                       |                 |
| C*14:02:05+C*15:15      | C*14:20+C*15:02:05     |                       |                 |
| C*14:02:05+C*15:42      | C*14:25+C*15:02:05     |                       |                 |
| C*14:02:05+C*15:53      | C*14:19+C*15:02:05     |                       |                 |
| C*14:02:05+C*16:46      | C*14:13+C*16:02:03     |                       |                 |
| C*14:02:08+C*16:25      | C*14:12+C*16:15:02     |                       |                 |
| C*14:03+C*15:12         | C*14:10+C*15:02:01G    |                       |                 |
| C*14:03+C*16:38         | C*14:22+C*16:01:01     |                       |                 |
| C*14:05+C*16:07:01      | C*14:09+C*16:01:01     |                       |                 |
| C*14:06+C*15:31         | C*14:15+C*15:02:01G    |                       |                 |
| C*14:06+C*16:04:01      | C*14:16+C*16:35        |                       |                 |
| C*14:06+C*16:35         | C*14:15+C*16:40        |                       |                 |
| C*14:12+C*16:38         | C*14:27+C*16:02:01G    |                       |                 |
| C*14:12+C*16:50         | C*14:25+C*16:02:01G    |                       |                 |
| C*14:13+C*16:38         | C*14:27+C*16:26        |                       |                 |
| C*14:13+C*16:50         | C*14:25+C*16:26        |                       |                 |
| C*14:13+C*17:08         | C*14:24:02+C*17:11     |                       |                 |
| C*14:19+C*15:15         | C*14:20+C*15:53        |                       |                 |
| C*14:19+C*15:42         | C*14:25+C*15:53        |                       |                 |
| C*14:20+C*15:42         | C*14:25+C*15:15        |                       |                 |
| C*14:22+C*14:34         | C*14:27+C*14:41        |                       |                 |
| C*14:25+C*16:38         | C*14:27+C*16:50        |                       |                 |
| C*14:25+C*16:42         | C*14:39+C*16:29        |                       |                 |
| C*15:02:01G+C*15:06:03  | C*15:02:05+C*15:06:01  |                       |                 |
| C*15:02:01G+C*15:16     | C*15:03+C*15:17        |                       |                 |
| C*15:02:01G+C*15:55     | C*15:06:01+C*15:58     |                       |                 |
| C*15:02:01G+C*16:01:01  | C*15:07+C*16:02:01G    |                       |                 |
| C*15:02:01G+C*16:01:02  | C*15:02:10+C*16:01:01  |                       |                 |
| C*15:02:01G+C*16:02:03  | C*15:02:05+C*16:02:01G |                       |                 |
| C*15:02:01G+C*16:15:01  | C*15:03+C*16:01:01     | C*15:07+C*16:25       |                 |
| C*15:02:01G+C*16:25     | C*15:03+C*16:02:01G    |                       |                 |
| C*15:02:01G+C*16:26     | C*15:07+C*16:46        |                       |                 |
| C*15:02:01G+C*16:28     | C*15:18+C*16:01:01     |                       |                 |
| C*15:02:01G+C*16:29     | C*15:42+C*16:04:01     |                       |                 |
| C*15:02:01G+C*16:35     | C*15:07+C*16:48        | C*15:31+C*16:40       |                 |
| C*15:02:01G+C*16:37     | C*15:21+C*16:02:01G    |                       |                 |
| C*15:02:01G+C*16:49     | C*15:26+C*16:01:01     |                       |                 |
| C*15:02:01G+C*16:50     | C*15:42+C*16:01:01     |                       |                 |
| C*15:02:01G+C*17:01:01G | C*15:02:10+C*17:01:04  |                       |                 |
| C*15:02:05+C*15:55      | C*15:06:03+C*15:58     |                       |                 |
| C*15:02:05+C*16:01:01   | C*15:07+C*16:02:03     |                       |                 |
| C*15:02:05+C*16:25      | C*15:03+C*16:02:03     |                       |                 |
| C*15:02:05+C*16:37      | C*15:21+C*16:02:03     |                       |                 |
| C*15:02:10+C*16:15:01   | C*15:03+C*16:01:02     |                       |                 |
| C*15:02:10+C*16:28      | C*15:18+C*16:01:02     |                       |                 |
| C*15:02:10+C*16:49      | C*15:26+C*16:01:02     |                       |                 |
| C*15:02:10+C*16:50      | C*15:42+C*16:01:02     |                       |                 |
| C*15:03+C*16:28         | C*15:18+C*16:15:01     |                       |                 |
| C*15:03+C*16:37         | C*15:21+C*16:25        |                       |                 |
| C*15:03+C*16:49         | C*15:26+C*16:15:01     |                       |                 |
| C*15:03+C*16:50         | C*15:42+C*16:15:01     |                       |                 |
| C*15:04+C*15:06:01      | C*15:09+C*15:40        |                       |                 |
| C*15:04+C*16:20         | C*15:09+C*16:01:01     |                       |                 |
| C*15:05:01G+C*16:02:09  | C*15:05:04+C*16:02:01G |                       |                 |
| C*15:05:01G+C*16:06     | C*15:46+C*16:07:02     |                       |                 |
| C*15:06:01+C*16:01:01   | C*15:40+C*16:20        |                       |                 |
| C*15:06:01+C*16:02:03   | C*15:06:03+C*16:02:01G |                       |                 |
| C*15:07+C*16:37         | C*15:21+C*16:01:01     |                       |                 |
| C*15:16+C*16:01:01      | C*15:17+C*16:15:01     |                       |                 |
| C*15:16+C*16:02:01G     | C*15:17+C*16:25        |                       |                 |
| C*15:18+C*16:49         | C*15:26+C*16:28        |                       |                 |

---

|                        |                        |
|------------------------|------------------------|
| C*15:18+C*16:50        | C*15:42+C*16:28        |
| C*15:26+C*16:50        | C*15:42+C*16:49        |
| C*15:31+C*16:43        | C*15:57+C*16:01:01     |
| C*15:37+C*16:01:01     | C*15:58+C*16:18        |
| C*16:01:01+C*16:25     | C*16:02:01G+C*16:15:01 |
| C*16:01:01+C*16:29     | C*16:04:01+C*16:50     |
| C*16:01:01+C*16:46     | C*16:02:01G+C*16:26    |
| C*16:01:01+C*16:48     | C*16:02:01G+C*16:35    |
| C*16:01:01+C*17:01:01G | C*16:01:02+C*17:01:04  |
| C*16:01:01+C*17:01:03  | C*16:01:03+C*17:01:01G |
| C*16:01:01+C*17:11     | C*16:26+C*17:01:01G    |
| C*16:01:03+C*17:11     | C*16:26+C*17:01:03     |
| C*16:02:01G+C*17:11    | C*16:46+C*17:01:01G    |
| C*16:15:01+C*16:46     | C*16:25+C*16:26        |
| C*16:15:01+C*16:48     | C*16:25+C*16:35        |
| C*16:26+C*16:48        | C*16:35+C*16:46        |

---

# HLA-DPA1 Ambiguities, Release 3.9.0

## Sequences identical over exons 2

| Code in table  | Allele 1         | Allele 2         | Allele 3         | Allele 4         | Allele 5         |
|----------------|------------------|------------------|------------------|------------------|------------------|
| DPA1*01:03:01G | DPA1*01:03:01:01 | DPA1*01:03:01:02 | DPA1*01:03:01:03 | DPA1*01:03:01:04 | DPA1*01:03:01:05 |

## Alleles extended due to unsequenced regions

The following alleles do not contain the complete exon 2 sequence. For these alleles, the sequence of an alternate allele has been used to extend the sequence to cover this region.

| Incomplete allele | Sequence extended with |
|-------------------|------------------------|
| DPA1*01:03:02     | DPA1*01:03:01:01       |
| DPA1*01:04        | DPA1*01:03:01:01       |
| DPA1*01:05        | DPA1*01:03:01:01       |
| DPA1*01:07        | DPA1*01:03:01:01       |
| DPA1*02:01:04     | DPA1*02:01:01          |
| DPA1*02:02:01     | DPA1*02:01:01          |
| DPA1*02:02:03     | DPA1*02:01:01          |
| DPA1*02:03        | DPA1*02:01:01          |
| DPA1*03:01        | DPA1*01:03:01:01       |
| DPA1*03:02        | DPA1*01:03:01:01       |
| DPA1*04:01        | DPA1*01:03:01:01       |

## Alleles removed from analysis due to insertions or deletions

| Allele |
|--------|
| None   |

## Ambiguous typing combinations over exon 2

| Combination 1                | Combination 2               | Combination 3            | Combination 4 | Combination 5 |
|------------------------------|-----------------------------|--------------------------|---------------|---------------|
| DPA1*01:03:01G+DPA1*01:08    | DPA1*01:04+DPA1*01:11       |                          |               |               |
| DPA1*01:03:01G+DPA1*02:01:01 | DPA1*01:03:03+DPA1*02:01:02 | DPA1*01:06:01+DPA1*02:03 |               |               |
| DPA1*01:03:01G+DPA1*02:01:05 | DPA1*01:03:02+DPA1*02:01:03 |                          |               |               |
| DPA1*01:03:01G+DPA1*02:01:07 | DPA1*01:03:04+DPA1*02:01:01 |                          |               |               |
| DPA1*01:03:01G+DPA1*02:02:02 | DPA1*01:03:02+DPA1*02:02:03 | DPA1*02:01:05+DPA1*03:02 |               |               |
| DPA1*01:03:01G+DPA1*02:02:03 | DPA1*01:03:03+DPA1*02:02:04 | DPA1*02:01:03+DPA1*03:02 |               |               |
| DPA1*01:03:01G+DPA1*03:03    | DPA1*01:04+DPA1*03:01       |                          |               |               |
| DPA1*01:03:03+DPA1*02:01:03  | DPA1*01:06:02+DPA1*02:03    |                          |               |               |
| DPA1*01:06:01+DPA1*02:01:03  | DPA1*01:06:02+DPA1*02:01:02 |                          |               |               |
| DPA1*01:08+DPA1*03:01        | DPA1*01:11+DPA1*03:03       |                          |               |               |
| DPA1*02:01:01+DPA1*02:02:04  | DPA1*02:01:02+DPA1*02:02:03 |                          |               |               |
| DPA1*02:01:03+DPA1*02:02:02  | DPA1*02:01:05+DPA1*02:02:03 |                          |               |               |

# HLA-DPB1 Ambiguities, Release 3.9.0

## Sequences identical over exons 2

| Code in table  | Allele 1         | Allele 2         | Allele 3    |
|----------------|------------------|------------------|-------------|
| DPB1*03:01:01G | DPB1*03:01:01    | DPB1*104:01      | DPB1*124:01 |
| DPB1*04:01:01G | DPB1*04:01:01:01 | DPB1*04:01:01:02 | DPB1*126:01 |
| DPB1*04:02:01G | DPB1*04:02:01:01 | DPB1*04:02:01:02 | DPB1*105:01 |
| DPB1*05:01:01G | DPB1*05:01:01    | DPB1*05:01:02    | DPB1*135:01 |
| DPB1*13:01:01G | DPB1*13:01       | DPB1*107:01      | DPB1*133:01 |
| DPB1*17:01:01G | DPB1*17:01       | DPB1*131:01      |             |
| DPB1*19:01:01G | DPB1*19:01       | DPB1*106:01      |             |
| DPB1*23:01:01G | DPB1*23:01       | DPB1*138:01      |             |

## Alleles extended due to unsequenced regions

The following alleles do not contain the complete exon 2 sequence. For these alleles, the sequence of an alternate allele has been used to extend the sequence to cover this region.

| Incomplete allele | Sequence extended with |
|-------------------|------------------------|
| DPB1*02:01:04     | DPB1*02:01:02          |
| DPB1*08:01        | DPB1*01:01:01          |
| DPB1*11:01:02     | DPB1*11:01:01          |
| DPB1*20:01:02     | DPB1*20:01:01          |
| DPB1*26:01:01     | DPB1*26:01:02          |
| DPB1*34:01        | DPB1*01:01:01          |
| DPB1*35:01:01     | DPB1*01:01:01          |
| DPB1*37:01        | DPB1*01:01:01          |
| DPB1*38:01        | DPB1*01:01:01          |
| DPB1*40:01        | DPB1*01:01:01          |
| DPB1*41:01:01     | DPB1*41:01:02          |
| DPB1*48:01        | DPB1*01:01:01          |
| DPB1*49:01        | DPB1*01:01:01          |
| DPB1*52:01        | DPB1*01:01:01          |
| DPB1*53:01        | DPB1*01:01:01          |
| DPB1*54:01        | DPB1*01:01:01          |
| DPB1*56:01        | DPB1*01:01:01          |
| DPB1*57:01        | DPB1*01:01:01          |
| DPB1*58:01        | DPB1*01:01:01          |
| DPB1*60:01        | DPB1*01:01:01          |
| DPB1*61:01N       | DPB1*01:01:01          |
| DPB1*62:01        | DPB1*01:01:01          |
| DPB1*63:01        | DPB1*01:01:01          |
| DPB1*64:01N       | DPB1*01:01:01          |
| DPB1*68:01        | DPB1*01:01:01          |
| DPB1*69:01        | DPB1*01:01:01          |
| DPB1*70:01        | DPB1*01:01:01          |
| DPB1*71:01        | DPB1*01:01:01          |
| DPB1*72:01        | DPB1*01:01:01          |
| DPB1*73:01        | DPB1*01:01:01          |
| DPB1*74:01        | DPB1*01:01:01          |
| DPB1*75:01        | DPB1*01:01:01          |
| DPB1*76:01        | DPB1*01:01:01          |
| DPB1*84:01        | DPB1*01:01:01          |
| DPB1*86:01        | DPB1*01:01:01          |
| DPB1*102:01       | DPB1*01:01:01          |

## Alleles removed from analysis due to insertions or deletions

| Allele |
|--------|
| None   |

## Ambiguous typing combinations over exon 2

| Combination 1                | Combination 2              | Combination 3           | Combination 4 | Combination 5 |
|------------------------------|----------------------------|-------------------------|---------------|---------------|
| DPB1*01:01:01+DPB1*02:01:02  | DPB1*71:01+DPB1*122:01     |                         |               |               |
| DPB1*01:01:01+DPB1*03:01:01G | DPB1*26:01:02+DPB1*50:01   |                         |               |               |
| DPB1*01:01:01+DPB1*04:01:01G | DPB1*39:01+DPB1*90:01      |                         |               |               |
| DPB1*01:01:01+DPB1*04:02:01G | DPB1*23:01:01G+DPB1*122:01 | DPB1*75:01+DPB1*89:01   |               |               |
| DPB1*01:01:01+DPB1*06:01     | DPB1*29:01+DPB1*89:01      |                         |               |               |
| DPB1*01:01:01+DPB1*16:01     | DPB1*08:01+DPB1*89:01      | DPB1*103:01+DPB1*122:01 |               |               |
| DPB1*01:01:01+DPB1*17:01:01G | DPB1*09:01+DPB1*89:01      |                         |               |               |
| DPB1*01:01:01+DPB1*20:01:01  | DPB1*03:01:01G+DPB1*89:01  | DPB1*27:01+DPB1*50:01   |               |               |
| DPB1*01:01:01+DPB1*25:01     | DPB1*52:01+DPB1*122:01     |                         |               |               |
| DPB1*01:01:01+DPB1*27:01     | DPB1*26:01:02+DPB1*89:01   |                         |               |               |
| DPB1*01:01:01+DPB1*30:01     | DPB1*54:01+DPB1*89:01      |                         |               |               |
| DPB1*01:01:01+DPB1*45:01     | DPB1*67:01+DPB1*122:01     |                         |               |               |
| DPB1*01:01:01+DPB1*49:01     | DPB1*39:01+DPB1*122:01     |                         |               |               |
| DPB1*01:01:01+DPB1*51:01     | DPB1*04:01:01G+DPB1*122:01 | DPB1*49:01+DPB1*90:01   |               |               |
| DPB1*01:01:01+DPB1*53:01     | DPB1*40:01+DPB1*122:01     |                         |               |               |
| DPB1*01:01:01+DPB1*57:01     | DPB1*50:01+DPB1*65:01      |                         |               |               |
| DPB1*01:01:01+DPB1*59:01     | DPB1*73:01+DPB1*89:01      |                         |               |               |
| DPB1*01:01:01+DPB1*74:01     | DPB1*15:01+DPB1*26:01:02   |                         |               |               |
| DPB1*01:01:01+DPB1*81:01     | DPB1*33:01+DPB1*122:01     |                         |               |               |
| DPB1*01:01:01+DPB1*87:01     | DPB1*52:01+DPB1*89:01      |                         |               |               |

|                               |                               |                            |                           |
|-------------------------------|-------------------------------|----------------------------|---------------------------|
| DPB1*01:01:01+DPB1*91:01      | DPB1*14:01+DPB1*89:01         |                            |                           |
| DPB1*01:01:01+DPB1*93:01      | DPB1*37:01+DPB1*89:01         |                            |                           |
| DPB1*01:01:01+DPB1*98:01      | DPB1*35:01+DPB1*89:01         |                            |                           |
| DPB1*01:01:01+DPB1*108:01     | DPB1*39:01+DPB1*50:01         |                            |                           |
| DPB1*01:01:01+DPB1*110:01     | DPB1*13:01:01G+DPB1*90:01     |                            |                           |
| DPB1*01:01:01+DPB1*111:01     | DPB1*03:01:01G+DPB1*118:01    |                            |                           |
| DPB1*01:01:01+DPB1*116:01     | DPB1*112:01+DPB1*122:01       |                            |                           |
| DPB1*01:01:01+DPB1*137:01     | DPB1*10:01+DPB1*89:01         | DPB1*55:01+DPB1*122:01     |                           |
| DPB1*02:01:02+DPB1*02:02      | DPB1*47:01+DPB1*48:01         |                            |                           |
| DPB1*02:01:02+DPB1*03:01:01G  | DPB1*04:02:01G+DPB1*29:01     | DPB1*06:01+DPB1*75:01      | DPB1*25:01+DPB1*46:01     |
|                               | DPB1*37:01+DPB1*108:01        | DPB1*57:01+DPB1*109:01     | DPB1*59:01+DPB1*88:01     |
| DPB1*02:01:02+DPB1*04:01:01G  | DPB1*04:02:01G+DPB1*33:01     | DPB1*23:01:01G+DPB1*81:01  | DPB1*51:01+DPB1*71:01     |
| DPB1*02:01:02+DPB1*05:01:01G  | DPB1*04:02:01G+DPB1*22:01     | DPB1*16:01+DPB1*100:01     |                           |
| DPB1*02:01:02+DPB1*09:01      | DPB1*08:01+DPB1*86:01         | DPB1*10:01+DPB1*46:01      |                           |
| DPB1*02:01:02+DPB1*10:01      | DPB1*08:01+DPB1*113:01        |                            |                           |
| DPB1*02:01:02+DPB1*14:01      | DPB1*09:01+DPB1*59:01         | DPB1*10:01+DPB1*108:01     | DPB1*17:01:01G+DPB1*73:01 |
|                               | DPB1*45:01+DPB1*46:01         | DPB1*57:01+DPB1*113:01     |                           |
| DPB1*02:01:02+DPB1*17:01:01G  | DPB1*16:01+DPB1*86:01         | DPB1*46:01+DPB1*137:01     |                           |
| DPB1*02:01:02+DPB1*20:01:01   | DPB1*04:02:01G+DPB1*06:01     | DPB1*93:01+DPB1*108:01     |                           |
| DPB1*02:01:02+DPB1*21:01      | DPB1*02:02+DPB1*93:01         | DPB1*22:01+DPB1*109:01     |                           |
| DPB1*02:01:02+DPB1*22:01      | DPB1*02:02+DPB1*16:01         |                            |                           |
| DPB1*02:01:02+DPB1*23:01:01G  | DPB1*04:02:01G+DPB1*71:01     |                            |                           |
| DPB1*02:01:02+DPB1*24:01      | DPB1*47:01+DPB1*51:01         |                            |                           |
| DPB1*02:01:02+DPB1*25:01      | DPB1*37:01+DPB1*59:01         | DPB1*73:01+DPB1*93:01      |                           |
| DPB1*02:01:02+DPB1*26:01:02   | DPB1*37:01+DPB1*39:01         | DPB1*65:01+DPB1*109:01     | DPB1*68:01+DPB1*117:01    |
| DPB1*02:01:02+DPB1*27:01      | DPB1*39:01+DPB1*93:01         |                            |                           |
| DPB1*02:01:02+DPB1*30:01      | DPB1*47:01+DPB1*137:01        |                            |                           |
| DPB1*02:01:02+DPB1*33:01      | DPB1*71:01+DPB1*81:01         |                            |                           |
| DPB1*02:01:02+DPB1*35:01:01   | DPB1*04:02:01G+DPB1*09:01     | DPB1*10:01+DPB1*80:01      | DPB1*17:01:01G+DPB1*75:01 |
|                               | DPB1*68:01+DPB1*86:01         |                            |                           |
| DPB1*02:01:02+DPB1*36:01      | DPB1*04:02:01G+DPB1*21:01     | DPB1*05:01:01G+DPB1*109:01 | DPB1*93:01+DPB1*100:01    |
| DPB1*02:01:02+DPB1*37:01      | DPB1*08:01+DPB1*109:01        |                            |                           |
| DPB1*02:01:02+DPB1*39:01      | DPB1*49:01+DPB1*71:01         |                            |                           |
| DPB1*02:01:02+DPB1*40:01      | DPB1*53:01+DPB1*71:01         |                            |                           |
| DPB1*02:01:02+DPB1*44:01      | DPB1*29:01+DPB1*48:01         |                            |                           |
| DPB1*02:01:02+DPB1*45:01      | DPB1*10:01+DPB1*59:01         | DPB1*73:01+DPB1*137:01     |                           |
| DPB1*02:01:02+DPB1*51:01      | DPB1*04:02:01G+DPB1*81:01     |                            |                           |
| DPB1*02:01:02+DPB1*52:01      | DPB1*25:01+DPB1*71:01         |                            |                           |
| DPB1*02:01:02+DPB1*54:01      | DPB1*10:01+DPB1*47:01         |                            |                           |
| DPB1*02:01:02+DPB1*55:01      | DPB1*71:01+DPB1*137:01        | DPB1*103:01+DPB1*113:01    |                           |
| DPB1*02:01:02+DPB1*56:01      | DPB1*25:01+DPB1*33:01         | DPB1*37:01+DPB1*72:01      | DPB1*52:01+DPB1*81:01     |
| DPB1*02:01:02+DPB1*57:01      | DPB1*08:01+DPB1*108:01        |                            |                           |
| DPB1*02:01:02+DPB1*58:01      | DPB1*48:01+DPB1*55:01         |                            |                           |
| DPB1*02:01:02+DPB1*63:01      | DPB1*16:01+DPB1*112:01        | DPB1*103:01+DPB1*116:01    |                           |
| DPB1*02:01:02+DPB1*65:01      | DPB1*08:01+DPB1*39:01         |                            |                           |
| DPB1*02:01:02+DPB1*66:01      | DPB1*04:01:01G+DPB1*113:01    | DPB1*33:01+DPB1*129:01     |                           |
| DPB1*02:01:02+DPB1*67:01      | DPB1*45:01+DPB1*71:01         | DPB1*55:01+DPB1*73:01      |                           |
| DPB1*02:01:02+DPB1*68:01      | DPB1*04:02:01G+DPB1*08:01     | DPB1*16:01+DPB1*75:01      |                           |
| DPB1*02:01:02+DPB1*69:01      | DPB1*46:01+DPB1*136:01        |                            |                           |
| DPB1*02:01:02+DPB1*72:01      | DPB1*33:01+DPB1*59:01         |                            |                           |
| DPB1*02:01:02+DPB1*76:01      | DPB1*14:01+DPB1*81:01         |                            |                           |
| DPB1*02:01:02+DPB1*79:01      | DPB1*04:02:01G+DPB1*37:01     | DPB1*68:01+DPB1*109:01     | DPB1*75:01+DPB1*93:01     |
| DPB1*02:01:02+DPB1*80:01      | DPB1*04:02:01G+DPB1*46:01     |                            |                           |
| DPB1*02:01:02+DPB1*83:01      | DPB1*04:02:01G+DPB1*41:01:01  |                            |                           |
| DPB1*02:01:02+DPB1*86:01      | DPB1*46:01+DPB1*113:01        |                            |                           |
| DPB1*02:01:02+DPB1*88:01      | DPB1*37:01+DPB1*46:01         |                            |                           |
| DPB1*02:01:02+DPB1*91:01      | DPB1*17:01:01G+DPB1*59:01     | DPB1*108:01+DPB1*137:01    |                           |
| DPB1*02:01:02+DPB1*92:01      | DPB1*03:01:01G+DPB1*81:01     | DPB1*29:01+DPB1*51:01      |                           |
| DPB1*02:01:02+DPB1*93:01      | DPB1*16:01+DPB1*109:01        |                            |                           |
| DPB1*02:01:02+DPB1*98:01      | DPB1*04:02:01G+DPB1*17:01:01G | DPB1*80:01+DPB1*137:01     |                           |
| DPB1*02:01:02+DPB1*100:01     | DPB1*02:02+DPB1*04:02:01G     | DPB1*47:01+DPB1*116:01     |                           |
| DPB1*02:01:02+DPB1*102:01     | DPB1*16:01+DPB1*72:01         |                            |                           |
| DPB1*02:01:02+DPB1*103:01     | DPB1*16:01+DPB1*71:01         |                            |                           |
| DPB1*02:01:02+DPB1*108:01     | DPB1*46:01+DPB1*59:01         |                            |                           |
| DPB1*02:01:02+DPB1*112:01     | DPB1*23:01:01G+DPB1*48:01     | DPB1*71:01+DPB1*116:01     |                           |
| DPB1*02:01:02+DPB1*114:01     | DPB1*02:02+DPB1*25:01         | DPB1*21:01+DPB1*73:01      |                           |
| DPB1*02:01:02+DPB1*116:01     | DPB1*04:02:01G+DPB1*48:01     |                            |                           |
| DPB1*02:01:02+DPB1*125:01     | DPB1*04:01:01G+DPB1*10:01     | DPB1*08:01+DPB1*66:01      |                           |
| DPB1*02:01:02+DPB1*129:01     | DPB1*04:02:01G+DPB1*113:01    |                            |                           |
| DPB1*02:01:02+DPB1*132:01     | DPB1*04:02:01G+DPB1*88:01     | DPB1*37:01+DPB1*80:01      | DPB1*46:01+DPB1*79:01     |
| DPB1*02:01:02+DPB1*137:01     | DPB1*16:01+DPB1*113:01        |                            |                           |
| DPB1*02:01:02+DPB1*139:01     | DPB1*28:01+DPB1*47:01         |                            |                           |
| DPB1*02:02+DPB1*03:01:01G     | DPB1*29:01+DPB1*100:01        | DPB1*46:01+DPB1*114:01     |                           |
| DPB1*02:02+DPB1*04:01:01G     | DPB1*33:01+DPB1*100:01        |                            |                           |
| DPB1*02:02+DPB1*05:01:01G     | DPB1*22:01+DPB1*100:01        |                            |                           |
| DPB1*02:02+DPB1*10:01         | DPB1*48:01+DPB1*54:01         |                            |                           |
| DPB1*02:02+DPB1*17:01:01G     | DPB1*22:01+DPB1*86:01         |                            |                           |
| DPB1*02:02+DPB1*20:01:01      | DPB1*06:01+DPB1*100:01        | DPB1*21:01+DPB1*108:01     |                           |
| DPB1*02:02+DPB1*23:01:01G     | DPB1*47:01+DPB1*112:01        | DPB1*71:01+DPB1*100:01     |                           |
| DPB1*02:02+DPB1*27:01         | DPB1*05:01:01G+DPB1*117:01    | DPB1*21:01+DPB1*39:01      |                           |
| DPB1*02:02+DPB1*28:01         | DPB1*48:01+DPB1*139:01        |                            |                           |
| DPB1*02:02+DPB1*29:01         | DPB1*44:01+DPB1*47:01         |                            |                           |
| DPB1*02:02+DPB1*35:01:01      | DPB1*09:01+DPB1*100:01        |                            |                           |
| DPB1*02:02+DPB1*36:01         | DPB1*21:01+DPB1*100:01        |                            |                           |
| DPB1*02:02+DPB1*51:01         | DPB1*24:01+DPB1*48:01         | DPB1*81:01+DPB1*100:01     |                           |
| DPB1*02:02+DPB1*52:01         | DPB1*71:01+DPB1*114:01        |                            |                           |
| DPB1*02:02+DPB1*55:01         | DPB1*47:01+DPB1*58:01         |                            |                           |
| DPB1*02:02+DPB1*56:01         | DPB1*33:01+DPB1*114:01        |                            |                           |
| DPB1*02:02+DPB1*63:01         | DPB1*22:01+DPB1*112:01        |                            |                           |
| DPB1*02:02+DPB1*68:01         | DPB1*08:01+DPB1*100:01        | DPB1*22:01+DPB1*75:01      |                           |
| DPB1*02:02+DPB1*72:01         | DPB1*24:01+DPB1*95:01         |                            |                           |
| DPB1*02:02+DPB1*79:01         | DPB1*21:01+DPB1*75:01         | DPB1*37:01+DPB1*100:01     |                           |
| DPB1*02:02+DPB1*80:01         | DPB1*46:01+DPB1*100:01        |                            |                           |
| DPB1*02:02+DPB1*83:01         | DPB1*41:01:01+DPB1*100:01     |                            |                           |
| DPB1*02:02+DPB1*92:01         | DPB1*24:01+DPB1*44:01         |                            |                           |
| DPB1*02:02+DPB1*98:01         | DPB1*05:01:01G+DPB1*86:01     | DPB1*17:01:01G+DPB1*100:01 |                           |
| DPB1*02:02+DPB1*102:01        | DPB1*22:01+DPB1*72:01         |                            |                           |
| DPB1*02:02+DPB1*103:01        | DPB1*22:01+DPB1*71:01         |                            |                           |
| DPB1*02:02+DPB1*116:01        | DPB1*48:01+DPB1*100:01        |                            |                           |
| DPB1*02:02+DPB1*129:01        | DPB1*100:01+DPB1*113:01       |                            |                           |
| DPB1*02:02+DPB1*132:01        | DPB1*88:01+DPB1*100:01        |                            |                           |
| DPB1*02:02+DPB1*137:01        | DPB1*22:01+DPB1*113:01        | DPB1*30:01+DPB1*48:01      |                           |
| DPB1*03:01:01G+DPB1*04:01:01G | DPB1*23:01:01G+DPB1*92:01     | DPB1*56:01+DPB1*80:01      | DPB1*72:01+DPB1*132:01    |
| DPB1*03:01:01G+DPB1*04:02:01G | DPB1*20:01:01+DPB1*75:01      | DPB1*25:01+DPB1*80:01      | DPB1*59:01+DPB1*132:01    |
|                               | DPB1*79:01+DPB1*108:01        |                            |                           |

|                               |                             |                           |                           |
|-------------------------------|-----------------------------|---------------------------|---------------------------|
| DPB1*03:01:01G+DPB1*05:01:01G | DPB1*36:01+DPB1*57:01       |                           |                           |
| DPB1*03:01:01G+DPB1*06:01     | DPB1*20:01:01+DPB1*29:01    |                           |                           |
| DPB1*03:01:01G+DPB1*08:01     | DPB1*29:01+DPB1*68:01       | DPB1*37:01+DPB1*57:01     |                           |
| DPB1*03:01:01G+DPB1*09:01     | DPB1*14:01+DPB1*88:01       | DPB1*29:01+DPB1*35:01:01  |                           |
| DPB1*03:01:01G+DPB1*10:01     | DPB1*09:01+DPB1*25:01       | DPB1*14:01+DPB1*37:01     | DPB1*45:01+DPB1*88:01     |
| DPB1*03:01:01G+DPB1*15:01     | DPB1*50:01+DPB1*74:01       |                           |                           |
| DPB1*03:01:01G+DPB1*16:01     | DPB1*06:01+DPB1*68:01       | DPB1*08:01+DPB1*20:01:01  | DPB1*57:01+DPB1*93:01     |
| DPB1*03:01:01G+DPB1*17:01:01G | DPB1*06:01+DPB1*35:01:01    | DPB1*09:01+DPB1*20:01:01  | DPB1*29:01+DPB1*98:01     |
|                               | DPB1*88:01+DPB1*91:01       |                           |                           |
| DPB1*03:01:01G+DPB1*21:01     | DPB1*29:01+DPB1*36:01       |                           |                           |
| DPB1*03:01:01G+DPB1*22:01     | DPB1*05:01:01G+DPB1*29:01   | DPB1*21:01+DPB1*57:01     |                           |
| DPB1*03:01:01G+DPB1*23:01:01G | DPB1*52:01+DPB1*80:01       |                           |                           |
| DPB1*03:01:01G+DPB1*27:01     | DPB1*20:01:01+DPB1*26:01:02 |                           |                           |
| DPB1*03:01:01G+DPB1*30:01     | DPB1*20:01:01+DPB1*54:01    |                           |                           |
| DPB1*03:01:01G+DPB1*33:01     | DPB1*04:01:01G+DPB1*29:01   | DPB1*46:01+DPB1*56:01     | DPB1*71:01+DPB1*92:01     |
|                               | DPB1*72:01+DPB1*88:01       |                           |                           |
| DPB1*03:01:01G+DPB1*35:01:01  | DPB1*14:01+DPB1*132:01      |                           |                           |
| DPB1*03:01:01G+DPB1*37:01     | DPB1*25:01+DPB1*88:01       | DPB1*29:01+DPB1*79:01     |                           |
| DPB1*03:01:01G+DPB1*39:01     | DPB1*26:01:02+DPB1*108:01   |                           |                           |
| DPB1*03:01:01G+DPB1*41:01:01  | DPB1*29:01+DPB1*83:01       |                           |                           |
| DPB1*03:01:01G+DPB1*45:01     | DPB1*14:01+DPB1*25:01       |                           |                           |
| DPB1*03:01:01G+DPB1*46:01     | DPB1*29:01+DPB1*80:01       | DPB1*88:01+DPB1*108:01    |                           |
| DPB1*03:01:01G+DPB1*48:01     | DPB1*04:02:01G+DPB1*44:01   | DPB1*29:01+DPB1*116:01    |                           |
| DPB1*03:01:01G+DPB1*51:01     | DPB1*04:02:01G+DPB1*92:01   |                           |                           |
| DPB1*03:01:01G+DPB1*55:01     | DPB1*09:01+DPB1*87:01       | DPB1*17:01:01G+DPB1*52:01 |                           |
| DPB1*03:01:01G+DPB1*56:01     | DPB1*52:01+DPB1*92:01       |                           |                           |
| DPB1*03:01:01G+DPB1*59:01     | DPB1*20:01:01+DPB1*73:01    | DPB1*25:01+DPB1*108:01    |                           |
| DPB1*03:01:01G+DPB1*65:01     | DPB1*26:01:02+DPB1*57:01    |                           |                           |
| DPB1*03:01:01G+DPB1*67:01     | DPB1*14:01+DPB1*52:01       |                           |                           |
| DPB1*03:01:01G+DPB1*68:01     | DPB1*57:01+DPB1*79:01       |                           |                           |
| DPB1*03:01:01G+DPB1*71:01     | DPB1*23:01:01G+DPB1*29:01   | DPB1*46:01+DPB1*52:01     |                           |
| DPB1*03:01:01G+DPB1*72:01     | DPB1*56:01+DPB1*108:01      |                           |                           |
| DPB1*03:01:01G+DPB1*75:01     | DPB1*73:01+DPB1*132:01      |                           |                           |
| DPB1*03:01:01G+DPB1*76:01     | DPB1*14:01+DPB1*92:01       |                           |                           |
| DPB1*03:01:01G+DPB1*79:01     | DPB1*25:01+DPB1*132:01      |                           |                           |
| DPB1*03:01:01G+DPB1*80:01     | DPB1*108:01+DPB1*132:01     |                           |                           |
| DPB1*03:01:01G+DPB1*87:01     | DPB1*20:01:01+DPB1*52:01    |                           |                           |
| DPB1*03:01:01G+DPB1*88:01     | DPB1*29:01+DPB1*132:01      |                           |                           |
| DPB1*03:01:01G+DPB1*91:01     | DPB1*14:01+DPB1*20:01:01    |                           |                           |
| DPB1*03:01:01G+DPB1*93:01     | DPB1*06:01+DPB1*79:01       | DPB1*20:01:01+DPB1*37:01  |                           |
| DPB1*03:01:01G+DPB1*98:01     | DPB1*20:01:01+DPB1*35:01:01 | DPB1*91:01+DPB1*132:01    |                           |
| DPB1*03:01:01G+DPB1*100:01    | DPB1*80:01+DPB1*114:01      |                           |                           |
| DPB1*03:01:01G+DPB1*113:01    | DPB1*14:01+DPB1*109:01      | DPB1*25:01+DPB1*86:01     | DPB1*29:01+DPB1*129:01    |
| DPB1*03:01:01G+DPB1*125:01    | DPB1*35:01:01+DPB1*56:01    |                           |                           |
| DPB1*03:01:01G+DPB1*136:01    | DPB1*25:01+DPB1*69:01       |                           |                           |
| DPB1*03:01:01G+DPB1*137:01    | DPB1*10:01+DPB1*20:01:01    | DPB1*14:01+DPB1*93:01     | DPB1*17:01:01G+DPB1*25:01 |
|                               | DPB1*37:01+DPB1*91:01       |                           |                           |
| DPB1*04:01:01G+DPB1*04:02:01G | DPB1*23:01:01G+DPB1*51:01   |                           |                           |
| DPB1*04:01:01G+DPB1*05:01:01G | DPB1*24:01+DPB1*63:01       |                           |                           |
| DPB1*04:01:01G+DPB1*06:01     | DPB1*20:01:01+DPB1*33:01    |                           |                           |
| DPB1*04:01:01G+DPB1*08:01     | DPB1*33:01+DPB1*68:01       |                           |                           |
| DPB1*04:01:01G+DPB1*09:01     | DPB1*33:01+DPB1*35:01:01    | DPB1*46:01+DPB1*125:01    |                           |
| DPB1*04:01:01G+DPB1*13:01:01G | DPB1*39:01+DPB1*110:01      |                           |                           |
| DPB1*04:01:01G+DPB1*14:01     | DPB1*23:01:01G+DPB1*76:01   | DPB1*35:01:01+DPB1*72:01  | DPB1*57:01+DPB1*66:01     |
|                               | DPB1*108:01+DPB1*125:01     |                           |                           |
| DPB1*04:01:01G+DPB1*16:01     | DPB1*51:01+DPB1*103:01      |                           |                           |
| DPB1*04:01:01G+DPB1*17:01:01G | DPB1*33:01+DPB1*98:01       |                           |                           |
| DPB1*04:01:01G+DPB1*21:01     | DPB1*33:01+DPB1*36:01       |                           |                           |
| DPB1*04:01:01G+DPB1*22:01     | DPB1*05:01:01G+DPB1*33:01   |                           |                           |
| DPB1*04:01:01G+DPB1*25:01     | DPB1*04:02:01G+DPB1*56:01   | DPB1*51:01+DPB1*52:01     | DPB1*72:01+DPB1*79:01     |
| DPB1*04:01:01G+DPB1*30:01     | DPB1*24:01+DPB1*55:01       |                           |                           |
| DPB1*04:01:01G+DPB1*35:01:01  | DPB1*80:01+DPB1*125:01      |                           |                           |
| DPB1*04:01:01G+DPB1*37:01     | DPB1*33:01+DPB1*79:01       |                           |                           |
| DPB1*04:01:01G+DPB1*41:01:01  | DPB1*33:01+DPB1*83:01       |                           |                           |
| DPB1*04:01:01G+DPB1*45:01     | DPB1*51:01+DPB1*67:01       | DPB1*59:01+DPB1*125:01    |                           |
| DPB1*04:01:01G+DPB1*46:01     | DPB1*33:01+DPB1*80:01       |                           |                           |
| DPB1*04:01:01G+DPB1*47:01     | DPB1*24:01+DPB1*71:01       |                           |                           |
| DPB1*04:01:01G+DPB1*48:01     | DPB1*33:01+DPB1*116:01      | DPB1*81:01+DPB1*112:01    |                           |
| DPB1*04:01:01G+DPB1*49:01     | DPB1*39:01+DPB1*51:01       |                           |                           |
| DPB1*04:01:01G+DPB1*50:01     | DPB1*90:01+DPB1*108:01      |                           |                           |
| DPB1*04:01:01G+DPB1*52:01     | DPB1*23:01:01G+DPB1*56:01   |                           |                           |
| DPB1*04:01:01G+DPB1*53:01     | DPB1*40:01+DPB1*51:01       |                           |                           |
| DPB1*04:01:01G+DPB1*54:01     | DPB1*47:01+DPB1*125:01      |                           |                           |
| DPB1*04:01:01G+DPB1*55:01     | DPB1*66:01+DPB1*103:01      |                           |                           |
| DPB1*04:01:01G+DPB1*59:01     | DPB1*04:02:01G+DPB1*72:01   |                           |                           |
| DPB1*04:01:01G+DPB1*71:01     | DPB1*23:01:01G+DPB1*33:01   |                           |                           |
| DPB1*04:01:01G+DPB1*73:01     | DPB1*72:01+DPB1*75:01       |                           |                           |
| DPB1*04:01:01G+DPB1*81:01     | DPB1*33:01+DPB1*51:01       |                           |                           |
| DPB1*04:01:01G+DPB1*86:01     | DPB1*46:01+DPB1*66:01       |                           |                           |
| DPB1*04:01:01G+DPB1*88:01     | DPB1*33:01+DPB1*132:01      |                           |                           |
| DPB1*04:01:01G+DPB1*91:01     | DPB1*72:01+DPB1*98:01       |                           |                           |
| DPB1*04:01:01G+DPB1*100:01    | DPB1*24:01+DPB1*112:01      |                           |                           |
| DPB1*04:01:01G+DPB1*108:01    | DPB1*72:01+DPB1*80:01       |                           |                           |
| DPB1*04:01:01G+DPB1*114:01    | DPB1*56:01+DPB1*100:01      |                           |                           |
| DPB1*04:01:01G+DPB1*116:01    | DPB1*51:01+DPB1*112:01      |                           |                           |
| DPB1*04:01:01G+DPB1*129:01    | DPB1*04:02:01G+DPB1*66:01   |                           |                           |
| DPB1*04:01:01G+DPB1*137:01    | DPB1*16:01+DPB1*66:01       | DPB1*51:01+DPB1*55:01     |                           |
| DPB1*04:02:01G+DPB1*10:01     | DPB1*08:01+DPB1*129:01      | DPB1*68:01+DPB1*113:01    | DPB1*75:01+DPB1*137:01    |
| DPB1*04:02:01G+DPB1*14:01     | DPB1*35:01:01+DPB1*59:01    | DPB1*45:01+DPB1*80:01     | DPB1*57:01+DPB1*129:01    |
|                               | DPB1*73:01+DPB1*98:01       | DPB1*75:01+DPB1*91:01     |                           |
| DPB1*04:02:01G+DPB1*25:01     | DPB1*59:01+DPB1*79:01       |                           |                           |
| DPB1*04:02:01G+DPB1*26:01:02  | DPB1*27:01+DPB1*75:01       | DPB1*39:01+DPB1*79:01     |                           |
| DPB1*04:02:01G+DPB1*35:01:01  | DPB1*75:01+DPB1*98:01       |                           |                           |
| DPB1*04:02:01G+DPB1*39:01     | DPB1*23:01:01G+DPB1*49:01   |                           |                           |
| DPB1*04:02:01G+DPB1*40:01     | DPB1*23:01:01G+DPB1*53:01   |                           |                           |
| DPB1*04:02:01G+DPB1*52:01     | DPB1*23:01:01G+DPB1*25:01   | DPB1*75:01+DPB1*87:01     |                           |
| DPB1*04:02:01G+DPB1*54:01     | DPB1*30:01+DPB1*75:01       |                           |                           |
| DPB1*04:02:01G+DPB1*55:01     | DPB1*23:01:01G+DPB1*137:01  | DPB1*103:01+DPB1*129:01   |                           |
| DPB1*04:02:01G+DPB1*57:01     | DPB1*68:01+DPB1*108:01      |                           |                           |
| DPB1*04:02:01G+DPB1*58:01     | DPB1*55:01+DPB1*116:01      | DPB1*63:01+DPB1*113:01    | DPB1*112:01+DPB1*137:01   |
| DPB1*04:02:01G+DPB1*65:01     | DPB1*39:01+DPB1*68:01       |                           |                           |
| DPB1*04:02:01G+DPB1*67:01     | DPB1*23:01:01G+DPB1*45:01   |                           |                           |
| DPB1*04:02:01G+DPB1*69:01     | DPB1*80:01+DPB1*136:01      |                           |                           |
| DPB1*04:02:01G+DPB1*73:01     | DPB1*59:01+DPB1*75:01       |                           |                           |
| DPB1*04:02:01G+DPB1*76:01     | DPB1*14:01+DPB1*51:01       |                           |                           |

|                               |                              |                           |                         |
|-------------------------------|------------------------------|---------------------------|-------------------------|
| DPB1*04:02:01G+DPB1*85:01     | DPB1*27:01+DPB1*82:01        |                           |                         |
| DPB1*04:02:01G+DPB1*86:01     | DPB1*46:01+DPB1*129:01       | DPB1*80:01+DPB1*113:01    |                         |
| DPB1*04:02:01G+DPB1*91:01     | DPB1*59:01+DPB1*98:01        |                           |                         |
| DPB1*04:02:01G+DPB1*103:01    | DPB1*16:01+DPB1*23:01:01G    |                           |                         |
| DPB1*04:02:01G+DPB1*108:01    | DPB1*59:01+DPB1*80:01        |                           |                         |
| DPB1*04:02:01G+DPB1*112:01    | DPB1*23:01:01G+DPB1*116:01   |                           |                         |
| DPB1*04:02:01G+DPB1*114:01    | DPB1*25:01+DPB1*100:01       | DPB1*36:01+DPB1*73:01     |                         |
| DPB1*04:02:01G+DPB1*117:01    | DPB1*39:01+DPB1*109:01       |                           |                         |
| DPB1*04:02:01G+DPB1*125:01    | DPB1*66:01+DPB1*68:01        |                           |                         |
| DPB1*04:02:01G+DPB1*132:01    | DPB1*79:01+DPB1*80:01        |                           |                         |
| DPB1*04:02:01G+DPB1*137:01    | DPB1*16:01+DPB1*129:01       |                           |                         |
| DPB1*05:01:01G+DPB1*06:01     | DPB1*20:01:01+DPB1*22:01     |                           |                         |
| DPB1*05:01:01G+DPB1*08:01     | DPB1*22:01+DPB1*68:01        |                           |                         |
| DPB1*05:01:01G+DPB1*09:01     | DPB1*22:01+DPB1*35:01:01     |                           |                         |
| DPB1*05:01:01G+DPB1*17:01:01G | DPB1*22:01+DPB1*98:01        |                           |                         |
| DPB1*05:01:01G+DPB1*21:01     | DPB1*22:01+DPB1*36:01        |                           |                         |
| DPB1*05:01:01G+DPB1*26:01:02  | DPB1*36:01+DPB1*65:01        |                           |                         |
| DPB1*05:01:01G+DPB1*37:01     | DPB1*08:01+DPB1*36:01        | DPB1*21:01+DPB1*68:01     | DPB1*22:01+DPB1*79:01   |
| DPB1*05:01:01G+DPB1*41:01:01  | DPB1*22:01+DPB1*83:01        |                           |                         |
| DPB1*05:01:01G+DPB1*46:01     | DPB1*22:01+DPB1*80:01        |                           |                         |
| DPB1*05:01:01G+DPB1*48:01     | DPB1*22:01+DPB1*116:01       |                           |                         |
| DPB1*05:01:01G+DPB1*55:01     | DPB1*30:01+DPB1*63:01        |                           |                         |
| DPB1*05:01:01G+DPB1*71:01     | DPB1*22:01+DPB1*23:01:01G    | DPB1*47:01+DPB1*63:01     | DPB1*100:01+DPB1*103:01 |
| DPB1*05:01:01G+DPB1*72:01     | DPB1*100:01+DPB1*102:01      |                           |                         |
| DPB1*05:01:01G+DPB1*75:01     | DPB1*68:01+DPB1*100:01       |                           |                         |
| DPB1*05:01:01G+DPB1*79:01     | DPB1*36:01+DPB1*68:01        |                           |                         |
| DPB1*05:01:01G+DPB1*81:01     | DPB1*22:01+DPB1*51:01        |                           |                         |
| DPB1*05:01:01G+DPB1*88:01     | DPB1*22:01+DPB1*132:01       |                           |                         |
| DPB1*05:01:01G+DPB1*93:01     | DPB1*16:01+DPB1*36:01        |                           |                         |
| DPB1*05:01:01G+DPB1*112:01    | DPB1*63:01+DPB1*100:01       |                           |                         |
| DPB1*05:01:01G+DPB1*113:01    | DPB1*22:01+DPB1*129:01       | DPB1*30:01+DPB1*116:01    | DPB1*100:01+DPB1*137:01 |
| DPB1*06:01+DPB1*08:01         | DPB1*16:01+DPB1*29:01        |                           |                         |
| DPB1*06:01+DPB1*09:01         | DPB1*17:01:01G+DPB1*29:01    |                           |                         |
| DPB1*06:01+DPB1*10:01         | DPB1*29:01+DPB1*137:01       |                           |                         |
| DPB1*06:01+DPB1*14:01         | DPB1*29:01+DPB1*91:01        |                           |                         |
| DPB1*06:01+DPB1*23:01:01G     | DPB1*20:01:01+DPB1*71:01     | DPB1*46:01+DPB1*87:01     |                         |
| DPB1*06:01+DPB1*26:01:02      | DPB1*27:01+DPB1*29:01        |                           |                         |
| DPB1*06:01+DPB1*36:01         | DPB1*20:01:01+DPB1*21:01     |                           |                         |
| DPB1*06:01+DPB1*37:01         | DPB1*29:01+DPB1*93:01        |                           |                         |
| DPB1*06:01+DPB1*51:01         | DPB1*20:01:01+DPB1*81:01     |                           |                         |
| DPB1*06:01+DPB1*52:01         | DPB1*29:01+DPB1*87:01        |                           |                         |
| DPB1*06:01+DPB1*54:01         | DPB1*29:01+DPB1*30:01        |                           |                         |
| DPB1*06:01+DPB1*73:01         | DPB1*29:01+DPB1*59:01        |                           |                         |
| DPB1*06:01+DPB1*80:01         | DPB1*20:01:01+DPB1*46:01     |                           |                         |
| DPB1*06:01+DPB1*83:01         | DPB1*20:01:01+DPB1*41:01:01  |                           |                         |
| DPB1*06:01+DPB1*98:01         | DPB1*17:01:01G+DPB1*20:01:01 |                           |                         |
| DPB1*06:01+DPB1*116:01        | DPB1*20:01:01+DPB1*48:01     |                           |                         |
| DPB1*06:01+DPB1*125:01        | DPB1*17:01:01G+DPB1*56:01    | DPB1*55:01+DPB1*92:01     |                         |
| DPB1*06:01+DPB1*129:01        | DPB1*20:01:01+DPB1*113:01    | DPB1*91:01+DPB1*109:01    |                         |
| DPB1*06:01+DPB1*132:01        | DPB1*20:01:01+DPB1*88:01     |                           |                         |
| DPB1*08:01+DPB1*14:01         | DPB1*10:01+DPB1*57:01        |                           |                         |
| DPB1*08:01+DPB1*17:01:01G     | DPB1*09:01+DPB1*16:01        |                           |                         |
| DPB1*08:01+DPB1*21:01         | DPB1*22:01+DPB1*37:01        |                           |                         |
| DPB1*08:01+DPB1*23:01:01G     | DPB1*68:01+DPB1*71:01        | DPB1*75:01+DPB1*103:01    |                         |
| DPB1*08:01+DPB1*26:01:02      | DPB1*37:01+DPB1*65:01        |                           |                         |
| DPB1*08:01+DPB1*27:01         | DPB1*16:01+DPB1*26:01:02     | DPB1*65:01+DPB1*93:01     |                         |
| DPB1*08:01+DPB1*30:01         | DPB1*16:01+DPB1*54:01        |                           |                         |
| DPB1*08:01+DPB1*35:01:01      | DPB1*09:01+DPB1*68:01        |                           |                         |
| DPB1*08:01+DPB1*51:01         | DPB1*68:01+DPB1*81:01        |                           |                         |
| DPB1*08:01+DPB1*55:01         | DPB1*10:01+DPB1*103:01       |                           |                         |
| DPB1*08:01+DPB1*59:01         | DPB1*16:01+DPB1*73:01        |                           |                         |
| DPB1*08:01+DPB1*79:01         | DPB1*37:01+DPB1*68:01        |                           |                         |
| DPB1*08:01+DPB1*80:01         | DPB1*46:01+DPB1*68:01        |                           |                         |
| DPB1*08:01+DPB1*83:01         | DPB1*41:01:01+DPB1*68:01     |                           |                         |
| DPB1*08:01+DPB1*87:01         | DPB1*16:01+DPB1*52:01        | DPB1*25:01+DPB1*103:01    |                         |
| DPB1*08:01+DPB1*91:01         | DPB1*14:01+DPB1*16:01        | DPB1*57:01+DPB1*137:01    |                         |
| DPB1*08:01+DPB1*93:01         | DPB1*16:01+DPB1*37:01        |                           |                         |
| DPB1*08:01+DPB1*98:01         | DPB1*16:01+DPB1*35:01:01     | DPB1*17:01:01G+DPB1*68:01 |                         |
| DPB1*08:01+DPB1*116:01        | DPB1*48:01+DPB1*68:01        |                           |                         |
| DPB1*08:01+DPB1*132:01        | DPB1*68:01+DPB1*88:01        |                           |                         |
| DPB1*08:01+DPB1*137:01        | DPB1*10:01+DPB1*16:01        |                           |                         |
| DPB1*09:01+DPB1*23:01:01G     | DPB1*35:01:01+DPB1*71:01     |                           |                         |
| DPB1*09:01+DPB1*27:01         | DPB1*17:01:01G+DPB1*26:01:02 |                           |                         |
| DPB1*09:01+DPB1*30:01         | DPB1*17:01:01G+DPB1*54:01    |                           |                         |
| DPB1*09:01+DPB1*36:01         | DPB1*21:01+DPB1*35:01:01     |                           |                         |
| DPB1*09:01+DPB1*37:01         | DPB1*10:01+DPB1*88:01        |                           |                         |
| DPB1*09:01+DPB1*39:01         | DPB1*65:01+DPB1*86:01        |                           |                         |
| DPB1*09:01+DPB1*45:01         | DPB1*10:01+DPB1*14:01        |                           |                         |
| DPB1*09:01+DPB1*47:01         | DPB1*46:01+DPB1*54:01        |                           |                         |
| DPB1*09:01+DPB1*51:01         | DPB1*35:01:01+DPB1*81:01     |                           |                         |
| DPB1*09:01+DPB1*52:01         | DPB1*67:01+DPB1*88:01        |                           |                         |
| DPB1*09:01+DPB1*56:01         | DPB1*29:01+DPB1*125:01       |                           |                         |
| DPB1*09:01+DPB1*66:01         | DPB1*86:01+DPB1*125:01       |                           |                         |
| DPB1*09:01+DPB1*72:01         | DPB1*14:01+DPB1*33:01        | DPB1*71:01+DPB1*76:01     |                         |
| DPB1*09:01+DPB1*79:01         | DPB1*10:01+DPB1*132:01       | DPB1*35:01:01+DPB1*37:01  |                         |
| DPB1*09:01+DPB1*80:01         | DPB1*35:01:01+DPB1*46:01     |                           |                         |
| DPB1*09:01+DPB1*83:01         | DPB1*35:01:01+DPB1*41:01:01  |                           |                         |
| DPB1*09:01+DPB1*91:01         | DPB1*14:01+DPB1*17:01:01G    |                           |                         |
| DPB1*09:01+DPB1*92:01         | DPB1*76:01+DPB1*88:01        |                           |                         |
| DPB1*09:01+DPB1*93:01         | DPB1*17:01:01G+DPB1*37:01    | DPB1*88:01+DPB1*137:01    |                         |
| DPB1*09:01+DPB1*98:01         | DPB1*17:01:01G+DPB1*35:01:01 |                           |                         |
| DPB1*09:01+DPB1*102:01        | DPB1*76:01+DPB1*103:01       |                           |                         |
| DPB1*09:01+DPB1*108:01        | DPB1*14:01+DPB1*46:01        | DPB1*57:01+DPB1*86:01     |                         |
| DPB1*09:01+DPB1*109:01        | DPB1*37:01+DPB1*86:01        | DPB1*88:01+DPB1*113:01    |                         |
| DPB1*09:01+DPB1*113:01        | DPB1*10:01+DPB1*86:01        |                           |                         |
| DPB1*09:01+DPB1*116:01        | DPB1*35:01:01+DPB1*48:01     |                           |                         |
| DPB1*09:01+DPB1*129:01        | DPB1*35:01:01+DPB1*113:01    |                           |                         |
| DPB1*09:01+DPB1*132:01        | DPB1*35:01:01+DPB1*88:01     |                           |                         |
| DPB1*09:01+DPB1*136:01        | DPB1*10:01+DPB1*69:01        |                           |                         |
| DPB1*09:01+DPB1*137:01        | DPB1*10:01+DPB1*17:01:01G    |                           |                         |
| DPB1*10:01+DPB1*23:01:01G     | DPB1*55:01+DPB1*75:01        |                           |                         |
| DPB1*10:01+DPB1*24:01         | DPB1*51:01+DPB1*54:01        |                           |                         |
| DPB1*10:01+DPB1*25:01         | DPB1*37:01+DPB1*45:01        |                           |                         |
| DPB1*10:01+DPB1*27:01         | DPB1*26:01:02+DPB1*137:01    |                           |                         |
| DPB1*10:01+DPB1*30:01         | DPB1*54:01+DPB1*137:01       |                           |                         |

|                               |                            |                           |                         |
|-------------------------------|----------------------------|---------------------------|-------------------------|
| DPB1*10:01+DPB1*39:01         | DPB1*65:01+DPB1*113:01     |                           |                         |
| DPB1*10:01+DPB1*52:01         | DPB1*37:01+DPB1*67:01      |                           |                         |
| DPB1*10:01+DPB1*63:01         | DPB1*58:01+DPB1*68:01      |                           |                         |
| DPB1*10:01+DPB1*66:01         | DPB1*113:01+DPB1*125:01    |                           |                         |
| DPB1*10:01+DPB1*72:01         | DPB1*33:01+DPB1*45:01      | DPB1*67:01+DPB1*81:01     |                         |
| DPB1*10:01+DPB1*87:01         | DPB1*25:01+DPB1*55:01      | DPB1*52:01+DPB1*137:01    | DPB1*67:01+DPB1*93:01   |
| DPB1*10:01+DPB1*91:01         | DPB1*14:01+DPB1*137:01     | DPB1*17:01:01G+DPB1*45:01 |                         |
| DPB1*10:01+DPB1*92:01         | DPB1*37:01+DPB1*76:01      |                           |                         |
| DPB1*10:01+DPB1*93:01         | DPB1*37:01+DPB1*137:01     |                           |                         |
| DPB1*10:01+DPB1*98:01         | DPB1*35:01:01+DPB1*137:01  |                           |                         |
| DPB1*10:01+DPB1*100:01        | DPB1*54:01+DPB1*116:01     |                           |                         |
| DPB1*10:01+DPB1*109:01        | DPB1*37:01+DPB1*113:01     |                           |                         |
| DPB1*10:01+DPB1*112:01        | DPB1*58:01+DPB1*75:01      |                           |                         |
| DPB1*10:01+DPB1*139:01        | DPB1*28:01+DPB1*54:01      |                           |                         |
| DPB1*11:01:01+DPB1*62:01      | DPB1*63:01+DPB1*74:01      |                           |                         |
| DPB1*13:01:01G+DPB1*47:01     | DPB1*19:01:01G+DPB1*117:01 |                           |                         |
| DPB1*13:01:01G+DPB1*51:01     | DPB1*49:01+DPB1*110:01     |                           |                         |
| DPB1*14:01+DPB1*21:01         | DPB1*17:01:01G+DPB1*114:01 |                           |                         |
| DPB1*14:01+DPB1*23:01:01G     | DPB1*67:01+DPB1*80:01      |                           |                         |
| DPB1*14:01+DPB1*27:01         | DPB1*26:01:02+DPB1*91:01   |                           |                         |
| DPB1*14:01+DPB1*30:01         | DPB1*54:01+DPB1*91:01      |                           |                         |
| DPB1*14:01+DPB1*36:01         | DPB1*98:01+DPB1*114:01     |                           |                         |
| DPB1*14:01+DPB1*47:01         | DPB1*54:01+DPB1*108:01     |                           |                         |
| DPB1*14:01+DPB1*55:01         | DPB1*17:01:01G+DPB1*67:01  |                           |                         |
| DPB1*14:01+DPB1*56:01         | DPB1*52:01+DPB1*76:01      | DPB1*67:01+DPB1*92:01     |                         |
| DPB1*14:01+DPB1*59:01         | DPB1*45:01+DPB1*108:01     | DPB1*73:01+DPB1*91:01     |                         |
| DPB1*14:01+DPB1*71:01         | DPB1*46:01+DPB1*67:01      |                           |                         |
| DPB1*14:01+DPB1*75:01         | DPB1*35:01:01+DPB1*73:01   |                           |                         |
| DPB1*14:01+DPB1*79:01         | DPB1*25:01+DPB1*35:01:01   | DPB1*45:01+DPB1*132:01    |                         |
| DPB1*14:01+DPB1*80:01         | DPB1*35:01:01+DPB1*108:01  |                           |                         |
| DPB1*14:01+DPB1*87:01         | DPB1*20:01:01+DPB1*67:01   | DPB1*52:01+DPB1*91:01     |                         |
| DPB1*14:01+DPB1*90:01         | DPB1*50:01+DPB1*125:01     |                           |                         |
| DPB1*14:01+DPB1*98:01         | DPB1*35:01:01+DPB1*91:01   |                           |                         |
| DPB1*14:01+DPB1*103:01        | DPB1*55:01+DPB1*57:01      |                           |                         |
| DPB1*14:01+DPB1*113:01        | DPB1*45:01+DPB1*86:01      |                           |                         |
| DPB1*14:01+DPB1*136:01        | DPB1*45:01+DPB1*69:01      |                           |                         |
| DPB1*15:01+DPB1*27:01         | DPB1*74:01+DPB1*89:01      |                           |                         |
| DPB1*16:01+DPB1*21:01         | DPB1*22:01+DPB1*93:01      |                           |                         |
| DPB1*16:01+DPB1*33:01         | DPB1*81:01+DPB1*103:01     |                           |                         |
| DPB1*16:01+DPB1*39:01         | DPB1*49:01+DPB1*103:01     |                           |                         |
| DPB1*16:01+DPB1*40:01         | DPB1*53:01+DPB1*103:01     |                           |                         |
| DPB1*16:01+DPB1*55:01         | DPB1*103:01+DPB1*137:01    |                           |                         |
| DPB1*16:01+DPB1*56:01         | DPB1*37:01+DPB1*102:01     |                           |                         |
| DPB1*16:01+DPB1*67:01         | DPB1*45:01+DPB1*103:01     |                           |                         |
| DPB1*16:01+DPB1*79:01         | DPB1*68:01+DPB1*93:01      |                           |                         |
| DPB1*16:01+DPB1*114:01        | DPB1*22:01+DPB1*25:01      |                           |                         |
| DPB1*17:01:01G+DPB1*23:01:01G | DPB1*55:01+DPB1*80:01      | DPB1*71:01+DPB1*98:01     |                         |
| DPB1*17:01:01G+DPB1*36:01     | DPB1*21:01+DPB1*98:01      |                           |                         |
| DPB1*17:01:01G+DPB1*47:01     | DPB1*30:01+DPB1*46:01      |                           |                         |
| DPB1*17:01:01G+DPB1*51:01     | DPB1*81:01+DPB1*98:01      |                           |                         |
| DPB1*17:01:01G+DPB1*71:01     | DPB1*46:01+DPB1*55:01      | DPB1*86:01+DPB1*103:01    |                         |
| DPB1*17:01:01G+DPB1*72:01     | DPB1*33:01+DPB1*91:01      | DPB1*86:01+DPB1*102:01    |                         |
| DPB1*17:01:01G+DPB1*79:01     | DPB1*35:01:01+DPB1*93:01   | DPB1*37:01+DPB1*98:01     | DPB1*132:01+DPB1*137:01 |
| DPB1*17:01:01G+DPB1*80:01     | DPB1*46:01+DPB1*98:01      |                           |                         |
| DPB1*17:01:01G+DPB1*83:01     | DPB1*41:01:01+DPB1*98:01   |                           |                         |
| DPB1*17:01:01G+DPB1*87:01     | DPB1*20:01:01+DPB1*55:01   |                           |                         |
| DPB1*17:01:01G+DPB1*108:01    | DPB1*46:01+DPB1*91:01      |                           |                         |
| DPB1*17:01:01G+DPB1*109:01    | DPB1*86:01+DPB1*93:01      |                           |                         |
| DPB1*17:01:01G+DPB1*112:01    | DPB1*58:01+DPB1*80:01      | DPB1*63:01+DPB1*86:01     |                         |
| DPB1*17:01:01G+DPB1*113:01    | DPB1*86:01+DPB1*137:01     |                           |                         |
| DPB1*17:01:01G+DPB1*116:01    | DPB1*48:01+DPB1*98:01      |                           |                         |
| DPB1*17:01:01G+DPB1*129:01    | DPB1*98:01+DPB1*113:01     |                           |                         |
| DPB1*17:01:01G+DPB1*132:01    | DPB1*88:01+DPB1*98:01      |                           |                         |
| DPB1*17:01:01G+DPB1*136:01    | DPB1*69:01+DPB1*137:01     |                           |                         |
| DPB1*20:01:01+DPB1*23:01:01G  | DPB1*80:01+DPB1*87:01      |                           |                         |
| DPB1*20:01:01+DPB1*39:01      | DPB1*27:01+DPB1*108:01     |                           |                         |
| DPB1*20:01:01+DPB1*45:01      | DPB1*25:01+DPB1*91:01      |                           |                         |
| DPB1*20:01:01+DPB1*56:01      | DPB1*87:01+DPB1*92:01      |                           |                         |
| DPB1*20:01:01+DPB1*65:01      | DPB1*27:01+DPB1*57:01      |                           |                         |
| DPB1*20:01:01+DPB1*76:01      | DPB1*91:01+DPB1*92:01      |                           |                         |
| DPB1*20:01:01+DPB1*100:01     | DPB1*36:01+DPB1*108:01     |                           |                         |
| DPB1*20:01:01+DPB1*118:01     | DPB1*89:01+DPB1*111:01     |                           |                         |
| DPB1*20:01:01+DPB1*125:01     | DPB1*56:01+DPB1*98:01      |                           |                         |
| DPB1*20:01:01+DPB1*137:01     | DPB1*91:01+DPB1*93:01      |                           |                         |
| DPB1*21:01+DPB1*23:01:01G     | DPB1*36:01+DPB1*71:01      |                           |                         |
| DPB1*21:01+DPB1*25:01         | DPB1*93:01+DPB1*114:01     |                           |                         |
| DPB1*21:01+DPB1*45:01         | DPB1*114:01+DPB1*137:01    |                           |                         |
| DPB1*21:01+DPB1*51:01         | DPB1*36:01+DPB1*81:01      |                           |                         |
| DPB1*21:01+DPB1*65:01         | DPB1*22:01+DPB1*26:01:02   |                           |                         |
| DPB1*21:01+DPB1*67:01         | DPB1*55:01+DPB1*114:01     |                           |                         |
| DPB1*21:01+DPB1*79:01         | DPB1*36:01+DPB1*37:01      |                           |                         |
| DPB1*21:01+DPB1*80:01         | DPB1*36:01+DPB1*46:01      |                           |                         |
| DPB1*21:01+DPB1*83:01         | DPB1*36:01+DPB1*41:01:01   |                           |                         |
| DPB1*21:01+DPB1*116:01        | DPB1*36:01+DPB1*48:01      |                           |                         |
| DPB1*21:01+DPB1*129:01        | DPB1*36:01+DPB1*113:01     |                           |                         |
| DPB1*21:01+DPB1*132:01        | DPB1*36:01+DPB1*88:01      |                           |                         |
| DPB1*22:01+DPB1*52:01         | DPB1*103:01+DPB1*114:01    |                           |                         |
| DPB1*22:01+DPB1*66:01         | DPB1*24:01+DPB1*58:01      |                           |                         |
| DPB1*23:01:01G+DPB1*37:01     | DPB1*71:01+DPB1*79:01      |                           |                         |
| DPB1*23:01:01G+DPB1*41:01:01  | DPB1*71:01+DPB1*83:01      |                           |                         |
| DPB1*23:01:01G+DPB1*44:01     | DPB1*29:01+DPB1*112:01     | DPB1*95:01+DPB1*132:01    |                         |
| DPB1*23:01:01G+DPB1*46:01     | DPB1*71:01+DPB1*80:01      |                           |                         |
| DPB1*23:01:01G+DPB1*58:01     | DPB1*55:01+DPB1*112:01     |                           |                         |
| DPB1*23:01:01G+DPB1*88:01     | DPB1*71:01+DPB1*132:01     |                           |                         |
| DPB1*23:01:01G+DPB1*113:01    | DPB1*71:01+DPB1*129:01     |                           |                         |
| DPB1*23:01:01G+DPB1*114:01    | DPB1*52:01+DPB1*100:01     |                           |                         |
| DPB1*24:01+DPB1*28:01         | DPB1*51:01+DPB1*139:01     |                           |                         |
| DPB1*24:01+DPB1*29:01         | DPB1*47:01+DPB1*92:01      |                           |                         |
| DPB1*24:01+DPB1*116:01        | DPB1*51:01+DPB1*100:01     |                           |                         |
| DPB1*24:01+DPB1*137:01        | DPB1*30:01+DPB1*51:01      |                           |                         |
| DPB1*25:01+DPB1*39:01         | DPB1*26:01:02+DPB1*59:01   | DPB1*27:01+DPB1*73:01     | DPB1*49:01+DPB1*52:01   |
| DPB1*25:01+DPB1*40:01         | DPB1*52:01+DPB1*53:01      |                           |                         |
| DPB1*25:01+DPB1*66:01         | DPB1*56:01+DPB1*129:01     |                           |                         |
| DPB1*25:01+DPB1*67:01         | DPB1*45:01+DPB1*52:01      |                           |                         |
| DPB1*25:01+DPB1*72:01         | DPB1*56:01+DPB1*59:01      |                           |                         |



|                           |                           |                        |                         |
|---------------------------|---------------------------|------------------------|-------------------------|
| DPB1*25:01+DPB1*75:01     | DPB1*73:01+DPB1*79:01     |                        |                         |
| DPB1*25:01+DPB1*76:01     | DPB1*45:01+DPB1*92:01     |                        |                         |
| DPB1*25:01+DPB1*89:01     | DPB1*87:01+DPB1*122:01    |                        |                         |
| DPB1*25:01+DPB1*98:01     | DPB1*79:01+DPB1*91:01     |                        |                         |
| DPB1*25:01+DPB1*112:01    | DPB1*52:01+DPB1*116:01    |                        |                         |
| DPB1*25:01+DPB1*113:01    | DPB1*45:01+DPB1*109:01    |                        |                         |
| DPB1*25:01+DPB1*137:01    | DPB1*45:01+DPB1*93:01     |                        |                         |
| DPB1*26:01:02+DPB1*28:01  | DPB1*53:01+DPB1*56:01     |                        |                         |
| DPB1*26:01:02+DPB1*30:01  | DPB1*27:01+DPB1*54:01     |                        |                         |
| DPB1*26:01:02+DPB1*46:01  | DPB1*39:01+DPB1*88:01     |                        |                         |
| DPB1*26:01:02+DPB1*68:01  | DPB1*65:01+DPB1*79:01     |                        |                         |
| DPB1*26:01:02+DPB1*72:01  | DPB1*39:01+DPB1*56:01     |                        |                         |
| DPB1*26:01:02+DPB1*80:01  | DPB1*39:01+DPB1*132:01    |                        |                         |
| DPB1*26:01:02+DPB1*82:01  | DPB1*75:01+DPB1*85:01     |                        |                         |
| DPB1*26:01:02+DPB1*86:01  | DPB1*35:01:01+DPB1*117:01 |                        |                         |
| DPB1*26:01:02+DPB1*87:01  | DPB1*27:01+DPB1*52:01     |                        |                         |
| DPB1*26:01:02+DPB1*93:01  | DPB1*27:01+DPB1*37:01     |                        |                         |
| DPB1*26:01:02+DPB1*98:01  | DPB1*27:01+DPB1*35:01:01  |                        |                         |
| DPB1*26:01:02+DPB1*109:01 | DPB1*79:01+DPB1*117:01    |                        |                         |
| DPB1*27:01+DPB1*59:01     | DPB1*49:01+DPB1*87:01     |                        |                         |
| DPB1*27:01+DPB1*86:01     | DPB1*98:01+DPB1*117:01    |                        |                         |
| DPB1*27:01+DPB1*100:01    | DPB1*36:01+DPB1*39:01     |                        |                         |
| DPB1*28:01+DPB1*30:01     | DPB1*137:01+DPB1*139:01   |                        |                         |
| DPB1*28:01+DPB1*39:01     | DPB1*53:01+DPB1*72:01     |                        |                         |
| DPB1*28:01+DPB1*100:01    | DPB1*116:01+DPB1*139:01   |                        |                         |
| DPB1*29:01+DPB1*39:01     | DPB1*57:01+DPB1*117:01    |                        |                         |
| DPB1*29:01+DPB1*58:01     | DPB1*44:01+DPB1*55:01     |                        |                         |
| DPB1*29:01+DPB1*66:01     | DPB1*56:01+DPB1*86:01     |                        |                         |
| DPB1*29:01+DPB1*75:01     | DPB1*73:01+DPB1*88:01     |                        |                         |
| DPB1*30:01+DPB1*35:01:01  | DPB1*54:01+DPB1*98:01     |                        |                         |
| DPB1*30:01+DPB1*37:01     | DPB1*54:01+DPB1*93:01     |                        |                         |
| DPB1*30:01+DPB1*52:01     | DPB1*54:01+DPB1*87:01     |                        |                         |
| DPB1*30:01+DPB1*71:01     | DPB1*47:01+DPB1*55:01     |                        |                         |
| DPB1*30:01+DPB1*73:01     | DPB1*45:01+DPB1*47:01     | DPB1*54:01+DPB1*59:01  |                         |
| DPB1*30:01+DPB1*80:01     | DPB1*47:01+DPB1*98:01     |                        |                         |
| DPB1*30:01+DPB1*108:01    | DPB1*47:01+DPB1*91:01     |                        |                         |
| DPB1*30:01+DPB1*112:01    | DPB1*55:01+DPB1*100:01    |                        |                         |
| DPB1*33:01+DPB1*49:01     | DPB1*39:01+DPB1*81:01     |                        |                         |
| DPB1*33:01+DPB1*52:01     | DPB1*56:01+DPB1*71:01     |                        |                         |
| DPB1*33:01+DPB1*53:01     | DPB1*40:01+DPB1*81:01     |                        |                         |
| DPB1*33:01+DPB1*108:01    | DPB1*46:01+DPB1*72:01     |                        |                         |
| DPB1*33:01+DPB1*137:01    | DPB1*55:01+DPB1*81:01     |                        |                         |
| DPB1*35:01:01+DPB1*47:01  | DPB1*54:01+DPB1*80:01     |                        |                         |
| DPB1*35:01:01+DPB1*52:01  | DPB1*67:01+DPB1*132:01    |                        |                         |
| DPB1*35:01:01+DPB1*87:01  | DPB1*52:01+DPB1*98:01     |                        |                         |
| DPB1*35:01:01+DPB1*92:01  | DPB1*76:01+DPB1*132:01    |                        |                         |
| DPB1*35:01:01+DPB1*109:01 | DPB1*79:01+DPB1*86:01     | DPB1*88:01+DPB1*129:01 | DPB1*113:01+DPB1*132:01 |
| DPB1*36:01+DPB1*75:01     | DPB1*79:01+DPB1*100:01    |                        |                         |
| DPB1*37:01+DPB1*51:01     | DPB1*79:01+DPB1*81:01     |                        |                         |
| DPB1*37:01+DPB1*66:01     | DPB1*109:01+DPB1*125:01   |                        |                         |
| DPB1*37:01+DPB1*69:01     | DPB1*88:01+DPB1*136:01    |                        |                         |
| DPB1*37:01+DPB1*83:01     | DPB1*41:01:01+DPB1*79:01  |                        |                         |
| DPB1*37:01+DPB1*87:01     | DPB1*52:01+DPB1*93:01     |                        |                         |
| DPB1*37:01+DPB1*116:01    | DPB1*48:01+DPB1*79:01     |                        |                         |
| DPB1*37:01+DPB1*129:01    | DPB1*79:01+DPB1*113:01    |                        |                         |
| DPB1*37:01+DPB1*132:01    | DPB1*79:01+DPB1*88:01     |                        |                         |
| DPB1*39:01+DPB1*45:01     | DPB1*49:01+DPB1*67:01     |                        |                         |
| DPB1*39:01+DPB1*53:01     | DPB1*40:01+DPB1*49:01     |                        |                         |
| DPB1*39:01+DPB1*57:01     | DPB1*65:01+DPB1*108:01    |                        |                         |
| DPB1*39:01+DPB1*62:01     | DPB1*40:01+DPB1*112:01    |                        |                         |
| DPB1*39:01+DPB1*116:01    | DPB1*49:01+DPB1*112:01    |                        |                         |
| DPB1*39:01+DPB1*125:01    | DPB1*65:01+DPB1*66:01     |                        |                         |
| DPB1*39:01+DPB1*137:01    | DPB1*49:01+DPB1*55:01     |                        |                         |
| DPB1*40:01+DPB1*45:01     | DPB1*53:01+DPB1*67:01     |                        |                         |
| DPB1*40:01+DPB1*116:01    | DPB1*49:01+DPB1*62:01     | DPB1*53:01+DPB1*112:01 |                         |
| DPB1*40:01+DPB1*137:01    | DPB1*53:01+DPB1*55:01     |                        |                         |
| DPB1*41:01:01+DPB1*51:01  | DPB1*81:01+DPB1*83:01     |                        |                         |
| DPB1*41:01:01+DPB1*80:01  | DPB1*46:01+DPB1*83:01     |                        |                         |
| DPB1*41:01:01+DPB1*116:01 | DPB1*48:01+DPB1*83:01     |                        |                         |
| DPB1*41:01:01+DPB1*129:01 | DPB1*83:01+DPB1*113:01    |                        |                         |
| DPB1*41:01:01+DPB1*132:01 | DPB1*83:01+DPB1*88:01     |                        |                         |
| DPB1*44:01+DPB1*51:01     | DPB1*48:01+DPB1*92:01     |                        |                         |
| DPB1*44:01+DPB1*71:01     | DPB1*88:01+DPB1*95:01     |                        |                         |
| DPB1*44:01+DPB1*72:01     | DPB1*92:01+DPB1*95:01     |                        |                         |
| DPB1*45:01+DPB1*55:01     | DPB1*67:01+DPB1*137:01    |                        |                         |
| DPB1*45:01+DPB1*112:01    | DPB1*67:01+DPB1*116:01    |                        |                         |
| DPB1*46:01+DPB1*51:01     | DPB1*80:01+DPB1*81:01     |                        |                         |
| DPB1*46:01+DPB1*116:01    | DPB1*48:01+DPB1*80:01     |                        |                         |
| DPB1*46:01+DPB1*132:01    | DPB1*80:01+DPB1*88:01     |                        |                         |
| DPB1*48:01+DPB1*51:01     | DPB1*81:01+DPB1*116:01    |                        |                         |
| DPB1*48:01+DPB1*52:01     | DPB1*79:01+DPB1*95:01     |                        |                         |
| DPB1*48:01+DPB1*67:01     | DPB1*58:01+DPB1*73:01     |                        |                         |
| DPB1*48:01+DPB1*72:01     | DPB1*51:01+DPB1*95:01     |                        |                         |
| DPB1*48:01+DPB1*129:01    | DPB1*113:01+DPB1*116:01   |                        |                         |
| DPB1*48:01+DPB1*132:01    | DPB1*88:01+DPB1*116:01    |                        |                         |
| DPB1*49:01+DPB1*50:01     | DPB1*108:01+DPB1*122:01   |                        |                         |
| DPB1*51:01+DPB1*88:01     | DPB1*81:01+DPB1*132:01    |                        |                         |
| DPB1*51:01+DPB1*113:01    | DPB1*81:01+DPB1*129:01    |                        |                         |
| DPB1*52:01+DPB1*59:01     | DPB1*73:01+DPB1*87:01     |                        |                         |
| DPB1*52:01+DPB1*113:01    | DPB1*67:01+DPB1*109:01    |                        |                         |
| DPB1*55:01+DPB1*108:01    | DPB1*71:01+DPB1*91:01     |                        |                         |
| DPB1*56:01+DPB1*91:01     | DPB1*76:01+DPB1*87:01     |                        |                         |
| DPB1*58:01+DPB1*108:01    | DPB1*95:01+DPB1*98:01     |                        |                         |
| DPB1*59:01+DPB1*66:01     | DPB1*72:01+DPB1*129:01    |                        |                         |
| DPB1*59:01+DPB1*69:01     | DPB1*108:01+DPB1*136:01   |                        |                         |
| DPB1*59:01+DPB1*86:01     | DPB1*108:01+DPB1*113:01   |                        |                         |
| DPB1*63:01+DPB1*71:01     | DPB1*103:01+DPB1*112:01   |                        |                         |
| DPB1*63:01+DPB1*72:01     | DPB1*102:01+DPB1*112:01   |                        |                         |
| DPB1*63:01+DPB1*75:01     | DPB1*68:01+DPB1*112:01    |                        |                         |
| DPB1*63:01+DPB1*109:01    | DPB1*93:01+DPB1*112:01    |                        |                         |
| DPB1*68:01+DPB1*72:01     | DPB1*75:01+DPB1*102:01    |                        |                         |
| DPB1*69:01+DPB1*79:01     | DPB1*132:01+DPB1*136:01   |                        |                         |
| DPB1*69:01+DPB1*113:01    | DPB1*86:01+DPB1*136:01    |                        |                         |
| DPB1*71:01+DPB1*93:01     | DPB1*103:01+DPB1*109:01   |                        |                         |
| DPB1*71:01+DPB1*102:01    | DPB1*72:01+DPB1*103:01    |                        |                         |

---

|                        |                         |                         |
|------------------------|-------------------------|-------------------------|
| DPB1*72:01+DPB1*93:01  | DPB1*81:01+DPB1*87:01   | DPB1*102:01+DPB1*109:01 |
| DPB1*72:01+DPB1*137:01 | DPB1*102:01+DPB1*113:01 |                         |
| DPB1*73:01+DPB1*80:01  | DPB1*75:01+DPB1*108:01  |                         |
| DPB1*76:01+DPB1*93:01  | DPB1*92:01+DPB1*137:01  |                         |
| DPB1*76:01+DPB1*109:01 | DPB1*92:01+DPB1*113:01  |                         |
| DPB1*80:01+DPB1*91:01  | DPB1*98:01+DPB1*108:01  |                         |
| DPB1*88:01+DPB1*102:01 | DPB1*92:01+DPB1*103:01  |                         |
| DPB1*93:01+DPB1*113:01 | DPB1*109:01+DPB1*137:01 |                         |

---

# HLA-DQA1 Ambiguities, Release 3.9.0

## Sequences identical over exons 2

| Code in table  | Allele 1         | Allele 2         | Allele 3         | Allele 4         | Allele 5         | Allele 6         | Allele 7      |
|----------------|------------------|------------------|------------------|------------------|------------------|------------------|---------------|
| DQA1*01:01:01G | DQA1*01:01:01    | DQA1*01:01:02    | DQA1*01:04:01:01 | DQA1*01:04:01:02 | DQA1*01:04:02    | DQA1*01:05       |               |
| DQA1*01:02:01G | DQA1*01:02:01:01 | DQA1*01:02:01:02 | DQA1*01:02:01:03 | DQA1*01:02:01:04 | DQA1*01:02:02    | DQA1*01:02:03    | DQA1*01:02:04 |
|                | DQA1*01:08       | DQA1*01:09       |                  |                  |                  |                  |               |
| DQA1*01:03:01G | DQA1*01:03:01:01 | DQA1*01:03:01:02 |                  |                  |                  |                  |               |
| DQA1*03:01:01G | DQA1*03:01:01    | DQA1*03:02       | DQA1*03:03:01    | DQA1*03:03:02    |                  |                  |               |
| DQA1*04:01:01G | DQA1*04:01:01    | DQA1*04:01:02    | DQA1*04:02       | DQA1*04:04       |                  |                  |               |
| DQA1*05:01:01G | DQA1*05:01:01:01 | DQA1*05:01:01:02 | DQA1*05:03       | DQA1*05:05:01:01 | DQA1*05:05:01:02 | DQA1*05:05:01:03 | DQA1*05:06    |
|                | DQA1*05:07       | DQA1*05:08       | DQA1*05:09       | DQA1*05:11       |                  |                  |               |
| DQA1*06:01:01G | DQA1*06:01:01    | DQA1*06:02       |                  |                  |                  |                  |               |

## Alleles extended due to unsequenced regions

The following alleles do not contain the complete exon 2 sequence. For these alleles, the sequence of an alternate allele has been used to extend the sequence to cover this region.

| Incomplete allele | Sequence extended with |
|-------------------|------------------------|
| DQA1*05:01:02     | DQA1*05:01:01:01       |
| DQA1*05:02        | DQA1*05:01:01:01       |
| DQA1*06:01:02     | DQA1*06:01:01          |

## Alleles removed from analysis due to insertions or deletions

| Allele |
|--------|
| None   |

## Ambiguous typing combinations over exon 2

| Combination 1 | Combination 2 |
|---------------|---------------|
| None          |               |

# HLA-DQB1 Ambiguities, Release 3.9.0

## Sequences identical over exons 2

| Code in table  | Allele 1         | Allele 2         | Allele 3         | Allele 4      | Allele 5      | Allele 6   | Allele 7   | Allele 8   |
|----------------|------------------|------------------|------------------|---------------|---------------|------------|------------|------------|
| DQB1*02:01:01G | DQB1*02:01:01    | DQB1*02:02       | DQB1*02:04       | DQB1*02:06    |               |            |            |            |
| DQB1*03:01:01G | DQB1*03:01:01:01 | DQB1*03:01:01:02 | DQB1*03:01:01:03 | DQB1*03:01:04 | DQB1*03:01:05 | DQB1*03:09 | DQB1*03:19 | DQB1*03:21 |
|                | DQB1*03:22       | DQB1*03:24       | DQB1*03:29       | DQB1*03:35    | DQB1*03:42    |            |            |            |
| DQB1*03:02:01G | DQB1*03:02:01    | DQB1*03:32       |                  |               |               |            |            |            |
| DQB1*03:03:02G | DQB1*03:03:02:01 | DQB1*03:03:02:02 | DQB1*03:03:02:03 | DQB1*03:03:04 | DQB1*03:31    | DQB1*03:33 | DQB1*03:39 | DQB1*03:43 |
| DQB1*04:01:01G | DQB1*04:01:01    | DQB1*04:07       | DQB1*04:08       |               |               |            |            |            |
| DQB1*05:01:01G | DQB1*05:01:01:01 | DQB1*05:01:01:02 |                  |               |               |            |            |            |
| DQB1*05:02:01G | DQB1*05:02:01    | DQB1*05:02:03    | DQB1*05:14       |               |               |            |            |            |
| DQB1*05:03:01G | DQB1*05:03:01:01 | DQB1*05:03:01:02 | DQB1*05:03:03    | DQB1*05:03:04 | DQB1*05:08    | DQB1*05:10 |            |            |
| DQB1*06:01:01G | DQB1*06:01:01    | DQB1*06:01:03    | DQB1*06:01:05    | DQB1*06:01:06 |               |            |            |            |
| DQB1*06:02:01G | DQB1*06:02:01    | DQB1*06:47       |                  |               |               |            |            |            |
| DQB1*06:03:01G | DQB1*06:03:01    | DQB1*06:41       | DQB1*06:44       |               |               |            |            |            |
| DQB1*06:04:01G | DQB1*06:04:01    | DQB1*06:34       | DQB1*06:36       | DQB1*06:38    | DQB1*06:39    | DQB1*06:52 |            |            |

## Alleles extended due to unsequenced regions

The following alleles do not contain the complete exon 2 sequence. For these alleles, the sequence of an alternate allele has been used to extend the sequence to cover this region.

| Incomplete allele | Sequence extended with |
|-------------------|------------------------|
| DQB1*02:03        | DQB1*02:01:01          |
| DQB1*03:01:02     | DQB1*03:01:01:01       |
| DQB1*03:07        | DQB1*03:01:01:01       |
| DQB1*05:01:02     | DQB1*05:01:01:01       |
| DQB1*05:02:02     | DQB1*05:02:01          |
| DQB1*05:03:02     | DQB1*05:03:01:01       |
| DQB1*05:04        | DQB1*05:01:01:01       |
| DQB1*06:01:02     | DQB1*06:01:01          |
| DQB1*06:05:02     | DQB1*06:05:01          |
| DQB1*06:06        | DQB1*02:01:01          |
| DQB1*06:07:01     | DQB1*06:07:02          |
| DQB1*06:11:01     | DQB1*06:11:02          |
| DQB1*06:13        | DQB1*06:01:01          |
| DQB1*06:14:01     | DQB1*06:14:02          |
| DQB1*06:18        | DQB1*06:01:01          |
| DQB1*06:20        | DQB1*06:01:01          |
| DQB1*06:45        | DQB1*06:01:01          |

## Alleles removed from analysis due to insertions or deletions

| Allele |
|--------|
| None   |

## Ambiguous typing combinations over exon 2

| Combination 1                 | Combination 2                | Combination 3                | Combination 4 | Combination 5 |
|-------------------------------|------------------------------|------------------------------|---------------|---------------|
| DQB1*02:01:01G+DQB1*03:01:01G | DQB1*02:03+DQB1*03:04        |                              |               |               |
| DQB1*02:01:01G+DQB1*03:03:02G | DQB1*02:03+DQB1*03:02:01G    |                              |               |               |
| DQB1*02:01:01G+DQB1*03:03:03  | DQB1*02:03+DQB1*03:02:03     |                              |               |               |
| DQB1*02:01:01G+DQB1*03:17     | DQB1*02:03+DQB1*03:05:03     |                              |               |               |
| DQB1*02:01:01G+DQB1*03:26     | DQB1*02:03+DQB1*03:11        |                              |               |               |
| DQB1*02:01:01G+DQB1*05:01:03  | DQB1*02:01:03+DQB1*05:01:02  |                              |               |               |
| DQB1*03:01:01G+DQB1*03:02:01G | DQB1*03:03:02G+DQB1*03:04    |                              |               |               |
| DQB1*03:01:01G+DQB1*03:02:03  | DQB1*03:01:02+DQB1*03:02:01G | DQB1*03:03:03+DQB1*03:04     |               |               |
| DQB1*03:01:01G+DQB1*03:03:03  | DQB1*03:01:02+DQB1*03:03:02G |                              |               |               |
| DQB1*03:01:01G+DQB1*03:05:01  | DQB1*03:01:02+DQB1*03:05:03  |                              |               |               |
| DQB1*03:01:01G+DQB1*03:05:02  | DQB1*03:01:02+DQB1*03:05:04  |                              |               |               |
| DQB1*03:01:01G+DQB1*03:05:03  | DQB1*03:04+DQB1*03:17        |                              |               |               |
| DQB1*03:01:01G+DQB1*03:11     | DQB1*03:04+DQB1*03:26        |                              |               |               |
| DQB1*03:01:01G+DQB1*05:13     | DQB1*03:44+DQB1*05:03:01G    |                              |               |               |
| DQB1*03:01:01G+DQB1*06:02:01G | DQB1*03:01:02+DQB1*06:02:02  |                              |               |               |
| DQB1*03:01:01G+DQB1*06:03:01G | DQB1*03:01:02+DQB1*06:03:02  |                              |               |               |
| DQB1*03:02:01G+DQB1*03:03:03  | DQB1*03:02:03+DQB1*03:03:02G |                              |               |               |
| DQB1*03:02:01G+DQB1*03:05:01  | DQB1*03:02:03+DQB1*03:05:03  |                              |               |               |
| DQB1*03:02:01G+DQB1*03:05:02  | DQB1*03:02:03+DQB1*03:05:04  |                              |               |               |
| DQB1*03:02:01G+DQB1*03:17     | DQB1*03:03:02G+DQB1*03:05:03 |                              |               |               |
| DQB1*03:02:01G+DQB1*03:26     | DQB1*03:03:02G+DQB1*03:11    |                              |               |               |
| DQB1*03:02:01G+DQB1*04:02:01  | DQB1*03:05:03+DQB1*04:03:02  | DQB1*03:05:04+DQB1*04:03:01  |               |               |
| DQB1*03:02:01G+DQB1*04:04     | DQB1*03:05:01+DQB1*03:25     |                              |               |               |
| DQB1*03:02:01G+DQB1*06:02:01G | DQB1*03:02:03+DQB1*06:02:02  | DQB1*03:08+DQB1*06:48        |               |               |
| DQB1*03:02:01G+DQB1*06:03:01G | DQB1*03:02:03+DQB1*06:03:02  | DQB1*03:08+DQB1*06:32        |               |               |
| DQB1*03:02:01G+DQB1*06:05:01  | DQB1*03:11+DQB1*06:09        |                              |               |               |
| DQB1*03:02:01G+DQB1*06:08:02  | DQB1*03:08+DQB1*06:27        |                              |               |               |
| DQB1*03:02:01G+DQB1*06:12     | DQB1*03:08+DQB1*06:09        |                              |               |               |
| DQB1*03:02:01G+DQB1*06:20     | DQB1*03:11+DQB1*06:02:01G    |                              |               |               |
| DQB1*03:02:01G+DQB1*06:21     | DQB1*03:08+DQB1*06:04:01G    |                              |               |               |
| DQB1*03:02:01G+DQB1*06:23     | DQB1*03:05:02+DQB1*06:02:02  | DQB1*03:05:04+DQB1*06:02:01G |               |               |
| DQB1*03:02:01G+DQB1*06:31     | DQB1*03:11+DQB1*06:03:01G    |                              |               |               |
| DQB1*03:02:01G+DQB1*06:46     | DQB1*03:08+DQB1*06:15        |                              |               |               |
| DQB1*03:02:03+DQB1*03:17      | DQB1*03:03:02G+DQB1*03:05:01 | DQB1*03:03:03+DQB1*03:05:03  |               |               |

Copyright © IMGT/HLA Database, see <http://www.ebi.ac.uk/imgt/hla/licence.html> for further details.

---

DQB1\*06:24+DQB1\*06:32

DQB1\*06:30+DQB1\*06:48

---

# HLA-DRB1 Ambiguities, Release 3.9.0

## Sequences identical over exons 2

| Code in table  | Allele 1         | Allele 2         | Allele 3         | Allele 4         | Allele 5      |
|----------------|------------------|------------------|------------------|------------------|---------------|
| DRB1*03:01:01G | DRB1*03:01:01:01 | DRB1*03:01:01:02 | DRB1*03:01:08    |                  |               |
| DRB1*04:06:01G | DRB1*04:06:01    | DRB1*04:06:02    |                  |                  |               |
| DRB1*04:07:01G | DRB1*04:07:01    | DRB1*04:92       |                  |                  |               |
| DRB1*07:01:01G | DRB1*07:01:01:01 | DRB1*07:01:01:02 |                  |                  |               |
| DRB1*08:01:01G | DRB1*08:01:01    | DRB1*08:01:03    |                  |                  |               |
| DRB1*11:01:01G | DRB1*11:01:01    | DRB1*11:01:08    | DRB1*11:97       |                  |               |
| DRB1*11:06:01G | DRB1*11:06:01    | DRB1*11:129      |                  |                  |               |
| DRB1*11:11:01G | DRB1*11:11:01    | DRB1*11:11:02    |                  |                  |               |
| DRB1*11:13:01G | DRB1*11:13:01    | DRB1*11:13:02    |                  |                  |               |
| DRB1*12:01:01G | DRB1*12:01:01    | DRB1*12:06       | DRB1*12:10       | DRB1*12:17       |               |
| DRB1*13:01:01G | DRB1*13:01:01    | DRB1*13:117      |                  |                  |               |
| DRB1*14:01:01G | DRB1*14:01:01    | DRB1*14:54:01    |                  |                  |               |
| DRB1*15:01:01G | DRB1*15:01:01:01 | DRB1*15:01:01:02 | DRB1*15:01:01:03 | DRB1*15:01:01:04 | DRB1*15:01:17 |
| DRB1*15:03:01G | DRB1*15:03:01:01 | DRB1*15:03:01:02 |                  |                  |               |

## Alleles extended due to unsequenced regions

The following alleles do not contain the complete exon 2 sequence. For these alleles, the sequence of an alternate allele has been used to extend the sequence to cover this region.

| Incomplete allele | Sequence extended with |
|-------------------|------------------------|
| DRB1*01:02:02     | DRB1*01:02:01          |
| DRB1*03:09        | DRB1*03:01:01:01       |
| DRB1*03:11:01     | DRB1*03:01:01:01       |
| DRB1*03:12        | DRB1*03:04:01          |
| DRB1*03:16        | DRB1*03:01:01:01       |
| DRB1*03:20        | DRB1*03:01:01:01       |
| DRB1*03:21        | DRB1*03:01:01:01       |
| DRB1*04:07:02     | DRB1*04:07:01          |
| DRB1*04:19        | DRB1*04:01:01          |
| DRB1*04:20        | DRB1*04:01:01          |
| DRB1*04:21        | DRB1*04:01:01          |
| DRB1*04:22        | DRB1*04:01:01          |
| DRB1*04:25        | DRB1*04:18             |
| DRB1*04:27        | DRB1*04:01:01          |
| DRB1*04:32        | DRB1*04:01:01          |
| DRB1*04:35        | DRB1*04:01:01          |
| DRB1*04:43        | DRB1*04:01:01          |
| DRB1*04:44        | DRB1*04:01:01          |
| DRB1*07:01:02     | DRB1*07:01:01:01       |
| DRB1*08:02:03     | DRB1*08:02:01          |
| DRB1*08:04:02     | DRB1*08:04:01          |
| DRB1*08:04:03     | DRB1*08:04:01          |
| DRB1*08:19        | DRB1*08:01:01          |
| DRB1*08:20        | DRB1*08:01:01          |
| DRB1*08:21        | DRB1*08:01:01          |
| DRB1*08:24        | DRB1*08:01:01          |
| DRB1*08:26        | DRB1*08:01:01          |
| DRB1*11:01:04     | DRB1*11:01:01          |
| DRB1*11:22        | DRB1*04:01:01          |
| DRB1*11:26        | DRB1*11:79             |
| DRB1*11:30        | DRB1*11:01:01          |
| DRB1*11:40        | DRB1*11:59             |
| DRB1*11:49:01     | DRB1*11:49:02          |
| DRB1*12:02:02     | DRB1*12:02:01          |
| DRB1*12:03:02     | DRB1*12:01:01          |
| DRB1*13:02:02     | DRB1*13:02:01          |
| DRB1*13:03:02     | DRB1*13:03:01          |
| DRB1*13:07:02     | DRB1*13:07:01          |
| DRB1*13:13        | DRB1*13:01:01          |
| DRB1*13:15        | DRB1*13:01:01          |
| DRB1*13:23:01     | DRB1*13:23:02          |
| DRB1*13:24        | DRB1*13:01:01          |
| DRB1*13:25        | DRB1*13:14:01          |
| DRB1*13:28        | DRB1*13:01:08          |
| DRB1*13:30        | DRB1*13:01:01          |
| DRB1*13:33:01     | DRB1*13:33:03          |
| DRB1*13:35        | DRB1*13:01:01          |
| DRB1*13:37        | DRB1*13:01:01          |
| DRB1*13:43        | DRB1*13:01:01          |
| DRB1*13:45        | DRB1*13:23:01          |
| DRB1*13:52        | DRB1*13:01:01          |
| DRB1*13:53        | DRB1*13:01:01          |
| DRB1*13:55        | DRB1*13:01:01          |
| DRB1*14:08        | DRB1*14:01:01          |
| DRB1*14:09        | DRB1*14:01:01          |
| DRB1*14:19        | DRB1*14:01:01          |
| DRB1*14:28        | DRB1*14:01:01          |
| DRB1*14:31        | DRB1*14:01:01          |
| DRB1*14:35        | DRB1*14:01:01          |
| DRB1*14:41        | DRB1*14:01:01          |
| DRB1*15:01:03     | DRB1*15:01:01:01       |
| DRB1*15:02:03     | DRB1*15:02:01          |
| DRB1*15:05        | DRB1*15:01:01:01       |
| DRB1*16:01:02     | DRB1*16:01:01          |
| DRB1*16:02:02     | DRB1*16:01:02          |
| DRB1*16:05:01     | DRB1*16:01:01          |

|            |               |
|------------|---------------|
| DRB1*16:07 | DRB1*16:01:01 |
|------------|---------------|

## Alleles removed from analysis due to insertions or deletions

| Allele       |
|--------------|
| DRB1*01:33N  |
| DRB1*04:81N  |
| DRB1*07:10N  |
| DRB1*13:113N |
| DRB1*15:13   |
| DRB1*15:17N  |
| DRB1*15:50N  |

## Ambiguous typing combinations over exon 2

| Combination 1                | Combination 2                | Combination 3            | Combination 4             |
|------------------------------|------------------------------|--------------------------|---------------------------|
| DRB1*01:01:01+DRB1*01:02:05  | DRB1*01:01:07+DRB1*01:02:01  |                          |                           |
| DRB1*01:01:01+DRB1*01:02:07  | DRB1*01:01:18+DRB1*01:02:01  |                          |                           |
| DRB1*01:01:01+DRB1*01:04     | DRB1*01:11+DRB1*01:20        |                          |                           |
| DRB1*01:01:01+DRB1*01:06     | DRB1*01:09+DRB1*01:20        |                          |                           |
| DRB1*01:01:01+DRB1*01:15     | DRB1*01:09+DRB1*01:24        |                          |                           |
| DRB1*01:01:01+DRB1*01:26     | DRB1*01:02:01+DRB1*01:37     |                          |                           |
| DRB1*01:01:01+DRB1*01:35     | DRB1*01:02:06+DRB1*01:11     |                          |                           |
| DRB1*01:01:01+DRB1*01:39N    | DRB1*01:03+DRB1*01:40N       |                          |                           |
| DRB1*01:01:01+DRB1*01:42     | DRB1*01:02:06+DRB1*01:03     |                          |                           |
| DRB1*01:01:01+DRB1*01:44     | DRB1*01:02:01+DRB1*01:18     |                          |                           |
| DRB1*01:01:01+DRB1*03:01:01G | DRB1*01:18+DRB1*03:06        | DRB1*01:20+DRB1*03:05:01 |                           |
| DRB1*01:01:01+DRB1*03:01:02  | DRB1*01:04+DRB1*03:14        | DRB1*01:11+DRB1*03:15    | DRB1*01:20+DRB1*03:05:03  |
| DRB1*01:01:01+DRB1*03:01:06  | DRB1*01:01:16+DRB1*03:01:01G |                          |                           |
| DRB1*01:01:01+DRB1*03:01:11  | DRB1*01:01:05+DRB1*03:01:01G | DRB1*01:20+DRB1*03:05:02 |                           |
| DRB1*01:01:01+DRB1*03:01:12  | DRB1*01:01:18+DRB1*03:01:01G |                          |                           |
| DRB1*01:01:01+DRB1*03:01:14  | DRB1*01:40N+DRB1*03:01:01G   |                          |                           |
| DRB1*01:01:01+DRB1*03:01:18  | DRB1*01:01:14+DRB1*03:01:01G |                          |                           |
| DRB1*01:01:01+DRB1*03:01:19  | DRB1*01:01:17+DRB1*03:01:01G |                          |                           |
| DRB1*01:01:01+DRB1*03:02:01  | DRB1*01:16+DRB1*14:02        |                          |                           |
| DRB1*01:01:01+DRB1*03:03     | DRB1*01:16+DRB1*14:06:01     | DRB1*01:20+DRB1*03:02:01 |                           |
| DRB1*01:01:01+DRB1*03:04:02  | DRB1*01:01:18+DRB1*03:04:01  |                          |                           |
| DRB1*01:01:01+DRB1*03:05:02  | DRB1*01:01:05+DRB1*03:05:01  |                          |                           |
| DRB1*01:01:01+DRB1*03:05:03  | DRB1*01:11+DRB1*03:14        |                          |                           |
| DRB1*01:01:01+DRB1*03:07     | DRB1*01:16+DRB1*14:17        |                          |                           |
| DRB1*01:01:01+DRB1*03:10     | DRB1*01:14+DRB1*03:01:01G    |                          |                           |
| DRB1*01:01:01+DRB1*03:13:01  | DRB1*01:37+DRB1*03:01:01G    |                          |                           |
| DRB1*01:01:01+DRB1*03:13:02  | DRB1*01:37+DRB1*03:01:02     |                          |                           |
| DRB1*01:01:01+DRB1*03:15     | DRB1*01:20+DRB1*03:14        |                          |                           |
| DRB1*01:01:01+DRB1*03:19     | DRB1*01:24+DRB1*03:01:01G    |                          |                           |
| DRB1*01:01:01+DRB1*03:20     | DRB1*01:02:06+DRB1*03:05:01  |                          |                           |
| DRB1*01:01:01+DRB1*03:23     | DRB1*01:20+DRB1*03:09        |                          |                           |
| DRB1*01:01:01+DRB1*03:25     | DRB1*01:08+DRB1*03:04:01     | DRB1*01:18+DRB1*03:31    |                           |
| DRB1*01:01:01+DRB1*03:29     | DRB1*01:18+DRB1*03:02:01     |                          |                           |
| DRB1*01:01:01+DRB1*03:33     | DRB1*01:18+DRB1*03:26        |                          |                           |
| DRB1*01:01:01+DRB1*03:34     | DRB1*01:19+DRB1*03:01:01G    |                          |                           |
| DRB1*01:01:01+DRB1*03:37     | DRB1*01:18+DRB1*03:80        |                          |                           |
| DRB1*01:01:01+DRB1*03:38     | DRB1*01:16+DRB1*14:48        |                          |                           |
| DRB1*01:01:01+DRB1*03:40     | DRB1*01:18+DRB1*03:41        |                          |                           |
| DRB1*01:01:01+DRB1*03:64     | DRB1*01:48+DRB1*03:01:01G    |                          |                           |
| DRB1*01:01:01+DRB1*04:01:01  | DRB1*01:08+DRB1*04:21        | DRB1*01:10+DRB1*04:08:01 |                           |
| DRB1*01:01:01+DRB1*04:01:08  | DRB1*01:01:05+DRB1*04:01:01  |                          |                           |
| DRB1*01:01:01+DRB1*04:01:09  | DRB1*01:01:22+DRB1*04:01:01  |                          |                           |
| DRB1*01:01:01+DRB1*04:02:01  | DRB1*01:03+DRB1*04:04:01     | DRB1*01:20+DRB1*04:14    | DRB1*01:24+DRB1*04:37     |
| DRB1*01:01:01+DRB1*04:03:01  | DRB1*01:08+DRB1*04:06:01G    | DRB1*01:17+DRB1*04:04:01 | DRB1*01:20+DRB1*04:07:01G |
| DRB1*01:01:01+DRB1*04:03:02  | DRB1*01:01:18+DRB1*04:03:01  | DRB1*01:08+DRB1*04:06:04 | DRB1*01:17+DRB1*04:04:02  |
| DRB1*01:01:01+DRB1*04:03:04  | DRB1*01:08+DRB1*04:06:03     | DRB1*01:17+DRB1*04:04:06 |                           |
| DRB1*01:01:01+DRB1*04:03:08  | DRB1*01:17+DRB1*04:04:04     | DRB1*01:20+DRB1*04:07:04 |                           |
| DRB1*01:01:01+DRB1*04:04:01  | DRB1*01:08+DRB1*04:68        | DRB1*01:20+DRB1*04:08:01 |                           |
| DRB1*01:01:01+DRB1*04:04:02  | DRB1*01:01:18+DRB1*04:04:01  | DRB1*01:20+DRB1*04:08:02 |                           |
| DRB1*01:01:01+DRB1*04:04:07  | DRB1*01:01:16+DRB1*04:04:01  |                          |                           |
| DRB1*01:01:01+DRB1*04:05:01  | DRB1*01:08+DRB1*04:84        |                          |                           |
| DRB1*01:01:01+DRB1*04:05:04  | DRB1*01:01:05+DRB1*04:05:01  |                          |                           |
| DRB1*01:01:01+DRB1*04:05:10  | DRB1*01:01:07+DRB1*04:05:01  |                          |                           |
| DRB1*01:01:01+DRB1*04:05:11  | DRB1*01:01:15+DRB1*04:05:01  |                          |                           |
| DRB1*01:01:01+DRB1*04:06:01G | DRB1*01:17+DRB1*04:68        | DRB1*01:20+DRB1*04:20    |                           |
| DRB1*01:01:01+DRB1*04:06:04  | DRB1*01:01:18+DRB1*04:06:01G |                          |                           |
| DRB1*01:01:01+DRB1*04:07:01G | DRB1*01:08+DRB1*04:20        | DRB1*01:17+DRB1*04:08:01 |                           |
| DRB1*01:01:01+DRB1*04:07:03  | DRB1*01:01:05+DRB1*04:07:01G |                          |                           |
| DRB1*01:01:01+DRB1*04:08:01  | DRB1*01:08+DRB1*04:19        |                          |                           |
| DRB1*01:01:01+DRB1*04:08:02  | DRB1*01:01:18+DRB1*04:08:01  |                          |                           |
| DRB1*01:01:01+DRB1*04:09     | DRB1*01:10+DRB1*04:05:01     |                          |                           |
| DRB1*01:01:01+DRB1*04:10:01  | DRB1*01:20+DRB1*04:05:01     |                          |                           |
| DRB1*01:01:01+DRB1*04:11:01  | DRB1*01:08+DRB1*04:91        | DRB1*01:17+DRB1*04:10:01 | DRB1*01:20+DRB1*04:17:02  |
| DRB1*01:01:01+DRB1*04:12     | DRB1*01:20+DRB1*04:86        |                          |                           |
| DRB1*01:01:01+DRB1*04:13     | DRB1*01:10+DRB1*04:04:01     | DRB1*01:20+DRB1*04:01:01 |                           |
| DRB1*01:01:01+DRB1*04:14     | DRB1*01:03+DRB1*04:08:01     |                          |                           |
| DRB1*01:01:01+DRB1*04:16     | DRB1*01:48+DRB1*04:01:01     |                          |                           |
| DRB1*01:01:01+DRB1*04:17:01  | DRB1*01:01:05+DRB1*04:17:02  | DRB1*01:17+DRB1*04:05:04 |                           |
| DRB1*01:01:01+DRB1*04:17:02  | DRB1*01:17+DRB1*04:05:01     |                          |                           |
| DRB1*01:01:01+DRB1*04:18     | DRB1*01:24+DRB1*04:58        |                          |                           |
| DRB1*01:01:01+DRB1*04:20     | DRB1*01:17+DRB1*04:19        |                          |                           |
| DRB1*01:01:01+DRB1*04:21     | DRB1*01:10+DRB1*04:19        |                          |                           |
| DRB1*01:01:01+DRB1*04:22     | DRB1*01:16+DRB1*04:04:01     |                          |                           |
| DRB1*01:01:01+DRB1*04:24     | DRB1*01:29+DRB1*04:05:01     |                          |                           |
| DRB1*01:01:01+DRB1*04:27     | DRB1*01:02:06+DRB1*04:07:01G |                          |                           |
| DRB1*01:01:01+DRB1*04:28     | DRB1*01:18+DRB1*04:05:01     |                          |                           |
| DRB1*01:01:01+DRB1*04:29     | DRB1*01:28+DRB1*04:05:01     |                          |                           |
| DRB1*01:01:01+DRB1*04:35     | DRB1*01:10+DRB1*04:43        | DRB1*01:18+DRB1*04:01:01 |                           |
| DRB1*01:01:01+DRB1*04:38     | DRB1*01:24+DRB1*04:01:01     |                          |                           |
| DRB1*01:01:01+DRB1*04:41     | DRB1*01:20+DRB1*04:102       |                          |                           |



|                              |                              |                             |                           |
|------------------------------|------------------------------|-----------------------------|---------------------------|
| DRB1*01:01:01+DRB1*04:42     | DRB1*01:18+DRB1*04:04:01     | DRB1*01:20+DRB1*04:43       |                           |
| DRB1*01:01:01+DRB1*04:43     | DRB1*01:18+DRB1*04:08:01     |                             |                           |
| DRB1*01:01:01+DRB1*04:44     | DRB1*01:04+DRB1*04:08:01     | DRB1*01:11+DRB1*04:04:01    |                           |
| DRB1*01:01:01+DRB1*04:51     | DRB1*01:17+DRB1*04:70        |                             |                           |
| DRB1*01:01:01+DRB1*04:52     | DRB1*01:17+DRB1*04:23        |                             |                           |
| DRB1*01:01:01+DRB1*04:55     | DRB1*01:20+DRB1*04:31        |                             |                           |
| DRB1*01:01:01+DRB1*04:56     | DRB1*01:24+DRB1*04:04:01     |                             |                           |
| DRB1*01:01:01+DRB1*04:59     | DRB1*01:17+DRB1*04:42        | DRB1*01:18+DRB1*04:03:01    |                           |
| DRB1*01:01:01+DRB1*04:62     | DRB1*01:14+DRB1*04:01:01     |                             |                           |
| DRB1*01:01:01+DRB1*04:67     | DRB1*01:10+DRB1*04:10:01     | DRB1*01:20+DRB1*04:09       |                           |
| DRB1*01:01:01+DRB1*04:68     | DRB1*01:20+DRB1*04:19        |                             |                           |
| DRB1*01:01:01+DRB1*04:72:02  | DRB1*01:11+DRB1*04:01:01     |                             |                           |
| DRB1*01:01:01+DRB1*04:73     | DRB1*01:15+DRB1*04:04:02     | DRB1*01:20+DRB1*04:105:01   |                           |
| DRB1*01:01:01+DRB1*04:74     | DRB1*01:11+DRB1*04:07:01G    |                             |                           |
| DRB1*01:01:01+DRB1*04:78     | DRB1*01:29+DRB1*04:06:01G    |                             |                           |
| DRB1*01:01:01+DRB1*04:88     | DRB1*01:17+DRB1*04:56        | DRB1*01:24+DRB1*04:03:01    |                           |
| DRB1*01:01:01+DRB1*04:90     | DRB1*01:21+DRB1*04:05:01     |                             |                           |
| DRB1*01:01:01+DRB1*04:95     | DRB1*01:04+DRB1*04:07:01G    | DRB1*01:11+DRB1*04:03:01    | DRB1*01:17+DRB1*04:44     |
|                              | DRB1*01:20+DRB1*04:74        |                             |                           |
| DRB1*01:01:01+DRB1*04:100    | DRB1*01:10+DRB1*04:88        |                             |                           |
| DRB1*01:01:01+DRB1*04:101    | DRB1*01:08+DRB1*04:78        | DRB1*01:29+DRB1*04:03:01    |                           |
| DRB1*01:01:01+DRB1*04:104    | DRB1*01:27+DRB1*04:05:01     |                             |                           |
| DRB1*01:01:01+DRB1*04:105:01 | DRB1*01:01:18+DRB1*04:105:02 | DRB1*01:15+DRB1*04:08:02    |                           |
| DRB1*01:01:01+DRB1*04:105:02 | DRB1*01:15+DRB1*04:08:01     |                             |                           |
| DRB1*01:01:01+DRB1*04:106    | DRB1*01:03+DRB1*04:05:01     |                             |                           |
| DRB1*01:01:01+DRB1*04:107    | DRB1*01:24+DRB1*04:05:01     |                             |                           |
| DRB1*01:01:01+DRB1*04:114    | DRB1*01:10+DRB1*04:06:01G    |                             |                           |
| DRB1*01:01:01+DRB1*04:122    | DRB1*01:06+DRB1*04:08:01     | DRB1*01:09+DRB1*04:04:01    |                           |
| DRB1*01:01:01+DRB1*07:01:01G | DRB1*01:21+DRB1*07:11        |                             |                           |
| DRB1*01:01:01+DRB1*07:04     | DRB1*01:11+DRB1*07:11        |                             |                           |
| DRB1*01:01:01+DRB1*07:16     | DRB1*01:27+DRB1*07:01:01G    |                             |                           |
| DRB1*01:01:01+DRB1*08:01:01G | DRB1*01:01:05+DRB1*08:01:05  |                             |                           |
| DRB1*01:01:01+DRB1*08:01:02  | DRB1*01:01:14+DRB1*08:01:01G |                             |                           |
| DRB1*01:01:01+DRB1*08:02:01  | DRB1*01:01:05+DRB1*08:02:02  | DRB1*01:08+DRB1*08:42       |                           |
| DRB1*01:01:01+DRB1*08:03:03  | DRB1*01:01:05+DRB1*08:03:02  | DRB1*01:24+DRB1*08:48       |                           |
| DRB1*01:01:01+DRB1*08:04:01  | DRB1*01:20+DRB1*08:02:02     |                             |                           |
| DRB1*01:01:01+DRB1*08:04:03  | DRB1*01:01:05+DRB1*08:04:02  |                             |                           |
| DRB1*01:01:01+DRB1*08:04:04  | DRB1*01:01:05+DRB1*08:04:01  | DRB1*01:20+DRB1*08:02:01    |                           |
| DRB1*01:01:01+DRB1*08:04:06  | DRB1*01:01:18+DRB1*08:04:01  |                             |                           |
| DRB1*01:01:01+DRB1*08:06     | DRB1*01:20+DRB1*08:01:05     |                             |                           |
| DRB1*01:01:01+DRB1*08:08     | DRB1*01:14+DRB1*08:02:01     |                             |                           |
| DRB1*01:01:01+DRB1*08:10     | DRB1*01:20+DRB1*08:03:02     |                             |                           |
| DRB1*01:01:01+DRB1*08:12     | DRB1*01:02:06+DRB1*08:03:02  |                             |                           |
| DRB1*01:01:01+DRB1*08:17     | DRB1*01:18+DRB1*08:01:01G    |                             |                           |
| DRB1*01:01:01+DRB1*08:22     | DRB1*01:02:06+DRB1*08:01:01G |                             |                           |
| DRB1*01:01:01+DRB1*08:23     | DRB1*01:05+DRB1*08:03:02     |                             |                           |
| DRB1*01:01:01+DRB1*08:28     | DRB1*01:18+DRB1*08:04:01     |                             |                           |
| DRB1*01:01:01+DRB1*08:29     | DRB1*01:17+DRB1*08:18        |                             |                           |
| DRB1*01:01:01+DRB1*08:30:03  | DRB1*01:01:05+DRB1*08:30:01  | DRB1*01:24+DRB1*08:13       |                           |
| DRB1*01:01:01+DRB1*08:31     | DRB1*01:20+DRB1*08:41        |                             |                           |
| DRB1*01:01:01+DRB1*08:37     | DRB1*01:18+DRB1*08:03:02     |                             |                           |
| DRB1*01:01:01+DRB1*08:44     | DRB1*01:28+DRB1*08:02:01     |                             |                           |
| DRB1*01:01:01+DRB1*08:45     | DRB1*01:18+DRB1*08:30:03     |                             |                           |
| DRB1*01:01:01+DRB1*08:47     | DRB1*01:37+DRB1*08:18        |                             |                           |
| DRB1*01:01:01+DRB1*09:01:02  | DRB1*01:21+DRB1*09:05        |                             |                           |
| DRB1*01:01:01+DRB1*09:01:09  | DRB1*01:01:16+DRB1*09:01:02  |                             |                           |
| DRB1*01:01:01+DRB1*09:02:01  | DRB1*01:01:18+DRB1*09:02:02  |                             |                           |
| DRB1*01:01:01+DRB1*09:06     | DRB1*01:20+DRB1*09:01:02     |                             |                           |
| DRB1*01:01:01+DRB1*09:12     | DRB1*01:22+DRB1*09:01:02     |                             |                           |
| DRB1*01:01:01+DRB1*10:01:03  | DRB1*01:29+DRB1*10:04        |                             |                           |
| DRB1*01:01:01+DRB1*10:02     | DRB1*01:20+DRB1*10:01:01     |                             |                           |
| DRB1*01:01:01+DRB1*11:01:01G | DRB1*01:08+DRB1*11:29        | DRB1*01:18+DRB1*11:37:01    |                           |
| DRB1*01:01:01+DRB1*11:01:02  | DRB1*01:01:05+DRB1*11:01:01G | DRB1*01:18+DRB1*11:37:02    |                           |
| DRB1*01:01:01+DRB1*11:01:11  | DRB1*01:01:05+DRB1*11:01:03  |                             |                           |
| DRB1*01:01:01+DRB1*11:02:01  | DRB1*01:03+DRB1*11:34        | DRB1*01:10+DRB1*11:98       | DRB1*01:18+DRB1*11:48     |
|                              | DRB1*01:20+DRB1*11:14:01     | DRB1*01:24+DRB1*11:36       |                           |
| DRB1*01:01:01+DRB1*11:03     | DRB1*01:08+DRB1*11:63        | DRB1*01:18+DRB1*11:41       | DRB1*01:20+DRB1*11:11:01G |
| DRB1*01:01:01+DRB1*11:04:01  | DRB1*01:18+DRB1*11:56        | DRB1*01:20+DRB1*11:01:01G   |                           |
| DRB1*01:01:01+DRB1*11:04:02  | DRB1*01:01:05+DRB1*11:04:01  | DRB1*01:20+DRB1*11:01:02    |                           |
| DRB1*01:01:01+DRB1*11:04:03  | DRB1*01:20+DRB1*11:01:05     |                             |                           |
| DRB1*01:01:01+DRB1*11:04:04  | DRB1*01:20+DRB1*11:01:12     |                             |                           |
| DRB1*01:01:01+DRB1*11:04:05  | DRB1*01:20+DRB1*11:01:04     |                             |                           |
| DRB1*01:01:01+DRB1*11:04:07  | DRB1*01:20+DRB1*11:01:03     |                             |                           |
| DRB1*01:01:01+DRB1*11:06:01G | DRB1*01:02:06+DRB1*11:01:01G | DRB1*01:08+DRB1*11:47       |                           |
| DRB1*01:01:01+DRB1*11:06:02  | DRB1*01:02:01+DRB1*11:01:01G | DRB1*01:02:06+DRB1*11:01:05 | DRB1*01:44+DRB1*11:37:01  |
| DRB1*01:01:01+DRB1*11:06:03  | DRB1*01:02:06+DRB1*11:01:04  |                             |                           |
| DRB1*01:01:01+DRB1*11:07     | DRB1*01:16+DRB1*11:34        | DRB1*01:20+DRB1*11:103      |                           |
| DRB1*01:01:01+DRB1*11:08:02  | DRB1*01:01:05+DRB1*11:08:01  |                             |                           |
| DRB1*01:01:01+DRB1*11:10:01  | DRB1*01:01:05+DRB1*11:10:02  |                             |                           |
| DRB1*01:01:01+DRB1*11:14:01  | DRB1*01:03+DRB1*11:26        | DRB1*01:24+DRB1*11:68       |                           |
| DRB1*01:01:01+DRB1*11:14:02  | DRB1*01:01:05+DRB1*11:14:01  |                             |                           |
| DRB1*01:01:01+DRB1*11:16     | DRB1*01:20+DRB1*11:20        |                             |                           |
| DRB1*01:01:01+DRB1*11:18     | DRB1*01:20+DRB1*11:19:01     | DRB1*01:24+DRB1*11:42       |                           |
| DRB1*01:01:01+DRB1*11:19:01  | DRB1*01:24+DRB1*11:08:01     |                             |                           |
| DRB1*01:01:01+DRB1*11:19:03  | DRB1*01:01:05+DRB1*11:19:01  | DRB1*01:24+DRB1*11:08:02    |                           |
| DRB1*01:01:01+DRB1*11:21     | DRB1*01:02:06+DRB1*11:14:01  | DRB1*01:42+DRB1*11:26       |                           |
| DRB1*01:01:01+DRB1*11:27:01  | DRB1*01:11+DRB1*11:01:01G    |                             |                           |
| DRB1*01:01:01+DRB1*11:27:03  | DRB1*01:01:05+DRB1*11:27:02  |                             |                           |
| DRB1*01:01:01+DRB1*11:34     | DRB1*01:20+DRB1*11:26        |                             |                           |
| DRB1*01:01:01+DRB1*11:35     | DRB1*01:20+DRB1*11:33        |                             |                           |
| DRB1*01:01:01+DRB1*11:36     | DRB1*01:20+DRB1*11:68        |                             |                           |
| DRB1*01:01:01+DRB1*11:37:02  | DRB1*01:01:05+DRB1*11:37:01  |                             |                           |
| DRB1*01:01:01+DRB1*11:40     | DRB1*01:20+DRB1*11:122       |                             |                           |
| DRB1*01:01:01+DRB1*11:42     | DRB1*01:20+DRB1*11:08:01     |                             |                           |
| DRB1*01:01:01+DRB1*11:43     | DRB1*01:20+DRB1*11:39        |                             |                           |
| DRB1*01:01:01+DRB1*11:44     | DRB1*01:20+DRB1*11:49:01     |                             |                           |
| DRB1*01:01:01+DRB1*11:45     | DRB1*01:24+DRB1*11:64        |                             |                           |
| DRB1*01:01:01+DRB1*11:46:02  | DRB1*01:20+DRB1*11:62        |                             |                           |
| DRB1*01:01:01+DRB1*11:47     | DRB1*01:02:06+DRB1*11:29     |                             |                           |
| DRB1*01:01:01+DRB1*11:49:02  | DRB1*01:01:05+DRB1*11:49:01  |                             |                           |
| DRB1*01:01:01+DRB1*11:54:01  | DRB1*01:17+DRB1*11:04:03     |                             |                           |
| DRB1*01:01:01+DRB1*11:54:02  | DRB1*01:17+DRB1*11:04:01     |                             |                           |
| DRB1*01:01:01+DRB1*11:56     | DRB1*01:20+DRB1*11:37:01     |                             |                           |
| DRB1*01:01:01+DRB1*11:57     | DRB1*01:02:06+DRB1*11:08:01  |                             |                           |
| DRB1*01:01:01+DRB1*11:58:01  | DRB1*01:20+DRB1*11:28:02     |                             |                           |

|                              |                              |                           |                           |
|------------------------------|------------------------------|---------------------------|---------------------------|
| DRB1*01:01:01+DRB1*11:58:02  | DRB1*01:20+DRB1*11:28:01     |                           |                           |
| DRB1*01:01:01+DRB1*11:60     | DRB1*01:20+DRB1*11:109       |                           |                           |
| DRB1*01:01:01+DRB1*11:66     | DRB1*01:28+DRB1*11:01:01G    |                           |                           |
| DRB1*01:01:01+DRB1*11:73     | DRB1*01:10+DRB1*11:19:03     |                           |                           |
| DRB1*01:01:01+DRB1*11:74:02  | DRB1*01:01:05+DRB1*11:74:01  |                           |                           |
| DRB1*01:01:01+DRB1*11:79     | DRB1*01:10+DRB1*11:26        |                           |                           |
| DRB1*01:01:01+DRB1*11:82     | DRB1*01:15+DRB1*11:26        |                           |                           |
| DRB1*01:01:01+DRB1*11:84:01  | DRB1*01:04+DRB1*11:01:01G    | DRB1*01:11+DRB1*11:04:01  | DRB1*01:20+DRB1*11:27:01  |
| DRB1*01:01:01+DRB1*11:84:02  | DRB1*01:20+DRB1*11:27:02     |                           |                           |
| DRB1*01:01:01+DRB1*11:88     | DRB1*01:31+DRB1*11:56        |                           |                           |
| DRB1*01:01:01+DRB1*11:93     | DRB1*01:10+DRB1*11:01:02     |                           |                           |
| DRB1*01:01:01+DRB1*11:103    | DRB1*01:16+DRB1*11:26        | DRB1*01:18+DRB1*11:107    |                           |
| DRB1*01:01:01+DRB1*11:113    | DRB1*01:20+DRB1*11:09        |                           |                           |
| DRB1*01:01:01+DRB1*11:116    | DRB1*01:20+DRB1*11:120       | DRB1*01:37+DRB1*11:04:01  |                           |
| DRB1*01:01:01+DRB1*11:119    | DRB1*01:20+DRB1*11:45        |                           |                           |
| DRB1*01:01:01+DRB1*11:120    | DRB1*01:37+DRB1*11:01:01G    |                           |                           |
| DRB1*01:01:01+DRB1*11:124    | DRB1*01:04+DRB1*11:14:01     | DRB1*01:11+DRB1*11:02:01  |                           |
| DRB1*01:01:01+DRB1*12:01:01G | DRB1*01:24+DRB1*12:12        |                           |                           |
| DRB1*01:01:01+DRB1*12:02:01  | DRB1*01:18+DRB1*12:21        |                           |                           |
| DRB1*01:01:01+DRB1*12:02:04  | DRB1*01:02:01+DRB1*12:16:01  |                           |                           |
| DRB1*01:01:01+DRB1*12:02:05  | DRB1*01:01:07+DRB1*12:02:01  |                           |                           |
| DRB1*01:01:01+DRB1*12:07     | DRB1*01:36+DRB1*12:01:01G    |                           |                           |
| DRB1*01:01:01+DRB1*12:18     | DRB1*01:48+DRB1*12:02:01     |                           |                           |
| DRB1*01:01:01+DRB1*12:33     | DRB1*01:30+DRB1*12:02:01     |                           |                           |
| DRB1*01:01:01+DRB1*12:35     | DRB1*01:32+DRB1*12:01:01G    |                           |                           |
| DRB1*01:01:01+DRB1*13:01:01G | DRB1*01:03+DRB1*14:17        | DRB1*01:18+DRB1*13:40     | DRB1*01:20+DRB1*13:02:01  |
|                              | DRB1*01:24+DRB1*13:20        |                           |                           |
| DRB1*01:01:01+DRB1*13:01:05  | DRB1*01:01:18+DRB1*13:01:01G | DRB1*01:20+DRB1*13:02:03  |                           |
| DRB1*01:01:01+DRB1*13:01:08  | DRB1*01:01:05+DRB1*13:01:01G |                           |                           |
| DRB1*01:01:01+DRB1*13:01:10  | DRB1*01:01:09+DRB1*13:01:01G |                           |                           |
| DRB1*01:01:01+DRB1*13:01:12  | DRB1*01:01:07+DRB1*13:01:01G |                           |                           |
| DRB1*01:01:01+DRB1*13:02:01  | DRB1*01:03+DRB1*14:30        | DRB1*01:18+DRB1*13:36     | DRB1*01:24+DRB1*13:29     |
| DRB1*01:01:01+DRB1*13:02:03  | DRB1*01:01:18+DRB1*13:02:01  |                           |                           |
| DRB1*01:01:01+DRB1*13:02:07  | DRB1*01:01:13+DRB1*13:02:01  |                           |                           |
| DRB1*01:01:01+DRB1*13:03:01  | DRB1*01:01:05+DRB1*13:03:02  | DRB1*01:10+DRB1*13:12:02  | DRB1*01:24+DRB1*13:88     |
| DRB1*01:01:01+DRB1*13:03:02  | DRB1*01:10+DRB1*13:12:01     |                           |                           |
| DRB1*01:01:01+DRB1*13:03:05  | DRB1*01:01:07+DRB1*13:03:01  |                           |                           |
| DRB1*01:01:01+DRB1*13:03:06  | DRB1*01:01:21+DRB1*13:03:01  |                           |                           |
| DRB1*01:01:01+DRB1*13:04     | DRB1*01:18+DRB1*13:48        |                           |                           |
| DRB1*01:01:01+DRB1*13:05:02  | DRB1*01:01:05+DRB1*13:05:01  |                           |                           |
| DRB1*01:01:01+DRB1*13:07:02  | DRB1*01:01:18+DRB1*13:07:01  |                           |                           |
| DRB1*01:01:01+DRB1*13:09     | DRB1*01:15+DRB1*14:17        |                           |                           |
| DRB1*01:01:01+DRB1*13:10     | DRB1*01:10+DRB1*13:06        |                           |                           |
| DRB1*01:01:01+DRB1*13:11:01  | DRB1*01:20+DRB1*13:14:01     |                           |                           |
| DRB1*01:01:01+DRB1*13:11:02  | DRB1*01:01:18+DRB1*13:11:01  | DRB1*01:20+DRB1*13:14:02  |                           |
| DRB1*01:01:01+DRB1*13:12:01  | DRB1*01:24+DRB1*13:134       |                           |                           |
| DRB1*01:01:01+DRB1*13:12:02  | DRB1*01:01:05+DRB1*13:12:01  |                           |                           |
| DRB1*01:01:01+DRB1*13:14:01  | DRB1*01:18+DRB1*13:07:01     | DRB1*01:18+DRB1*13:07:02  |                           |
| DRB1*01:01:01+DRB1*13:14:02  | DRB1*01:01:18+DRB1*13:14:01  |                           |                           |
| DRB1*01:01:01+DRB1*13:14:03  | DRB1*01:01:05+DRB1*13:14:01  |                           |                           |
| DRB1*01:01:01+DRB1*13:15     | DRB1*01:18+DRB1*13:53        | DRB1*01:20+DRB1*13:104    |                           |
| DRB1*01:01:01+DRB1*13:17     | DRB1*01:18+DRB1*13:116       |                           |                           |
| DRB1*01:01:01+DRB1*13:19     | DRB1*01:03+DRB1*14:20        |                           |                           |
| DRB1*01:01:01+DRB1*13:20     | DRB1*01:20+DRB1*13:29        |                           |                           |
| DRB1*01:01:01+DRB1*13:21:01  | DRB1*01:18+DRB1*13:49        |                           |                           |
| DRB1*01:01:01+DRB1*13:21:02  | DRB1*01:01:05+DRB1*13:21:01  |                           |                           |
| DRB1*01:01:01+DRB1*13:22     | DRB1*01:03+DRB1*13:44        | DRB1*01:18+DRB1*13:70     | DRB1*01:20+DRB1*13:23:02  |
| DRB1*01:01:01+DRB1*13:23:01  | DRB1*01:01:05+DRB1*13:23:02  |                           |                           |
| DRB1*01:01:01+DRB1*13:27     | DRB1*01:20+DRB1*13:41        | DRB1*01:24+DRB1*13:71     |                           |
| DRB1*01:01:01+DRB1*13:30     | DRB1*01:18+DRB1*13:12:01     |                           |                           |
| DRB1*01:01:01+DRB1*13:32     | DRB1*01:20+DRB1*13:65        |                           |                           |
| DRB1*01:01:01+DRB1*13:33:02  | DRB1*01:11+DRB1*13:03:02     |                           |                           |
| DRB1*01:01:01+DRB1*13:33:03  | DRB1*01:01:05+DRB1*13:33:02  | DRB1*01:11+DRB1*13:03:01  |                           |
| DRB1*01:01:01+DRB1*13:36     | DRB1*01:03+DRB1*14:09        |                           |                           |
| DRB1*01:01:01+DRB1*13:39     | DRB1*01:37+DRB1*13:02:01     |                           |                           |
| DRB1*01:01:01+DRB1*13:40     | DRB1*01:03+DRB1*14:80        | DRB1*01:20+DRB1*13:36     |                           |
| DRB1*01:01:01+DRB1*13:42     | DRB1*01:20+DRB1*13:05:01     |                           |                           |
| DRB1*01:01:01+DRB1*13:43     | DRB1*01:14+DRB1*13:20        |                           |                           |
| DRB1*01:01:01+DRB1*13:45     | DRB1*01:14+DRB1*13:23:01     |                           |                           |
| DRB1*01:01:01+DRB1*13:52     | DRB1*01:20+DRB1*13:97:01     |                           |                           |
| DRB1*01:01:01+DRB1*13:53     | DRB1*01:03+DRB1*14:06:01     |                           |                           |
| DRB1*01:01:01+DRB1*13:57     | DRB1*01:18+DRB1*13:19        |                           |                           |
| DRB1*01:01:01+DRB1*13:58     | DRB1*01:02:06+DRB1*13:12:01  |                           |                           |
| DRB1*01:01:01+DRB1*13:61:01  | DRB1*01:04+DRB1*13:02:01     | DRB1*01:11+DRB1*13:01:01G | DRB1*01:20+DRB1*13:96:02  |
| DRB1*01:01:01+DRB1*13:61:02  | DRB1*01:20+DRB1*13:96:01     |                           |                           |
| DRB1*01:01:01+DRB1*13:66:01  | DRB1*01:10+DRB1*13:30        | DRB1*01:18+DRB1*13:03:02  |                           |
| DRB1*01:01:01+DRB1*13:66:02  | DRB1*01:01:05+DRB1*13:66:01  | DRB1*01:18+DRB1*13:03:01  |                           |
| DRB1*01:01:01+DRB1*13:78     | DRB1*01:37+DRB1*13:20        |                           |                           |
| DRB1*01:01:01+DRB1*13:79     | DRB1*01:20+DRB1*13:39        | DRB1*01:24+DRB1*13:78     | DRB1*01:37+DRB1*13:01:01G |
| DRB1*01:01:01+DRB1*13:81     | DRB1*01:02:06+DRB1*13:03:02  | DRB1*01:10+DRB1*13:58     |                           |
| DRB1*01:01:01+DRB1*13:82     | DRB1*01:24+DRB1*13:25        |                           |                           |
| DRB1*01:01:01+DRB1*13:83     | DRB1*01:18+DRB1*13:08        | DRB1*01:20+DRB1*13:107    |                           |
| DRB1*01:01:01+DRB1*13:89     | DRB1*01:20+DRB1*13:03:01     |                           |                           |
| DRB1*01:01:01+DRB1*13:90     | DRB1*01:38+DRB1*13:03:01     |                           |                           |
| DRB1*01:01:01+DRB1*13:93     | DRB1*01:18+DRB1*13:32        | DRB1*01:20+DRB1*13:139    |                           |
| DRB1*01:01:01+DRB1*13:96:02  | DRB1*01:11+DRB1*13:02:01     |                           |                           |
| DRB1*01:01:01+DRB1*13:100    | DRB1*01:37+DRB1*13:46        |                           |                           |
| DRB1*01:01:01+DRB1*13:108    | DRB1*01:20+DRB1*13:49        |                           |                           |
| DRB1*01:01:01+DRB1*13:111    | DRB1*01:20+DRB1*13:63        |                           |                           |
| DRB1*01:01:01+DRB1*13:112    | DRB1*01:20+DRB1*13:128       |                           |                           |
| DRB1*01:01:01+DRB1*13:139    | DRB1*01:18+DRB1*13:65        |                           |                           |
| DRB1*01:01:01+DRB1*14:01:01G | DRB1*01:14+DRB1*14:23:01     | DRB1*01:17+DRB1*14:32:02  | DRB1*01:20+DRB1*14:07:01  |
| DRB1*01:01:01+DRB1*14:01:02  | DRB1*01:17+DRB1*14:32:01     |                           |                           |
| DRB1*01:01:01+DRB1*14:04     | DRB1*01:14+DRB1*14:126       | DRB1*01:17+DRB1*14:31     | DRB1*01:20+DRB1*14:68     |
| DRB1*01:01:01+DRB1*14:05:01  | DRB1*01:17+DRB1*14:100       | DRB1*01:20+DRB1*14:44:01  |                           |
| DRB1*01:01:01+DRB1*14:05:03  | DRB1*01:20+DRB1*14:44:02     |                           |                           |
| DRB1*01:01:01+DRB1*14:06:01  | DRB1*01:20+DRB1*14:02        |                           |                           |
| DRB1*01:01:01+DRB1*14:06:02  | DRB1*01:01:05+DRB1*14:06:01  |                           |                           |
| DRB1*01:01:01+DRB1*14:07:01  | DRB1*01:14+DRB1*14:14        |                           |                           |
| DRB1*01:01:01+DRB1*14:07:02  | DRB1*01:01:05+DRB1*14:07:01  |                           |                           |
| DRB1*01:01:01+DRB1*14:08     | DRB1*01:17+DRB1*14:34        |                           |                           |
| DRB1*01:01:01+DRB1*14:12:01  | DRB1*01:20+DRB1*14:03:01     |                           |                           |
| DRB1*01:01:01+DRB1*14:16     | DRB1*01:14+DRB1*13:08        |                           |                           |
| DRB1*01:01:01+DRB1*14:17     | DRB1*01:18+DRB1*14:80        | DRB1*01:20+DRB1*14:30     |                           |
| DRB1*01:01:01+DRB1*14:19     | DRB1*01:10+DRB1*14:02        |                           |                           |

|                              |                              |                             |                          |
|------------------------------|------------------------------|-----------------------------|--------------------------|
| DRB1*01:01:01+DRB1*14:21     | DRB1*01:10+DRB1*14:17        |                             |                          |
| DRB1*01:01:01+DRB1*14:23:01  | DRB1*01:17+DRB1*14:123       | DRB1*01:20+DRB1*14:14       |                          |
| DRB1*01:01:01+DRB1*14:23:02  | DRB1*01:01:16+DRB1*14:23:01  |                             |                          |
| DRB1*01:01:01+DRB1*14:24     | DRB1*01:15+DRB1*14:02        |                             |                          |
| DRB1*01:01:01+DRB1*14:25     | DRB1*01:14+DRB1*13:07:01     |                             |                          |
| DRB1*01:01:01+DRB1*14:28     | DRB1*01:02:06+DRB1*14:68     |                             |                          |
| DRB1*01:01:01+DRB1*14:29     | DRB1*01:02:06+DRB1*14:02     |                             |                          |
| DRB1*01:01:01+DRB1*14:30     | DRB1*01:18+DRB1*14:09        |                             |                          |
| DRB1*01:01:01+DRB1*14:32:02  | DRB1*01:14+DRB1*14:123       |                             |                          |
| DRB1*01:01:01+DRB1*14:33     | DRB1*01:17+DRB1*14:17        |                             |                          |
| DRB1*01:01:01+DRB1*14:35     | DRB1*01:18+DRB1*14:01:01G    |                             |                          |
| DRB1*01:01:01+DRB1*14:38     | DRB1*01:11+DRB1*14:01:02     |                             |                          |
| DRB1*01:01:01+DRB1*14:44:03  | DRB1*01:01:05+DRB1*14:44:01  |                             |                          |
| DRB1*01:01:01+DRB1*14:45     | DRB1*01:24+DRB1*14:05:01     |                             |                          |
| DRB1*01:01:01+DRB1*14:47     | DRB1*01:11+DRB1*14:02        |                             |                          |
| DRB1*01:01:01+DRB1*14:51     | DRB1*01:17+DRB1*14:02        |                             |                          |
| DRB1*01:01:01+DRB1*14:53     | DRB1*01:14+DRB1*13:14:01     | DRB1*01:18+DRB1*14:25       |                          |
| DRB1*01:01:01+DRB1*14:60     | DRB1*01:05+DRB1*14:01:01G    |                             |                          |
| DRB1*01:01:01+DRB1*14:63     | DRB1*01:24+DRB1*14:85        |                             |                          |
| DRB1*01:01:01+DRB1*14:67     | DRB1*01:24+DRB1*14:03:01     |                             |                          |
| DRB1*01:01:01+DRB1*14:78     | DRB1*01:20+DRB1*14:63        |                             |                          |
| DRB1*01:01:01+DRB1*14:80     | DRB1*01:20+DRB1*14:09        |                             |                          |
| DRB1*01:01:01+DRB1*14:81     | DRB1*01:29+DRB1*14:06:01     |                             |                          |
| DRB1*01:01:01+DRB1*14:98     | DRB1*01:11+DRB1*14:03:01     |                             |                          |
| DRB1*01:01:01+DRB1*14:99     | DRB1*01:02:06+DRB1*14:07:01  |                             |                          |
| DRB1*01:01:01+DRB1*14:106    | DRB1*01:17+DRB1*14:06:01     | DRB1*01:20+DRB1*14:51       |                          |
| DRB1*01:01:01+DRB1*14:109    | DRB1*01:37+DRB1*14:19        |                             |                          |
| DRB1*01:01:01+DRB1*14:112    | DRB1*01:27+DRB1*14:01:01G    |                             |                          |
| DRB1*01:01:01+DRB1*14:115    | DRB1*01:37+DRB1*14:03:01     |                             |                          |
| DRB1*01:01:01+DRB1*14:120    | DRB1*01:24+DRB1*14:04        |                             |                          |
| DRB1*01:01:01+DRB1*14:122    | DRB1*01:24+DRB1*14:01:01G    |                             |                          |
| DRB1*01:01:01+DRB1*14:127    | DRB1*01:04+DRB1*14:44:02     | DRB1*01:11+DRB1*14:05:03    |                          |
| DRB1*01:01:01+DRB1*15:01:01G | DRB1*01:01:18+DRB1*15:01:04  | DRB1*01:15+DRB1*15:66       | DRB1*01:18+DRB1*15:07:01 |
|                              | DRB1*01:20+DRB1*15:02:01     | DRB1*01:24+DRB1*15:05       |                          |
| DRB1*01:01:01+DRB1*15:01:03  | DRB1*01:20+DRB1*15:02:06     |                             |                          |
| DRB1*01:01:01+DRB1*15:01:04  | DRB1*01:18+DRB1*15:07:02     | DRB1*01:20+DRB1*15:02:02    |                          |
| DRB1*01:01:01+DRB1*15:01:08  | DRB1*01:01:12+DRB1*15:01:01G |                             |                          |
| DRB1*01:01:01+DRB1*15:01:09  | DRB1*01:20+DRB1*15:02:04     |                             |                          |
| DRB1*01:01:01+DRB1*15:01:10  | DRB1*01:01:09+DRB1*15:01:01G | DRB1*01:20+DRB1*15:02:08    |                          |
| DRB1*01:01:01+DRB1*15:01:20  | DRB1*01:01:07+DRB1*15:01:01G |                             |                          |
| DRB1*01:01:01+DRB1*15:02:01  | DRB1*01:01:18+DRB1*15:02:02  | DRB1*01:15+DRB1*15:27       | DRB1*01:18+DRB1*15:11    |
|                              | DRB1*01:24+DRB1*15:31        |                             |                          |
| DRB1*01:01:01+DRB1*15:02:03  | DRB1*01:01:04+DRB1*15:02:01  |                             |                          |
| DRB1*01:01:01+DRB1*15:02:05  | DRB1*01:01:05+DRB1*15:02:02  |                             |                          |
| DRB1*01:01:01+DRB1*15:02:08  | DRB1*01:01:09+DRB1*15:02:01  |                             |                          |
| DRB1*01:01:01+DRB1*15:02:09  | DRB1*01:01:05+DRB1*15:02:01  | DRB1*01:01:18+DRB1*15:02:05 |                          |
| DRB1*01:01:01+DRB1*15:03:01G | DRB1*01:15+DRB1*15:54        | DRB1*01:24+DRB1*15:23       |                          |
| DRB1*01:01:01+DRB1*15:04     | DRB1*01:20+DRB1*15:15        |                             |                          |
| DRB1*01:01:01+DRB1*15:05     | DRB1*01:06+DRB1*15:27        | DRB1*01:09+DRB1*15:66       | DRB1*01:20+DRB1*15:31    |
| DRB1*01:01:01+DRB1*15:06:01  | DRB1*01:24+DRB1*15:73        |                             |                          |
| DRB1*01:01:01+DRB1*15:07:01  | DRB1*01:01:18+DRB1*15:07:02  | DRB1*01:20+DRB1*15:11       |                          |
| DRB1*01:01:01+DRB1*15:09     | DRB1*01:18+DRB1*15:48        | DRB1*01:31+DRB1*15:01:01G   |                          |
| DRB1*01:01:01+DRB1*15:10     | DRB1*01:03+DRB1*15:66        |                             |                          |
| DRB1*01:01:01+DRB1*15:11     | DRB1*01:15+DRB1*15:34        |                             |                          |
| DRB1*01:01:01+DRB1*15:16     | DRB1*01:05+DRB1*15:01:01G    |                             |                          |
| DRB1*01:01:01+DRB1*15:20     | DRB1*01:32+DRB1*15:01:01G    |                             |                          |
| DRB1*01:01:01+DRB1*15:23     | DRB1*01:09+DRB1*15:54        |                             |                          |
| DRB1*01:01:01+DRB1*15:25     | DRB1*01:16+DRB1*15:66        |                             |                          |
| DRB1*01:01:01+DRB1*15:27     | DRB1*01:18+DRB1*15:34        |                             |                          |
| DRB1*01:01:01+DRB1*15:31     | DRB1*01:09+DRB1*15:27        |                             |                          |
| DRB1*01:01:01+DRB1*15:35     | DRB1*01:02:06+DRB1*15:02:01  |                             |                          |
| DRB1*01:01:01+DRB1*15:38     | DRB1*01:24+DRB1*15:63        | DRB1*01:37+DRB1*15:02:02    |                          |
| DRB1*01:01:01+DRB1*15:48     | DRB1*01:31+DRB1*15:07:01     |                             |                          |
| DRB1*01:01:01+DRB1*15:57     | DRB1*01:11+DRB1*15:03:01G    |                             |                          |
| DRB1*01:01:01+DRB1*15:59     | DRB1*01:47+DRB1*15:01:01G    |                             |                          |
| DRB1*01:01:01+DRB1*15:65     | DRB1*01:20+DRB1*15:47        |                             |                          |
| DRB1*01:01:01+DRB1*15:66     | DRB1*01:20+DRB1*15:27        |                             |                          |
| DRB1*01:01:01+DRB1*15:71     | DRB1*01:37+DRB1*15:01:01G    |                             |                          |
| DRB1*01:01:01+DRB1*15:72     | DRB1*01:41+DRB1*15:01:01G    |                             |                          |
| DRB1*01:01:01+DRB1*16:05:01  | DRB1*01:01:20+DRB1*16:05:02  | DRB1*01:24+DRB1*16:02:01    |                          |
| DRB1*01:01:01+DRB1*16:07     | DRB1*01:41+DRB1*16:05:01     |                             |                          |
| DRB1*01:01:01+DRB1*16:09     | DRB1*01:18+DRB1*16:01:01     |                             |                          |
| DRB1*01:01:01+DRB1*16:10     | DRB1*01:18+DRB1*16:02:01     |                             |                          |
| DRB1*01:01:01+DRB1*16:15     | DRB1*01:20+DRB1*16:01:01     |                             |                          |
| DRB1*01:01:04+DRB1*15:01:01G | DRB1*01:20+DRB1*15:02:03     |                             |                          |
| DRB1*01:01:04+DRB1*15:02:08  | DRB1*01:01:09+DRB1*15:02:03  |                             |                          |
| DRB1*01:01:04+DRB1*15:02:09  | DRB1*01:01:05+DRB1*15:02:03  |                             |                          |
| DRB1*01:01:04+DRB1*15:35     | DRB1*01:02:06+DRB1*15:02:03  |                             |                          |
| DRB1*01:01:05+DRB1*03:01:06  | DRB1*01:01:16+DRB1*03:01:11  |                             |                          |
| DRB1*01:01:05+DRB1*03:01:12  | DRB1*01:01:18+DRB1*03:01:11  |                             |                          |
| DRB1*01:01:05+DRB1*03:01:14  | DRB1*01:40N+DRB1*03:01:11    |                             |                          |
| DRB1*01:01:05+DRB1*03:01:18  | DRB1*01:01:14+DRB1*03:01:11  |                             |                          |
| DRB1*01:01:05+DRB1*03:01:19  | DRB1*01:01:17+DRB1*03:01:11  |                             |                          |
| DRB1*01:01:05+DRB1*03:03     | DRB1*01:16+DRB1*14:06:02     |                             |                          |
| DRB1*01:01:05+DRB1*03:10     | DRB1*01:14+DRB1*03:01:11     |                             |                          |
| DRB1*01:01:05+DRB1*03:13:01  | DRB1*01:37+DRB1*03:01:11     |                             |                          |
| DRB1*01:01:05+DRB1*03:19     | DRB1*01:24+DRB1*03:01:11     |                             |                          |
| DRB1*01:01:05+DRB1*03:20     | DRB1*01:02:06+DRB1*03:05:02  |                             |                          |
| DRB1*01:01:05+DRB1*03:34     | DRB1*01:19+DRB1*03:01:11     |                             |                          |
| DRB1*01:01:05+DRB1*03:64     | DRB1*01:48+DRB1*03:01:11     |                             |                          |
| DRB1*01:01:05+DRB1*04:01:09  | DRB1*01:01:22+DRB1*04:01:08  |                             |                          |
| DRB1*01:01:05+DRB1*04:03:01  | DRB1*01:20+DRB1*04:07:03     |                             |                          |
| DRB1*01:01:05+DRB1*04:05:10  | DRB1*01:01:07+DRB1*04:05:04  |                             |                          |
| DRB1*01:01:05+DRB1*04:05:11  | DRB1*01:01:15+DRB1*04:05:04  |                             |                          |
| DRB1*01:01:05+DRB1*04:09     | DRB1*01:10+DRB1*04:05:04     |                             |                          |
| DRB1*01:01:05+DRB1*04:10:01  | DRB1*01:20+DRB1*04:05:04     |                             |                          |
| DRB1*01:01:05+DRB1*04:11:01  | DRB1*01:20+DRB1*04:17:01     |                             |                          |
| DRB1*01:01:05+DRB1*04:13     | DRB1*01:20+DRB1*04:01:08     |                             |                          |
| DRB1*01:01:05+DRB1*04:16     | DRB1*01:48+DRB1*04:01:08     |                             |                          |
| DRB1*01:01:05+DRB1*04:24     | DRB1*01:29+DRB1*04:05:04     |                             |                          |
| DRB1*01:01:05+DRB1*04:25     | DRB1*01:20+DRB1*04:54        |                             |                          |
| DRB1*01:01:05+DRB1*04:27     | DRB1*01:02:06+DRB1*04:07:03  |                             |                          |
| DRB1*01:01:05+DRB1*04:28     | DRB1*01:18+DRB1*04:05:04     |                             |                          |
| DRB1*01:01:05+DRB1*04:29     | DRB1*01:28+DRB1*04:05:04     |                             |                          |
| DRB1*01:01:05+DRB1*04:35     | DRB1*01:18+DRB1*04:01:08     |                             |                          |

|                              |                              |                          |
|------------------------------|------------------------------|--------------------------|
| DRB1*01:01:05+DRB1*04:38     | DRB1*01:24+DRB1*04:01:08     |                          |
| DRB1*01:01:05+DRB1*04:62     | DRB1*01:14+DRB1*04:01:08     |                          |
| DRB1*01:01:05+DRB1*04:72:02  | DRB1*01:11+DRB1*04:01:08     |                          |
| DRB1*01:01:05+DRB1*04:74     | DRB1*01:11+DRB1*04:07:03     |                          |
| DRB1*01:01:05+DRB1*04:90     | DRB1*01:21+DRB1*04:05:04     |                          |
| DRB1*01:01:05+DRB1*04:95     | DRB1*01:04+DRB1*04:07:03     |                          |
| DRB1*01:01:05+DRB1*04:104    | DRB1*01:27+DRB1*04:05:04     |                          |
| DRB1*01:01:05+DRB1*04:106    | DRB1*01:03+DRB1*04:05:04     |                          |
| DRB1*01:01:05+DRB1*04:107    | DRB1*01:24+DRB1*04:05:04     |                          |
| DRB1*01:01:05+DRB1*08:04:06  | DRB1*01:01:18+DRB1*08:04:04  |                          |
| DRB1*01:01:05+DRB1*08:06     | DRB1*01:20+DRB1*08:01:01G    |                          |
| DRB1*01:01:05+DRB1*08:10     | DRB1*01:20+DRB1*08:03:03     |                          |
| DRB1*01:01:05+DRB1*08:12     | DRB1*01:02:06+DRB1*08:03:03  |                          |
| DRB1*01:01:05+DRB1*08:20     | DRB1*01:20+DRB1*13:47        |                          |
| DRB1*01:01:05+DRB1*08:23     | DRB1*01:05+DRB1*08:03:03     |                          |
| DRB1*01:01:05+DRB1*08:28     | DRB1*01:18+DRB1*08:04:04     |                          |
| DRB1*01:01:05+DRB1*08:37     | DRB1*01:18+DRB1*08:03:03     |                          |
| DRB1*01:01:05+DRB1*11:02:01  | DRB1*01:20+DRB1*11:14:02     |                          |
| DRB1*01:01:05+DRB1*11:04:07  | DRB1*01:20+DRB1*11:01:11     |                          |
| DRB1*01:01:05+DRB1*11:06:01G | DRB1*01:02:06+DRB1*11:01:02  |                          |
| DRB1*01:01:05+DRB1*11:06:02  | DRB1*01:02:01+DRB1*11:01:02  | DRB1*01:44+DRB1*11:37:02 |
| DRB1*01:01:05+DRB1*11:18     | DRB1*01:20+DRB1*11:19:03     |                          |
| DRB1*01:01:05+DRB1*11:21     | DRB1*01:02:06+DRB1*11:14:02  |                          |
| DRB1*01:01:05+DRB1*11:25     | DRB1*01:20+DRB1*11:23        |                          |
| DRB1*01:01:05+DRB1*11:27:01  | DRB1*01:11+DRB1*11:01:02     |                          |
| DRB1*01:01:05+DRB1*11:42     | DRB1*01:20+DRB1*11:08:02     |                          |
| DRB1*01:01:05+DRB1*11:44     | DRB1*01:20+DRB1*11:49:02     |                          |
| DRB1*01:01:05+DRB1*11:54:02  | DRB1*01:17+DRB1*11:04:02     |                          |
| DRB1*01:01:05+DRB1*11:56     | DRB1*01:20+DRB1*11:37:02     |                          |
| DRB1*01:01:05+DRB1*11:57     | DRB1*01:02:06+DRB1*11:08:02  |                          |
| DRB1*01:01:05+DRB1*11:66     | DRB1*01:28+DRB1*11:01:02     |                          |
| DRB1*01:01:05+DRB1*11:84:01  | DRB1*01:04+DRB1*11:01:02     | DRB1*01:11+DRB1*11:04:02 |
| DRB1*01:01:05+DRB1*11:84:02  | DRB1*01:20+DRB1*11:27:03     |                          |
| DRB1*01:01:05+DRB1*11:92     | DRB1*01:20+DRB1*11:72        |                          |
| DRB1*01:01:05+DRB1*11:116    | DRB1*01:37+DRB1*11:04:02     |                          |
| DRB1*01:01:05+DRB1*11:120    | DRB1*01:37+DRB1*11:01:02     |                          |
| DRB1*01:01:05+DRB1*11:124    | DRB1*01:04+DRB1*11:14:02     |                          |
| DRB1*01:01:05+DRB1*13:01:05  | DRB1*01:01:18+DRB1*13:01:08  |                          |
| DRB1*01:01:05+DRB1*13:01:10  | DRB1*01:01:09+DRB1*13:01:08  |                          |
| DRB1*01:01:05+DRB1*13:01:12  | DRB1*01:01:07+DRB1*13:01:08  |                          |
| DRB1*01:01:05+DRB1*13:11:01  | DRB1*01:20+DRB1*13:14:03     |                          |
| DRB1*01:01:05+DRB1*13:14:02  | DRB1*01:01:18+DRB1*13:14:03  |                          |
| DRB1*01:01:05+DRB1*13:22     | DRB1*01:20+DRB1*13:23:01     |                          |
| DRB1*01:01:05+DRB1*13:30     | DRB1*01:18+DRB1*13:12:02     |                          |
| DRB1*01:01:05+DRB1*13:42     | DRB1*01:20+DRB1*13:05:02     |                          |
| DRB1*01:01:05+DRB1*13:48     | DRB1*01:20+DRB1*13:38        |                          |
| DRB1*01:01:05+DRB1*13:53     | DRB1*01:03+DRB1*14:06:02     |                          |
| DRB1*01:01:05+DRB1*13:58     | DRB1*01:02:06+DRB1*13:12:02  |                          |
| DRB1*01:01:05+DRB1*13:61:01  | DRB1*01:11+DRB1*13:01:08     |                          |
| DRB1*01:01:05+DRB1*13:79     | DRB1*01:37+DRB1*13:01:08     |                          |
| DRB1*01:01:05+DRB1*13:81     | DRB1*01:02:06+DRB1*13:03:01  |                          |
| DRB1*01:01:05+DRB1*13:94     | DRB1*01:20+DRB1*13:33:01     |                          |
| DRB1*01:01:05+DRB1*14:01:01G | DRB1*01:20+DRB1*14:07:02     |                          |
| DRB1*01:01:05+DRB1*14:05:01  | DRB1*01:20+DRB1*14:44:03     |                          |
| DRB1*01:01:05+DRB1*14:15     | DRB1*01:20+DRB1*08:09        |                          |
| DRB1*01:01:05+DRB1*14:53     | DRB1*01:14+DRB1*13:14:03     |                          |
| DRB1*01:01:05+DRB1*14:81     | DRB1*01:29+DRB1*14:06:02     |                          |
| DRB1*01:01:05+DRB1*14:99     | DRB1*01:02:06+DRB1*14:07:02  |                          |
| DRB1*01:01:05+DRB1*14:106    | DRB1*01:17+DRB1*14:06:02     |                          |
| DRB1*01:01:05+DRB1*15:01:01G | DRB1*01:20+DRB1*15:02:09     |                          |
| DRB1*01:01:05+DRB1*15:01:04  | DRB1*01:20+DRB1*15:02:05     |                          |
| DRB1*01:01:05+DRB1*15:02:08  | DRB1*01:01:09+DRB1*15:02:09  |                          |
| DRB1*01:01:05+DRB1*15:35     | DRB1*01:02:06+DRB1*15:02:09  |                          |
| DRB1*01:01:05+DRB1*15:38     | DRB1*01:37+DRB1*15:02:05     |                          |
| DRB1*01:01:07+DRB1*01:02:07  | DRB1*01:01:18+DRB1*01:02:05  |                          |
| DRB1*01:01:07+DRB1*01:26     | DRB1*01:02:05+DRB1*01:37     |                          |
| DRB1*01:01:07+DRB1*01:44     | DRB1*01:02:05+DRB1*01:18     |                          |
| DRB1*01:01:07+DRB1*04:05:11  | DRB1*01:01:15+DRB1*04:05:10  |                          |
| DRB1*01:01:07+DRB1*04:09     | DRB1*01:10+DRB1*04:05:10     |                          |
| DRB1*01:01:07+DRB1*04:10:01  | DRB1*01:20+DRB1*04:05:10     |                          |
| DRB1*01:01:07+DRB1*04:17:02  | DRB1*01:17+DRB1*04:05:10     |                          |
| DRB1*01:01:07+DRB1*04:24     | DRB1*01:29+DRB1*04:05:10     |                          |
| DRB1*01:01:07+DRB1*04:28     | DRB1*01:18+DRB1*04:05:10     |                          |
| DRB1*01:01:07+DRB1*04:29     | DRB1*01:28+DRB1*04:05:10     |                          |
| DRB1*01:01:07+DRB1*04:90     | DRB1*01:21+DRB1*04:05:10     |                          |
| DRB1*01:01:07+DRB1*04:104    | DRB1*01:27+DRB1*04:05:10     |                          |
| DRB1*01:01:07+DRB1*04:106    | DRB1*01:03+DRB1*04:05:10     |                          |
| DRB1*01:01:07+DRB1*04:107    | DRB1*01:24+DRB1*04:05:10     |                          |
| DRB1*01:01:07+DRB1*11:06:02  | DRB1*01:02:05+DRB1*11:01:01G |                          |
| DRB1*01:01:07+DRB1*12:02:04  | DRB1*01:02:05+DRB1*12:16:01  |                          |
| DRB1*01:01:07+DRB1*12:18     | DRB1*01:48+DRB1*12:02:05     |                          |
| DRB1*01:01:07+DRB1*12:33     | DRB1*01:30+DRB1*12:02:05     |                          |
| DRB1*01:01:07+DRB1*13:01:05  | DRB1*01:01:18+DRB1*13:01:12  |                          |
| DRB1*01:01:07+DRB1*13:01:10  | DRB1*01:01:09+DRB1*13:01:12  |                          |
| DRB1*01:01:07+DRB1*13:03:06  | DRB1*01:01:21+DRB1*13:03:05  |                          |
| DRB1*01:01:07+DRB1*13:33:03  | DRB1*01:11+DRB1*13:03:05     |                          |
| DRB1*01:01:07+DRB1*13:61:01  | DRB1*01:11+DRB1*13:01:12     |                          |
| DRB1*01:01:07+DRB1*13:66:02  | DRB1*01:18+DRB1*13:03:05     |                          |
| DRB1*01:01:07+DRB1*13:79     | DRB1*01:37+DRB1*13:01:12     |                          |
| DRB1*01:01:07+DRB1*13:89     | DRB1*01:20+DRB1*13:03:05     |                          |
| DRB1*01:01:07+DRB1*13:90     | DRB1*01:38+DRB1*13:03:05     |                          |
| DRB1*01:01:07+DRB1*15:01:08  | DRB1*01:01:12+DRB1*15:01:20  |                          |
| DRB1*01:01:07+DRB1*15:01:10  | DRB1*01:01:09+DRB1*15:01:20  |                          |
| DRB1*01:01:07+DRB1*15:09     | DRB1*01:31+DRB1*15:01:20     |                          |
| DRB1*01:01:07+DRB1*15:16     | DRB1*01:05+DRB1*15:01:20     |                          |
| DRB1*01:01:07+DRB1*15:20     | DRB1*01:32+DRB1*15:01:20     |                          |
| DRB1*01:01:07+DRB1*15:59     | DRB1*01:47+DRB1*15:01:20     |                          |
| DRB1*01:01:07+DRB1*15:71     | DRB1*01:37+DRB1*15:01:20     |                          |
| DRB1*01:01:07+DRB1*15:72     | DRB1*01:41+DRB1*15:01:20     |                          |
| DRB1*01:01:09+DRB1*13:01:05  | DRB1*01:01:18+DRB1*13:01:10  |                          |
| DRB1*01:01:09+DRB1*13:61:01  | DRB1*01:11+DRB1*13:01:10     |                          |
| DRB1*01:01:09+DRB1*13:79     | DRB1*01:37+DRB1*13:01:10     |                          |
| DRB1*01:01:09+DRB1*15:01:08  | DRB1*01:01:12+DRB1*15:01:10  |                          |
| DRB1*01:01:09+DRB1*15:09     | DRB1*01:31+DRB1*15:01:10     |                          |
| DRB1*01:01:09+DRB1*15:16     | DRB1*01:05+DRB1*15:01:10     |                          |

|                              |                              |
|------------------------------|------------------------------|
| DRB1*01:01:09+DRB1*15:20     | DRB1*01:32+DRB1*15:01:10     |
| DRB1*01:01:09+DRB1*15:35     | DRB1*01:02:06+DRB1*15:02:08  |
| DRB1*01:01:09+DRB1*15:59     | DRB1*01:47+DRB1*15:01:10     |
| DRB1*01:01:09+DRB1*15:71     | DRB1*01:37+DRB1*15:01:10     |
| DRB1*01:01:09+DRB1*15:72     | DRB1*01:41+DRB1*15:01:10     |
| DRB1*01:01:12+DRB1*15:09     | DRB1*01:31+DRB1*15:01:08     |
| DRB1*01:01:12+DRB1*15:16     | DRB1*01:05+DRB1*15:01:08     |
| DRB1*01:01:12+DRB1*15:20     | DRB1*01:32+DRB1*15:01:08     |
| DRB1*01:01:12+DRB1*15:59     | DRB1*01:47+DRB1*15:01:08     |
| DRB1*01:01:12+DRB1*15:71     | DRB1*01:37+DRB1*15:01:08     |
| DRB1*01:01:12+DRB1*15:72     | DRB1*01:41+DRB1*15:01:08     |
| DRB1*01:01:13+DRB1*13:01:01G | DRB1*01:20+DRB1*13:02:07     |
| DRB1*01:01:13+DRB1*13:02:03  | DRB1*01:01:18+DRB1*13:02:07  |
| DRB1*01:01:13+DRB1*13:39     | DRB1*01:37+DRB1*13:02:07     |
| DRB1*01:01:13+DRB1*13:61:01  | DRB1*01:04+DRB1*13:02:07     |
| DRB1*01:01:13+DRB1*13:96:02  | DRB1*01:11+DRB1*13:02:07     |
| DRB1*01:01:14+DRB1*03:01:06  | DRB1*01:01:16+DRB1*03:01:18  |
| DRB1*01:01:14+DRB1*03:01:12  | DRB1*01:01:18+DRB1*03:01:18  |
| DRB1*01:01:14+DRB1*03:01:14  | DRB1*01:40N+DRB1*03:01:18    |
| DRB1*01:01:14+DRB1*03:01:19  | DRB1*01:01:17+DRB1*03:01:18  |
| DRB1*01:01:14+DRB1*03:10     | DRB1*01:14+DRB1*03:01:18     |
| DRB1*01:01:14+DRB1*03:13:01  | DRB1*01:37+DRB1*03:01:18     |
| DRB1*01:01:14+DRB1*03:19     | DRB1*01:24+DRB1*03:01:18     |
| DRB1*01:01:14+DRB1*03:34     | DRB1*01:19+DRB1*03:01:18     |
| DRB1*01:01:14+DRB1*03:64     | DRB1*01:48+DRB1*03:01:18     |
| DRB1*01:01:14+DRB1*08:17     | DRB1*01:18+DRB1*08:01:02     |
| DRB1*01:01:14+DRB1*08:22     | DRB1*01:02:06+DRB1*08:01:02  |
| DRB1*01:01:15+DRB1*04:09     | DRB1*01:10+DRB1*04:05:11     |
| DRB1*01:01:15+DRB1*04:10:01  | DRB1*01:20+DRB1*04:05:11     |
| DRB1*01:01:15+DRB1*04:17:02  | DRB1*01:17+DRB1*04:05:11     |
| DRB1*01:01:15+DRB1*04:24     | DRB1*01:29+DRB1*04:05:11     |
| DRB1*01:01:15+DRB1*04:28     | DRB1*01:18+DRB1*04:05:11     |
| DRB1*01:01:15+DRB1*04:29     | DRB1*01:28+DRB1*04:05:11     |
| DRB1*01:01:15+DRB1*04:90     | DRB1*01:21+DRB1*04:05:11     |
| DRB1*01:01:15+DRB1*04:104    | DRB1*01:27+DRB1*04:05:11     |
| DRB1*01:01:15+DRB1*04:106    | DRB1*01:03+DRB1*04:05:11     |
| DRB1*01:01:15+DRB1*04:107    | DRB1*01:24+DRB1*04:05:11     |
| DRB1*01:01:16+DRB1*03:01:12  | DRB1*01:01:18+DRB1*03:01:06  |
| DRB1*01:01:16+DRB1*03:01:14  | DRB1*01:40N+DRB1*03:01:06    |
| DRB1*01:01:16+DRB1*03:01:19  | DRB1*01:01:17+DRB1*03:01:06  |
| DRB1*01:01:16+DRB1*03:10     | DRB1*01:14+DRB1*03:01:06     |
| DRB1*01:01:16+DRB1*03:13:01  | DRB1*01:37+DRB1*03:01:06     |
| DRB1*01:01:16+DRB1*03:19     | DRB1*01:24+DRB1*03:01:06     |
| DRB1*01:01:16+DRB1*03:34     | DRB1*01:19+DRB1*03:01:06     |
| DRB1*01:01:16+DRB1*03:64     | DRB1*01:48+DRB1*03:01:06     |
| DRB1*01:01:16+DRB1*04:02:01  | DRB1*01:03+DRB1*04:04:07     |
| DRB1*01:01:16+DRB1*04:03:01  | DRB1*01:17+DRB1*04:04:07     |
| DRB1*01:01:16+DRB1*04:04:02  | DRB1*01:01:18+DRB1*04:04:07  |
| DRB1*01:01:16+DRB1*04:13     | DRB1*01:10+DRB1*04:04:07     |
| DRB1*01:01:16+DRB1*04:22     | DRB1*01:16+DRB1*04:04:07     |
| DRB1*01:01:16+DRB1*04:42     | DRB1*01:18+DRB1*04:04:07     |
| DRB1*01:01:16+DRB1*04:44     | DRB1*01:11+DRB1*04:04:07     |
| DRB1*01:01:16+DRB1*04:56     | DRB1*01:24+DRB1*04:04:07     |
| DRB1*01:01:16+DRB1*04:122    | DRB1*01:09+DRB1*04:04:07     |
| DRB1*01:01:16+DRB1*09:06     | DRB1*01:20+DRB1*09:01:09     |
| DRB1*01:01:16+DRB1*09:12     | DRB1*01:22+DRB1*09:01:09     |
| DRB1*01:01:16+DRB1*14:01:01G | DRB1*01:14+DRB1*14:23:02     |
| DRB1*01:01:16+DRB1*14:72     | DRB1*01:18+DRB1*14:08        |
| DRB1*01:01:17+DRB1*03:01:12  | DRB1*01:01:18+DRB1*03:01:19  |
| DRB1*01:01:17+DRB1*03:01:14  | DRB1*01:40N+DRB1*03:01:19    |
| DRB1*01:01:17+DRB1*03:10     | DRB1*01:14+DRB1*03:01:19     |
| DRB1*01:01:17+DRB1*03:13:01  | DRB1*01:37+DRB1*03:01:19     |
| DRB1*01:01:17+DRB1*03:19     | DRB1*01:24+DRB1*03:01:19     |
| DRB1*01:01:17+DRB1*03:34     | DRB1*01:19+DRB1*03:01:19     |
| DRB1*01:01:17+DRB1*03:64     | DRB1*01:48+DRB1*03:01:19     |
| DRB1*01:01:18+DRB1*01:26     | DRB1*01:02:07+DRB1*01:37     |
| DRB1*01:01:18+DRB1*01:44     | DRB1*01:02:07+DRB1*01:18     |
| DRB1*01:01:18+DRB1*03:01:14  | DRB1*01:40N+DRB1*03:01:12    |
| DRB1*01:01:18+DRB1*03:10     | DRB1*01:14+DRB1*03:01:12     |
| DRB1*01:01:18+DRB1*03:13:01  | DRB1*01:37+DRB1*03:01:12     |
| DRB1*01:01:18+DRB1*03:19     | DRB1*01:24+DRB1*03:01:12     |
| DRB1*01:01:18+DRB1*03:25     | DRB1*01:08+DRB1*03:04:02     |
| DRB1*01:01:18+DRB1*03:34     | DRB1*01:19+DRB1*03:01:12     |
| DRB1*01:01:18+DRB1*03:64     | DRB1*01:48+DRB1*03:01:12     |
| DRB1*01:01:18+DRB1*04:01:01  | DRB1*01:10+DRB1*04:08:02     |
| DRB1*01:01:18+DRB1*04:02:01  | DRB1*01:03+DRB1*04:04:02     |
| DRB1*01:01:18+DRB1*04:07:01G | DRB1*01:17+DRB1*04:08:02     |
| DRB1*01:01:18+DRB1*04:13     | DRB1*01:10+DRB1*04:04:02     |
| DRB1*01:01:18+DRB1*04:14     | DRB1*01:03+DRB1*04:08:02     |
| DRB1*01:01:18+DRB1*04:22     | DRB1*01:16+DRB1*04:04:02     |
| DRB1*01:01:18+DRB1*04:42     | DRB1*01:18+DRB1*04:04:02     |
| DRB1*01:01:18+DRB1*04:43     | DRB1*01:18+DRB1*04:08:02     |
| DRB1*01:01:18+DRB1*04:44     | DRB1*01:04+DRB1*04:08:02     |
| DRB1*01:01:18+DRB1*04:56     | DRB1*01:24+DRB1*04:04:02     |
| DRB1*01:01:18+DRB1*04:59     | DRB1*01:18+DRB1*04:03:02     |
| DRB1*01:01:18+DRB1*04:78     | DRB1*01:29+DRB1*04:06:04     |
| DRB1*01:01:18+DRB1*04:88     | DRB1*01:24+DRB1*04:03:02     |
| DRB1*01:01:18+DRB1*04:95     | DRB1*01:11+DRB1*04:03:02     |
| DRB1*01:01:18+DRB1*04:101    | DRB1*01:29+DRB1*04:03:02     |
| DRB1*01:01:18+DRB1*04:114    | DRB1*01:10+DRB1*04:06:04     |
| DRB1*01:01:18+DRB1*04:122    | DRB1*01:06+DRB1*04:08:02     |
| DRB1*01:01:18+DRB1*08:28     | DRB1*01:18+DRB1*08:04:06     |
| DRB1*01:01:18+DRB1*11:06:02  | DRB1*01:02:07+DRB1*11:01:01G |
| DRB1*01:01:18+DRB1*12:02:04  | DRB1*01:02:07+DRB1*12:16:01  |
| DRB1*01:01:18+DRB1*13:39     | DRB1*01:37+DRB1*13:02:03     |
| DRB1*01:01:18+DRB1*13:61:01  | DRB1*01:04+DRB1*13:02:03     |
| DRB1*01:01:18+DRB1*13:79     | DRB1*01:37+DRB1*13:01:05     |
| DRB1*01:01:18+DRB1*13:96:02  | DRB1*01:11+DRB1*13:02:03     |
| DRB1*01:01:18+DRB1*14:25     | DRB1*01:14+DRB1*13:07:02     |
| DRB1*01:01:18+DRB1*14:53     | DRB1*01:14+DRB1*13:14:02     |
| DRB1*01:01:18+DRB1*15:38     | DRB1*01:37+DRB1*15:02:01     |
| DRB1*01:01:18+DRB1*15:63     | DRB1*01:37+DRB1*15:31        |
| DRB1*01:01:21+DRB1*13:33:03  | DRB1*01:11+DRB1*13:03:06     |
| DRB1*01:01:21+DRB1*13:66:02  | DRB1*01:18+DRB1*13:03:06     |
| DRB1*01:01:21+DRB1*13:89     | DRB1*01:20+DRB1*13:03:06     |

DRB1\*01:11+DRB1\*04:04:02

DRB1\*01:09+DRB1\*04:04:02

DRB1\*01:11+DRB1\*13:01:05

|                              |                              |                           |                       |
|------------------------------|------------------------------|---------------------------|-----------------------|
| DRB1*01:01:21+DRB1*13:90     | DRB1*01:38+DRB1*13:03:06     |                           |                       |
| DRB1*01:01:22+DRB1*04:13     | DRB1*01:20+DRB1*04:01:09     |                           |                       |
| DRB1*01:01:22+DRB1*04:16     | DRB1*01:48+DRB1*04:01:09     |                           |                       |
| DRB1*01:01:22+DRB1*04:35     | DRB1*01:18+DRB1*04:01:09     |                           |                       |
| DRB1*01:01:22+DRB1*04:38     | DRB1*01:24+DRB1*04:01:09     |                           |                       |
| DRB1*01:01:22+DRB1*04:62     | DRB1*01:14+DRB1*04:01:09     |                           |                       |
| DRB1*01:01:22+DRB1*04:72:02  | DRB1*01:11+DRB1*04:01:09     |                           |                       |
| DRB1*01:02:01+DRB1*03:01:01G | DRB1*01:02:06+DRB1*03:01:17  | DRB1*01:44+DRB1*03:06     |                       |
| DRB1*01:02:01+DRB1*03:01:12  | DRB1*01:02:07+DRB1*03:01:01G |                           |                       |
| DRB1*01:02:01+DRB1*03:04:02  | DRB1*01:02:07+DRB1*03:04:01  |                           |                       |
| DRB1*01:02:01+DRB1*03:13:01  | DRB1*01:26+DRB1*03:01:01G    |                           |                       |
| DRB1*01:02:01+DRB1*03:13:02  | DRB1*01:26+DRB1*03:01:02     |                           |                       |
| DRB1*01:02:01+DRB1*03:25     | DRB1*01:44+DRB1*03:31        |                           |                       |
| DRB1*01:02:01+DRB1*03:29     | DRB1*01:44+DRB1*03:02:01     |                           |                       |
| DRB1*01:02:01+DRB1*03:33     | DRB1*01:44+DRB1*03:26        |                           |                       |
| DRB1*01:02:01+DRB1*03:37     | DRB1*01:44+DRB1*03:80        |                           |                       |
| DRB1*01:02:01+DRB1*03:40     | DRB1*01:44+DRB1*03:41        |                           |                       |
| DRB1*01:02:01+DRB1*04:01:03  | DRB1*01:02:03+DRB1*04:01:01  |                           |                       |
| DRB1*01:02:01+DRB1*04:03:02  | DRB1*01:02:07+DRB1*04:03:01  |                           |                       |
| DRB1*01:02:01+DRB1*04:03:04  | DRB1*01:02:04+DRB1*04:03:01  |                           |                       |
| DRB1*01:02:01+DRB1*04:04:02  | DRB1*01:02:07+DRB1*04:04:01  |                           |                       |
| DRB1*01:02:01+DRB1*04:04:06  | DRB1*01:02:04+DRB1*04:04:01  |                           |                       |
| DRB1*01:02:01+DRB1*04:05:01  | DRB1*01:02:06+DRB1*04:05:14  |                           |                       |
| DRB1*01:02:01+DRB1*04:05:10  | DRB1*01:02:05+DRB1*04:05:01  |                           |                       |
| DRB1*01:02:01+DRB1*04:06:01G | DRB1*01:02:06+DRB1*04:06:05  |                           |                       |
| DRB1*01:02:01+DRB1*04:06:03  | DRB1*01:02:04+DRB1*04:06:01G |                           |                       |
| DRB1*01:02:01+DRB1*04:06:04  | DRB1*01:02:07+DRB1*04:06:01G |                           |                       |
| DRB1*01:02:01+DRB1*04:08:02  | DRB1*01:02:07+DRB1*04:08:01  |                           |                       |
| DRB1*01:02:01+DRB1*04:28     | DRB1*01:44+DRB1*04:05:01     |                           |                       |
| DRB1*01:02:01+DRB1*04:35     | DRB1*01:44+DRB1*04:01:01     |                           |                       |
| DRB1*01:02:01+DRB1*04:42     | DRB1*01:44+DRB1*04:04:01     |                           |                       |
| DRB1*01:02:01+DRB1*04:43     | DRB1*01:44+DRB1*04:08:01     |                           |                       |
| DRB1*01:02:01+DRB1*04:53     | DRB1*01:23+DRB1*04:56        |                           |                       |
| DRB1*01:02:01+DRB1*04:59     | DRB1*01:44+DRB1*04:03:01     |                           |                       |
| DRB1*01:02:01+DRB1*04:98:01  | DRB1*01:02:02+DRB1*04:98:02  |                           |                       |
| DRB1*01:02:01+DRB1*04:105:01 | DRB1*01:02:07+DRB1*04:105:02 |                           |                       |
| DRB1*01:02:01+DRB1*04:106    | DRB1*01:42+DRB1*04:05:14     |                           |                       |
| DRB1*01:02:01+DRB1*08:02:01  | DRB1*01:02:06+DRB1*08:02:04  |                           |                       |
| DRB1*01:02:01+DRB1*08:04:06  | DRB1*01:02:07+DRB1*08:04:01  |                           |                       |
| DRB1*01:02:01+DRB1*08:17     | DRB1*01:44+DRB1*08:01:01G    |                           |                       |
| DRB1*01:02:01+DRB1*08:28     | DRB1*01:44+DRB1*08:04:01     |                           |                       |
| DRB1*01:02:01+DRB1*08:30:02  | DRB1*01:02:04+DRB1*08:30:01  |                           |                       |
| DRB1*01:02:01+DRB1*08:37     | DRB1*01:44+DRB1*08:03:02     |                           |                       |
| DRB1*01:02:01+DRB1*08:45     | DRB1*01:44+DRB1*08:30:03     |                           |                       |
| DRB1*01:02:01+DRB1*08:47     | DRB1*01:26+DRB1*08:18        |                           |                       |
| DRB1*01:02:01+DRB1*09:01:04  | DRB1*01:02:03+DRB1*09:01:02  |                           |                       |
| DRB1*01:02:01+DRB1*09:01:08  | DRB1*01:02:04+DRB1*09:01:02  |                           |                       |
| DRB1*01:02:01+DRB1*09:02:01  | DRB1*01:02:07+DRB1*09:02:02  |                           |                       |
| DRB1*01:02:01+DRB1*11:01:03  | DRB1*01:02:06+DRB1*11:01:10  |                           |                       |
| DRB1*01:02:01+DRB1*11:01:12  | DRB1*01:02:03+DRB1*11:01:01G |                           |                       |
| DRB1*01:02:01+DRB1*11:02:01  | DRB1*01:44+DRB1*11:48        |                           |                       |
| DRB1*01:02:01+DRB1*11:03     | DRB1*01:44+DRB1*11:41        |                           |                       |
| DRB1*01:02:01+DRB1*11:04:01  | DRB1*01:02:06+DRB1*11:04:03  | DRB1*01:20+DRB1*11:06:02  | DRB1*01:44+DRB1*11:56 |
| DRB1*01:02:01+DRB1*11:04:04  | DRB1*01:02:03+DRB1*11:04:01  |                           |                       |
| DRB1*01:02:01+DRB1*11:06:01G | DRB1*01:02:06+DRB1*11:06:02  |                           |                       |
| DRB1*01:02:01+DRB1*11:12:02  | DRB1*01:02:03+DRB1*11:12:01  |                           |                       |
| DRB1*01:02:01+DRB1*11:27:01  | DRB1*01:11+DRB1*11:06:02     | DRB1*01:35+DRB1*11:01:05  |                       |
| DRB1*01:02:01+DRB1*11:28:02  | DRB1*01:02:03+DRB1*11:28:01  |                           |                       |
| DRB1*01:02:01+DRB1*11:46:01  | DRB1*01:02:03+DRB1*11:46:02  |                           |                       |
| DRB1*01:02:01+DRB1*11:54:02  | DRB1*01:02:06+DRB1*11:54:01  |                           |                       |
| DRB1*01:02:01+DRB1*11:58:01  | DRB1*01:02:03+DRB1*11:58:02  |                           |                       |
| DRB1*01:02:01+DRB1*11:66     | DRB1*01:28+DRB1*11:06:02     |                           |                       |
| DRB1*01:02:01+DRB1*11:84:01  | DRB1*01:04+DRB1*11:06:02     | DRB1*01:35+DRB1*11:04:03  |                       |
| DRB1*01:02:01+DRB1*11:103    | DRB1*01:44+DRB1*11:107       |                           |                       |
| DRB1*01:02:01+DRB1*11:116    | DRB1*01:26+DRB1*11:04:01     |                           |                       |
| DRB1*01:02:01+DRB1*11:120    | DRB1*01:26+DRB1*11:01:01G    | DRB1*01:37+DRB1*11:06:02  |                       |
| DRB1*01:02:01+DRB1*12:01:03  | DRB1*01:02:06+DRB1*12:01:01G |                           |                       |
| DRB1*01:02:01+DRB1*12:02:01  | DRB1*01:44+DRB1*12:21        |                           |                       |
| DRB1*01:02:01+DRB1*12:02:02  | DRB1*01:02:06+DRB1*12:02:01  |                           |                       |
| DRB1*01:02:01+DRB1*12:02:05  | DRB1*01:02:05+DRB1*12:02:01  |                           |                       |
| DRB1*01:02:01+DRB1*12:03:02  | DRB1*01:02:06+DRB1*12:03:03  | DRB1*01:20+DRB1*12:01:01G |                       |
| DRB1*01:02:01+DRB1*12:22     | DRB1*01:11+DRB1*12:01:01G    |                           |                       |
| DRB1*01:02:01+DRB1*13:01:01G | DRB1*01:02:06+DRB1*13:01:03  | DRB1*01:44+DRB1*13:40     |                       |
| DRB1*01:02:01+DRB1*13:01:05  | DRB1*01:02:07+DRB1*13:01:01G |                           |                       |
| DRB1*01:02:01+DRB1*13:01:06  | DRB1*01:02:04+DRB1*13:01:01G |                           |                       |
| DRB1*01:02:01+DRB1*13:01:12  | DRB1*01:02:05+DRB1*13:01:01G |                           |                       |
| DRB1*01:02:01+DRB1*13:02:01  | DRB1*01:44+DRB1*13:36        |                           |                       |
| DRB1*01:02:01+DRB1*13:02:03  | DRB1*01:02:07+DRB1*13:02:01  |                           |                       |
| DRB1*01:02:01+DRB1*13:03:05  | DRB1*01:02:05+DRB1*13:03:01  |                           |                       |
| DRB1*01:02:01+DRB1*13:04     | DRB1*01:44+DRB1*13:48        |                           |                       |
| DRB1*01:02:01+DRB1*13:07:02  | DRB1*01:02:07+DRB1*13:07:01  |                           |                       |
| DRB1*01:02:01+DRB1*13:11:02  | DRB1*01:02:07+DRB1*13:11:01  |                           |                       |
| DRB1*01:02:01+DRB1*13:14:01  | DRB1*01:44+DRB1*13:07:01     |                           |                       |
| DRB1*01:02:01+DRB1*13:14:02  | DRB1*01:02:07+DRB1*13:14:01  | DRB1*01:44+DRB1*13:07:02  |                       |
| DRB1*01:02:01+DRB1*13:15     | DRB1*01:44+DRB1*13:53        |                           |                       |
| DRB1*01:02:01+DRB1*13:17     | DRB1*01:44+DRB1*13:116       |                           |                       |
| DRB1*01:02:01+DRB1*13:21:01  | DRB1*01:44+DRB1*13:49        |                           |                       |
| DRB1*01:02:01+DRB1*13:22     | DRB1*01:44+DRB1*13:70        |                           |                       |
| DRB1*01:02:01+DRB1*13:30     | DRB1*01:44+DRB1*13:12:01     |                           |                       |
| DRB1*01:02:01+DRB1*13:39     | DRB1*01:26+DRB1*13:02:01     |                           |                       |
| DRB1*01:02:01+DRB1*13:50:02  | DRB1*01:02:03+DRB1*13:50:01  |                           |                       |
| DRB1*01:02:01+DRB1*13:57     | DRB1*01:44+DRB1*13:19        |                           |                       |
| DRB1*01:02:01+DRB1*13:61:01  | DRB1*01:35+DRB1*13:01:03     |                           |                       |
| DRB1*01:02:01+DRB1*13:66:01  | DRB1*01:44+DRB1*13:03:02     |                           |                       |
| DRB1*01:02:01+DRB1*13:66:02  | DRB1*01:44+DRB1*13:03:01     |                           |                       |
| DRB1*01:02:01+DRB1*13:78     | DRB1*01:26+DRB1*13:20        |                           |                       |
| DRB1*01:02:01+DRB1*13:79     | DRB1*01:26+DRB1*13:01:01G    |                           |                       |
| DRB1*01:02:01+DRB1*13:83     | DRB1*01:44+DRB1*13:08        |                           |                       |
| DRB1*01:02:01+DRB1*13:93     | DRB1*01:44+DRB1*13:32        |                           |                       |
| DRB1*01:02:01+DRB1*13:97:01  | DRB1*01:02:03+DRB1*13:97:02  |                           |                       |
| DRB1*01:02:01+DRB1*13:100    | DRB1*01:26+DRB1*13:46        |                           |                       |
| DRB1*01:02:01+DRB1*13:139    | DRB1*01:44+DRB1*13:65        |                           |                       |
| DRB1*01:02:01+DRB1*14:01:02  | DRB1*01:02:06+DRB1*14:01:01G | DRB1*01:20+DRB1*14:99     |                       |
| DRB1*01:02:01+DRB1*14:05:01  | DRB1*01:02:04+DRB1*14:05:02  |                           |                       |
| DRB1*01:02:01+DRB1*14:05:03  | DRB1*01:02:06+DRB1*14:05:01  |                           |                       |

|                              |                              |                             |                          |
|------------------------------|------------------------------|-----------------------------|--------------------------|
| DRB1*01:02:01+DRB1*14:17     | DRB1*01:44+DRB1*14:80        |                             |                          |
| DRB1*01:02:01+DRB1*14:23:03  | DRB1*01:02:04+DRB1*14:23:01  |                             |                          |
| DRB1*01:02:01+DRB1*14:30     | DRB1*01:44+DRB1*14:09        |                             |                          |
| DRB1*01:02:01+DRB1*14:32:01  | DRB1*01:02:06+DRB1*14:32:02  |                             |                          |
| DRB1*01:02:01+DRB1*14:35     | DRB1*01:44+DRB1*14:01:01G    |                             |                          |
| DRB1*01:02:01+DRB1*14:38     | DRB1*01:04+DRB1*14:99        | DRB1*01:35+DRB1*14:01:01G   |                          |
| DRB1*01:02:01+DRB1*14:44:02  | DRB1*01:02:06+DRB1*14:44:01  |                             |                          |
| DRB1*01:02:01+DRB1*14:50     | DRB1*01:04+DRB1*14:28        | DRB1*01:35+DRB1*14:04       |                          |
| DRB1*01:02:01+DRB1*14:53     | DRB1*01:44+DRB1*14:25        |                             |                          |
| DRB1*01:02:01+DRB1*14:109    | DRB1*01:26+DRB1*14:19        |                             |                          |
| DRB1*01:02:01+DRB1*14:115    | DRB1*01:26+DRB1*14:03:01     |                             |                          |
| DRB1*01:02:01+DRB1*14:127    | DRB1*01:35+DRB1*14:05:01     |                             |                          |
| DRB1*01:02:01+DRB1*15:01:01G | DRB1*01:02:06+DRB1*15:01:03  | DRB1*01:02:07+DRB1*15:01:04 | DRB1*01:44+DRB1*15:07:01 |
| DRB1*01:02:01+DRB1*15:01:04  | DRB1*01:44+DRB1*15:07:02     |                             |                          |
| DRB1*01:02:01+DRB1*15:01:20  | DRB1*01:02:05+DRB1*15:01:01G |                             |                          |
| DRB1*01:02:01+DRB1*15:02:01  | DRB1*01:02:06+DRB1*15:02:06  | DRB1*01:02:07+DRB1*15:02:02 | DRB1*01:44+DRB1*15:11    |
| DRB1*01:02:01+DRB1*15:02:09  | DRB1*01:02:07+DRB1*15:02:05  |                             |                          |
| DRB1*01:02:01+DRB1*15:07:01  | DRB1*01:02:07+DRB1*15:07:02  |                             |                          |
| DRB1*01:02:01+DRB1*15:09     | DRB1*01:44+DRB1*15:48        |                             |                          |
| DRB1*01:02:01+DRB1*15:27     | DRB1*01:44+DRB1*15:34        |                             |                          |
| DRB1*01:02:01+DRB1*15:38     | DRB1*01:26+DRB1*15:02:02     |                             |                          |
| DRB1*01:02:01+DRB1*15:71     | DRB1*01:26+DRB1*15:01:01G    |                             |                          |
| DRB1*01:02:01+DRB1*16:02:01  | DRB1*01:23+DRB1*15:34        |                             |                          |
| DRB1*01:02:01+DRB1*16:09     | DRB1*01:44+DRB1*16:01:01     |                             |                          |
| DRB1*01:02:01+DRB1*16:10     | DRB1*01:23+DRB1*15:27        | DRB1*01:44+DRB1*16:02:01    |                          |
| DRB1*01:02:03+DRB1*04:35     | DRB1*01:44+DRB1*04:01:03     |                             |                          |
| DRB1*01:02:03+DRB1*09:01:08  | DRB1*01:02:04+DRB1*09:01:04  |                             |                          |
| DRB1*01:02:03+DRB1*11:116    | DRB1*01:26+DRB1*11:04:04     |                             |                          |
| DRB1*01:02:03+DRB1*11:120    | DRB1*01:26+DRB1*11:01:12     |                             |                          |
| DRB1*01:02:04+DRB1*04:03:02  | DRB1*01:02:07+DRB1*04:03:04  |                             |                          |
| DRB1*01:02:04+DRB1*04:04:02  | DRB1*01:02:07+DRB1*04:04:06  |                             |                          |
| DRB1*01:02:04+DRB1*04:06:04  | DRB1*01:02:07+DRB1*04:06:03  |                             |                          |
| DRB1*01:02:04+DRB1*04:42     | DRB1*01:44+DRB1*04:04:06     |                             |                          |
| DRB1*01:02:04+DRB1*04:59     | DRB1*01:44+DRB1*04:03:04     |                             |                          |
| DRB1*01:02:04+DRB1*13:01:05  | DRB1*01:02:07+DRB1*13:01:06  |                             |                          |
| DRB1*01:02:04+DRB1*13:01:12  | DRB1*01:02:05+DRB1*13:01:06  |                             |                          |
| DRB1*01:02:04+DRB1*13:79     | DRB1*01:26+DRB1*13:01:06     |                             |                          |
| DRB1*01:02:04+DRB1*14:54:02  | DRB1*01:02:07+DRB1*14:01:01G |                             |                          |
| DRB1*01:02:05+DRB1*04:28     | DRB1*01:44+DRB1*04:05:10     |                             |                          |
| DRB1*01:02:05+DRB1*12:02:02  | DRB1*01:02:06+DRB1*12:02:05  |                             |                          |
| DRB1*01:02:05+DRB1*13:01:05  | DRB1*01:02:07+DRB1*13:01:12  |                             |                          |
| DRB1*01:02:05+DRB1*13:66:02  | DRB1*01:44+DRB1*13:03:05     |                             |                          |
| DRB1*01:02:05+DRB1*13:79     | DRB1*01:26+DRB1*13:01:12     |                             |                          |
| DRB1*01:02:05+DRB1*15:71     | DRB1*01:26+DRB1*15:01:20     |                             |                          |
| DRB1*01:02:06+DRB1*01:04     | DRB1*01:20+DRB1*01:35        |                             |                          |
| DRB1*01:02:06+DRB1*01:39N    | DRB1*01:40N+DRB1*01:42       |                             |                          |
| DRB1*01:02:06+DRB1*03:01:01G | DRB1*01:20+DRB1*03:20        |                             |                          |
| DRB1*01:02:06+DRB1*03:01:02  | DRB1*01:35+DRB1*03:15        |                             |                          |
| DRB1*01:02:06+DRB1*03:02:01  | DRB1*01:16+DRB1*14:29        |                             |                          |
| DRB1*01:02:06+DRB1*03:05:03  | DRB1*01:35+DRB1*03:14        |                             |                          |
| DRB1*01:02:06+DRB1*04:02:01  | DRB1*01:42+DRB1*04:04:01     |                             |                          |
| DRB1*01:02:06+DRB1*04:03:01  | DRB1*01:20+DRB1*04:27        |                             |                          |
| DRB1*01:02:06+DRB1*04:14     | DRB1*01:42+DRB1*04:08:01     |                             |                          |
| DRB1*01:02:06+DRB1*04:44     | DRB1*01:35+DRB1*04:04:01     |                             |                          |
| DRB1*01:02:06+DRB1*04:72:02  | DRB1*01:35+DRB1*04:01:01     |                             |                          |
| DRB1*01:02:06+DRB1*04:74     | DRB1*01:11+DRB1*04:27        | DRB1*01:35+DRB1*04:07:01G   |                          |
| DRB1*01:02:06+DRB1*04:95     | DRB1*01:04+DRB1*04:27        | DRB1*01:35+DRB1*04:03:01    |                          |
| DRB1*01:02:06+DRB1*04:106    | DRB1*01:42+DRB1*04:05:01     |                             |                          |
| DRB1*01:02:06+DRB1*07:04     | DRB1*01:35+DRB1*07:11        |                             |                          |
| DRB1*01:02:06+DRB1*08:10     | DRB1*01:20+DRB1*08:12        |                             |                          |
| DRB1*01:02:06+DRB1*08:17     | DRB1*01:18+DRB1*08:22        |                             |                          |
| DRB1*01:02:06+DRB1*08:23     | DRB1*01:05+DRB1*08:12        |                             |                          |
| DRB1*01:02:06+DRB1*08:37     | DRB1*01:18+DRB1*08:12        |                             |                          |
| DRB1*01:02:06+DRB1*11:02:01  | DRB1*01:20+DRB1*11:21        | DRB1*01:42+DRB1*11:34       |                          |
| DRB1*01:02:06+DRB1*11:04:01  | DRB1*01:20+DRB1*11:06:01G    |                             |                          |
| DRB1*01:02:06+DRB1*11:04:05  | DRB1*01:20+DRB1*11:06:03     |                             |                          |
| DRB1*01:02:06+DRB1*11:19:01  | DRB1*01:24+DRB1*11:57        |                             |                          |
| DRB1*01:02:06+DRB1*11:27:01  | DRB1*01:11+DRB1*11:06:01G    | DRB1*01:35+DRB1*11:01:01G   |                          |
| DRB1*01:02:06+DRB1*11:42     | DRB1*01:20+DRB1*11:57        |                             |                          |
| DRB1*01:02:06+DRB1*11:66     | DRB1*01:28+DRB1*11:06:01G    |                             |                          |
| DRB1*01:02:06+DRB1*11:84:01  | DRB1*01:04+DRB1*11:06:01G    | DRB1*01:35+DRB1*11:04:01    |                          |
| DRB1*01:02:06+DRB1*11:120    | DRB1*01:37+DRB1*11:06:01G    |                             |                          |
| DRB1*01:02:06+DRB1*11:124    | DRB1*01:04+DRB1*11:21        | DRB1*01:35+DRB1*11:02:01    |                          |
| DRB1*01:02:06+DRB1*12:03:02  | DRB1*01:20+DRB1*12:01:03     |                             |                          |
| DRB1*01:02:06+DRB1*12:19     | DRB1*01:20+DRB1*12:02:01     |                             |                          |
| DRB1*01:02:06+DRB1*12:22     | DRB1*01:11+DRB1*12:01:03     |                             |                          |
| DRB1*01:02:06+DRB1*13:01:01G | DRB1*01:42+DRB1*14:17        |                             |                          |
| DRB1*01:02:06+DRB1*13:02:01  | DRB1*01:42+DRB1*14:30        |                             |                          |
| DRB1*01:02:06+DRB1*13:19     | DRB1*01:42+DRB1*14:20        |                             |                          |
| DRB1*01:02:06+DRB1*13:22     | DRB1*01:42+DRB1*13:44        |                             |                          |
| DRB1*01:02:06+DRB1*13:30     | DRB1*01:18+DRB1*13:58        |                             |                          |
| DRB1*01:02:06+DRB1*13:33:02  | DRB1*01:11+DRB1*13:81        | DRB1*01:35+DRB1*13:03:02    |                          |
| DRB1*01:02:06+DRB1*13:33:03  | DRB1*01:35+DRB1*13:03:01     |                             |                          |
| DRB1*01:02:06+DRB1*13:36     | DRB1*01:42+DRB1*14:09        |                             |                          |
| DRB1*01:02:06+DRB1*13:40     | DRB1*01:42+DRB1*14:80        |                             |                          |
| DRB1*01:02:06+DRB1*13:53     | DRB1*01:42+DRB1*14:06:01     |                             |                          |
| DRB1*01:02:06+DRB1*13:61:01  | DRB1*01:35+DRB1*13:01:01G    |                             |                          |
| DRB1*01:02:06+DRB1*13:66:01  | DRB1*01:18+DRB1*13:81        |                             |                          |
| DRB1*01:02:06+DRB1*13:96:02  | DRB1*01:35+DRB1*13:02:01     |                             |                          |
| DRB1*01:02:06+DRB1*14:04     | DRB1*01:20+DRB1*14:28        |                             |                          |
| DRB1*01:02:06+DRB1*14:06:01  | DRB1*01:20+DRB1*14:29        |                             |                          |
| DRB1*01:02:06+DRB1*14:19     | DRB1*01:10+DRB1*14:29        |                             |                          |
| DRB1*01:02:06+DRB1*14:24     | DRB1*01:15+DRB1*14:29        |                             |                          |
| DRB1*01:02:06+DRB1*14:35     | DRB1*01:44+DRB1*14:01:02     |                             |                          |
| DRB1*01:02:06+DRB1*14:38     | DRB1*01:35+DRB1*14:01:02     |                             |                          |
| DRB1*01:02:06+DRB1*14:47     | DRB1*01:11+DRB1*14:29        | DRB1*01:35+DRB1*14:02       |                          |
| DRB1*01:02:06+DRB1*14:51     | DRB1*01:17+DRB1*14:29        |                             |                          |
| DRB1*01:02:06+DRB1*14:98     | DRB1*01:35+DRB1*14:03:01     |                             |                          |
| DRB1*01:02:06+DRB1*14:127    | DRB1*01:35+DRB1*14:05:03     |                             |                          |
| DRB1*01:02:06+DRB1*15:01:01G | DRB1*01:20+DRB1*15:35        |                             |                          |
| DRB1*01:02:06+DRB1*15:10     | DRB1*01:42+DRB1*15:66        |                             |                          |
| DRB1*01:02:06+DRB1*15:57     | DRB1*01:35+DRB1*15:03:01G    |                             |                          |
| DRB1*01:02:07+DRB1*03:13:01  | DRB1*01:26+DRB1*03:01:12     |                             |                          |
| DRB1*01:02:07+DRB1*04:42     | DRB1*01:44+DRB1*04:04:02     |                             |                          |
| DRB1*01:02:07+DRB1*04:43     | DRB1*01:44+DRB1*04:08:02     |                             |                          |

|                           |                            |                          |                          |
|---------------------------|----------------------------|--------------------------|--------------------------|
| DRB1*01:02:07+DRB1*04:59  | DRB1*01:44+DRB1*04:03:02   |                          |                          |
| DRB1*01:02:07+DRB1*08:28  | DRB1*01:44+DRB1*08:04:06   |                          |                          |
| DRB1*01:02:07+DRB1*13:39  | DRB1*01:26+DRB1*13:02:03   |                          |                          |
| DRB1*01:02:07+DRB1*13:79  | DRB1*01:26+DRB1*13:01:05   |                          |                          |
| DRB1*01:02:07+DRB1*15:38  | DRB1*01:26+DRB1*15:02:01   |                          |                          |
| DRB1*01:02:07+DRB1*15:63  | DRB1*01:26+DRB1*15:31      |                          |                          |
| DRB1*01:03+DRB1*01:35     | DRB1*01:11+DRB1*01:42      |                          |                          |
| DRB1*01:03+DRB1*03:01:01G | DRB1*01:16+DRB1*13:27      |                          |                          |
| DRB1*01:03+DRB1*03:01:14  | DRB1*01:39N+DRB1*03:01:01G |                          |                          |
| DRB1*01:03+DRB1*03:03     | DRB1*01:16+DRB1*13:53      |                          |                          |
| DRB1*01:03+DRB1*03:05:01  | DRB1*01:16+DRB1*13:41      |                          |                          |
| DRB1*01:03+DRB1*03:07     | DRB1*01:16+DRB1*13:01:01G  |                          |                          |
| DRB1*01:03+DRB1*03:20     | DRB1*01:42+DRB1*03:05:01   |                          |                          |
| DRB1*01:03+DRB1*03:21     | DRB1*01:16+DRB1*13:83      |                          |                          |
| DRB1*01:03+DRB1*03:29     | DRB1*01:16+DRB1*13:104     |                          |                          |
| DRB1*01:03+DRB1*03:40     | DRB1*01:16+DRB1*13:23:02   |                          |                          |
| DRB1*01:03+DRB1*04:01:01  | DRB1*01:10+DRB1*04:14      |                          |                          |
| DRB1*01:03+DRB1*04:03:01  | DRB1*01:17+DRB1*04:02:01   |                          |                          |
| DRB1*01:03+DRB1*04:03:07  | DRB1*01:17+DRB1*04:02:02   |                          |                          |
| DRB1*01:03+DRB1*04:07:01G | DRB1*01:17+DRB1*04:14      |                          |                          |
| DRB1*01:03+DRB1*04:09     | DRB1*01:10+DRB1*04:106     |                          |                          |
| DRB1*01:03+DRB1*04:10:01  | DRB1*01:20+DRB1*04:106     |                          |                          |
| DRB1*01:03+DRB1*04:13     | DRB1*01:10+DRB1*04:02:01   |                          |                          |
| DRB1*01:03+DRB1*04:17:02  | DRB1*01:17+DRB1*04:106     |                          |                          |
| DRB1*01:03+DRB1*04:22     | DRB1*01:16+DRB1*04:02:01   |                          |                          |
| DRB1*01:03+DRB1*04:24     | DRB1*01:29+DRB1*04:106     |                          |                          |
| DRB1*01:03+DRB1*04:27     | DRB1*01:42+DRB1*04:07:01G  |                          |                          |
| DRB1*01:03+DRB1*04:28     | DRB1*01:18+DRB1*04:106     |                          |                          |
| DRB1*01:03+DRB1*04:29     | DRB1*01:28+DRB1*04:106     |                          |                          |
| DRB1*01:03+DRB1*04:42     | DRB1*01:18+DRB1*04:02:01   |                          |                          |
| DRB1*01:03+DRB1*04:43     | DRB1*01:18+DRB1*04:14      |                          |                          |
| DRB1*01:03+DRB1*04:44     | DRB1*01:04+DRB1*04:14      | DRB1*01:11+DRB1*04:02:01 |                          |
| DRB1*01:03+DRB1*04:56     | DRB1*01:24+DRB1*04:02:01   |                          |                          |
| DRB1*01:03+DRB1*04:90     | DRB1*01:21+DRB1*04:106     |                          |                          |
| DRB1*01:03+DRB1*04:104    | DRB1*01:27+DRB1*04:106     |                          |                          |
| DRB1*01:03+DRB1*04:105:02 | DRB1*01:15+DRB1*04:14      |                          |                          |
| DRB1*01:03+DRB1*04:107    | DRB1*01:24+DRB1*04:106     |                          |                          |
| DRB1*01:03+DRB1*04:122    | DRB1*01:06+DRB1*04:14      | DRB1*01:09+DRB1*04:02:01 | DRB1*01:15+DRB1*04:37    |
| DRB1*01:03+DRB1*08:12     | DRB1*01:42+DRB1*08:03:02   |                          |                          |
| DRB1*01:03+DRB1*08:22     | DRB1*01:42+DRB1*08:01:01G  |                          |                          |
| DRB1*01:03+DRB1*11:06:01G | DRB1*01:42+DRB1*11:01:01G  |                          |                          |
| DRB1*01:03+DRB1*11:06:02  | DRB1*01:42+DRB1*11:01:05   |                          |                          |
| DRB1*01:03+DRB1*11:06:03  | DRB1*01:42+DRB1*11:01:04   |                          |                          |
| DRB1*01:03+DRB1*11:07     | DRB1*01:16+DRB1*11:02:01   |                          |                          |
| DRB1*01:03+DRB1*11:21     | DRB1*01:42+DRB1*11:14:01   |                          |                          |
| DRB1*01:03+DRB1*11:47     | DRB1*01:42+DRB1*11:29      |                          |                          |
| DRB1*01:03+DRB1*11:57     | DRB1*01:42+DRB1*11:08:01   |                          |                          |
| DRB1*01:03+DRB1*11:59     | DRB1*01:15+DRB1*11:11:01G  |                          |                          |
| DRB1*01:03+DRB1*11:79     | DRB1*01:10+DRB1*11:14:01   |                          |                          |
| DRB1*01:03+DRB1*11:82     | DRB1*01:15+DRB1*11:14:01   |                          |                          |
| DRB1*01:03+DRB1*11:103    | DRB1*01:16+DRB1*11:14:01   |                          |                          |
| DRB1*01:03+DRB1*13:09     | DRB1*01:15+DRB1*13:01:01G  |                          |                          |
| DRB1*01:03+DRB1*13:58     | DRB1*01:42+DRB1*13:12:01   |                          |                          |
| DRB1*01:03+DRB1*13:81     | DRB1*01:42+DRB1*13:03:02   |                          |                          |
| DRB1*01:03+DRB1*13:129    | DRB1*01:15+DRB1*13:27      |                          |                          |
| DRB1*01:03+DRB1*14:21     | DRB1*01:10+DRB1*13:01:01G  |                          |                          |
| DRB1*01:03+DRB1*14:23:01  | DRB1*01:29+DRB1*13:76      |                          |                          |
| DRB1*01:03+DRB1*14:28     | DRB1*01:42+DRB1*14:68      |                          |                          |
| DRB1*01:03+DRB1*14:29     | DRB1*01:42+DRB1*14:02      |                          |                          |
| DRB1*01:03+DRB1*14:32:01  | DRB1*01:29+DRB1*14:16      |                          |                          |
| DRB1*01:03+DRB1*14:33     | DRB1*01:17+DRB1*13:01:01G  |                          |                          |
| DRB1*01:03+DRB1*14:37     | DRB1*01:15+DRB1*13:72      |                          |                          |
| DRB1*01:03+DRB1*14:81     | DRB1*01:29+DRB1*13:53      |                          |                          |
| DRB1*01:03+DRB1*14:99     | DRB1*01:42+DRB1*14:07:01   |                          |                          |
| DRB1*01:03+DRB1*14:106    | DRB1*01:17+DRB1*13:53      |                          |                          |
| DRB1*01:03+DRB1*15:01:01G | DRB1*01:15+DRB1*15:10      |                          |                          |
| DRB1*01:03+DRB1*15:05     | DRB1*01:09+DRB1*15:10      |                          |                          |
| DRB1*01:03+DRB1*15:25     | DRB1*01:16+DRB1*15:10      |                          |                          |
| DRB1*01:03+DRB1*15:35     | DRB1*01:42+DRB1*15:02:01   |                          |                          |
| DRB1*01:04+DRB1*01:09     | DRB1*01:06+DRB1*01:11      |                          |                          |
| DRB1*01:04+DRB1*03:02:01  | DRB1*01:11+DRB1*03:03      |                          |                          |
| DRB1*01:04+DRB1*03:05:01  | DRB1*01:11+DRB1*03:01:01G  |                          |                          |
| DRB1*01:04+DRB1*03:05:02  | DRB1*01:11+DRB1*03:01:11   |                          |                          |
| DRB1*01:04+DRB1*03:05:03  | DRB1*01:11+DRB1*03:01:02   |                          |                          |
| DRB1*01:04+DRB1*03:09     | DRB1*01:11+DRB1*03:23      |                          |                          |
| DRB1*01:04+DRB1*03:15     | DRB1*01:20+DRB1*03:01:02   |                          |                          |
| DRB1*01:04+DRB1*03:20     | DRB1*01:35+DRB1*03:01:01G  |                          |                          |
| DRB1*01:04+DRB1*04:01:01  | DRB1*01:10+DRB1*04:44      | DRB1*01:11+DRB1*04:13    | DRB1*01:20+DRB1*04:72:02 |
| DRB1*01:04+DRB1*04:03:01  | DRB1*01:20+DRB1*04:95      |                          |                          |
| DRB1*01:04+DRB1*04:04:01  | DRB1*01:20+DRB1*04:44      |                          |                          |
| DRB1*01:04+DRB1*04:05:01  | DRB1*01:11+DRB1*04:10:01   |                          |                          |
| DRB1*01:04+DRB1*04:07:04  | DRB1*01:11+DRB1*04:03:08   |                          |                          |
| DRB1*01:04+DRB1*04:09     | DRB1*01:11+DRB1*04:67      |                          |                          |
| DRB1*01:04+DRB1*04:17:02  | DRB1*01:11+DRB1*04:11:01   |                          |                          |
| DRB1*01:04+DRB1*04:19     | DRB1*01:11+DRB1*04:68      |                          |                          |
| DRB1*01:04+DRB1*04:20     | DRB1*01:11+DRB1*04:06:01G  |                          |                          |
| DRB1*01:04+DRB1*04:31     | DRB1*01:11+DRB1*04:55      |                          |                          |
| DRB1*01:04+DRB1*04:43     | DRB1*01:11+DRB1*04:42      | DRB1*01:18+DRB1*04:44    |                          |
| DRB1*01:04+DRB1*04:74     | DRB1*01:11+DRB1*04:95      |                          |                          |
| DRB1*01:04+DRB1*04:86     | DRB1*01:11+DRB1*04:12      |                          |                          |
| DRB1*01:04+DRB1*04:102    | DRB1*01:11+DRB1*04:41      |                          |                          |
| DRB1*01:04+DRB1*04:105:01 | DRB1*01:11+DRB1*04:73      |                          |                          |
| DRB1*01:04+DRB1*04:105:02 | DRB1*01:15+DRB1*04:44      |                          |                          |
| DRB1*01:04+DRB1*04:122    | DRB1*01:06+DRB1*04:44      |                          |                          |
| DRB1*01:04+DRB1*07:11     | DRB1*01:20+DRB1*07:04      |                          |                          |
| DRB1*01:04+DRB1*08:01:05  | DRB1*01:11+DRB1*08:06      |                          |                          |
| DRB1*01:04+DRB1*08:02:01  | DRB1*01:11+DRB1*08:04:04   |                          |                          |
| DRB1*01:04+DRB1*08:02:02  | DRB1*01:11+DRB1*08:04:01   |                          |                          |
| DRB1*01:04+DRB1*08:03:02  | DRB1*01:11+DRB1*08:10      |                          |                          |
| DRB1*01:04+DRB1*08:12     | DRB1*01:35+DRB1*08:10      |                          |                          |
| DRB1*01:04+DRB1*08:41     | DRB1*01:11+DRB1*08:31      |                          |                          |
| DRB1*01:04+DRB1*09:01:02  | DRB1*01:11+DRB1*09:06      |                          |                          |
| DRB1*01:04+DRB1*10:01:01  | DRB1*01:11+DRB1*10:02      |                          |                          |
| DRB1*01:04+DRB1*11:01:03  | DRB1*01:11+DRB1*11:04:07   |                          |                          |
| DRB1*01:04+DRB1*11:01:04  | DRB1*01:11+DRB1*11:04:05   |                          |                          |



|                           |                           |                          |
|---------------------------|---------------------------|--------------------------|
| DRB1*01:04+DRB1*11:01:05  | DRB1*01:11+DRB1*11:04:03  |                          |
| DRB1*01:04+DRB1*11:01:12  | DRB1*01:11+DRB1*11:04:04  |                          |
| DRB1*01:04+DRB1*11:02:01  | DRB1*01:20+DRB1*11:124    |                          |
| DRB1*01:04+DRB1*11:04:01  | DRB1*01:20+DRB1*11:84:01  |                          |
| DRB1*01:04+DRB1*11:06:03  | DRB1*01:35+DRB1*11:04:05  |                          |
| DRB1*01:04+DRB1*11:08:01  | DRB1*01:11+DRB1*11:42     |                          |
| DRB1*01:04+DRB1*11:09     | DRB1*01:11+DRB1*11:113    |                          |
| DRB1*01:04+DRB1*11:11:01G | DRB1*01:11+DRB1*11:03     |                          |
| DRB1*01:04+DRB1*11:19:01  | DRB1*01:11+DRB1*11:18     |                          |
| DRB1*01:04+DRB1*11:20     | DRB1*01:11+DRB1*11:16     |                          |
| DRB1*01:04+DRB1*11:26     | DRB1*01:11+DRB1*11:34     |                          |
| DRB1*01:04+DRB1*11:27:01  | DRB1*01:11+DRB1*11:84:01  |                          |
| DRB1*01:04+DRB1*11:27:02  | DRB1*01:11+DRB1*11:84:02  |                          |
| DRB1*01:04+DRB1*11:28:01  | DRB1*01:11+DRB1*11:58:02  |                          |
| DRB1*01:04+DRB1*11:28:02  | DRB1*01:11+DRB1*11:58:01  |                          |
| DRB1*01:04+DRB1*11:33     | DRB1*01:11+DRB1*11:35     |                          |
| DRB1*01:04+DRB1*11:37:01  | DRB1*01:11+DRB1*11:56     |                          |
| DRB1*01:04+DRB1*11:39     | DRB1*01:11+DRB1*11:43     |                          |
| DRB1*01:04+DRB1*11:45     | DRB1*01:11+DRB1*11:119    |                          |
| DRB1*01:04+DRB1*11:49:01  | DRB1*01:11+DRB1*11:44     |                          |
| DRB1*01:04+DRB1*11:57     | DRB1*01:35+DRB1*11:42     |                          |
| DRB1*01:04+DRB1*11:62     | DRB1*01:11+DRB1*11:46:02  |                          |
| DRB1*01:04+DRB1*11:66     | DRB1*01:28+DRB1*11:84:01  |                          |
| DRB1*01:04+DRB1*11:68     | DRB1*01:11+DRB1*11:36     |                          |
| DRB1*01:04+DRB1*11:103    | DRB1*01:11+DRB1*11:07     |                          |
| DRB1*01:04+DRB1*11:109    | DRB1*01:11+DRB1*11:60     |                          |
| DRB1*01:04+DRB1*11:120    | DRB1*01:11+DRB1*11:116    | DRB1*01:37+DRB1*11:84:01 |
| DRB1*01:04+DRB1*11:122    | DRB1*01:11+DRB1*11:40     |                          |
| DRB1*01:04+DRB1*12:01:01G | DRB1*01:35+DRB1*12:03:03  |                          |
| DRB1*01:04+DRB1*12:01:03  | DRB1*01:35+DRB1*12:03:02  |                          |
| DRB1*01:04+DRB1*12:02:01  | DRB1*01:35+DRB1*12:19     |                          |
| DRB1*01:04+DRB1*13:01:01G | DRB1*01:20+DRB1*13:61:01  |                          |
| DRB1*01:04+DRB1*13:03:01  | DRB1*01:11+DRB1*13:89     | DRB1*01:20+DRB1*13:33:03 |
| DRB1*01:04+DRB1*13:03:02  | DRB1*01:20+DRB1*13:33:02  |                          |
| DRB1*01:04+DRB1*13:05:01  | DRB1*01:11+DRB1*13:42     |                          |
| DRB1*01:04+DRB1*13:14:01  | DRB1*01:11+DRB1*13:11:01  |                          |
| DRB1*01:04+DRB1*13:14:02  | DRB1*01:11+DRB1*13:11:02  |                          |
| DRB1*01:04+DRB1*13:23:02  | DRB1*01:11+DRB1*13:22     |                          |
| DRB1*01:04+DRB1*13:29     | DRB1*01:11+DRB1*13:20     |                          |
| DRB1*01:04+DRB1*13:36     | DRB1*01:11+DRB1*13:40     |                          |
| DRB1*01:04+DRB1*13:39     | DRB1*01:11+DRB1*13:79     | DRB1*01:37+DRB1*13:61:01 |
| DRB1*01:04+DRB1*13:41     | DRB1*01:11+DRB1*13:27     |                          |
| DRB1*01:04+DRB1*13:49     | DRB1*01:11+DRB1*13:108    |                          |
| DRB1*01:04+DRB1*13:63     | DRB1*01:11+DRB1*13:111    |                          |
| DRB1*01:04+DRB1*13:65     | DRB1*01:11+DRB1*13:32     |                          |
| DRB1*01:04+DRB1*13:96:01  | DRB1*01:11+DRB1*13:61:02  |                          |
| DRB1*01:04+DRB1*13:96:02  | DRB1*01:11+DRB1*13:61:01  |                          |
| DRB1*01:04+DRB1*13:97:01  | DRB1*01:11+DRB1*13:52     |                          |
| DRB1*01:04+DRB1*13:104    | DRB1*01:11+DRB1*13:15     |                          |
| DRB1*01:04+DRB1*13:107    | DRB1*01:11+DRB1*13:83     |                          |
| DRB1*01:04+DRB1*13:128    | DRB1*01:11+DRB1*13:112    |                          |
| DRB1*01:04+DRB1*13:139    | DRB1*01:11+DRB1*13:93     |                          |
| DRB1*01:04+DRB1*14:01:02  | DRB1*01:20+DRB1*14:38     |                          |
| DRB1*01:04+DRB1*14:02     | DRB1*01:11+DRB1*14:06:01  | DRB1*01:20+DRB1*14:47    |
| DRB1*01:04+DRB1*14:03:01  | DRB1*01:11+DRB1*14:12:01  | DRB1*01:20+DRB1*14:98    |
| DRB1*01:04+DRB1*14:05:03  | DRB1*01:20+DRB1*14:127    |                          |
| DRB1*01:04+DRB1*14:07:01  | DRB1*01:11+DRB1*14:01:01G |                          |
| DRB1*01:04+DRB1*14:09     | DRB1*01:11+DRB1*14:80     |                          |
| DRB1*01:04+DRB1*14:14     | DRB1*01:11+DRB1*14:23:01  |                          |
| DRB1*01:04+DRB1*14:29     | DRB1*01:35+DRB1*14:06:01  |                          |
| DRB1*01:04+DRB1*14:30     | DRB1*01:11+DRB1*14:17     |                          |
| DRB1*01:04+DRB1*14:44:01  | DRB1*01:11+DRB1*14:05:01  |                          |
| DRB1*01:04+DRB1*14:51     | DRB1*01:11+DRB1*14:106    |                          |
| DRB1*01:04+DRB1*14:63     | DRB1*01:11+DRB1*14:78     |                          |
| DRB1*01:04+DRB1*14:68     | DRB1*01:11+DRB1*14:04     |                          |
| DRB1*01:04+DRB1*15:02:01  | DRB1*01:11+DRB1*15:01:01G |                          |
| DRB1*01:04+DRB1*15:02:02  | DRB1*01:11+DRB1*15:01:04  |                          |
| DRB1*01:04+DRB1*15:02:04  | DRB1*01:11+DRB1*15:01:09  |                          |
| DRB1*01:04+DRB1*15:02:06  | DRB1*01:11+DRB1*15:01:03  |                          |
| DRB1*01:04+DRB1*15:02:08  | DRB1*01:11+DRB1*15:01:10  |                          |
| DRB1*01:04+DRB1*15:03:01G | DRB1*01:20+DRB1*15:57     |                          |
| DRB1*01:04+DRB1*15:11     | DRB1*01:11+DRB1*15:07:01  |                          |
| DRB1*01:04+DRB1*15:15     | DRB1*01:11+DRB1*15:04     |                          |
| DRB1*01:04+DRB1*15:27     | DRB1*01:11+DRB1*15:66     |                          |
| DRB1*01:04+DRB1*15:31     | DRB1*01:11+DRB1*15:05     |                          |
| DRB1*01:04+DRB1*15:35     | DRB1*01:35+DRB1*15:01:01G |                          |
| DRB1*01:04+DRB1*15:47     | DRB1*01:11+DRB1*15:65     |                          |
| DRB1*01:04+DRB1*16:01:01  | DRB1*01:11+DRB1*16:15     |                          |
| DRB1*01:05+DRB1*08:10     | DRB1*01:20+DRB1*08:23     |                          |
| DRB1*01:05+DRB1*08:37     | DRB1*01:18+DRB1*08:23     |                          |
| DRB1*01:05+DRB1*14:35     | DRB1*01:18+DRB1*14:60     |                          |
| DRB1*01:05+DRB1*14:112    | DRB1*01:27+DRB1*14:60     |                          |
| DRB1*01:05+DRB1*14:122    | DRB1*01:24+DRB1*14:60     |                          |
| DRB1*01:05+DRB1*15:09     | DRB1*01:31+DRB1*15:16     |                          |
| DRB1*01:05+DRB1*15:20     | DRB1*01:32+DRB1*15:16     |                          |
| DRB1*01:05+DRB1*15:59     | DRB1*01:47+DRB1*15:16     |                          |
| DRB1*01:05+DRB1*15:71     | DRB1*01:37+DRB1*15:16     |                          |
| DRB1*01:05+DRB1*15:72     | DRB1*01:41+DRB1*15:16     |                          |
| DRB1*01:06+DRB1*01:24     | DRB1*01:15+DRB1*01:20     |                          |
| DRB1*01:06+DRB1*03:02:01  | DRB1*01:09+DRB1*03:03     |                          |
| DRB1*01:06+DRB1*03:05:01  | DRB1*01:09+DRB1*03:01:01G |                          |
| DRB1*01:06+DRB1*03:05:02  | DRB1*01:09+DRB1*03:01:11  |                          |
| DRB1*01:06+DRB1*03:05:03  | DRB1*01:09+DRB1*03:01:02  |                          |
| DRB1*01:06+DRB1*03:09     | DRB1*01:09+DRB1*03:23     |                          |
| DRB1*01:06+DRB1*03:14     | DRB1*01:09+DRB1*03:15     |                          |
| DRB1*01:06+DRB1*04:01:01  | DRB1*01:09+DRB1*04:13     | DRB1*01:10+DRB1*04:122   |
| DRB1*01:06+DRB1*04:04:01  | DRB1*01:20+DRB1*04:122    |                          |
| DRB1*01:06+DRB1*04:05:01  | DRB1*01:09+DRB1*04:10:01  |                          |
| DRB1*01:06+DRB1*04:07:01G | DRB1*01:09+DRB1*04:03:01  | DRB1*01:17+DRB1*04:122   |
| DRB1*01:06+DRB1*04:07:04  | DRB1*01:09+DRB1*04:03:08  |                          |
| DRB1*01:06+DRB1*04:09     | DRB1*01:09+DRB1*04:67     |                          |
| DRB1*01:06+DRB1*04:17:02  | DRB1*01:09+DRB1*04:11:01  |                          |
| DRB1*01:06+DRB1*04:19     | DRB1*01:09+DRB1*04:68     |                          |
| DRB1*01:06+DRB1*04:20     | DRB1*01:09+DRB1*04:06:01G |                          |
| DRB1*01:06+DRB1*04:31     | DRB1*01:09+DRB1*04:55     |                          |

|                           |                           |                           |
|---------------------------|---------------------------|---------------------------|
| DRB1*01:06+DRB1*04:38     | DRB1*01:15+DRB1*04:13     |                           |
| DRB1*01:06+DRB1*04:43     | DRB1*01:09+DRB1*04:42     | DRB1*01:18+DRB1*04:122    |
| DRB1*01:06+DRB1*04:74     | DRB1*01:09+DRB1*04:95     |                           |
| DRB1*01:06+DRB1*04:86     | DRB1*01:09+DRB1*04:12     |                           |
| DRB1*01:06+DRB1*04:102    | DRB1*01:09+DRB1*04:41     |                           |
| DRB1*01:06+DRB1*04:105:01 | DRB1*01:09+DRB1*04:73     |                           |
| DRB1*01:06+DRB1*04:105:02 | DRB1*01:15+DRB1*04:122    |                           |
| DRB1*01:06+DRB1*04:107    | DRB1*01:15+DRB1*04:10:01  |                           |
| DRB1*01:06+DRB1*08:01:05  | DRB1*01:09+DRB1*08:06     |                           |
| DRB1*01:06+DRB1*08:02:01  | DRB1*01:09+DRB1*08:04:04  |                           |
| DRB1*01:06+DRB1*08:02:02  | DRB1*01:09+DRB1*08:04:01  |                           |
| DRB1*01:06+DRB1*08:03:02  | DRB1*01:09+DRB1*08:10     |                           |
| DRB1*01:06+DRB1*08:41     | DRB1*01:09+DRB1*08:31     |                           |
| DRB1*01:06+DRB1*09:01:02  | DRB1*01:09+DRB1*09:06     |                           |
| DRB1*01:06+DRB1*10:01:01  | DRB1*01:09+DRB1*10:02     |                           |
| DRB1*01:06+DRB1*11:01:01G | DRB1*01:09+DRB1*11:04:01  |                           |
| DRB1*01:06+DRB1*11:01:02  | DRB1*01:09+DRB1*11:04:02  |                           |
| DRB1*01:06+DRB1*11:01:03  | DRB1*01:09+DRB1*11:04:07  |                           |
| DRB1*01:06+DRB1*11:01:04  | DRB1*01:09+DRB1*11:04:05  |                           |
| DRB1*01:06+DRB1*11:01:05  | DRB1*01:09+DRB1*11:04:03  |                           |
| DRB1*01:06+DRB1*11:01:12  | DRB1*01:09+DRB1*11:04:04  |                           |
| DRB1*01:06+DRB1*11:08:01  | DRB1*01:09+DRB1*11:42     |                           |
| DRB1*01:06+DRB1*11:09     | DRB1*01:09+DRB1*11:113    |                           |
| DRB1*01:06+DRB1*11:11:01G | DRB1*01:09+DRB1*11:03     |                           |
| DRB1*01:06+DRB1*11:14:01  | DRB1*01:09+DRB1*11:02:01  | DRB1*01:15+DRB1*11:36     |
| DRB1*01:06+DRB1*11:19:01  | DRB1*01:09+DRB1*11:18     | DRB1*01:15+DRB1*11:42     |
| DRB1*01:06+DRB1*11:20     | DRB1*01:09+DRB1*11:16     |                           |
| DRB1*01:06+DRB1*11:26     | DRB1*01:09+DRB1*11:34     |                           |
| DRB1*01:06+DRB1*11:27:01  | DRB1*01:09+DRB1*11:84:01  |                           |
| DRB1*01:06+DRB1*11:27:02  | DRB1*01:09+DRB1*11:84:02  |                           |
| DRB1*01:06+DRB1*11:28:01  | DRB1*01:09+DRB1*11:58:02  |                           |
| DRB1*01:06+DRB1*11:28:02  | DRB1*01:09+DRB1*11:58:01  |                           |
| DRB1*01:06+DRB1*11:33     | DRB1*01:09+DRB1*11:35     |                           |
| DRB1*01:06+DRB1*11:37:01  | DRB1*01:09+DRB1*11:56     |                           |
| DRB1*01:06+DRB1*11:39     | DRB1*01:09+DRB1*11:43     |                           |
| DRB1*01:06+DRB1*11:45     | DRB1*01:09+DRB1*11:119    |                           |
| DRB1*01:06+DRB1*11:49:01  | DRB1*01:09+DRB1*11:44     |                           |
| DRB1*01:06+DRB1*11:62     | DRB1*01:09+DRB1*11:46:02  |                           |
| DRB1*01:06+DRB1*11:68     | DRB1*01:09+DRB1*11:36     |                           |
| DRB1*01:06+DRB1*11:103    | DRB1*01:09+DRB1*11:07     |                           |
| DRB1*01:06+DRB1*11:109    | DRB1*01:09+DRB1*11:60     |                           |
| DRB1*01:06+DRB1*11:120    | DRB1*01:09+DRB1*11:116    |                           |
| DRB1*01:06+DRB1*11:122    | DRB1*01:09+DRB1*11:40     |                           |
| DRB1*01:06+DRB1*13:02:01  | DRB1*01:09+DRB1*13:01:01G | DRB1*01:15+DRB1*13:20     |
| DRB1*01:06+DRB1*13:02:03  | DRB1*01:09+DRB1*13:01:05  |                           |
| DRB1*01:06+DRB1*13:03:01  | DRB1*01:09+DRB1*13:89     |                           |
| DRB1*01:06+DRB1*13:05:01  | DRB1*01:09+DRB1*13:42     |                           |
| DRB1*01:06+DRB1*13:14:01  | DRB1*01:09+DRB1*13:11:01  |                           |
| DRB1*01:06+DRB1*13:14:02  | DRB1*01:09+DRB1*13:11:02  |                           |
| DRB1*01:06+DRB1*13:23:02  | DRB1*01:09+DRB1*13:22     |                           |
| DRB1*01:06+DRB1*13:29     | DRB1*01:09+DRB1*13:20     |                           |
| DRB1*01:06+DRB1*13:36     | DRB1*01:09+DRB1*13:40     |                           |
| DRB1*01:06+DRB1*13:39     | DRB1*01:09+DRB1*13:79     | DRB1*01:15+DRB1*13:78     |
| DRB1*01:06+DRB1*13:41     | DRB1*01:09+DRB1*13:27     | DRB1*01:15+DRB1*13:71     |
| DRB1*01:06+DRB1*13:49     | DRB1*01:09+DRB1*13:108    |                           |
| DRB1*01:06+DRB1*13:63     | DRB1*01:09+DRB1*13:111    |                           |
| DRB1*01:06+DRB1*13:65     | DRB1*01:09+DRB1*13:32     |                           |
| DRB1*01:06+DRB1*13:96:01  | DRB1*01:09+DRB1*13:61:02  |                           |
| DRB1*01:06+DRB1*13:96:02  | DRB1*01:09+DRB1*13:61:01  |                           |
| DRB1*01:06+DRB1*13:97:01  | DRB1*01:09+DRB1*13:52     |                           |
| DRB1*01:06+DRB1*13:104    | DRB1*01:09+DRB1*13:15     |                           |
| DRB1*01:06+DRB1*13:107    | DRB1*01:09+DRB1*13:83     |                           |
| DRB1*01:06+DRB1*13:128    | DRB1*01:09+DRB1*13:112    |                           |
| DRB1*01:06+DRB1*13:139    | DRB1*01:09+DRB1*13:93     |                           |
| DRB1*01:06+DRB1*14:02     | DRB1*01:09+DRB1*14:06:01  |                           |
| DRB1*01:06+DRB1*14:03:01  | DRB1*01:09+DRB1*14:12:01  |                           |
| DRB1*01:06+DRB1*14:07:01  | DRB1*01:09+DRB1*14:01:01G |                           |
| DRB1*01:06+DRB1*14:09     | DRB1*01:09+DRB1*14:80     |                           |
| DRB1*01:06+DRB1*14:14     | DRB1*01:09+DRB1*14:23:01  |                           |
| DRB1*01:06+DRB1*14:30     | DRB1*01:09+DRB1*14:17     |                           |
| DRB1*01:06+DRB1*14:44:01  | DRB1*01:09+DRB1*14:05:01  |                           |
| DRB1*01:06+DRB1*14:44:02  | DRB1*01:09+DRB1*14:05:03  |                           |
| DRB1*01:06+DRB1*14:51     | DRB1*01:09+DRB1*14:106    |                           |
| DRB1*01:06+DRB1*14:63     | DRB1*01:09+DRB1*14:78     |                           |
| DRB1*01:06+DRB1*14:67     | DRB1*01:15+DRB1*14:12:01  |                           |
| DRB1*01:06+DRB1*14:68     | DRB1*01:09+DRB1*14:04     |                           |
| DRB1*01:06+DRB1*15:02:01  | DRB1*01:09+DRB1*15:01:01G | DRB1*01:15+DRB1*15:05     |
| DRB1*01:06+DRB1*15:02:02  | DRB1*01:09+DRB1*15:01:04  |                           |
| DRB1*01:06+DRB1*15:02:04  | DRB1*01:09+DRB1*15:01:09  |                           |
| DRB1*01:06+DRB1*15:02:06  | DRB1*01:09+DRB1*15:01:03  |                           |
| DRB1*01:06+DRB1*15:02:08  | DRB1*01:09+DRB1*15:01:10  |                           |
| DRB1*01:06+DRB1*15:11     | DRB1*01:09+DRB1*15:07:01  |                           |
| DRB1*01:06+DRB1*15:15     | DRB1*01:09+DRB1*15:04     |                           |
| DRB1*01:06+DRB1*15:31     | DRB1*01:09+DRB1*15:05     |                           |
| DRB1*01:06+DRB1*15:47     | DRB1*01:09+DRB1*15:65     |                           |
| DRB1*01:06+DRB1*15:54     | DRB1*01:20+DRB1*15:23     |                           |
| DRB1*01:06+DRB1*15:66     | DRB1*01:20+DRB1*15:05     |                           |
| DRB1*01:06+DRB1*16:01:01  | DRB1*01:09+DRB1*16:15     |                           |
| DRB1*01:08+DRB1*04:114    | DRB1*01:10+DRB1*04:03:01  | DRB1*01:17+DRB1*04:13     |
| DRB1*01:09+DRB1*03:19     | DRB1*01:15+DRB1*03:01:01G | DRB1*01:16+DRB1*13:129    |
| DRB1*01:09+DRB1*04:18     | DRB1*01:15+DRB1*04:58     |                           |
| DRB1*01:09+DRB1*04:22     | DRB1*01:16+DRB1*04:122    |                           |
| DRB1*01:09+DRB1*04:38     | DRB1*01:10+DRB1*04:105:02 | DRB1*01:15+DRB1*04:01:01  |
| DRB1*01:09+DRB1*04:44     | DRB1*01:11+DRB1*04:122    |                           |
| DRB1*01:09+DRB1*04:56     | DRB1*01:15+DRB1*04:04:01  | DRB1*01:20+DRB1*04:105:02 |
| DRB1*01:09+DRB1*04:88     | DRB1*01:15+DRB1*04:03:01  | DRB1*01:24+DRB1*04:122    |
| DRB1*01:09+DRB1*04:107    | DRB1*01:15+DRB1*04:05:01  |                           |
| DRB1*01:09+DRB1*08:03:03  | DRB1*01:15+DRB1*08:48     |                           |
| DRB1*01:09+DRB1*08:30:03  | DRB1*01:15+DRB1*08:13     |                           |
| DRB1*01:09+DRB1*11:14:01  | DRB1*01:15+DRB1*11:68     |                           |
| DRB1*01:09+DRB1*11:19:01  | DRB1*01:15+DRB1*11:08:01  |                           |
| DRB1*01:09+DRB1*11:19:03  | DRB1*01:15+DRB1*11:08:02  |                           |
| DRB1*01:09+DRB1*11:45     | DRB1*01:15+DRB1*11:64     |                           |
| DRB1*01:09+DRB1*11:125    | DRB1*01:16+DRB1*11:69     |                           |
| DRB1*01:09+DRB1*12:01:01G | DRB1*01:15+DRB1*12:12     |                           |

|                           |                           |                       |
|---------------------------|---------------------------|-----------------------|
| DRB1*01:09+DRB1*13:02:01  | DRB1*01:15+DRB1*13:29     |                       |
| DRB1*01:09+DRB1*13:03:01  | DRB1*01:15+DRB1*13:88     |                       |
| DRB1*01:09+DRB1*13:12:01  | DRB1*01:15+DRB1*13:134    |                       |
| DRB1*01:09+DRB1*13:82     | DRB1*01:15+DRB1*13:25     |                       |
| DRB1*01:09+DRB1*14:45     | DRB1*01:15+DRB1*14:05:01  |                       |
| DRB1*01:09+DRB1*14:63     | DRB1*01:15+DRB1*14:85     |                       |
| DRB1*01:09+DRB1*14:67     | DRB1*01:15+DRB1*14:03:01  |                       |
| DRB1*01:09+DRB1*14:120    | DRB1*01:15+DRB1*14:04     |                       |
| DRB1*01:09+DRB1*14:122    | DRB1*01:15+DRB1*14:01:01G |                       |
| DRB1*01:09+DRB1*15:02:01  | DRB1*01:15+DRB1*15:31     |                       |
| DRB1*01:09+DRB1*15:03:01G | DRB1*01:15+DRB1*15:23     |                       |
| DRB1*01:09+DRB1*15:06:01  | DRB1*01:15+DRB1*15:73     |                       |
| DRB1*01:09+DRB1*15:25     | DRB1*01:16+DRB1*15:05     |                       |
| DRB1*01:09+DRB1*15:38     | DRB1*01:15+DRB1*15:63     |                       |
| DRB1*01:09+DRB1*16:05:01  | DRB1*01:15+DRB1*16:02:01  |                       |
| DRB1*01:10+DRB1*03:02:01  | DRB1*01:16+DRB1*14:19     |                       |
| DRB1*01:10+DRB1*03:07     | DRB1*01:16+DRB1*14:21     |                       |
| DRB1*01:10+DRB1*04:07:01G | DRB1*01:17+DRB1*04:01:01  |                       |
| DRB1*01:10+DRB1*04:07:03  | DRB1*01:17+DRB1*04:01:08  |                       |
| DRB1*01:10+DRB1*04:11:01  | DRB1*01:17+DRB1*04:67     |                       |
| DRB1*01:10+DRB1*04:17:02  | DRB1*01:17+DRB1*04:09     |                       |
| DRB1*01:10+DRB1*04:20     | DRB1*01:17+DRB1*04:21     |                       |
| DRB1*01:10+DRB1*04:22     | DRB1*01:16+DRB1*04:13     |                       |
| DRB1*01:10+DRB1*04:24     | DRB1*01:29+DRB1*04:09     |                       |
| DRB1*01:10+DRB1*04:28     | DRB1*01:18+DRB1*04:09     |                       |
| DRB1*01:10+DRB1*04:29     | DRB1*01:28+DRB1*04:09     |                       |
| DRB1*01:10+DRB1*04:42     | DRB1*01:18+DRB1*04:13     | DRB1*01:20+DRB1*04:35 |
| DRB1*01:10+DRB1*04:56     | DRB1*01:20+DRB1*04:38     | DRB1*01:24+DRB1*04:13 |
| DRB1*01:10+DRB1*04:68     | DRB1*01:20+DRB1*04:21     |                       |
| DRB1*01:10+DRB1*04:74     | DRB1*01:17+DRB1*04:72:02  |                       |
| DRB1*01:10+DRB1*04:78     | DRB1*01:29+DRB1*04:114    |                       |
| DRB1*01:10+DRB1*04:90     | DRB1*01:21+DRB1*04:09     |                       |
| DRB1*01:10+DRB1*04:102    | DRB1*01:17+DRB1*04:113    |                       |
| DRB1*01:10+DRB1*04:104    | DRB1*01:27+DRB1*04:09     |                       |
| DRB1*01:10+DRB1*04:107    | DRB1*01:24+DRB1*04:09     |                       |
| DRB1*01:10+DRB1*11:04:02  | DRB1*01:20+DRB1*11:93     |                       |
| DRB1*01:10+DRB1*11:21     | DRB1*01:42+DRB1*11:79     |                       |
| DRB1*01:10+DRB1*11:34     | DRB1*01:20+DRB1*11:79     |                       |
| DRB1*01:10+DRB1*11:82     | DRB1*01:15+DRB1*11:79     |                       |
| DRB1*01:10+DRB1*11:103    | DRB1*01:16+DRB1*11:79     |                       |
| DRB1*01:10+DRB1*13:09     | DRB1*01:15+DRB1*14:21     |                       |
| DRB1*01:10+DRB1*14:06:01  | DRB1*01:20+DRB1*14:19     |                       |
| DRB1*01:10+DRB1*14:24     | DRB1*01:15+DRB1*14:19     |                       |
| DRB1*01:10+DRB1*14:33     | DRB1*01:17+DRB1*14:21     |                       |
| DRB1*01:10+DRB1*14:47     | DRB1*01:11+DRB1*14:19     |                       |
| DRB1*01:10+DRB1*14:51     | DRB1*01:17+DRB1*14:19     |                       |
| DRB1*01:10+DRB1*14:104    | DRB1*01:29+DRB1*14:111    |                       |
| DRB1*01:11+DRB1*03:02:01  | DRB1*01:16+DRB1*14:47     |                       |
| DRB1*01:11+DRB1*03:20     | DRB1*01:35+DRB1*03:05:01  |                       |
| DRB1*01:11+DRB1*04:16     | DRB1*01:48+DRB1*04:72:02  |                       |
| DRB1*01:11+DRB1*04:22     | DRB1*01:16+DRB1*04:44     |                       |
| DRB1*01:11+DRB1*04:35     | DRB1*01:18+DRB1*04:72:02  |                       |
| DRB1*01:11+DRB1*04:38     | DRB1*01:24+DRB1*04:72:02  |                       |
| DRB1*01:11+DRB1*04:56     | DRB1*01:24+DRB1*04:44     |                       |
| DRB1*01:11+DRB1*04:59     | DRB1*01:18+DRB1*04:95     |                       |
| DRB1*01:11+DRB1*04:62     | DRB1*01:14+DRB1*04:72:02  |                       |
| DRB1*01:11+DRB1*04:88     | DRB1*01:24+DRB1*04:95     |                       |
| DRB1*01:11+DRB1*04:101    | DRB1*01:29+DRB1*04:95     |                       |
| DRB1*01:11+DRB1*07:01:01G | DRB1*01:21+DRB1*07:04     |                       |
| DRB1*01:11+DRB1*08:12     | DRB1*01:35+DRB1*08:03:02  |                       |
| DRB1*01:11+DRB1*08:22     | DRB1*01:35+DRB1*08:01:01G |                       |
| DRB1*01:11+DRB1*11:06:03  | DRB1*01:35+DRB1*11:01:04  |                       |
| DRB1*01:11+DRB1*11:21     | DRB1*01:35+DRB1*11:14:01  |                       |
| DRB1*01:11+DRB1*11:47     | DRB1*01:35+DRB1*11:29     |                       |
| DRB1*01:11+DRB1*11:54:02  | DRB1*01:17+DRB1*11:84:01  |                       |
| DRB1*01:11+DRB1*11:57     | DRB1*01:35+DRB1*11:08:01  |                       |
| DRB1*01:11+DRB1*11:66     | DRB1*01:28+DRB1*11:27:01  |                       |
| DRB1*01:11+DRB1*11:120    | DRB1*01:37+DRB1*11:27:01  |                       |
| DRB1*01:11+DRB1*12:03:02  | DRB1*01:20+DRB1*12:22     |                       |
| DRB1*01:11+DRB1*13:39     | DRB1*01:37+DRB1*13:96:02  |                       |
| DRB1*01:11+DRB1*13:58     | DRB1*01:35+DRB1*13:12:01  |                       |
| DRB1*01:11+DRB1*13:66:01  | DRB1*01:18+DRB1*13:33:02  |                       |
| DRB1*01:11+DRB1*13:66:02  | DRB1*01:18+DRB1*13:33:03  |                       |
| DRB1*01:11+DRB1*13:90     | DRB1*01:38+DRB1*13:33:03  |                       |
| DRB1*01:11+DRB1*14:24     | DRB1*01:15+DRB1*14:47     |                       |
| DRB1*01:11+DRB1*14:28     | DRB1*01:35+DRB1*14:68     |                       |
| DRB1*01:11+DRB1*14:51     | DRB1*01:17+DRB1*14:47     |                       |
| DRB1*01:11+DRB1*14:67     | DRB1*01:24+DRB1*14:98     |                       |
| DRB1*01:11+DRB1*14:99     | DRB1*01:35+DRB1*14:07:01  |                       |
| DRB1*01:11+DRB1*14:115    | DRB1*01:37+DRB1*14:98     |                       |
| DRB1*01:11+DRB1*15:35     | DRB1*01:35+DRB1*15:02:01  |                       |
| DRB1*01:14+DRB1*03:01:14  | DRB1*01:40N+DRB1*03:10    |                       |
| DRB1*01:14+DRB1*03:13:01  | DRB1*01:37+DRB1*03:10     |                       |
| DRB1*01:14+DRB1*03:19     | DRB1*01:24+DRB1*03:10     |                       |
| DRB1*01:14+DRB1*03:34     | DRB1*01:19+DRB1*03:10     |                       |
| DRB1*01:14+DRB1*03:64     | DRB1*01:48+DRB1*03:10     |                       |
| DRB1*01:14+DRB1*04:13     | DRB1*01:20+DRB1*04:62     |                       |
| DRB1*01:14+DRB1*04:16     | DRB1*01:48+DRB1*04:62     |                       |
| DRB1*01:14+DRB1*04:35     | DRB1*01:18+DRB1*04:62     |                       |
| DRB1*01:14+DRB1*04:38     | DRB1*01:24+DRB1*04:62     |                       |
| DRB1*01:14+DRB1*04:101    | DRB1*01:20+DRB1*04:69     |                       |
| DRB1*01:14+DRB1*08:04:04  | DRB1*01:20+DRB1*08:08     |                       |
| DRB1*01:14+DRB1*08:44     | DRB1*01:28+DRB1*08:08     |                       |
| DRB1*01:14+DRB1*13:01:01G | DRB1*01:24+DRB1*13:43     |                       |
| DRB1*01:14+DRB1*13:11:01  | DRB1*01:20+DRB1*14:53     |                       |
| DRB1*01:14+DRB1*13:25     | DRB1*01:18+DRB1*14:69     |                       |
| DRB1*01:14+DRB1*13:78     | DRB1*01:37+DRB1*13:43     |                       |
| DRB1*01:14+DRB1*13:83     | DRB1*01:18+DRB1*14:16     |                       |
| DRB1*01:14+DRB1*14:20     | DRB1*01:20+DRB1*14:49     |                       |
| DRB1*01:15+DRB1*03:02:01  | DRB1*01:16+DRB1*14:24     |                       |
| DRB1*01:15+DRB1*03:07     | DRB1*01:16+DRB1*13:09     |                       |
| DRB1*01:15+DRB1*04:03:02  | DRB1*01:17+DRB1*04:73     |                       |
| DRB1*01:15+DRB1*04:07:01G | DRB1*01:17+DRB1*04:105:02 |                       |
| DRB1*01:15+DRB1*04:43     | DRB1*01:18+DRB1*04:105:02 |                       |
| DRB1*01:15+DRB1*11:21     | DRB1*01:42+DRB1*11:82     |                       |

|                           |                           |
|---------------------------|---------------------------|
| DRB1*01:15+DRB1*11:34     | DRB1*01:20+DRB1*11:82     |
| DRB1*01:15+DRB1*11:103    | DRB1*01:16+DRB1*11:82     |
| DRB1*01:15+DRB1*14:06:01  | DRB1*01:20+DRB1*14:24     |
| DRB1*01:15+DRB1*14:33     | DRB1*01:17+DRB1*13:09     |
| DRB1*01:15+DRB1*14:51     | DRB1*01:17+DRB1*14:24     |
| DRB1*01:15+DRB1*15:25     | DRB1*01:16+DRB1*15:01:01G |
| DRB1*01:16+DRB1*04:03:01  | DRB1*01:17+DRB1*04:22     |
| DRB1*01:16+DRB1*04:42     | DRB1*01:18+DRB1*04:22     |
| DRB1*01:16+DRB1*04:56     | DRB1*01:24+DRB1*04:22     |
| DRB1*01:16+DRB1*11:21     | DRB1*01:42+DRB1*11:103    |
| DRB1*01:16+DRB1*13:44     | DRB1*01:20+DRB1*03:40     |
| DRB1*01:16+DRB1*14:33     | DRB1*01:17+DRB1*03:07     |
| DRB1*01:16+DRB1*14:51     | DRB1*01:17+DRB1*03:02:01  |
| DRB1*01:16+DRB1*14:81     | DRB1*01:29+DRB1*03:03     |
| DRB1*01:16+DRB1*14:106    | DRB1*01:17+DRB1*03:03     |
| DRB1*01:17+DRB1*04:24     | DRB1*01:29+DRB1*04:17:02  |
| DRB1*01:17+DRB1*04:28     | DRB1*01:18+DRB1*04:17:02  |
| DRB1*01:17+DRB1*04:29     | DRB1*01:28+DRB1*04:17:02  |
| DRB1*01:17+DRB1*04:43     | DRB1*01:18+DRB1*04:07:01G |
| DRB1*01:17+DRB1*04:90     | DRB1*01:21+DRB1*04:17:02  |
| DRB1*01:17+DRB1*04:104    | DRB1*01:27+DRB1*04:17:02  |
| DRB1*01:17+DRB1*04:107    | DRB1*01:24+DRB1*04:17:02  |
| DRB1*01:17+DRB1*08:47     | DRB1*01:37+DRB1*08:29     |
| DRB1*01:17+DRB1*11:13:01G | DRB1*01:18+DRB1*11:17     |
| DRB1*01:17+DRB1*11:116    | DRB1*01:37+DRB1*11:54:02  |
| DRB1*01:17+DRB1*14:81     | DRB1*01:29+DRB1*14:106    |
| DRB1*01:18+DRB1*01:26     | DRB1*01:37+DRB1*01:44     |
| DRB1*01:18+DRB1*03:03     | DRB1*01:20+DRB1*03:29     |
| DRB1*01:18+DRB1*04:10:01  | DRB1*01:20+DRB1*04:28     |
| DRB1*01:18+DRB1*04:16     | DRB1*01:48+DRB1*04:35     |
| DRB1*01:18+DRB1*04:24     | DRB1*01:29+DRB1*04:28     |
| DRB1*01:18+DRB1*04:29     | DRB1*01:28+DRB1*04:28     |
| DRB1*01:18+DRB1*04:38     | DRB1*01:24+DRB1*04:35     |
| DRB1*01:18+DRB1*04:56     | DRB1*01:24+DRB1*04:42     |
| DRB1*01:18+DRB1*04:88     | DRB1*01:24+DRB1*04:59     |
| DRB1*01:18+DRB1*04:90     | DRB1*01:21+DRB1*04:28     |
| DRB1*01:18+DRB1*04:101    | DRB1*01:29+DRB1*04:59     |
| DRB1*01:18+DRB1*04:104    | DRB1*01:27+DRB1*04:28     |
| DRB1*01:18+DRB1*04:107    | DRB1*01:24+DRB1*04:28     |
| DRB1*01:18+DRB1*08:10     | DRB1*01:20+DRB1*08:37     |
| DRB1*01:18+DRB1*11:06:02  | DRB1*01:44+DRB1*11:01:01G |
| DRB1*01:18+DRB1*11:83     | DRB1*01:20+DRB1*11:87     |
| DRB1*01:18+DRB1*11:88     | DRB1*01:31+DRB1*11:04:01  |
| DRB1*01:18+DRB1*12:02:04  | DRB1*01:44+DRB1*12:16:01  |
| DRB1*01:18+DRB1*13:89     | DRB1*01:20+DRB1*13:66:02  |
| DRB1*01:18+DRB1*13:90     | DRB1*01:38+DRB1*13:66:02  |
| DRB1*01:18+DRB1*13:108    | DRB1*01:20+DRB1*13:21:01  |
| DRB1*01:18+DRB1*14:112    | DRB1*01:27+DRB1*14:35     |
| DRB1*01:18+DRB1*14:122    | DRB1*01:24+DRB1*14:35     |
| DRB1*01:18+DRB1*16:05:01  | DRB1*01:24+DRB1*16:10     |
| DRB1*01:18+DRB1*16:15     | DRB1*01:20+DRB1*16:09     |
| DRB1*01:19+DRB1*03:01:14  | DRB1*01:40N+DRB1*03:34    |
| DRB1*01:19+DRB1*03:13:01  | DRB1*01:37+DRB1*03:34     |
| DRB1*01:19+DRB1*03:19     | DRB1*01:24+DRB1*03:34     |
| DRB1*01:19+DRB1*03:64     | DRB1*01:48+DRB1*03:34     |
| DRB1*01:20+DRB1*04:16     | DRB1*01:48+DRB1*04:13     |
| DRB1*01:20+DRB1*04:24     | DRB1*01:29+DRB1*04:10:01  |
| DRB1*01:20+DRB1*04:29     | DRB1*01:28+DRB1*04:10:01  |
| DRB1*01:20+DRB1*04:90     | DRB1*01:21+DRB1*04:10:01  |
| DRB1*01:20+DRB1*04:104    | DRB1*01:27+DRB1*04:10:01  |
| DRB1*01:20+DRB1*04:107    | DRB1*01:24+DRB1*04:10:01  |
| DRB1*01:20+DRB1*08:44     | DRB1*01:28+DRB1*08:04:04  |
| DRB1*01:20+DRB1*09:12     | DRB1*01:22+DRB1*09:06     |
| DRB1*01:20+DRB1*11:66     | DRB1*01:28+DRB1*11:04:01  |
| DRB1*01:20+DRB1*13:90     | DRB1*01:38+DRB1*13:89     |
| DRB1*01:20+DRB1*14:67     | DRB1*01:24+DRB1*14:12:01  |
| DRB1*01:20+DRB1*14:115    | DRB1*01:37+DRB1*14:12:01  |
| DRB1*01:20+DRB1*15:38     | DRB1*01:37+DRB1*15:01:04  |
| DRB1*01:21+DRB1*04:24     | DRB1*01:29+DRB1*04:90     |
| DRB1*01:21+DRB1*04:29     | DRB1*01:28+DRB1*04:90     |
| DRB1*01:21+DRB1*04:104    | DRB1*01:27+DRB1*04:90     |
| DRB1*01:21+DRB1*04:107    | DRB1*01:24+DRB1*04:90     |
| DRB1*01:24+DRB1*03:01:14  | DRB1*01:40N+DRB1*03:19    |
| DRB1*01:24+DRB1*03:13:01  | DRB1*01:37+DRB1*03:19     |
| DRB1*01:24+DRB1*03:64     | DRB1*01:48+DRB1*03:19     |
| DRB1*01:24+DRB1*04:16     | DRB1*01:48+DRB1*04:38     |
| DRB1*01:24+DRB1*04:24     | DRB1*01:29+DRB1*04:107    |
| DRB1*01:24+DRB1*04:29     | DRB1*01:28+DRB1*04:107    |
| DRB1*01:24+DRB1*04:101    | DRB1*01:29+DRB1*04:88     |
| DRB1*01:24+DRB1*04:104    | DRB1*01:27+DRB1*04:107    |
| DRB1*01:24+DRB1*14:112    | DRB1*01:27+DRB1*14:122    |
| DRB1*01:24+DRB1*14:115    | DRB1*01:37+DRB1*14:67     |
| DRB1*01:26+DRB1*12:16:01  | DRB1*01:37+DRB1*12:02:04  |
| DRB1*01:27+DRB1*04:24     | DRB1*01:29+DRB1*04:104    |
| DRB1*01:27+DRB1*04:29     | DRB1*01:28+DRB1*04:104    |
| DRB1*01:28+DRB1*04:24     | DRB1*01:29+DRB1*04:29     |
| DRB1*01:28+DRB1*11:120    | DRB1*01:37+DRB1*11:66     |
| DRB1*01:30+DRB1*12:18     | DRB1*01:48+DRB1*12:33     |
| DRB1*01:31+DRB1*15:20     | DRB1*01:32+DRB1*15:09     |
| DRB1*01:31+DRB1*15:59     | DRB1*01:47+DRB1*15:09     |
| DRB1*01:31+DRB1*15:71     | DRB1*01:37+DRB1*15:09     |
| DRB1*01:31+DRB1*15:72     | DRB1*01:41+DRB1*15:09     |
| DRB1*01:32+DRB1*12:07     | DRB1*01:36+DRB1*12:35     |
| DRB1*01:32+DRB1*15:59     | DRB1*01:47+DRB1*15:20     |
| DRB1*01:32+DRB1*15:71     | DRB1*01:37+DRB1*15:20     |
| DRB1*01:32+DRB1*15:72     | DRB1*01:41+DRB1*15:20     |
| DRB1*01:35+DRB1*04:02:01  | DRB1*01:42+DRB1*04:44     |
| DRB1*01:35+DRB1*14:35     | DRB1*01:44+DRB1*14:38     |
| DRB1*01:37+DRB1*03:01:14  | DRB1*01:40N+DRB1*03:13:01 |
| DRB1*01:37+DRB1*03:64     | DRB1*01:48+DRB1*03:13:01  |
| DRB1*01:37+DRB1*15:59     | DRB1*01:47+DRB1*15:71     |
| DRB1*01:37+DRB1*15:72     | DRB1*01:41+DRB1*15:71     |
| DRB1*01:39N+DRB1*04:04:01 | DRB1*01:40N+DRB1*04:02:01 |
| DRB1*01:39N+DRB1*04:05:01 | DRB1*01:40N+DRB1*04:106   |
| DRB1*01:39N+DRB1*04:08:01 | DRB1*01:40N+DRB1*04:14    |

|                               |                              |                              |                             |
|-------------------------------|------------------------------|------------------------------|-----------------------------|
| DRB1*01:39N+DRB1*11:26        | DRB1*01:40N+DRB1*11:14:01    |                              |                             |
| DRB1*01:39N+DRB1*11:34        | DRB1*01:40N+DRB1*11:02:01    |                              |                             |
| DRB1*01:39N+DRB1*13:44        | DRB1*01:40N+DRB1*13:22       |                              |                             |
| DRB1*01:39N+DRB1*14:06:01     | DRB1*01:40N+DRB1*13:53       |                              |                             |
| DRB1*01:39N+DRB1*14:09        | DRB1*01:40N+DRB1*13:36       |                              |                             |
| DRB1*01:39N+DRB1*14:17        | DRB1*01:40N+DRB1*13:01:01G   |                              |                             |
| DRB1*01:39N+DRB1*14:20        | DRB1*01:40N+DRB1*13:19       |                              |                             |
| DRB1*01:39N+DRB1*14:30        | DRB1*01:40N+DRB1*13:02:01    |                              |                             |
| DRB1*01:39N+DRB1*14:80        | DRB1*01:40N+DRB1*13:40       |                              |                             |
| DRB1*01:39N+DRB1*15:66        | DRB1*01:40N+DRB1*15:10       |                              |                             |
| DRB1*01:40N+DRB1*03:64        | DRB1*01:48+DRB1*03:01:14     |                              |                             |
| DRB1*01:41+DRB1*15:59         | DRB1*01:47+DRB1*15:72        |                              |                             |
| DRB1*03:01:01G+DRB1*03:02:01  | DRB1*03:03+DRB1*03:05:01     | DRB1*03:06+DRB1*03:29        |                             |
| DRB1*03:01:01G+DRB1*03:02:02  | DRB1*03:01:02+DRB1*03:02:01  | DRB1*03:03+DRB1*03:05:03     |                             |
| DRB1*03:01:01G+DRB1*03:04:02  | DRB1*03:01:12+DRB1*03:04:01  |                              |                             |
| DRB1*03:01:01G+DRB1*03:05:02  | DRB1*03:01:11+DRB1*03:05:01  |                              |                             |
| DRB1*03:01:01G+DRB1*03:05:03  | DRB1*03:01:02+DRB1*03:05:01  |                              |                             |
| DRB1*03:01:01G+DRB1*03:09     | DRB1*03:05:01+DRB1*03:23     |                              |                             |
| DRB1*03:01:01G+DRB1*03:13:02  | DRB1*03:01:02+DRB1*03:13:01  |                              |                             |
| DRB1*03:01:01G+DRB1*03:14     | DRB1*03:05:01+DRB1*03:15     |                              |                             |
| DRB1*03:01:01G+DRB1*03:21     | DRB1*03:07+DRB1*03:30        |                              |                             |
| DRB1*03:01:01G+DRB1*03:26     | DRB1*03:06+DRB1*03:33        |                              |                             |
| DRB1*03:01:01G+DRB1*03:27     | DRB1*03:02:02+DRB1*03:11:01  | DRB1*03:03+DRB1*03:81        |                             |
| DRB1*03:01:01G+DRB1*03:31     | DRB1*03:06+DRB1*03:25        |                              |                             |
| DRB1*03:01:01G+DRB1*03:38     | DRB1*03:02:01+DRB1*03:79     |                              |                             |
| DRB1*03:01:01G+DRB1*03:41     | DRB1*03:06+DRB1*03:40        |                              |                             |
| DRB1*03:01:01G+DRB1*03:43     | DRB1*03:30+DRB1*03:71        |                              |                             |
| DRB1*03:01:01G+DRB1*03:44     | DRB1*03:25+DRB1*03:33        |                              |                             |
| DRB1*03:01:01G+DRB1*03:65     | DRB1*03:08+DRB1*03:58        |                              |                             |
| DRB1*03:01:01G+DRB1*03:75     | DRB1*03:31+DRB1*03:52        |                              |                             |
| DRB1*03:01:01G+DRB1*03:80     | DRB1*03:06+DRB1*03:37        |                              |                             |
| DRB1*03:01:01G+DRB1*03:81     | DRB1*03:05:03+DRB1*03:11:01  |                              |                             |
| DRB1*03:01:01G+DRB1*04:01:01  | DRB1*03:05:01+DRB1*04:13     | DRB1*03:06+DRB1*04:35        | DRB1*03:15+DRB1*04:72:01    |
|                               | DRB1*03:25+DRB1*04:113       | DRB1*03:76+DRB1*04:98:02     |                             |
| DRB1*03:01:01G+DRB1*04:01:08  | DRB1*03:01:11+DRB1*04:01:01  | DRB1*03:05:02+DRB1*04:13     |                             |
| DRB1*03:01:01G+DRB1*04:02:01  | DRB1*03:01:20+DRB1*04:02:02  | DRB1*03:19+DRB1*04:37        | DRB1*04:22+DRB1*13:27       |
| DRB1*03:01:01G+DRB1*04:03:01  | DRB1*03:01:20+DRB1*04:03:07  | DRB1*03:06+DRB1*04:59        | DRB1*03:25+DRB1*04:41       |
| DRB1*03:01:01G+DRB1*04:03:02  | DRB1*03:01:12+DRB1*04:03:01  |                              |                             |
| DRB1*03:01:01G+DRB1*04:04:01  | DRB1*03:06+DRB1*04:42        |                              |                             |
| DRB1*03:01:01G+DRB1*04:04:02  | DRB1*03:01:12+DRB1*04:04:01  |                              |                             |
| DRB1*03:01:01G+DRB1*04:04:07  | DRB1*03:01:06+DRB1*04:04:01  |                              |                             |
| DRB1*03:01:01G+DRB1*04:05:01  | DRB1*03:05:01+DRB1*04:10:01  | DRB1*03:06+DRB1*04:28        | DRB1*03:12+DRB1*04:08:01    |
|                               | DRB1*03:25+DRB1*04:77        |                              |                             |
| DRB1*03:01:01G+DRB1*04:05:04  | DRB1*03:01:11+DRB1*04:05:01  | DRB1*03:05:02+DRB1*04:10:01  |                             |
| DRB1*03:01:01G+DRB1*04:05:13  | DRB1*03:01:16+DRB1*04:05:01  |                              |                             |
| DRB1*03:01:01G+DRB1*04:05:14  | DRB1*03:01:17+DRB1*04:05:01  | DRB1*03:01:20+DRB1*04:05:12  |                             |
| DRB1*03:01:01G+DRB1*04:06:01G | DRB1*03:04:01+DRB1*04:41     |                              |                             |
| DRB1*03:01:01G+DRB1*04:06:04  | DRB1*03:01:12+DRB1*04:06:01G | DRB1*03:04:02+DRB1*04:41     |                             |
| DRB1*03:01:01G+DRB1*04:06:05  | DRB1*03:01:17+DRB1*04:06:01G |                              |                             |
| DRB1*03:01:01G+DRB1*04:07:01G | DRB1*03:05:01+DRB1*04:03:01  | DRB1*03:25+DRB1*04:102       |                             |
| DRB1*03:01:01G+DRB1*04:07:03  | DRB1*03:01:11+DRB1*04:07:01G | DRB1*03:05:02+DRB1*04:03:01  |                             |
| DRB1*03:01:01G+DRB1*04:07:04  | DRB1*03:05:01+DRB1*04:03:08  |                              |                             |
| DRB1*03:01:01G+DRB1*04:08:01  | DRB1*03:05:01+DRB1*04:04:01  | DRB1*03:06+DRB1*04:43        |                             |
| DRB1*03:01:01G+DRB1*04:08:02  | DRB1*03:01:12+DRB1*04:08:01  | DRB1*03:05:01+DRB1*04:04:02  |                             |
| DRB1*03:01:01G+DRB1*04:09     | DRB1*03:05:01+DRB1*04:67     | DRB1*03:12+DRB1*04:01:01     |                             |
| DRB1*03:01:01G+DRB1*04:10:01  | DRB1*03:12+DRB1*04:04:01     |                              |                             |
| DRB1*03:01:01G+DRB1*04:10:02  | DRB1*03:12+DRB1*04:04:04     |                              |                             |
| DRB1*03:01:01G+DRB1*04:11:01  | DRB1*03:12+DRB1*04:03:01     |                              |                             |
| DRB1*03:01:01G+DRB1*04:12     | DRB1*03:12+DRB1*04:18        |                              |                             |
| DRB1*03:01:01G+DRB1*04:14     | DRB1*03:05:01+DRB1*04:02:01  | DRB1*04:22+DRB1*13:41        |                             |
| DRB1*03:01:01G+DRB1*04:15     | DRB1*03:08+DRB1*04:36        |                              |                             |
| DRB1*03:01:01G+DRB1*04:16     | DRB1*03:64+DRB1*04:01:01     |                              |                             |
| DRB1*03:01:01G+DRB1*04:17:01  | DRB1*03:01:11+DRB1*04:17:02  | DRB1*03:05:02+DRB1*04:11:01  | DRB1*03:12+DRB1*04:07:03    |
| DRB1*03:01:01G+DRB1*04:17:02  | DRB1*03:05:01+DRB1*04:11:01  | DRB1*03:12+DRB1*04:07:01G    |                             |
| DRB1*03:01:01G+DRB1*04:18     | DRB1*03:19+DRB1*04:58        |                              |                             |
| DRB1*03:01:01G+DRB1*04:19     | DRB1*03:05:01+DRB1*04:68     |                              |                             |
| DRB1*03:01:01G+DRB1*04:20     | DRB1*03:04:01+DRB1*04:102    | DRB1*03:05:01+DRB1*04:06:01G |                             |
| DRB1*03:01:01G+DRB1*04:21     | DRB1*03:04:01+DRB1*04:113    |                              |                             |
| DRB1*03:01:01G+DRB1*04:25     | DRB1*03:58+DRB1*04:58        |                              |                             |
| DRB1*03:01:01G+DRB1*04:27     | DRB1*03:20+DRB1*04:03:01     |                              |                             |
| DRB1*03:01:01G+DRB1*04:28     | DRB1*03:12+DRB1*04:43        |                              |                             |
| DRB1*03:01:01G+DRB1*04:31     | DRB1*03:05:01+DRB1*04:55     |                              |                             |
| DRB1*03:01:01G+DRB1*04:32     | DRB1*03:70+DRB1*04:04:01     |                              |                             |
| DRB1*03:01:01G+DRB1*04:37     | DRB1*04:22+DRB1*13:71        |                              |                             |
| DRB1*03:01:01G+DRB1*04:38     | DRB1*03:19+DRB1*04:01:01     |                              |                             |
| DRB1*03:01:01G+DRB1*04:40     | DRB1*03:46+DRB1*04:04:01     |                              |                             |
| DRB1*03:01:01G+DRB1*04:43     | DRB1*03:05:01+DRB1*04:42     |                              |                             |
| DRB1*03:01:01G+DRB1*04:54     | DRB1*03:05:02+DRB1*04:25     |                              |                             |
| DRB1*03:01:01G+DRB1*04:56     | DRB1*03:19+DRB1*04:04:01     |                              |                             |
| DRB1*03:01:01G+DRB1*04:61     | DRB1*03:08+DRB1*04:08:01     |                              |                             |
| DRB1*03:01:01G+DRB1*04:62     | DRB1*03:10+DRB1*04:01:01     |                              |                             |
| DRB1*03:01:01G+DRB1*04:67     | DRB1*03:12+DRB1*04:13        |                              |                             |
| DRB1*03:01:01G+DRB1*04:72:02  | DRB1*03:01:02+DRB1*04:72:01  |                              |                             |
| DRB1*03:01:01G+DRB1*04:74     | DRB1*03:05:01+DRB1*04:95     |                              |                             |
| DRB1*03:01:01G+DRB1*04:80     | DRB1*03:58+DRB1*04:05:01     |                              |                             |
| DRB1*03:01:01G+DRB1*04:84     | DRB1*03:04:01+DRB1*04:77     | DRB1*03:12+DRB1*04:19        |                             |
| DRB1*03:01:01G+DRB1*04:86     | DRB1*03:05:01+DRB1*04:12     |                              |                             |
| DRB1*03:01:01G+DRB1*04:88     | DRB1*03:19+DRB1*04:03:01     |                              |                             |
| DRB1*03:01:01G+DRB1*04:91     | DRB1*03:12+DRB1*04:06:01G    |                              |                             |
| DRB1*03:01:01G+DRB1*04:98:02  | DRB1*03:14+DRB1*04:22        |                              |                             |
| DRB1*03:01:01G+DRB1*04:102    | DRB1*03:05:01+DRB1*04:41     |                              |                             |
| DRB1*03:01:01G+DRB1*04:103    | DRB1*03:12+DRB1*04:31        |                              |                             |
| DRB1*03:01:01G+DRB1*04:105:01 | DRB1*03:01:12+DRB1*04:105:02 | DRB1*03:05:01+DRB1*04:73     |                             |
| DRB1*03:01:01G+DRB1*04:106    | DRB1*03:12+DRB1*04:14        |                              |                             |
| DRB1*03:01:01G+DRB1*04:107    | DRB1*03:19+DRB1*04:05:01     |                              |                             |
| DRB1*03:01:01G+DRB1*04:117    | DRB1*03:77+DRB1*04:01:01     |                              |                             |
| DRB1*03:01:01G+DRB1*08:01:01G | DRB1*03:01:11+DRB1*08:01:05  | DRB1*03:05:02+DRB1*08:06     | DRB1*03:06+DRB1*08:17       |
|                               | DRB1*03:12+DRB1*08:02:01     | DRB1*03:58+DRB1*08:48        |                             |
| DRB1*03:01:01G+DRB1*08:01:02  | DRB1*03:01:18+DRB1*08:01:01G |                              |                             |
| DRB1*03:01:01G+DRB1*08:01:04  | DRB1*03:01:20+DRB1*08:01:01G |                              |                             |
| DRB1*03:01:01G+DRB1*08:01:05  | DRB1*03:05:01+DRB1*08:06     | DRB1*03:12+DRB1*08:02:02     |                             |
| DRB1*03:01:01G+DRB1*08:02:01  | DRB1*03:01:11+DRB1*08:02:02  | DRB1*03:05:01+DRB1*08:04:04  | DRB1*03:05:02+DRB1*08:04:01 |
|                               | DRB1*03:58+DRB1*08:13        |                              |                             |
| DRB1*03:01:01G+DRB1*08:02:02  | DRB1*03:05:01+DRB1*08:04:01  |                              |                             |
| DRB1*03:01:01G+DRB1*08:02:03  | DRB1*03:01:05+DRB1*08:02:01  |                              |                             |

|                               |                              |                             |                             |
|-------------------------------|------------------------------|-----------------------------|-----------------------------|
| DRB1*03:01:01G+DRB1*08:02:04  | DRB1*03:01:17+DRB1*08:02:01  |                             |                             |
| DRB1*03:01:01G+DRB1*08:03:02  | DRB1*03:05:01+DRB1*08:10     | DRB1*03:06+DRB1*08:37       | DRB1*03:12+DRB1*08:30:01    |
| DRB1*03:01:01G+DRB1*08:03:03  | DRB1*03:01:11+DRB1*08:03:02  | DRB1*03:05:02+DRB1*08:10    | DRB1*03:12+DRB1*08:30:03    |
|                               | DRB1*03:19+DRB1*08:48        |                             |                             |
| DRB1*03:01:01G+DRB1*08:04:01  | DRB1*03:06+DRB1*08:28        |                             |                             |
| DRB1*03:01:01G+DRB1*08:04:03  | DRB1*03:01:11+DRB1*08:04:02  |                             |                             |
| DRB1*03:01:01G+DRB1*08:04:04  | DRB1*03:01:11+DRB1*08:04:01  |                             |                             |
| DRB1*03:01:01G+DRB1*08:04:06  | DRB1*03:01:12+DRB1*08:04:01  |                             |                             |
| DRB1*03:01:01G+DRB1*08:06     | DRB1*03:12+DRB1*08:04:01     |                             |                             |
| DRB1*03:01:01G+DRB1*08:08     | DRB1*03:10+DRB1*08:02:01     |                             |                             |
| DRB1*03:01:01G+DRB1*08:09     | DRB1*03:05:02+DRB1*14:15     |                             |                             |
| DRB1*03:01:01G+DRB1*08:12     | DRB1*03:20+DRB1*08:10        |                             |                             |
| DRB1*03:01:01G+DRB1*08:20     | DRB1*03:75+DRB1*13:18        |                             |                             |
| DRB1*03:01:01G+DRB1*08:27     | DRB1*03:09+DRB1*08:10        | DRB1*03:23+DRB1*08:03:02    |                             |
| DRB1*03:01:01G+DRB1*08:30:03  | DRB1*03:01:11+DRB1*08:30:01  | DRB1*03:06+DRB1*08:45       | DRB1*03:19+DRB1*08:13       |
| DRB1*03:01:01G+DRB1*08:33     | DRB1*03:16+DRB1*08:03:02     |                             |                             |
| DRB1*03:01:01G+DRB1*08:34     | DRB1*03:79+DRB1*08:30:01     |                             |                             |
| DRB1*03:01:01G+DRB1*08:41     | DRB1*03:05:01+DRB1*08:31     | DRB1*03:08+DRB1*08:24       |                             |
| DRB1*03:01:01G+DRB1*08:47     | DRB1*03:13:01+DRB1*08:18     |                             |                             |
| DRB1*03:01:01G+DRB1*08:48     | DRB1*03:12+DRB1*08:13        |                             |                             |
| DRB1*03:01:01G+DRB1*09:01:02  | DRB1*03:05:01+DRB1*09:06     | DRB1*03:58+DRB1*09:04       | DRB1*03:79+DRB1*09:02:02    |
| DRB1*03:01:01G+DRB1*09:01:09  | DRB1*03:01:06+DRB1*09:01:02  |                             |                             |
| DRB1*03:01:01G+DRB1*09:02:01  | DRB1*03:01:12+DRB1*09:02:02  |                             |                             |
| DRB1*03:01:01G+DRB1*09:19     | DRB1*03:45+DRB1*09:01:02     |                             |                             |
| DRB1*03:01:01G+DRB1*10:01:01  | DRB1*03:05:01+DRB1*10:02     |                             |                             |
| DRB1*03:01:01G+DRB1*11:01:01G | DRB1*03:05:01+DRB1*11:04:01  | DRB1*03:08+DRB1*13:14:01    | DRB1*03:14+DRB1*11:84:02    |
|                               | DRB1*03:15+DRB1*11:27:02     | DRB1*03:25+DRB1*11:28:01    | DRB1*03:58+DRB1*11:08:01    |
|                               | DRB1*03:65+DRB1*13:25        |                             |                             |
| DRB1*03:01:01G+DRB1*11:01:02  | DRB1*03:01:11+DRB1*11:01:01G | DRB1*03:05:01+DRB1*11:04:02 | DRB1*03:05:02+DRB1*11:04:01 |
|                               | DRB1*03:08+DRB1*13:14:03     | DRB1*03:15+DRB1*11:27:03    | DRB1*03:58+DRB1*11:08:02    |
|                               | DRB1*03:05:01+DRB1*11:04:07  |                             |                             |
| DRB1*03:01:01G+DRB1*11:01:04  | DRB1*03:01:20+DRB1*11:01:01G | DRB1*03:05:01+DRB1*11:04:05 |                             |
| DRB1*03:01:01G+DRB1*11:01:05  | DRB1*03:01:17+DRB1*11:01:01G | DRB1*03:05:01+DRB1*11:04:03 |                             |
| DRB1*03:01:01G+DRB1*11:01:10  | DRB1*03:01:17+DRB1*11:01:03  |                             |                             |
| DRB1*03:01:01G+DRB1*11:01:11  | DRB1*03:01:11+DRB1*11:01:03  | DRB1*03:05:02+DRB1*11:04:07 |                             |
| DRB1*03:01:01G+DRB1*11:01:12  | DRB1*03:05:01+DRB1*11:04:04  | DRB1*03:25+DRB1*11:28:02    |                             |
| DRB1*03:01:01G+DRB1*11:01:16  | DRB1*03:01:05+DRB1*11:01:01G |                             |                             |
| DRB1*03:01:01G+DRB1*11:02:01  | DRB1*03:08+DRB1*13:22        | DRB1*03:19+DRB1*11:36       | DRB1*03:52+DRB1*11:118      |
|                               | DRB1*11:07+DRB1*13:27        |                             |                             |
| DRB1*03:01:01G+DRB1*11:03     | DRB1*03:08+DRB1*13:24        | DRB1*03:58+DRB1*11:36       |                             |
| DRB1*03:01:01G+DRB1*11:04:01  | DRB1*03:08+DRB1*13:11:01     | DRB1*03:15+DRB1*11:84:02    | DRB1*03:25+DRB1*11:58:02    |
|                               | DRB1*03:52+DRB1*11:46:01     | DRB1*03:58+DRB1*11:42       |                             |
| DRB1*03:01:01G+DRB1*11:04:02  | DRB1*03:01:11+DRB1*11:04:01  |                             |                             |
| DRB1*03:01:01G+DRB1*11:04:03  | DRB1*03:01:17+DRB1*11:04:01  |                             |                             |
| DRB1*03:01:01G+DRB1*11:04:04  | DRB1*03:25+DRB1*11:58:01     |                             |                             |
| DRB1*03:01:01G+DRB1*11:04:05  | DRB1*03:01:20+DRB1*11:04:01  |                             |                             |
| DRB1*03:01:01G+DRB1*11:06:01G | DRB1*03:20+DRB1*11:04:01     | DRB1*03:58+DRB1*11:57       |                             |
| DRB1*03:01:01G+DRB1*11:06:02  | DRB1*03:01:17+DRB1*11:06:01G | DRB1*03:20+DRB1*11:04:03    |                             |
| DRB1*03:01:01G+DRB1*11:06:03  | DRB1*03:01:20+DRB1*11:06:01G | DRB1*03:20+DRB1*11:04:05    |                             |
| DRB1*03:01:01G+DRB1*11:08:01  | DRB1*03:05:01+DRB1*11:42     | DRB1*03:08+DRB1*13:25       |                             |
| DRB1*03:01:01G+DRB1*11:08:02  | DRB1*03:01:11+DRB1*11:08:01  | DRB1*03:05:02+DRB1*11:42    |                             |
| DRB1*03:01:01G+DRB1*11:09     | DRB1*03:05:01+DRB1*11:113    | DRB1*03:07+DRB1*11:87       | DRB1*03:08+DRB1*13:05:01    |
|                               | DRB1*03:65+DRB1*13:56        |                             |                             |
| DRB1*03:01:01G+DRB1*11:10:01  | DRB1*03:01:11+DRB1*11:10:02  |                             |                             |
| DRB1*03:01:01G+DRB1*11:10:02  | DRB1*03:21+DRB1*11:87        | DRB1*03:30+DRB1*11:09       |                             |
| DRB1*03:01:01G+DRB1*11:11:01G | DRB1*03:05:01+DRB1*11:03     | DRB1*03:40+DRB1*11:59       | DRB1*03:58+DRB1*11:68       |
|                               | DRB1*11:125+DRB1*13:71       |                             |                             |
| DRB1*03:01:01G+DRB1*11:12:01  | DRB1*03:30+DRB1*11:28:01     | DRB1*03:52+DRB1*11:10:02    |                             |
| DRB1*03:01:01G+DRB1*11:12:02  | DRB1*03:30+DRB1*11:28:02     |                             |                             |
| DRB1*03:01:01G+DRB1*11:14:01  | DRB1*03:05:01+DRB1*11:02:01  | DRB1*03:08+DRB1*13:23:02    | DRB1*03:19+DRB1*11:68       |
|                               | DRB1*11:07+DRB1*13:41        | DRB1*11:103+DRB1*13:27      |                             |
| DRB1*03:01:01G+DRB1*11:14:02  | DRB1*03:01:11+DRB1*11:14:01  | DRB1*03:05:02+DRB1*11:02:01 | DRB1*03:08+DRB1*13:23:01    |
| DRB1*03:01:01G+DRB1*11:15     | DRB1*03:08+DRB1*13:62        |                             |                             |
| DRB1*03:01:01G+DRB1*11:16     | DRB1*03:08+DRB1*13:01:01G    |                             |                             |
| DRB1*03:01:01G+DRB1*11:17     | DRB1*03:08+DRB1*14:23:01     |                             |                             |
| DRB1*03:01:01G+DRB1*11:18     | DRB1*03:19+DRB1*11:42        |                             |                             |
| DRB1*03:01:01G+DRB1*11:19:01  | DRB1*03:05:01+DRB1*11:18     | DRB1*03:08+DRB1*13:82       | DRB1*03:19+DRB1*11:08:01    |
| DRB1*03:01:01G+DRB1*11:19:03  | DRB1*03:01:11+DRB1*11:19:01  | DRB1*03:05:02+DRB1*11:18    | DRB1*03:19+DRB1*11:08:02    |
| DRB1*03:01:01G+DRB1*11:20     | DRB1*03:05:01+DRB1*11:16     | DRB1*03:08+DRB1*13:02:01    |                             |
| DRB1*03:01:01G+DRB1*11:21     | DRB1*03:20+DRB1*11:02:01     |                             |                             |
| DRB1*03:01:01G+DRB1*11:23     | DRB1*03:05:02+DRB1*11:25     |                             |                             |
| DRB1*03:01:01G+DRB1*11:26     | DRB1*03:05:01+DRB1*11:34     |                             |                             |
| DRB1*03:01:01G+DRB1*11:27:01  | DRB1*03:01:02+DRB1*11:27:02  | DRB1*03:05:01+DRB1*11:84:01 | DRB1*03:05:03+DRB1*11:84:02 |
| DRB1*03:01:01G+DRB1*11:27:02  | DRB1*03:05:01+DRB1*11:84:02  |                             |                             |
| DRB1*03:01:01G+DRB1*11:27:03  | DRB1*03:01:11+DRB1*11:27:02  | DRB1*03:05:02+DRB1*11:84:02 |                             |
| DRB1*03:01:01G+DRB1*11:28:01  | DRB1*03:05:01+DRB1*11:58:02  | DRB1*03:08+DRB1*13:50:01    | DRB1*03:52+DRB1*11:09       |
| DRB1*03:01:01G+DRB1*11:28:02  | DRB1*03:05:01+DRB1*11:58:01  | DRB1*03:08+DRB1*13:50:02    |                             |
| DRB1*03:01:01G+DRB1*11:29     | DRB1*03:04:01+DRB1*11:28:01  |                             |                             |
| DRB1*03:01:01G+DRB1*11:33     | DRB1*03:05:01+DRB1*11:35     |                             |                             |
| DRB1*03:01:01G+DRB1*11:34     | DRB1*03:08+DRB1*13:44        |                             |                             |
| DRB1*03:01:01G+DRB1*11:36     | DRB1*11:07+DRB1*13:71        |                             |                             |
| DRB1*03:01:01G+DRB1*11:37:01  | DRB1*03:05:01+DRB1*11:56     | DRB1*03:06+DRB1*11:01:01G   | DRB1*03:08+DRB1*13:07:01    |
|                               | DRB1*03:31+DRB1*11:28:01     | DRB1*03:40+DRB1*11:83       | DRB1*03:75+DRB1*11:09       |
| DRB1*03:01:01G+DRB1*11:37:02  | DRB1*03:01:11+DRB1*11:37:01  | DRB1*03:05:02+DRB1*11:56    | DRB1*03:06+DRB1*11:01:02    |
| DRB1*03:01:01G+DRB1*11:39     | DRB1*03:05:01+DRB1*11:43     | DRB1*03:37+DRB1*11:01:01G   |                             |
| DRB1*03:01:01G+DRB1*11:40     | DRB1*03:07+DRB1*11:59        | DRB1*03:08+DRB1*13:111      | DRB1*03:65+DRB1*13:20       |
| DRB1*03:01:01G+DRB1*11:41     | DRB1*03:06+DRB1*11:03        | DRB1*03:75+DRB1*11:40       |                             |
| DRB1*03:01:01G+DRB1*11:43     | DRB1*03:37+DRB1*11:04:01     |                             |                             |
| DRB1*03:01:01G+DRB1*11:44     | DRB1*03:33+DRB1*11:04:01     | DRB1*03:44+DRB1*11:58:02    |                             |
| DRB1*03:01:01G+DRB1*11:45     | DRB1*03:05:01+DRB1*11:119    | DRB1*03:19+DRB1*11:64       |                             |
| DRB1*03:01:01G+DRB1*11:46:01  | DRB1*03:25+DRB1*11:113       |                             |                             |
| DRB1*03:01:01G+DRB1*11:48     | DRB1*03:06+DRB1*11:02:01     | DRB1*03:08+DRB1*13:70       | DRB1*03:75+DRB1*11:16       |
| DRB1*03:01:01G+DRB1*11:49:01  | DRB1*03:05:01+DRB1*11:44     | DRB1*03:33+DRB1*11:01:01G   | DRB1*03:44+DRB1*11:28:01    |
| DRB1*03:01:01G+DRB1*11:49:02  | DRB1*03:01:11+DRB1*11:49:01  | DRB1*03:05:02+DRB1*11:44    | DRB1*03:33+DRB1*11:01:02    |
| DRB1*03:01:01G+DRB1*11:50     | DRB1*03:26+DRB1*11:43        | DRB1*03:80+DRB1*11:44       |                             |
| DRB1*03:01:01G+DRB1*11:51     | DRB1*03:70+DRB1*11:01:01G    |                             |                             |
| DRB1*03:01:01G+DRB1*11:54:01  | DRB1*03:01:17+DRB1*11:54:02  |                             |                             |
| DRB1*03:01:01G+DRB1*11:56     | DRB1*03:06+DRB1*11:04:01     | DRB1*03:31+DRB1*11:58:02    | DRB1*03:75+DRB1*11:113      |
| DRB1*03:01:01G+DRB1*11:57     | DRB1*03:20+DRB1*11:42        |                             |                             |
| DRB1*03:01:01G+DRB1*11:58:02  | DRB1*03:52+DRB1*11:113       |                             |                             |
| DRB1*03:01:01G+DRB1*11:59     | DRB1*03:65+DRB1*13:71        |                             |                             |
| DRB1*03:01:01G+DRB1*11:62     | DRB1*03:05:01+DRB1*11:46:02  | DRB1*03:07+DRB1*11:80       |                             |
| DRB1*03:01:01G+DRB1*11:67     | DRB1*03:08+DRB1*08:28        |                             |                             |
| DRB1*03:01:01G+DRB1*11:68     | DRB1*03:05:01+DRB1*11:36     | DRB1*11:103+DRB1*13:71      |                             |
| DRB1*03:01:01G+DRB1*11:72     | DRB1*03:05:02+DRB1*11:92     |                             |                             |

|                               |                              |                              |                           |
|-------------------------------|------------------------------|------------------------------|---------------------------|
| DRB1*03:01:01G+DRB1*11:74:02  | DRB1*03:01:11+DRB1*11:74:01  |                              |                           |
| DRB1*03:01:01G+DRB1*11:76     | DRB1*03:71+DRB1*11:03        |                              |                           |
| DRB1*03:01:01G+DRB1*11:79     | DRB1*03:76+DRB1*11:105       |                              |                           |
| DRB1*03:01:01G+DRB1*11:82     | DRB1*11:103+DRB1*13:129      |                              |                           |
| DRB1*03:01:01G+DRB1*11:84:01  | DRB1*03:01:02+DRB1*11:84:02  |                              |                           |
| DRB1*03:01:01G+DRB1*11:85     | DRB1*03:33+DRB1*11:03        |                              |                           |
| DRB1*03:01:01G+DRB1*11:91     | DRB1*03:48+DRB1*11:01:01G    |                              |                           |
| DRB1*03:01:01G+DRB1*11:101    | DRB1*03:73+DRB1*11:01:01G    |                              |                           |
| DRB1*03:01:01G+DRB1*11:102:02 | DRB1*03:01:20+DRB1*11:102:01 |                              |                           |
| DRB1*03:01:01G+DRB1*11:103    | DRB1*03:05:01+DRB1*11:07     | DRB1*03:08+DRB1*03:40        |                           |
| DRB1*03:01:01G+DRB1*11:105    | DRB1*03:14+DRB1*11:07        | DRB1*03:15+DRB1*11:103       |                           |
| DRB1*03:01:01G+DRB1*11:107    | DRB1*03:06+DRB1*11:103       | DRB1*03:08+DRB1*03:41        |                           |
| DRB1*03:01:01G+DRB1*11:109    | DRB1*03:05:01+DRB1*11:60     |                              |                           |
| DRB1*03:01:01G+DRB1*11:112    | DRB1*03:78+DRB1*11:27:02     |                              |                           |
| DRB1*03:01:01G+DRB1*11:113    | DRB1*03:08+DRB1*13:42        |                              |                           |
| DRB1*03:01:01G+DRB1*11:114    | DRB1*03:43+DRB1*11:28:01     | DRB1*03:71+DRB1*11:12:01     |                           |
| DRB1*03:01:01G+DRB1*11:115    | DRB1*03:37+DRB1*11:58:01     |                              |                           |
| DRB1*03:01:01G+DRB1*11:116    | DRB1*03:13:01+DRB1*11:04:01  |                              |                           |
| DRB1*03:01:01G+DRB1*11:118    | DRB1*03:08+DRB1*13:52        | DRB1*03:25+DRB1*11:16        |                           |
| DRB1*03:01:01G+DRB1*11:120    | DRB1*03:05:01+DRB1*11:116    | DRB1*03:13:01+DRB1*11:01:01G |                           |
| DRB1*03:01:01G+DRB1*11:122    | DRB1*03:05:01+DRB1*11:40     | DRB1*03:08+DRB1*13:63        | DRB1*03:65+DRB1*13:29     |
| DRB1*03:01:01G+DRB1*11:125    | DRB1*03:40+DRB1*03:65        | DRB1*03:58+DRB1*11:103       |                           |
| DRB1*03:01:01G+DRB1*11:127    | DRB1*03:33+DRB1*11:02:01     |                              |                           |
| DRB1*03:01:01G+DRB1*12:01:01G | DRB1*03:01:17+DRB1*12:01:03  | DRB1*03:19+DRB1*12:12        | DRB1*03:20+DRB1*12:03:03  |
|                               | DRB1*03:79+DRB1*12:09        |                              |                           |
| DRB1*03:01:01G+DRB1*12:01:03  | DRB1*03:20+DRB1*12:03:02     |                              |                           |
| DRB1*03:01:01G+DRB1*12:02:01  | DRB1*03:01:17+DRB1*12:02:02  | DRB1*03:20+DRB1*12:19        | DRB1*03:58+DRB1*12:12     |
| DRB1*03:01:01G+DRB1*12:03:03  | DRB1*03:01:17+DRB1*12:03:02  |                              |                           |
| DRB1*03:01:01G+DRB1*12:04     | DRB1*03:08+DRB1*12:09        |                              |                           |
| DRB1*03:01:01G+DRB1*12:05     | DRB1*03:71+DRB1*12:14        |                              |                           |
| DRB1*03:01:01G+DRB1*12:18     | DRB1*03:64+DRB1*12:02:01     |                              |                           |
| DRB1*03:01:01G+DRB1*12:21     | DRB1*03:06+DRB1*12:02:01     |                              |                           |
| DRB1*03:01:01G+DRB1*12:24N    | DRB1*03:67N+DRB1*12:01:01G   |                              |                           |
| DRB1*03:01:01G+DRB1*12:34     | DRB1*03:37+DRB1*12:01:01G    |                              |                           |
| DRB1*03:01:01G+DRB1*13:01:01G | DRB1*03:07+DRB1*13:27        | DRB1*03:15+DRB1*13:61:02     | DRB1*03:19+DRB1*13:20     |
| DRB1*03:01:01G+DRB1*13:01:03  | DRB1*03:01:17+DRB1*13:01:01G |                              |                           |
| DRB1*03:01:01G+DRB1*13:01:05  | DRB1*03:01:12+DRB1*13:01:01G |                              |                           |
| DRB1*03:01:01G+DRB1*13:01:08  | DRB1*03:01:11+DRB1*13:01:01G | DRB1*03:07+DRB1*13:41        | DRB1*03:14+DRB1*13:61:02  |
| DRB1*03:01:01G+DRB1*13:02:01  | DRB1*03:05:01+DRB1*13:01:01G | DRB1*03:19+DRB1*13:29        |                           |
|                               | DRB1*03:15+DRB1*13:96:01     | DRB1*03:05:01+DRB1*13:01:05  |                           |
| DRB1*03:01:01G+DRB1*13:02:03  | DRB1*03:01:12+DRB1*13:02:01  | DRB1*03:05:01+DRB1*13:89     | DRB1*03:06+DRB1*13:66:02  |
| DRB1*03:01:01G+DRB1*13:03:01  | DRB1*03:01:11+DRB1*13:03:02  | DRB1*03:15+DRB1*13:33:01     | DRB1*03:19+DRB1*13:88     |
|                               | DRB1*03:12+DRB1*13:37        |                              |                           |
|                               | DRB1*03:25+DRB1*13:115       |                              |                           |
|                               | DRB1*03:06+DRB1*13:66:01     | DRB1*03:14+DRB1*13:94        |                           |
| DRB1*03:01:01G+DRB1*13:03:02  | DRB1*03:12+DRB1*13:22        |                              |                           |
| DRB1*03:01:01G+DRB1*13:04     | DRB1*03:05:01+DRB1*13:42     | DRB1*03:58+DRB1*13:56        |                           |
| DRB1*03:01:01G+DRB1*13:05:01  | DRB1*03:01:11+DRB1*13:05:01  | DRB1*03:05:02+DRB1*13:42     |                           |
| DRB1*03:01:01G+DRB1*13:05:02  | DRB1*03:06+DRB1*13:14:01     | DRB1*03:31+DRB1*13:50:01     | DRB1*03:75+DRB1*13:05:01  |
| DRB1*03:01:01G+DRB1*13:07:01  | DRB1*03:01:12+DRB1*13:07:01  | DRB1*03:06+DRB1*13:14:02     |                           |
| DRB1*03:01:01G+DRB1*13:07:02  | DRB1*03:06+DRB1*13:83        | DRB1*03:30+DRB1*13:40        | DRB1*03:31+DRB1*13:87     |
| DRB1*03:01:01G+DRB1*13:08     | DRB1*03:07+DRB1*13:129       |                              |                           |
| DRB1*03:01:01G+DRB1*13:09     | DRB1*03:01:12+DRB1*13:11:01  |                              |                           |
| DRB1*03:01:01G+DRB1*13:11:02  | DRB1*03:06+DRB1*13:30        | DRB1*03:19+DRB1*13:134       |                           |
| DRB1*03:01:01G+DRB1*13:12:01  | DRB1*03:01:11+DRB1*13:12:01  |                              |                           |
| DRB1*03:01:01G+DRB1*13:12:02  | DRB1*03:05:01+DRB1*13:11:01  | DRB1*03:25+DRB1*13:50:01     | DRB1*03:52+DRB1*13:132    |
| DRB1*03:01:01G+DRB1*13:14:01  | DRB1*03:58+DRB1*13:25        |                              |                           |
|                               | DRB1*03:01:12+DRB1*13:14:01  | DRB1*03:05:01+DRB1*13:11:02  |                           |
| DRB1*03:01:01G+DRB1*13:14:02  | DRB1*03:01:11+DRB1*13:14:01  | DRB1*03:05:02+DRB1*13:11:01  |                           |
| DRB1*03:01:01G+DRB1*13:14:03  | DRB1*03:06+DRB1*13:57        | DRB1*03:30+DRB1*13:53        |                           |
| DRB1*03:01:01G+DRB1*13:19     | DRB1*03:07+DRB1*13:71        |                              |                           |
| DRB1*03:01:01G+DRB1*13:20     | DRB1*03:12+DRB1*13:14:01     |                              |                           |
| DRB1*03:01:01G+DRB1*13:21:01  | DRB1*03:01:11+DRB1*13:21:01  | DRB1*03:12+DRB1*13:14:03     |                           |
| DRB1*03:01:01G+DRB1*13:21:02  | DRB1*03:52+DRB1*13:52        |                              |                           |
| DRB1*03:01:01G+DRB1*13:22     | DRB1*03:01:11+DRB1*13:23:02  | DRB1*03:05:02+DRB1*13:22     |                           |
| DRB1*03:01:01G+DRB1*13:23:01  | DRB1*03:05:01+DRB1*13:22     | DRB1*03:40+DRB1*13:27        | DRB1*03:52+DRB1*13:97:01  |
| DRB1*03:01:01G+DRB1*13:23:02  | DRB1*03:19+DRB1*13:71        |                              |                           |
| DRB1*03:01:01G+DRB1*13:27     | DRB1*03:73+DRB1*13:01:08     |                              |                           |
| DRB1*03:01:01G+DRB1*13:28     | DRB1*03:05:01+DRB1*13:20     |                              |                           |
| DRB1*03:01:01G+DRB1*13:29     | DRB1*03:12+DRB1*13:82        |                              |                           |
| DRB1*03:01:01G+DRB1*13:30     | DRB1*03:06+DRB1*13:93        | DRB1*03:12+DRB1*13:40        |                           |
| DRB1*03:01:01G+DRB1*13:32     | DRB1*03:05:02+DRB1*13:94     |                              |                           |
| DRB1*03:01:01G+DRB1*13:33:01  | DRB1*03:05:03+DRB1*13:94     |                              |                           |
| DRB1*03:01:01G+DRB1*13:33:02  | DRB1*03:01:02+DRB1*13:33:01  | DRB1*03:01:11+DRB1*13:33:02  |                           |
| DRB1*03:01:01G+DRB1*13:33:03  | DRB1*03:71+DRB1*13:02:01     |                              |                           |
| DRB1*03:01:01G+DRB1*13:34     | DRB1*03:05:01+DRB1*13:40     | DRB1*03:06+DRB1*13:02:01     |                           |
| DRB1*03:01:01G+DRB1*13:36     | DRB1*03:05:02+DRB1*13:48     |                              |                           |
| DRB1*03:01:01G+DRB1*13:38     | DRB1*03:05:01+DRB1*13:79     | DRB1*03:13:01+DRB1*13:02:01  |                           |
| DRB1*03:01:01G+DRB1*13:39     | DRB1*03:06+DRB1*13:01:01G    |                              |                           |
| DRB1*03:01:01G+DRB1*13:40     | DRB1*03:05:01+DRB1*13:27     |                              |                           |
| DRB1*03:01:01G+DRB1*13:41     | DRB1*03:10+DRB1*13:20        |                              |                           |
| DRB1*03:01:01G+DRB1*13:43     | DRB1*03:10+DRB1*13:23:01     |                              |                           |
| DRB1*03:01:01G+DRB1*13:45     | DRB1*03:05:02+DRB1*08:20     |                              |                           |
| DRB1*03:01:01G+DRB1*13:47     | DRB1*03:06+DRB1*13:04        | DRB1*03:12+DRB1*13:70        | DRB1*03:75+DRB1*13:93     |
| DRB1*03:01:01G+DRB1*13:48     | DRB1*03:05:01+DRB1*13:108    | DRB1*03:06+DRB1*13:21:01     | DRB1*03:12+DRB1*13:07:01  |
| DRB1*03:01:01G+DRB1*13:49     | DRB1*03:58+DRB1*13:134       |                              |                           |
|                               | DRB1*03:52+DRB1*13:05:01     |                              |                           |
| DRB1*03:01:01G+DRB1*13:50:01  | DRB1*03:25+DRB1*13:01:01G    |                              |                           |
| DRB1*03:01:01G+DRB1*13:52     | DRB1*03:03+DRB1*13:27        | DRB1*03:06+DRB1*13:15        |                           |
| DRB1*03:01:01G+DRB1*13:53     | DRB1*03:79+DRB1*13:24        |                              |                           |
| DRB1*03:01:01G+DRB1*13:54     | DRB1*03:12+DRB1*13:47        |                              |                           |
| DRB1*03:01:01G+DRB1*13:55     | DRB1*03:30+DRB1*13:15        |                              |                           |
| DRB1*03:01:01G+DRB1*13:57     | DRB1*03:01:02+DRB1*13:61:02  |                              |                           |
| DRB1*03:01:01G+DRB1*13:61:01  | DRB1*03:05:01+DRB1*13:111    | DRB1*03:58+DRB1*13:29        |                           |
| DRB1*03:01:01G+DRB1*13:63     | DRB1*03:43+DRB1*13:01:01G    | DRB1*03:71+DRB1*13:83        |                           |
| DRB1*03:01:01G+DRB1*13:64     | DRB1*03:05:01+DRB1*13:32     | DRB1*03:06+DRB1*13:139       | DRB1*03:12+DRB1*13:36     |
| DRB1*03:01:01G+DRB1*13:65     | DRB1*03:01:11+DRB1*13:66:01  |                              |                           |
| DRB1*03:01:01G+DRB1*13:66:02  | DRB1*03:06+DRB1*13:22        | DRB1*03:75+DRB1*13:01:01G    |                           |
| DRB1*03:01:01G+DRB1*13:70     | DRB1*03:12+DRB1*13:24        |                              |                           |
| DRB1*03:01:01G+DRB1*13:75     | DRB1*03:13:01+DRB1*13:20     |                              |                           |
| DRB1*03:01:01G+DRB1*13:78     | DRB1*03:13:01+DRB1*13:01:01G | DRB1*03:19+DRB1*13:78        |                           |
| DRB1*03:01:01G+DRB1*13:79     | DRB1*03:16+DRB1*13:01:01G    |                              |                           |
| DRB1*03:01:01G+DRB1*13:80     | DRB1*03:19+DRB1*13:25        |                              |                           |
| DRB1*03:01:01G+DRB1*13:82     | DRB1*03:21+DRB1*13:27        | DRB1*03:25+DRB1*13:87        | DRB1*03:30+DRB1*13:01:01G |
| DRB1*03:01:01G+DRB1*13:83     | DRB1*03:04:01+DRB1*13:40     |                              |                           |
| DRB1*03:01:01G+DRB1*13:84     |                              |                              |                           |

|                               |                              |                              |                              |
|-------------------------------|------------------------------|------------------------------|------------------------------|
| DRB1*03:01:01G+DRB1*13:92     | DRB1*03:54+DRB1*13:01:01G    |                              |                              |
| DRB1*03:01:01G+DRB1*13:93     | DRB1*03:12+DRB1*13:01:01G    |                              |                              |
| DRB1*03:01:01G+DRB1*13:96:01  | DRB1*03:05:01+DRB1*13:61:02  |                              |                              |
| DRB1*03:01:01G+DRB1*13:96:02  | DRB1*03:01:02+DRB1*13:96:01  | DRB1*03:05:01+DRB1*13:61:01  | DRB1*03:05:03+DRB1*13:61:02  |
| DRB1*03:01:01G+DRB1*13:97:01  | DRB1*03:05:01+DRB1*13:52     | DRB1*03:25+DRB1*13:02:01     |                              |
| DRB1*03:01:01G+DRB1*13:100    | DRB1*03:13:01+DRB1*13:46     | DRB1*03:79+DRB1*13:14:01     |                              |
| DRB1*03:01:01G+DRB1*13:104    | DRB1*03:05:01+DRB1*13:15     | DRB1*03:29+DRB1*13:27        |                              |
| DRB1*03:01:01G+DRB1*13:106    | DRB1*03:33+DRB1*13:52        | DRB1*03:44+DRB1*13:01:01G    |                              |
| DRB1*03:01:01G+DRB1*13:107    | DRB1*03:05:01+DRB1*13:83     | DRB1*03:21+DRB1*13:41        | DRB1*03:30+DRB1*13:02:01     |
| DRB1*03:01:01G+DRB1*13:111    | DRB1*03:58+DRB1*13:20        |                              |                              |
| DRB1*03:01:01G+DRB1*13:115    | DRB1*03:52+DRB1*13:120       |                              |                              |
| DRB1*03:01:01G+DRB1*13:116    | DRB1*03:06+DRB1*13:17        |                              |                              |
| DRB1*03:01:01G+DRB1*13:118    | DRB1*03:37+DRB1*13:12:01     | DRB1*03:80+DRB1*13:30        |                              |
| DRB1*03:01:01G+DRB1*13:128    | DRB1*03:05:01+DRB1*13:112    |                              |                              |
| DRB1*03:01:01G+DRB1*13:131    | DRB1*03:37+DRB1*13:01:01G    |                              |                              |
| DRB1*03:01:01G+DRB1*13:132    | DRB1*03:25+DRB1*13:05:01     |                              |                              |
| DRB1*03:01:01G+DRB1*13:135    | DRB1*03:80+DRB1*13:107       |                              |                              |
| DRB1*03:01:01G+DRB1*13:136    | DRB1*03:71+DRB1*13:05:01     |                              |                              |
| DRB1*03:01:01G+DRB1*13:139    | DRB1*03:05:01+DRB1*13:93     | DRB1*03:12+DRB1*13:02:01     |                              |
| DRB1*03:01:01G+DRB1*13:141    | DRB1*03:56+DRB1*13:01:01G    |                              |                              |
| DRB1*03:01:01G+DRB1*14:01:01G | DRB1*03:01:17+DRB1*14:01:02  | DRB1*03:06+DRB1*14:35        | DRB1*03:07+DRB1*14:82        |
|                               | DRB1*03:10+DRB1*14:23:01     |                              |                              |
| DRB1*03:01:01G+DRB1*14:02     | DRB1*03:05:01+DRB1*14:06:01  |                              |                              |
| DRB1*03:01:01G+DRB1*14:03:01  | DRB1*03:05:01+DRB1*14:12:01  |                              |                              |
| DRB1*03:01:01G+DRB1*14:04     | DRB1*03:10+DRB1*14:126       | DRB1*14:79+DRB1*14:95        |                              |
| DRB1*03:01:01G+DRB1*14:05:01  | DRB1*03:01:17+DRB1*14:05:03  |                              |                              |
| DRB1*03:01:01G+DRB1*14:06:02  | DRB1*03:01:11+DRB1*14:06:01  |                              |                              |
| DRB1*03:01:01G+DRB1*14:07:01  | DRB1*03:05:01+DRB1*14:01:01G | DRB1*03:10+DRB1*14:14        |                              |
| DRB1*03:01:01G+DRB1*14:07:02  | DRB1*03:01:11+DRB1*14:07:01  | DRB1*03:05:02+DRB1*14:01:01G |                              |
| DRB1*03:01:01G+DRB1*14:09     | DRB1*03:05:01+DRB1*14:80     | DRB1*03:06+DRB1*14:30        |                              |
| DRB1*03:01:01G+DRB1*14:11     | DRB1*03:08+DRB1*14:126       |                              |                              |
| DRB1*03:01:01G+DRB1*14:13     | DRB1*03:12+DRB1*14:02        |                              |                              |
| DRB1*03:01:01G+DRB1*14:14     | DRB1*03:05:01+DRB1*14:23:01  |                              |                              |
| DRB1*03:01:01G+DRB1*14:16     | DRB1*03:10+DRB1*13:08        |                              |                              |
| DRB1*03:01:01G+DRB1*14:20     | DRB1*03:30+DRB1*14:06:01     |                              |                              |
| DRB1*03:01:01G+DRB1*14:23:02  | DRB1*03:01:06+DRB1*14:23:01  |                              |                              |
| DRB1*03:01:01G+DRB1*14:24     | DRB1*03:02:01+DRB1*13:129    |                              |                              |
| DRB1*03:01:01G+DRB1*14:25     | DRB1*03:06+DRB1*14:53        | DRB1*03:10+DRB1*13:07:01     | DRB1*03:58+DRB1*14:69        |
| DRB1*03:01:01G+DRB1*14:26     | DRB1*03:54+DRB1*14:01:01G    |                              |                              |
| DRB1*03:01:01G+DRB1*14:27     | DRB1*03:58+DRB1*14:03:01     |                              |                              |
| DRB1*03:01:01G+DRB1*14:28     | DRB1*03:20+DRB1*14:04        |                              |                              |
| DRB1*03:01:01G+DRB1*14:29     | DRB1*03:20+DRB1*14:06:01     |                              |                              |
| DRB1*03:01:01G+DRB1*14:30     | DRB1*03:05:01+DRB1*14:17     |                              |                              |
| DRB1*03:01:01G+DRB1*14:32:02  | DRB1*03:01:17+DRB1*14:32:01  | DRB1*03:10+DRB1*14:123       | DRB1*03:76+DRB1*14:104       |
| DRB1*03:01:01G+DRB1*14:36     | DRB1*03:18+DRB1*14:14        |                              |                              |
| DRB1*03:01:01G+DRB1*14:40     | DRB1*03:30+DRB1*14:03:01     |                              |                              |
| DRB1*03:01:01G+DRB1*14:41     | DRB1*03:43+DRB1*14:02        |                              |                              |
| DRB1*03:01:01G+DRB1*14:42     | DRB1*03:40+DRB1*14:95        |                              |                              |
| DRB1*03:01:01G+DRB1*14:44:01  | DRB1*03:01:17+DRB1*14:44:02  | DRB1*03:05:01+DRB1*14:05:01  |                              |
| DRB1*03:01:01G+DRB1*14:44:02  | DRB1*03:05:01+DRB1*14:05:03  |                              |                              |
| DRB1*03:01:01G+DRB1*14:44:03  | DRB1*03:01:11+DRB1*14:44:01  | DRB1*03:05:02+DRB1*14:05:01  |                              |
| DRB1*03:01:01G+DRB1*14:45     | DRB1*03:19+DRB1*14:05:01     |                              |                              |
| DRB1*03:01:01G+DRB1*14:46     | DRB1*03:42+DRB1*14:02        |                              |                              |
| DRB1*03:01:01G+DRB1*14:48     | DRB1*03:79+DRB1*14:02        |                              |                              |
| DRB1*03:01:01G+DRB1*14:51     | DRB1*03:05:01+DRB1*14:106    |                              |                              |
| DRB1*03:01:01G+DRB1*14:53     | DRB1*03:10+DRB1*13:14:01     |                              |                              |
| DRB1*03:01:01G+DRB1*14:63     | DRB1*03:05:01+DRB1*14:78     | DRB1*03:12+DRB1*14:67        | DRB1*03:19+DRB1*14:85        |
| DRB1*03:01:01G+DRB1*14:67     | DRB1*03:19+DRB1*14:03:01     |                              |                              |
| DRB1*03:01:01G+DRB1*14:68     | DRB1*03:05:01+DRB1*14:04     |                              |                              |
| DRB1*03:01:01G+DRB1*14:77     | DRB1*03:43+DRB1*14:03:01     | DRB1*03:71+DRB1*14:40        |                              |
| DRB1*03:01:01G+DRB1*14:80     | DRB1*03:06+DRB1*14:17        |                              |                              |
| DRB1*03:01:01G+DRB1*14:85     | DRB1*03:12+DRB1*14:03:01     |                              |                              |
| DRB1*03:01:01G+DRB1*14:86     | DRB1*03:37+DRB1*14:01:01G    | DRB1*03:80+DRB1*14:35        |                              |
| DRB1*03:01:01G+DRB1*14:94     | DRB1*03:04:01+DRB1*14:02     |                              |                              |
| DRB1*03:01:01G+DRB1*14:96     | DRB1*03:37+DRB1*14:05:01     |                              |                              |
| DRB1*03:01:01G+DRB1*14:99     | DRB1*03:20+DRB1*14:01:01G    |                              |                              |
| DRB1*03:01:01G+DRB1*14:108    | DRB1*03:58+DRB1*14:06:01     |                              |                              |
| DRB1*03:01:01G+DRB1*14:109    | DRB1*03:13:01+DRB1*14:19     |                              |                              |
| DRB1*03:01:01G+DRB1*14:110    | DRB1*03:71+DRB1*14:01:01G    |                              |                              |
| DRB1*03:01:01G+DRB1*14:115    | DRB1*03:13:01+DRB1*14:03:01  |                              |                              |
| DRB1*03:01:01G+DRB1*14:116    | DRB1*03:75+DRB1*13:119       |                              |                              |
| DRB1*03:01:01G+DRB1*14:120    | DRB1*03:19+DRB1*14:04        |                              |                              |
| DRB1*03:01:01G+DRB1*14:122    | DRB1*03:19+DRB1*14:01:01G    |                              |                              |
| DRB1*03:01:01G+DRB1*15:01:01G | DRB1*03:01:12+DRB1*15:01:04  | DRB1*03:15+DRB1*15:37        | DRB1*03:19+DRB1*15:05        |
|                               | DRB1*03:25+DRB1*15:32        | DRB1*13:129+DRB1*15:25       |                              |
| DRB1*03:01:01G+DRB1*15:01:03  | DRB1*03:01:17+DRB1*15:01:01G |                              |                              |
| DRB1*03:01:01G+DRB1*15:01:06  | DRB1*03:01:09+DRB1*15:01:01G |                              |                              |
| DRB1*03:01:01G+DRB1*15:01:19  | DRB1*03:01:20+DRB1*15:01:01G |                              |                              |
| DRB1*03:01:01G+DRB1*15:02:01  | DRB1*03:01:12+DRB1*15:02:02  | DRB1*03:05:01+DRB1*15:01:01G | DRB1*03:14+DRB1*15:37        |
|                               | DRB1*03:19+DRB1*15:31        |                              |                              |
| DRB1*03:01:01G+DRB1*15:02:02  | DRB1*03:05:01+DRB1*15:01:04  |                              |                              |
| DRB1*03:01:01G+DRB1*15:02:04  | DRB1*03:05:01+DRB1*15:01:09  |                              |                              |
| DRB1*03:01:01G+DRB1*15:02:05  | DRB1*03:01:11+DRB1*15:02:02  | DRB1*03:05:02+DRB1*15:01:04  |                              |
| DRB1*03:01:01G+DRB1*15:02:06  | DRB1*03:01:17+DRB1*15:02:01  | DRB1*03:05:01+DRB1*15:01:03  |                              |
| DRB1*03:01:01G+DRB1*15:02:08  | DRB1*03:05:01+DRB1*15:01:10  |                              |                              |
| DRB1*03:01:01G+DRB1*15:02:09  | DRB1*03:01:11+DRB1*15:02:01  | DRB1*03:01:12+DRB1*15:02:05  | DRB1*03:05:02+DRB1*15:01:01G |
| DRB1*03:01:01G+DRB1*15:03:01G | DRB1*03:19+DRB1*15:23        |                              |                              |
| DRB1*03:01:01G+DRB1*15:04     | DRB1*03:58+DRB1*15:05        |                              |                              |
| DRB1*03:01:01G+DRB1*15:06:01  | DRB1*03:19+DRB1*15:73        |                              |                              |
| DRB1*03:01:01G+DRB1*15:07:01  | DRB1*03:01:12+DRB1*15:07:02  | DRB1*03:06+DRB1*15:01:01G    | DRB1*03:31+DRB1*15:32        |
| DRB1*03:01:01G+DRB1*15:07:02  | DRB1*03:06+DRB1*15:01:04     |                              |                              |
| DRB1*03:01:01G+DRB1*15:10     | DRB1*13:27+DRB1*15:25        |                              |                              |
| DRB1*03:01:01G+DRB1*15:11     | DRB1*03:05:01+DRB1*15:07:01  | DRB1*03:06+DRB1*15:02:01     |                              |
| DRB1*03:01:01G+DRB1*15:12     | DRB1*03:12+DRB1*15:01:04     |                              |                              |
| DRB1*03:01:01G+DRB1*15:15     | DRB1*03:05:01+DRB1*15:04     | DRB1*03:58+DRB1*15:31        |                              |
| DRB1*03:01:01G+DRB1*15:19     | DRB1*03:50+DRB1*15:02:01     |                              |                              |
| DRB1*03:01:01G+DRB1*15:24     | DRB1*03:54+DRB1*15:01:01G    |                              |                              |
| DRB1*03:01:01G+DRB1*15:27     | DRB1*03:05:01+DRB1*15:66     |                              |                              |
| DRB1*03:01:01G+DRB1*15:31     | DRB1*03:05:01+DRB1*15:05     |                              |                              |
| DRB1*03:01:01G+DRB1*15:34     | DRB1*03:06+DRB1*15:27        |                              |                              |
| DRB1*03:01:01G+DRB1*15:35     | DRB1*03:20+DRB1*15:01:01G    |                              |                              |
| DRB1*03:01:01G+DRB1*15:38     | DRB1*03:13:01+DRB1*15:02:02  | DRB1*03:19+DRB1*15:63        |                              |
| DRB1*03:01:01G+DRB1*15:41     | DRB1*03:59+DRB1*15:01:01G    |                              |                              |
| DRB1*03:01:01G+DRB1*15:47     | DRB1*03:05:01+DRB1*15:65     | DRB1*03:37+DRB1*15:02:01     |                              |
| DRB1*03:01:01G+DRB1*15:48     | DRB1*03:06+DRB1*15:09        |                              |                              |



|                              |                              |                              |                          |
|------------------------------|------------------------------|------------------------------|--------------------------|
| DRB1*03:01:01G+DRB1*15:65    | DRB1*03:37+DRB1*15:01:01G    |                              |                          |
| DRB1*03:01:01G+DRB1*15:71    | DRB1*03:13:01+DRB1*15:01:01G |                              |                          |
| DRB1*03:01:01G+DRB1*16:01:01 | DRB1*03:04:01+DRB1*16:08     | DRB1*03:05:01+DRB1*16:15     | DRB1*03:06+DRB1*16:09    |
|                              | DRB1*03:58+DRB1*16:02:01     |                              |                          |
| DRB1*03:01:01G+DRB1*16:01:02 | DRB1*03:58+DRB1*16:02:02     |                              |                          |
| DRB1*03:01:01G+DRB1*16:02:01 | DRB1*03:06+DRB1*16:10        |                              |                          |
| DRB1*03:01:01G+DRB1*16:05:01 | DRB1*03:19+DRB1*16:02:01     |                              |                          |
| DRB1*03:01:01G+DRB1*16:09    | DRB1*03:58+DRB1*16:10        |                              |                          |
| DRB1*03:01:02+DRB1*03:05:02  | DRB1*03:01:11+DRB1*03:05:03  |                              |                          |
| DRB1*03:01:02+DRB1*03:09     | DRB1*03:05:03+DRB1*03:23     |                              |                          |
| DRB1*03:01:02+DRB1*03:14     | DRB1*03:05:03+DRB1*03:15     |                              |                          |
| DRB1*03:01:02+DRB1*03:38     | DRB1*03:02:02+DRB1*03:79     |                              |                          |
| DRB1*03:01:02+DRB1*04:01:01  | DRB1*03:05:03+DRB1*04:13     | DRB1*03:15+DRB1*04:72:02     |                          |
| DRB1*03:01:02+DRB1*04:03:01  | DRB1*03:15+DRB1*04:95        |                              |                          |
| DRB1*03:01:02+DRB1*04:04:01  | DRB1*03:15+DRB1*04:44        |                              |                          |
| DRB1*03:01:02+DRB1*04:05:01  | DRB1*03:05:03+DRB1*04:10:01  |                              |                          |
| DRB1*03:01:02+DRB1*04:07:01G | DRB1*03:05:03+DRB1*04:03:01  | DRB1*03:14+DRB1*04:95        | DRB1*03:15+DRB1*04:74    |
| DRB1*03:01:02+DRB1*04:07:04  | DRB1*03:05:03+DRB1*04:03:08  |                              |                          |
| DRB1*03:01:02+DRB1*04:08:01  | DRB1*03:05:03+DRB1*04:04:01  | DRB1*03:14+DRB1*04:44        |                          |
| DRB1*03:01:02+DRB1*04:08:02  | DRB1*03:05:03+DRB1*04:04:02  |                              |                          |
| DRB1*03:01:02+DRB1*04:09     | DRB1*03:05:03+DRB1*04:67     |                              |                          |
| DRB1*03:01:02+DRB1*04:14     | DRB1*03:05:03+DRB1*04:02:01  |                              |                          |
| DRB1*03:01:02+DRB1*04:17:02  | DRB1*03:05:03+DRB1*04:11:01  |                              |                          |
| DRB1*03:01:02+DRB1*04:19     | DRB1*03:05:03+DRB1*04:68     |                              |                          |
| DRB1*03:01:02+DRB1*04:20     | DRB1*03:05:03+DRB1*04:06:01G |                              |                          |
| DRB1*03:01:02+DRB1*04:31     | DRB1*03:05:03+DRB1*04:55     |                              |                          |
| DRB1*03:01:02+DRB1*04:43     | DRB1*03:05:03+DRB1*04:42     |                              |                          |
| DRB1*03:01:02+DRB1*04:74     | DRB1*03:05:03+DRB1*04:95     |                              |                          |
| DRB1*03:01:02+DRB1*04:86     | DRB1*03:05:03+DRB1*04:12     |                              |                          |
| DRB1*03:01:02+DRB1*04:102    | DRB1*03:05:03+DRB1*04:41     |                              |                          |
| DRB1*03:01:02+DRB1*04:105:01 | DRB1*03:05:03+DRB1*04:73     |                              |                          |
| DRB1*03:01:02+DRB1*07:11     | DRB1*03:15+DRB1*07:04        |                              |                          |
| DRB1*03:01:02+DRB1*08:01:05  | DRB1*03:05:03+DRB1*08:06     |                              |                          |
| DRB1*03:01:02+DRB1*08:02:01  | DRB1*03:05:03+DRB1*08:04:04  |                              |                          |
| DRB1*03:01:02+DRB1*08:02:02  | DRB1*03:05:03+DRB1*08:04:01  |                              |                          |
| DRB1*03:01:02+DRB1*08:03:02  | DRB1*03:05:03+DRB1*08:10     |                              |                          |
| DRB1*03:01:02+DRB1*08:41     | DRB1*03:05:03+DRB1*08:31     |                              |                          |
| DRB1*03:01:02+DRB1*08:47     | DRB1*03:13:02+DRB1*08:18     |                              |                          |
| DRB1*03:01:02+DRB1*09:01:02  | DRB1*03:05:03+DRB1*09:06     |                              |                          |
| DRB1*03:01:02+DRB1*10:01:01  | DRB1*03:05:03+DRB1*10:02     |                              |                          |
| DRB1*03:01:02+DRB1*11:01:01G | DRB1*03:05:03+DRB1*11:04:01  | DRB1*03:14+DRB1*11:84:01     | DRB1*03:15+DRB1*11:27:01 |
| DRB1*03:01:02+DRB1*11:01:02  | DRB1*03:05:03+DRB1*11:04:02  |                              |                          |
| DRB1*03:01:02+DRB1*11:01:03  | DRB1*03:05:03+DRB1*11:04:07  |                              |                          |
| DRB1*03:01:02+DRB1*11:01:04  | DRB1*03:05:03+DRB1*11:04:05  |                              |                          |
| DRB1*03:01:02+DRB1*11:01:05  | DRB1*03:05:03+DRB1*11:04:03  |                              |                          |
| DRB1*03:01:02+DRB1*11:01:12  | DRB1*03:05:03+DRB1*11:04:04  |                              |                          |
| DRB1*03:01:02+DRB1*11:02:01  | DRB1*03:15+DRB1*11:124       |                              |                          |
| DRB1*03:01:02+DRB1*11:04:01  | DRB1*03:15+DRB1*11:84:01     |                              |                          |
| DRB1*03:01:02+DRB1*11:08:01  | DRB1*03:05:03+DRB1*11:42     |                              |                          |
| DRB1*03:01:02+DRB1*11:09     | DRB1*03:05:03+DRB1*11:113    |                              |                          |
| DRB1*03:01:02+DRB1*11:11:01G | DRB1*03:05:03+DRB1*11:03     |                              |                          |
| DRB1*03:01:02+DRB1*11:14:01  | DRB1*03:05:03+DRB1*11:02:01  | DRB1*03:14+DRB1*11:124       |                          |
| DRB1*03:01:02+DRB1*11:19:01  | DRB1*03:05:03+DRB1*11:18     |                              |                          |
| DRB1*03:01:02+DRB1*11:20     | DRB1*03:05:03+DRB1*11:16     |                              |                          |
| DRB1*03:01:02+DRB1*11:26     | DRB1*03:05:03+DRB1*11:34     |                              |                          |
| DRB1*03:01:02+DRB1*11:27:01  | DRB1*03:05:03+DRB1*11:84:01  |                              |                          |
| DRB1*03:01:02+DRB1*11:27:03  | DRB1*03:01:11+DRB1*11:27:01  | DRB1*03:05:02+DRB1*11:84:01  |                          |
| DRB1*03:01:02+DRB1*11:28:01  | DRB1*03:05:03+DRB1*11:58:02  |                              |                          |
| DRB1*03:01:02+DRB1*11:28:02  | DRB1*03:05:03+DRB1*11:58:01  |                              |                          |
| DRB1*03:01:02+DRB1*11:33     | DRB1*03:05:03+DRB1*11:35     |                              |                          |
| DRB1*03:01:02+DRB1*11:37:01  | DRB1*03:05:03+DRB1*11:56     |                              |                          |
| DRB1*03:01:02+DRB1*11:39     | DRB1*03:05:03+DRB1*11:43     |                              |                          |
| DRB1*03:01:02+DRB1*11:45     | DRB1*03:05:03+DRB1*11:119    |                              |                          |
| DRB1*03:01:02+DRB1*11:49:01  | DRB1*03:05:03+DRB1*11:44     |                              |                          |
| DRB1*03:01:02+DRB1*11:62     | DRB1*03:05:03+DRB1*11:46:02  |                              |                          |
| DRB1*03:01:02+DRB1*11:68     | DRB1*03:05:03+DRB1*11:36     |                              |                          |
| DRB1*03:01:02+DRB1*11:103    | DRB1*03:05:03+DRB1*11:07     |                              |                          |
| DRB1*03:01:02+DRB1*11:109    | DRB1*03:05:03+DRB1*11:60     |                              |                          |
| DRB1*03:01:02+DRB1*11:112    | DRB1*03:78+DRB1*11:27:01     |                              |                          |
| DRB1*03:01:02+DRB1*11:116    | DRB1*03:13:02+DRB1*11:04:01  |                              |                          |
| DRB1*03:01:02+DRB1*11:120    | DRB1*03:05:03+DRB1*11:116    | DRB1*03:13:02+DRB1*11:01:01G |                          |
| DRB1*03:01:02+DRB1*11:122    | DRB1*03:05:03+DRB1*11:40     |                              |                          |
| DRB1*03:01:02+DRB1*13:01:01G | DRB1*03:15+DRB1*13:61:01     |                              |                          |
| DRB1*03:01:02+DRB1*13:02:01  | DRB1*03:05:03+DRB1*13:01:01G | DRB1*03:14+DRB1*13:61:01     | DRB1*03:15+DRB1*13:96:02 |
| DRB1*03:01:02+DRB1*13:02:03  | DRB1*03:05:03+DRB1*13:01:05  |                              |                          |
| DRB1*03:01:02+DRB1*13:03:01  | DRB1*03:05:03+DRB1*13:89     | DRB1*03:15+DRB1*13:33:03     |                          |
| DRB1*03:01:02+DRB1*13:03:02  | DRB1*03:15+DRB1*13:33:02     |                              |                          |
| DRB1*03:01:02+DRB1*13:05:01  | DRB1*03:05:03+DRB1*13:42     |                              |                          |
| DRB1*03:01:02+DRB1*13:14:01  | DRB1*03:05:03+DRB1*13:11:01  |                              |                          |
| DRB1*03:01:02+DRB1*13:14:02  | DRB1*03:05:03+DRB1*13:11:02  |                              |                          |
| DRB1*03:01:02+DRB1*13:23:02  | DRB1*03:05:03+DRB1*13:22     |                              |                          |
| DRB1*03:01:02+DRB1*13:29     | DRB1*03:05:03+DRB1*13:20     |                              |                          |
| DRB1*03:01:02+DRB1*13:36     | DRB1*03:05:03+DRB1*13:40     |                              |                          |
| DRB1*03:01:02+DRB1*13:39     | DRB1*03:05:03+DRB1*13:79     | DRB1*03:13:02+DRB1*13:02:01  |                          |
| DRB1*03:01:02+DRB1*13:41     | DRB1*03:05:03+DRB1*13:27     |                              |                          |
| DRB1*03:01:02+DRB1*13:49     | DRB1*03:05:03+DRB1*13:108    |                              |                          |
| DRB1*03:01:02+DRB1*13:63     | DRB1*03:05:03+DRB1*13:111    |                              |                          |
| DRB1*03:01:02+DRB1*13:65     | DRB1*03:05:03+DRB1*13:32     |                              |                          |
| DRB1*03:01:02+DRB1*13:78     | DRB1*03:13:02+DRB1*13:20     |                              |                          |
| DRB1*03:01:02+DRB1*13:79     | DRB1*03:13:02+DRB1*13:01:01G |                              |                          |
| DRB1*03:01:02+DRB1*13:96:02  | DRB1*03:05:03+DRB1*13:61:01  |                              |                          |
| DRB1*03:01:02+DRB1*13:97:01  | DRB1*03:05:03+DRB1*13:52     |                              |                          |
| DRB1*03:01:02+DRB1*13:100    | DRB1*03:13:02+DRB1*13:46     |                              |                          |
| DRB1*03:01:02+DRB1*13:104    | DRB1*03:05:03+DRB1*13:15     |                              |                          |
| DRB1*03:01:02+DRB1*13:107    | DRB1*03:05:03+DRB1*13:83     |                              |                          |
| DRB1*03:01:02+DRB1*13:128    | DRB1*03:05:03+DRB1*13:112    |                              |                          |
| DRB1*03:01:02+DRB1*13:139    | DRB1*03:05:03+DRB1*13:93     |                              |                          |
| DRB1*03:01:02+DRB1*14:01:02  | DRB1*03:15+DRB1*14:38        |                              |                          |
| DRB1*03:01:02+DRB1*14:02     | DRB1*03:05:03+DRB1*14:06:01  | DRB1*03:15+DRB1*14:47        |                          |
| DRB1*03:01:02+DRB1*14:03:01  | DRB1*03:05:03+DRB1*14:12:01  | DRB1*03:15+DRB1*14:98        |                          |
| DRB1*03:01:02+DRB1*14:05:03  | DRB1*03:15+DRB1*14:127       |                              |                          |
| DRB1*03:01:02+DRB1*14:07:01  | DRB1*03:05:03+DRB1*14:01:01G |                              |                          |
| DRB1*03:01:02+DRB1*14:09     | DRB1*03:05:03+DRB1*14:80     |                              |                          |
| DRB1*03:01:02+DRB1*14:14     | DRB1*03:05:03+DRB1*14:23:01  |                              |                          |
| DRB1*03:01:02+DRB1*14:24     | DRB1*03:02:02+DRB1*13:129    |                              |                          |

|                              |                              |                             |
|------------------------------|------------------------------|-----------------------------|
| DRB1*03:01:02+DRB1*14:30     | DRB1*03:05:03+DRB1*14:17     |                             |
| DRB1*03:01:02+DRB1*14:44:01  | DRB1*03:05:03+DRB1*14:05:01  |                             |
| DRB1*03:01:02+DRB1*14:44:02  | DRB1*03:05:03+DRB1*14:05:03  | DRB1*03:14+DRB1*14:127      |
| DRB1*03:01:02+DRB1*14:51     | DRB1*03:05:03+DRB1*14:106    |                             |
| DRB1*03:01:02+DRB1*14:63     | DRB1*03:05:03+DRB1*14:78     |                             |
| DRB1*03:01:02+DRB1*14:68     | DRB1*03:05:03+DRB1*14:04     |                             |
| DRB1*03:01:02+DRB1*14:93     | DRB1*03:05:01+DRB1*14:50     |                             |
| DRB1*03:01:02+DRB1*14:109    | DRB1*03:13:02+DRB1*14:19     |                             |
| DRB1*03:01:02+DRB1*14:115    | DRB1*03:13:02+DRB1*14:03:01  |                             |
| DRB1*03:01:02+DRB1*15:02:01  | DRB1*03:05:03+DRB1*15:01:01G |                             |
| DRB1*03:01:02+DRB1*15:02:02  | DRB1*03:05:03+DRB1*15:01:04  |                             |
| DRB1*03:01:02+DRB1*15:02:04  | DRB1*03:05:03+DRB1*15:01:09  |                             |
| DRB1*03:01:02+DRB1*15:02:06  | DRB1*03:05:03+DRB1*15:01:03  |                             |
| DRB1*03:01:02+DRB1*15:02:08  | DRB1*03:05:03+DRB1*15:01:10  |                             |
| DRB1*03:01:02+DRB1*15:03:01G | DRB1*03:15+DRB1*15:57        |                             |
| DRB1*03:01:02+DRB1*15:11     | DRB1*03:05:03+DRB1*15:07:01  |                             |
| DRB1*03:01:02+DRB1*15:15     | DRB1*03:05:03+DRB1*15:04     |                             |
| DRB1*03:01:02+DRB1*15:27     | DRB1*03:05:03+DRB1*15:66     |                             |
| DRB1*03:01:02+DRB1*15:31     | DRB1*03:05:03+DRB1*15:05     |                             |
| DRB1*03:01:02+DRB1*15:38     | DRB1*03:13:02+DRB1*15:02:02  |                             |
| DRB1*03:01:02+DRB1*15:47     | DRB1*03:05:03+DRB1*15:65     |                             |
| DRB1*03:01:02+DRB1*15:71     | DRB1*03:13:02+DRB1*15:01:01G |                             |
| DRB1*03:01:02+DRB1*16:01:01  | DRB1*03:05:03+DRB1*16:15     |                             |
| DRB1*03:01:05+DRB1*08:01:01G | DRB1*03:12+DRB1*08:02:03     |                             |
| DRB1*03:01:05+DRB1*08:02:04  | DRB1*03:01:17+DRB1*08:02:03  |                             |
| DRB1*03:01:05+DRB1*08:08     | DRB1*03:10+DRB1*08:02:03     |                             |
| DRB1*03:01:05+DRB1*11:01:02  | DRB1*03:01:11+DRB1*11:01:16  |                             |
| DRB1*03:01:05+DRB1*11:01:04  | DRB1*03:01:20+DRB1*11:01:16  |                             |
| DRB1*03:01:05+DRB1*11:01:05  | DRB1*03:01:17+DRB1*11:01:16  |                             |
| DRB1*03:01:05+DRB1*11:37:01  | DRB1*03:06+DRB1*11:01:16     |                             |
| DRB1*03:01:05+DRB1*11:39     | DRB1*03:37+DRB1*11:01:16     |                             |
| DRB1*03:01:05+DRB1*11:49:01  | DRB1*03:33+DRB1*11:01:16     |                             |
| DRB1*03:01:05+DRB1*11:51     | DRB1*03:70+DRB1*11:01:16     |                             |
| DRB1*03:01:05+DRB1*11:91     | DRB1*03:48+DRB1*11:01:16     |                             |
| DRB1*03:01:05+DRB1*11:101    | DRB1*03:73+DRB1*11:01:16     |                             |
| DRB1*03:01:05+DRB1*11:120    | DRB1*03:13:01+DRB1*11:01:16  |                             |
| DRB1*03:01:06+DRB1*04:04:02  | DRB1*03:01:12+DRB1*04:04:07  |                             |
| DRB1*03:01:06+DRB1*04:08:01  | DRB1*03:05:01+DRB1*04:04:07  |                             |
| DRB1*03:01:06+DRB1*04:10:01  | DRB1*03:12+DRB1*04:04:07     |                             |
| DRB1*03:01:06+DRB1*04:32     | DRB1*03:70+DRB1*04:04:07     |                             |
| DRB1*03:01:06+DRB1*04:40     | DRB1*03:46+DRB1*04:04:07     |                             |
| DRB1*03:01:06+DRB1*04:56     | DRB1*03:19+DRB1*04:04:07     |                             |
| DRB1*03:01:06+DRB1*09:19     | DRB1*03:45+DRB1*09:01:09     |                             |
| DRB1*03:01:06+DRB1*11:17     | DRB1*03:08+DRB1*14:23:02     |                             |
| DRB1*03:01:06+DRB1*11:52     | DRB1*03:08+DRB1*14:08        |                             |
| DRB1*03:01:06+DRB1*14:01:01G | DRB1*03:10+DRB1*14:23:02     |                             |
| DRB1*03:01:06+DRB1*14:14     | DRB1*03:05:01+DRB1*14:23:02  |                             |
| DRB1*03:01:09+DRB1*15:01:03  | DRB1*03:01:17+DRB1*15:01:06  |                             |
| DRB1*03:01:09+DRB1*15:01:19  | DRB1*03:01:20+DRB1*15:01:06  |                             |
| DRB1*03:01:09+DRB1*15:02:01  | DRB1*03:05:01+DRB1*15:01:06  |                             |
| DRB1*03:01:09+DRB1*15:02:09  | DRB1*03:05:02+DRB1*15:01:06  |                             |
| DRB1*03:01:09+DRB1*15:07:01  | DRB1*03:06+DRB1*15:01:06     |                             |
| DRB1*03:01:09+DRB1*15:24     | DRB1*03:54+DRB1*15:01:06     |                             |
| DRB1*03:01:09+DRB1*15:35     | DRB1*03:20+DRB1*15:01:06     |                             |
| DRB1*03:01:09+DRB1*15:41     | DRB1*03:59+DRB1*15:01:06     |                             |
| DRB1*03:01:09+DRB1*15:65     | DRB1*03:37+DRB1*15:01:06     |                             |
| DRB1*03:01:09+DRB1*15:71     | DRB1*03:13:01+DRB1*15:01:06  |                             |
| DRB1*03:01:11+DRB1*03:02:01  | DRB1*03:03+DRB1*03:05:02     |                             |
| DRB1*03:01:11+DRB1*03:09     | DRB1*03:05:02+DRB1*03:23     |                             |
| DRB1*03:01:11+DRB1*03:14     | DRB1*03:05:02+DRB1*03:15     |                             |
| DRB1*03:01:11+DRB1*04:05:13  | DRB1*03:01:16+DRB1*04:05:04  |                             |
| DRB1*03:01:11+DRB1*04:05:14  | DRB1*03:01:17+DRB1*04:05:04  |                             |
| DRB1*03:01:11+DRB1*04:07:04  | DRB1*03:05:02+DRB1*04:03:08  |                             |
| DRB1*03:01:11+DRB1*04:08:01  | DRB1*03:05:02+DRB1*04:04:01  |                             |
| DRB1*03:01:11+DRB1*04:08:02  | DRB1*03:05:02+DRB1*04:04:02  |                             |
| DRB1*03:01:11+DRB1*04:09     | DRB1*03:05:02+DRB1*04:67     | DRB1*03:12+DRB1*04:01:08    |
| DRB1*03:01:11+DRB1*04:14     | DRB1*03:05:02+DRB1*04:02:01  |                             |
| DRB1*03:01:11+DRB1*04:16     | DRB1*03:64+DRB1*04:01:08     |                             |
| DRB1*03:01:11+DRB1*04:19     | DRB1*03:05:02+DRB1*04:68     |                             |
| DRB1*03:01:11+DRB1*04:20     | DRB1*03:05:02+DRB1*04:06:01G |                             |
| DRB1*03:01:11+DRB1*04:31     | DRB1*03:05:02+DRB1*04:55     |                             |
| DRB1*03:01:11+DRB1*04:38     | DRB1*03:19+DRB1*04:01:08     |                             |
| DRB1*03:01:11+DRB1*04:43     | DRB1*03:05:02+DRB1*04:42     |                             |
| DRB1*03:01:11+DRB1*04:62     | DRB1*03:10+DRB1*04:01:08     |                             |
| DRB1*03:01:11+DRB1*04:74     | DRB1*03:05:02+DRB1*04:95     |                             |
| DRB1*03:01:11+DRB1*04:80     | DRB1*03:58+DRB1*04:05:04     |                             |
| DRB1*03:01:11+DRB1*04:86     | DRB1*03:05:02+DRB1*04:12     |                             |
| DRB1*03:01:11+DRB1*04:102    | DRB1*03:05:02+DRB1*04:41     |                             |
| DRB1*03:01:11+DRB1*04:105:01 | DRB1*03:05:02+DRB1*04:73     |                             |
| DRB1*03:01:11+DRB1*04:107    | DRB1*03:19+DRB1*04:05:04     |                             |
| DRB1*03:01:11+DRB1*04:117    | DRB1*03:77+DRB1*04:01:08     |                             |
| DRB1*03:01:11+DRB1*08:02:01  | DRB1*03:05:02+DRB1*08:04:04  |                             |
| DRB1*03:01:11+DRB1*08:04:06  | DRB1*03:01:12+DRB1*08:04:04  |                             |
| DRB1*03:01:11+DRB1*08:06     | DRB1*03:12+DRB1*08:04:04     |                             |
| DRB1*03:01:11+DRB1*08:27     | DRB1*03:23+DRB1*08:03:03     |                             |
| DRB1*03:01:11+DRB1*08:33     | DRB1*03:16+DRB1*08:03:03     |                             |
| DRB1*03:01:11+DRB1*08:34     | DRB1*03:79+DRB1*08:30:03     |                             |
| DRB1*03:01:11+DRB1*08:37     | DRB1*03:12+DRB1*08:45        |                             |
| DRB1*03:01:11+DRB1*08:41     | DRB1*03:05:02+DRB1*08:31     |                             |
| DRB1*03:01:11+DRB1*09:01:02  | DRB1*03:05:02+DRB1*09:06     |                             |
| DRB1*03:01:11+DRB1*10:01:01  | DRB1*03:05:02+DRB1*10:02     |                             |
| DRB1*03:01:11+DRB1*11:01:02  | DRB1*03:05:02+DRB1*11:04:02  |                             |
| DRB1*03:01:11+DRB1*11:01:04  | DRB1*03:01:20+DRB1*11:01:02  | DRB1*03:05:02+DRB1*11:04:05 |
| DRB1*03:01:11+DRB1*11:01:05  | DRB1*03:01:17+DRB1*11:01:02  | DRB1*03:05:02+DRB1*11:04:03 |
| DRB1*03:01:11+DRB1*11:01:10  | DRB1*03:01:17+DRB1*11:01:11  |                             |
| DRB1*03:01:11+DRB1*11:01:12  | DRB1*03:05:02+DRB1*11:04:04  |                             |
| DRB1*03:01:11+DRB1*11:04:03  | DRB1*03:01:17+DRB1*11:04:02  |                             |
| DRB1*03:01:11+DRB1*11:04:05  | DRB1*03:01:20+DRB1*11:04:02  |                             |
| DRB1*03:01:11+DRB1*11:06:01G | DRB1*03:20+DRB1*11:04:02     |                             |
| DRB1*03:01:11+DRB1*11:09     | DRB1*03:05:02+DRB1*11:113    | DRB1*03:08+DRB1*13:05:02    |
| DRB1*03:01:11+DRB1*11:11:01G | DRB1*03:05:02+DRB1*11:03     |                             |
| DRB1*03:01:11+DRB1*11:12:01  | DRB1*03:52+DRB1*11:10:01     |                             |
| DRB1*03:01:11+DRB1*11:16     | DRB1*03:08+DRB1*13:01:08     |                             |
| DRB1*03:01:11+DRB1*11:20     | DRB1*03:05:02+DRB1*11:16     |                             |
| DRB1*03:01:11+DRB1*11:26     | DRB1*03:05:02+DRB1*11:34     |                             |

|                              |                             |                              |
|------------------------------|-----------------------------|------------------------------|
| DRB1*03:01:11+DRB1*11:28:01  | DRB1*03:05:02+DRB1*11:58:02 |                              |
| DRB1*03:01:11+DRB1*11:28:02  | DRB1*03:05:02+DRB1*11:58:01 |                              |
| DRB1*03:01:11+DRB1*11:32     | DRB1*03:84+DRB1*11:23       |                              |
| DRB1*03:01:11+DRB1*11:33     | DRB1*03:05:02+DRB1*11:35    |                              |
| DRB1*03:01:11+DRB1*11:39     | DRB1*03:05:02+DRB1*11:43    | DRB1*03:37+DRB1*11:01:02     |
| DRB1*03:01:11+DRB1*11:43     | DRB1*03:37+DRB1*11:04:02    |                              |
| DRB1*03:01:11+DRB1*11:44     | DRB1*03:33+DRB1*11:04:02    |                              |
| DRB1*03:01:11+DRB1*11:45     | DRB1*03:05:02+DRB1*11:119   |                              |
| DRB1*03:01:11+DRB1*11:51     | DRB1*03:70+DRB1*11:01:02    |                              |
| DRB1*03:01:11+DRB1*11:56     | DRB1*03:06+DRB1*11:04:02    |                              |
| DRB1*03:01:11+DRB1*11:62     | DRB1*03:05:02+DRB1*11:46:02 |                              |
| DRB1*03:01:11+DRB1*11:68     | DRB1*03:05:02+DRB1*11:36    |                              |
| DRB1*03:01:11+DRB1*11:91     | DRB1*03:48+DRB1*11:01:02    |                              |
| DRB1*03:01:11+DRB1*11:101    | DRB1*03:73+DRB1*11:01:02    |                              |
| DRB1*03:01:11+DRB1*11:103    | DRB1*03:05:02+DRB1*11:07    |                              |
| DRB1*03:01:11+DRB1*11:109    | DRB1*03:05:02+DRB1*11:60    |                              |
| DRB1*03:01:11+DRB1*11:112    | DRB1*03:78+DRB1*11:27:03    |                              |
| DRB1*03:01:11+DRB1*11:116    | DRB1*03:13:01+DRB1*11:04:02 |                              |
| DRB1*03:01:11+DRB1*11:120    | DRB1*03:05:02+DRB1*11:116   | DRB1*03:13:01+DRB1*11:01:02  |
| DRB1*03:01:11+DRB1*11:122    | DRB1*03:05:02+DRB1*11:40    |                              |
| DRB1*03:01:11+DRB1*13:01:03  | DRB1*03:01:17+DRB1*13:01:08 |                              |
| DRB1*03:01:11+DRB1*13:01:05  | DRB1*03:01:12+DRB1*13:01:08 |                              |
| DRB1*03:01:11+DRB1*13:02:01  | DRB1*03:05:01+DRB1*13:01:08 | DRB1*03:05:02+DRB1*13:01:01G |
| DRB1*03:01:11+DRB1*13:02:03  | DRB1*03:05:02+DRB1*13:01:05 |                              |
| DRB1*03:01:11+DRB1*13:03:01  | DRB1*03:05:02+DRB1*13:89    |                              |
| DRB1*03:01:11+DRB1*13:07:01  | DRB1*03:06+DRB1*13:14:03    | DRB1*03:75+DRB1*13:05:02     |
| DRB1*03:01:11+DRB1*13:14:02  | DRB1*03:01:12+DRB1*13:14:03 | DRB1*03:05:02+DRB1*13:11:02  |
| DRB1*03:01:11+DRB1*13:29     | DRB1*03:05:02+DRB1*13:20    |                              |
| DRB1*03:01:11+DRB1*13:36     | DRB1*03:05:02+DRB1*13:40    |                              |
| DRB1*03:01:11+DRB1*13:39     | DRB1*03:05:02+DRB1*13:79    |                              |
| DRB1*03:01:11+DRB1*13:40     | DRB1*03:06+DRB1*13:01:08    |                              |
| DRB1*03:01:11+DRB1*13:41     | DRB1*03:05:02+DRB1*13:27    |                              |
| DRB1*03:01:11+DRB1*13:49     | DRB1*03:05:02+DRB1*13:108   | DRB1*03:06+DRB1*13:21:02     |
| DRB1*03:01:11+DRB1*13:50:01  | DRB1*03:52+DRB1*13:05:02    |                              |
| DRB1*03:01:11+DRB1*13:52     | DRB1*03:25+DRB1*13:01:08    |                              |
| DRB1*03:01:11+DRB1*13:63     | DRB1*03:05:02+DRB1*13:111   |                              |
| DRB1*03:01:11+DRB1*13:64     | DRB1*03:43+DRB1*13:01:08    |                              |
| DRB1*03:01:11+DRB1*13:65     | DRB1*03:05:02+DRB1*13:32    |                              |
| DRB1*03:01:11+DRB1*13:70     | DRB1*03:75+DRB1*13:01:08    |                              |
| DRB1*03:01:11+DRB1*13:79     | DRB1*03:13:01+DRB1*13:01:08 |                              |
| DRB1*03:01:11+DRB1*13:80     | DRB1*03:16+DRB1*13:01:08    |                              |
| DRB1*03:01:11+DRB1*13:81     | DRB1*03:20+DRB1*13:89       |                              |
| DRB1*03:01:11+DRB1*13:83     | DRB1*03:30+DRB1*13:01:08    |                              |
| DRB1*03:01:11+DRB1*13:92     | DRB1*03:54+DRB1*13:01:08    |                              |
| DRB1*03:01:11+DRB1*13:93     | DRB1*03:12+DRB1*13:01:08    |                              |
| DRB1*03:01:11+DRB1*13:96:01  | DRB1*03:05:02+DRB1*13:61:02 |                              |
| DRB1*03:01:11+DRB1*13:96:02  | DRB1*03:05:02+DRB1*13:61:01 |                              |
| DRB1*03:01:11+DRB1*13:97:01  | DRB1*03:05:02+DRB1*13:52    |                              |
| DRB1*03:01:11+DRB1*13:100    | DRB1*03:79+DRB1*13:14:03    |                              |
| DRB1*03:01:11+DRB1*13:104    | DRB1*03:05:02+DRB1*13:15    |                              |
| DRB1*03:01:11+DRB1*13:106    | DRB1*03:44+DRB1*13:01:08    |                              |
| DRB1*03:01:11+DRB1*13:107    | DRB1*03:05:02+DRB1*13:83    |                              |
| DRB1*03:01:11+DRB1*13:118    | DRB1*03:37+DRB1*13:12:02    |                              |
| DRB1*03:01:11+DRB1*13:128    | DRB1*03:05:02+DRB1*13:112   |                              |
| DRB1*03:01:11+DRB1*13:131    | DRB1*03:37+DRB1*13:01:08    |                              |
| DRB1*03:01:11+DRB1*13:132    | DRB1*03:25+DRB1*13:05:02    |                              |
| DRB1*03:01:11+DRB1*13:136    | DRB1*03:71+DRB1*13:05:02    |                              |
| DRB1*03:01:11+DRB1*13:139    | DRB1*03:05:02+DRB1*13:93    |                              |
| DRB1*03:01:11+DRB1*13:141    | DRB1*03:56+DRB1*13:01:08    |                              |
| DRB1*03:01:11+DRB1*14:02     | DRB1*03:05:01+DRB1*14:06:02 | DRB1*03:05:02+DRB1*14:06:01  |
| DRB1*03:01:11+DRB1*14:03:01  | DRB1*03:05:02+DRB1*14:12:01 |                              |
| DRB1*03:01:11+DRB1*14:09     | DRB1*03:05:02+DRB1*14:80    |                              |
| DRB1*03:01:11+DRB1*14:14     | DRB1*03:05:02+DRB1*14:23:01 |                              |
| DRB1*03:01:11+DRB1*14:20     | DRB1*03:30+DRB1*14:06:02    |                              |
| DRB1*03:01:11+DRB1*14:29     | DRB1*03:20+DRB1*14:06:02    |                              |
| DRB1*03:01:11+DRB1*14:30     | DRB1*03:05:02+DRB1*14:17    |                              |
| DRB1*03:01:11+DRB1*14:44:02  | DRB1*03:05:02+DRB1*14:05:03 |                              |
| DRB1*03:01:11+DRB1*14:51     | DRB1*03:05:02+DRB1*14:106   |                              |
| DRB1*03:01:11+DRB1*14:53     | DRB1*03:10+DRB1*13:14:03    |                              |
| DRB1*03:01:11+DRB1*14:63     | DRB1*03:05:02+DRB1*14:78    |                              |
| DRB1*03:01:11+DRB1*14:68     | DRB1*03:05:02+DRB1*14:04    |                              |
| DRB1*03:01:11+DRB1*14:108    | DRB1*03:58+DRB1*14:06:02    |                              |
| DRB1*03:01:11+DRB1*15:02:04  | DRB1*03:05:02+DRB1*15:01:09 |                              |
| DRB1*03:01:11+DRB1*15:02:06  | DRB1*03:01:17+DRB1*15:02:09 | DRB1*03:05:02+DRB1*15:01:03  |
| DRB1*03:01:11+DRB1*15:02:08  | DRB1*03:05:02+DRB1*15:01:10 |                              |
| DRB1*03:01:11+DRB1*15:11     | DRB1*03:05:02+DRB1*15:07:01 | DRB1*03:06+DRB1*15:02:09     |
| DRB1*03:01:11+DRB1*15:15     | DRB1*03:05:02+DRB1*15:04    |                              |
| DRB1*03:01:11+DRB1*15:19     | DRB1*03:50+DRB1*15:02:09    |                              |
| DRB1*03:01:11+DRB1*15:27     | DRB1*03:05:02+DRB1*15:66    |                              |
| DRB1*03:01:11+DRB1*15:31     | DRB1*03:05:02+DRB1*15:05    |                              |
| DRB1*03:01:11+DRB1*15:38     | DRB1*03:13:01+DRB1*15:02:05 |                              |
| DRB1*03:01:11+DRB1*15:47     | DRB1*03:05:02+DRB1*15:65    | DRB1*03:37+DRB1*15:02:09     |
| DRB1*03:01:11+DRB1*16:01:01  | DRB1*03:05:02+DRB1*16:15    |                              |
| DRB1*03:01:12+DRB1*04:05:01  | DRB1*03:12+DRB1*04:08:02    |                              |
| DRB1*03:01:12+DRB1*04:06:05  | DRB1*03:01:17+DRB1*04:06:04 |                              |
| DRB1*03:01:12+DRB1*04:07:01G | DRB1*03:05:01+DRB1*04:03:02 |                              |
| DRB1*03:01:12+DRB1*04:07:03  | DRB1*03:05:02+DRB1*04:03:02 |                              |
| DRB1*03:01:12+DRB1*04:10:01  | DRB1*03:12+DRB1*04:04:02    |                              |
| DRB1*03:01:12+DRB1*04:11:01  | DRB1*03:12+DRB1*04:03:02    |                              |
| DRB1*03:01:12+DRB1*04:20     | DRB1*03:04:02+DRB1*04:102   | DRB1*03:05:01+DRB1*04:06:04  |
| DRB1*03:01:12+DRB1*04:21     | DRB1*03:04:02+DRB1*04:113   |                              |
| DRB1*03:01:12+DRB1*04:27     | DRB1*03:20+DRB1*04:03:02    |                              |
| DRB1*03:01:12+DRB1*04:32     | DRB1*03:70+DRB1*04:04:02    |                              |
| DRB1*03:01:12+DRB1*04:40     | DRB1*03:46+DRB1*04:04:02    |                              |
| DRB1*03:01:12+DRB1*04:56     | DRB1*03:19+DRB1*04:04:02    |                              |
| DRB1*03:01:12+DRB1*04:61     | DRB1*03:08+DRB1*04:08:02    |                              |
| DRB1*03:01:12+DRB1*04:84     | DRB1*03:04:02+DRB1*04:77    |                              |
| DRB1*03:01:12+DRB1*04:88     | DRB1*03:19+DRB1*04:03:02    |                              |
| DRB1*03:01:12+DRB1*04:91     | DRB1*03:12+DRB1*04:06:04    |                              |
| DRB1*03:01:12+DRB1*08:02:01  | DRB1*03:05:02+DRB1*08:04:06 |                              |
| DRB1*03:01:12+DRB1*08:02:02  | DRB1*03:05:01+DRB1*08:04:06 |                              |
| DRB1*03:01:12+DRB1*08:06     | DRB1*03:12+DRB1*08:04:06    |                              |
| DRB1*03:01:12+DRB1*09:01:02  | DRB1*03:79+DRB1*09:02:01    |                              |
| DRB1*03:01:12+DRB1*11:01:01G | DRB1*03:08+DRB1*13:14:02    |                              |
| DRB1*03:01:12+DRB1*11:04:01  | DRB1*03:08+DRB1*13:11:02    |                              |

|                              |                             |
|------------------------------|-----------------------------|
| DRB1*03:01:12+DRB1*11:16     | DRB1*03:08+DRB1*13:01:05    |
| DRB1*03:01:12+DRB1*11:20     | DRB1*03:08+DRB1*13:02:03    |
| DRB1*03:01:12+DRB1*11:29     | DRB1*03:04:02+DRB1*11:28:01 |
| DRB1*03:01:12+DRB1*11:37:01  | DRB1*03:08+DRB1*13:07:02    |
| DRB1*03:01:12+DRB1*13:01:03  | DRB1*03:01:17+DRB1*13:01:05 |
| DRB1*03:01:12+DRB1*13:21:01  | DRB1*03:12+DRB1*13:14:02    |
| DRB1*03:01:12+DRB1*13:34     | DRB1*03:71+DRB1*13:02:03    |
| DRB1*03:01:12+DRB1*13:36     | DRB1*03:06+DRB1*13:02:03    |
| DRB1*03:01:12+DRB1*13:39     | DRB1*03:13:01+DRB1*13:02:03 |
| DRB1*03:01:12+DRB1*13:40     | DRB1*03:06+DRB1*13:01:05    |
| DRB1*03:01:12+DRB1*13:49     | DRB1*03:12+DRB1*13:07:02    |
| DRB1*03:01:12+DRB1*13:52     | DRB1*03:25+DRB1*13:01:05    |
| DRB1*03:01:12+DRB1*13:64     | DRB1*03:43+DRB1*13:01:05    |
| DRB1*03:01:12+DRB1*13:70     | DRB1*03:75+DRB1*13:01:05    |
| DRB1*03:01:12+DRB1*13:79     | DRB1*03:13:01+DRB1*13:01:05 |
| DRB1*03:01:12+DRB1*13:80     | DRB1*03:16+DRB1*13:01:05    |
| DRB1*03:01:12+DRB1*13:83     | DRB1*03:30+DRB1*13:01:05    |
| DRB1*03:01:12+DRB1*13:84     | DRB1*03:04:02+DRB1*13:40    |
| DRB1*03:01:12+DRB1*13:92     | DRB1*03:54+DRB1*13:01:05    |
| DRB1*03:01:12+DRB1*13:93     | DRB1*03:12+DRB1*13:01:05    |
| DRB1*03:01:12+DRB1*13:97:01  | DRB1*03:25+DRB1*13:02:03    |
| DRB1*03:01:12+DRB1*13:100    | DRB1*03:79+DRB1*13:14:02    |
| DRB1*03:01:12+DRB1*13:106    | DRB1*03:44+DRB1*13:01:05    |
| DRB1*03:01:12+DRB1*13:107    | DRB1*03:30+DRB1*13:02:03    |
| DRB1*03:01:12+DRB1*13:131    | DRB1*03:37+DRB1*13:01:05    |
| DRB1*03:01:12+DRB1*13:139    | DRB1*03:12+DRB1*13:02:03    |
| DRB1*03:01:12+DRB1*13:141    | DRB1*03:56+DRB1*13:01:05    |
| DRB1*03:01:12+DRB1*14:25     | DRB1*03:10+DRB1*13:07:02    |
| DRB1*03:01:12+DRB1*14:53     | DRB1*03:10+DRB1*13:14:02    |
| DRB1*03:01:12+DRB1*14:94     | DRB1*03:04:02+DRB1*14:02    |
| DRB1*03:01:12+DRB1*15:12     | DRB1*03:12+DRB1*15:01:01G   |
| DRB1*03:01:12+DRB1*15:38     | DRB1*03:05:01+DRB1*15:71    |
| DRB1*03:01:12+DRB1*15:63     | DRB1*03:13:01+DRB1*15:31    |
| DRB1*03:01:12+DRB1*16:01:01  | DRB1*03:04:02+DRB1*16:08    |
| DRB1*03:01:12+DRB1*16:16     | DRB1*03:08+DRB1*16:02:01    |
| DRB1*03:01:16+DRB1*04:05:14  | DRB1*03:01:17+DRB1*04:05:13 |
| DRB1*03:01:16+DRB1*04:80     | DRB1*03:58+DRB1*04:05:13    |
| DRB1*03:01:16+DRB1*04:107    | DRB1*03:19+DRB1*04:05:13    |
| DRB1*03:01:17+DRB1*04:20     | DRB1*03:05:01+DRB1*04:06:05 |
| DRB1*03:01:17+DRB1*04:80     | DRB1*03:58+DRB1*04:05:14    |
| DRB1*03:01:17+DRB1*04:91     | DRB1*03:12+DRB1*04:06:05    |
| DRB1*03:01:17+DRB1*04:101    | DRB1*04:22+DRB1*14:95       |
| DRB1*03:01:17+DRB1*04:107    | DRB1*03:19+DRB1*04:05:14    |
| DRB1*03:01:17+DRB1*08:01:01G | DRB1*03:12+DRB1*08:02:04    |
| DRB1*03:01:17+DRB1*08:08     | DRB1*03:10+DRB1*08:02:04    |
| DRB1*03:01:17+DRB1*11:01:04  | DRB1*03:01:20+DRB1*11:01:05 |
| DRB1*03:01:17+DRB1*11:04:05  | DRB1*03:01:20+DRB1*11:04:03 |
| DRB1*03:01:17+DRB1*11:06:03  | DRB1*03:01:20+DRB1*11:06:02 |
| DRB1*03:01:17+DRB1*11:16     | DRB1*03:08+DRB1*13:01:03    |
| DRB1*03:01:17+DRB1*11:37:01  | DRB1*03:06+DRB1*11:01:05    |
| DRB1*03:01:17+DRB1*11:39     | DRB1*03:37+DRB1*11:01:05    |
| DRB1*03:01:17+DRB1*11:43     | DRB1*03:37+DRB1*11:04:03    |
| DRB1*03:01:17+DRB1*11:44     | DRB1*03:33+DRB1*11:04:03    |
| DRB1*03:01:17+DRB1*11:49:01  | DRB1*03:33+DRB1*11:01:05    |
| DRB1*03:01:17+DRB1*11:51     | DRB1*03:70+DRB1*11:01:05    |
| DRB1*03:01:17+DRB1*11:56     | DRB1*03:06+DRB1*11:04:03    |
| DRB1*03:01:17+DRB1*11:91     | DRB1*03:48+DRB1*11:01:05    |
| DRB1*03:01:17+DRB1*11:101    | DRB1*03:73+DRB1*11:01:05    |
| DRB1*03:01:17+DRB1*11:116    | DRB1*03:13:01+DRB1*11:04:03 |
| DRB1*03:01:17+DRB1*11:120    | DRB1*03:13:01+DRB1*11:01:05 |
| DRB1*03:01:17+DRB1*13:02:01  | DRB1*03:05:01+DRB1*13:01:03 |
| DRB1*03:01:17+DRB1*13:40     | DRB1*03:06+DRB1*13:01:03    |
| DRB1*03:01:17+DRB1*13:52     | DRB1*03:25+DRB1*13:01:03    |
| DRB1*03:01:17+DRB1*13:64     | DRB1*03:43+DRB1*13:01:03    |
| DRB1*03:01:17+DRB1*13:70     | DRB1*03:75+DRB1*13:01:03    |
| DRB1*03:01:17+DRB1*13:79     | DRB1*03:13:01+DRB1*13:01:03 |
| DRB1*03:01:17+DRB1*13:80     | DRB1*03:16+DRB1*13:01:03    |
| DRB1*03:01:17+DRB1*13:83     | DRB1*03:30+DRB1*13:01:03    |
| DRB1*03:01:17+DRB1*13:92     | DRB1*03:54+DRB1*13:01:03    |
| DRB1*03:01:17+DRB1*13:93     | DRB1*03:12+DRB1*13:01:03    |
| DRB1*03:01:17+DRB1*13:106    | DRB1*03:44+DRB1*13:01:03    |
| DRB1*03:01:17+DRB1*13:131    | DRB1*03:37+DRB1*13:01:03    |
| DRB1*03:01:17+DRB1*13:141    | DRB1*03:56+DRB1*13:01:03    |
| DRB1*03:01:17+DRB1*14:22     | DRB1*03:05:01+DRB1*14:105   |
| DRB1*03:01:17+DRB1*15:01:19  | DRB1*03:01:20+DRB1*15:01:03 |
| DRB1*03:01:17+DRB1*15:07:01  | DRB1*03:06+DRB1*15:01:03    |
| DRB1*03:01:17+DRB1*15:11     | DRB1*03:06+DRB1*15:02:06    |
| DRB1*03:01:17+DRB1*15:19     | DRB1*03:50+DRB1*15:02:06    |
| DRB1*03:01:17+DRB1*15:24     | DRB1*03:54+DRB1*15:01:03    |
| DRB1*03:01:17+DRB1*15:35     | DRB1*03:20+DRB1*15:01:03    |
| DRB1*03:01:17+DRB1*15:41     | DRB1*03:59+DRB1*15:01:03    |
| DRB1*03:01:17+DRB1*15:47     | DRB1*03:37+DRB1*15:02:06    |
| DRB1*03:01:17+DRB1*15:65     | DRB1*03:37+DRB1*15:01:03    |
| DRB1*03:01:17+DRB1*15:71     | DRB1*03:13:01+DRB1*15:01:03 |
| DRB1*03:01:18+DRB1*08:01:04  | DRB1*03:01:20+DRB1*08:01:02 |
| DRB1*03:01:20+DRB1*11:37:01  | DRB1*03:06+DRB1*11:01:04    |
| DRB1*03:01:20+DRB1*11:39     | DRB1*03:37+DRB1*11:01:04    |
| DRB1*03:01:20+DRB1*11:43     | DRB1*03:37+DRB1*11:04:05    |
| DRB1*03:01:20+DRB1*11:44     | DRB1*03:33+DRB1*11:04:05    |
| DRB1*03:01:20+DRB1*11:49:01  | DRB1*03:33+DRB1*11:01:04    |
| DRB1*03:01:20+DRB1*11:51     | DRB1*03:70+DRB1*11:01:04    |
| DRB1*03:01:20+DRB1*11:56     | DRB1*03:06+DRB1*11:04:05    |
| DRB1*03:01:20+DRB1*11:91     | DRB1*03:48+DRB1*11:01:04    |
| DRB1*03:01:20+DRB1*11:101    | DRB1*03:73+DRB1*11:01:04    |
| DRB1*03:01:20+DRB1*11:116    | DRB1*03:13:01+DRB1*11:04:05 |
| DRB1*03:01:20+DRB1*11:120    | DRB1*03:13:01+DRB1*11:01:04 |
| DRB1*03:01:20+DRB1*15:02:01  | DRB1*03:05:01+DRB1*15:01:19 |
| DRB1*03:01:20+DRB1*15:02:09  | DRB1*03:05:02+DRB1*15:01:19 |
| DRB1*03:01:20+DRB1*15:07:01  | DRB1*03:06+DRB1*15:01:19    |
| DRB1*03:01:20+DRB1*15:24     | DRB1*03:54+DRB1*15:01:19    |
| DRB1*03:01:20+DRB1*15:35     | DRB1*03:20+DRB1*15:01:19    |
| DRB1*03:01:20+DRB1*15:41     | DRB1*03:59+DRB1*15:01:19    |
| DRB1*03:01:20+DRB1*15:65     | DRB1*03:37+DRB1*15:01:19    |
| DRB1*03:01:20+DRB1*15:71     | DRB1*03:13:01+DRB1*15:01:19 |
| DRB1*03:02:01+DRB1*03:05:03  | DRB1*03:02:02+DRB1*03:05:01 |

DRB1\*03:13:01+DRB1\*15:02:01

|                              |                             |                           |                           |
|------------------------------|-----------------------------|---------------------------|---------------------------|
| DRB1*03:02:01+DRB1*03:13:02  | DRB1*03:02:02+DRB1*03:13:01 |                           |                           |
| DRB1*03:02:01+DRB1*03:15     | DRB1*03:03+DRB1*03:14       |                           |                           |
| DRB1*03:02:01+DRB1*03:23     | DRB1*03:03+DRB1*03:09       |                           |                           |
| DRB1*03:02:01+DRB1*03:24     | DRB1*03:07+DRB1*03:27       |                           |                           |
| DRB1*03:02:01+DRB1*03:25     | DRB1*03:29+DRB1*03:31       |                           |                           |
| DRB1*03:02:01+DRB1*03:33     | DRB1*03:26+DRB1*03:29       |                           |                           |
| DRB1*03:02:01+DRB1*03:37     | DRB1*03:29+DRB1*03:80       |                           |                           |
| DRB1*03:02:01+DRB1*03:40     | DRB1*03:29+DRB1*03:41       |                           |                           |
| DRB1*03:02:01+DRB1*03:81     | DRB1*03:05:01+DRB1*03:27    |                           |                           |
| DRB1*03:02:01+DRB1*04:02:01  | DRB1*03:03+DRB1*04:14       |                           |                           |
| DRB1*03:02:01+DRB1*04:03:01  | DRB1*03:03+DRB1*04:07:01G   | DRB1*04:22+DRB1*14:51     |                           |
| DRB1*03:02:01+DRB1*04:03:08  | DRB1*03:03+DRB1*04:07:04    |                           |                           |
| DRB1*03:02:01+DRB1*04:04:01  | DRB1*03:03+DRB1*04:08:01    | DRB1*04:22+DRB1*14:02     |                           |
| DRB1*03:02:01+DRB1*04:04:02  | DRB1*03:03+DRB1*04:08:02    |                           |                           |
| DRB1*03:02:01+DRB1*04:06:01G | DRB1*03:03+DRB1*04:20       |                           |                           |
| DRB1*03:02:01+DRB1*04:10:01  | DRB1*03:03+DRB1*04:05:01    | DRB1*04:22+DRB1*14:13     |                           |
| DRB1*03:02:01+DRB1*04:11:01  | DRB1*03:03+DRB1*04:17:02    |                           |                           |
| DRB1*03:02:01+DRB1*04:12     | DRB1*03:03+DRB1*04:86       | DRB1*04:22+DRB1*14:63     |                           |
| DRB1*03:02:01+DRB1*04:13     | DRB1*03:03+DRB1*04:01:01    | DRB1*04:22+DRB1*14:19     |                           |
| DRB1*03:02:01+DRB1*04:18     | DRB1*04:22+DRB1*14:67       |                           |                           |
| DRB1*03:02:01+DRB1*04:25     | DRB1*04:22+DRB1*14:27       |                           |                           |
| DRB1*03:02:01+DRB1*04:28     | DRB1*03:29+DRB1*04:05:01    |                           |                           |
| DRB1*03:02:01+DRB1*04:35     | DRB1*03:29+DRB1*04:01:01    |                           |                           |
| DRB1*03:02:01+DRB1*04:36     | DRB1*04:22+DRB1*13:26:02    |                           |                           |
| DRB1*03:02:01+DRB1*04:41     | DRB1*03:03+DRB1*04:102      |                           |                           |
| DRB1*03:02:01+DRB1*04:42     | DRB1*03:03+DRB1*04:43       | DRB1*03:29+DRB1*04:04:01  |                           |
| DRB1*03:02:01+DRB1*04:43     | DRB1*03:29+DRB1*04:08:01    |                           |                           |
| DRB1*03:02:01+DRB1*04:44     | DRB1*04:22+DRB1*14:47       |                           |                           |
| DRB1*03:02:01+DRB1*04:55     | DRB1*03:03+DRB1*04:31       | DRB1*04:22+DRB1*14:89     |                           |
| DRB1*03:02:01+DRB1*04:58     | DRB1*04:22+DRB1*14:03:01    |                           |                           |
| DRB1*03:02:01+DRB1*04:59     | DRB1*03:29+DRB1*04:03:01    |                           |                           |
| DRB1*03:02:01+DRB1*04:67     | DRB1*03:03+DRB1*04:09       |                           |                           |
| DRB1*03:02:01+DRB1*04:68     | DRB1*03:03+DRB1*04:19       |                           |                           |
| DRB1*03:02:01+DRB1*04:72:02  | DRB1*03:02:02+DRB1*04:72:01 |                           |                           |
| DRB1*03:02:01+DRB1*04:73     | DRB1*03:03+DRB1*04:105:01   |                           |                           |
| DRB1*03:02:01+DRB1*04:95     | DRB1*03:03+DRB1*04:74       |                           |                           |
| DRB1*03:02:01+DRB1*08:04:01  | DRB1*03:03+DRB1*08:02:02    |                           |                           |
| DRB1*03:02:01+DRB1*08:04:04  | DRB1*03:03+DRB1*08:02:01    |                           |                           |
| DRB1*03:02:01+DRB1*08:06     | DRB1*03:03+DRB1*08:01:05    |                           |                           |
| DRB1*03:02:01+DRB1*08:10     | DRB1*03:03+DRB1*08:03:02    |                           |                           |
| DRB1*03:02:01+DRB1*08:17     | DRB1*03:29+DRB1*08:01:01G   |                           |                           |
| DRB1*03:02:01+DRB1*08:28     | DRB1*03:29+DRB1*08:04:01    |                           |                           |
| DRB1*03:02:01+DRB1*08:31     | DRB1*03:03+DRB1*08:41       |                           |                           |
| DRB1*03:02:01+DRB1*08:34     | DRB1*03:38+DRB1*08:30:01    |                           |                           |
| DRB1*03:02:01+DRB1*08:37     | DRB1*03:29+DRB1*08:03:02    |                           |                           |
| DRB1*03:02:01+DRB1*08:45     | DRB1*03:29+DRB1*08:30:03    |                           |                           |
| DRB1*03:02:01+DRB1*09:01:02  | DRB1*03:38+DRB1*09:02:02    |                           |                           |
| DRB1*03:02:01+DRB1*09:06     | DRB1*03:03+DRB1*09:01:02    |                           |                           |
| DRB1*03:02:01+DRB1*10:02     | DRB1*03:03+DRB1*10:01:01    |                           |                           |
| DRB1*03:02:01+DRB1*11:01:01G | DRB1*03:29+DRB1*11:37:01    | DRB1*11:103+DRB1*13:26:02 |                           |
| DRB1*03:02:01+DRB1*11:01:02  | DRB1*03:29+DRB1*11:37:02    |                           |                           |
| DRB1*03:02:01+DRB1*11:02:01  | DRB1*03:03+DRB1*11:14:01    | DRB1*03:29+DRB1*11:48     | DRB1*11:103+DRB1*13:53    |
|                              | DRB1*11:107+DRB1*13:15      |                           |                           |
| DRB1*03:02:01+DRB1*11:03     | DRB1*03:03+DRB1*11:11:01G   | DRB1*03:29+DRB1*11:41     |                           |
| DRB1*03:02:01+DRB1*11:04:01  | DRB1*03:03+DRB1*11:01:01G   | DRB1*03:29+DRB1*11:56     | DRB1*11:07+DRB1*13:26:02  |
| DRB1*03:02:01+DRB1*11:04:02  | DRB1*03:03+DRB1*11:01:02    |                           |                           |
| DRB1*03:02:01+DRB1*11:04:03  | DRB1*03:03+DRB1*11:01:05    |                           |                           |
| DRB1*03:02:01+DRB1*11:04:04  | DRB1*03:03+DRB1*11:01:12    |                           |                           |
| DRB1*03:02:01+DRB1*11:04:05  | DRB1*03:03+DRB1*11:01:04    |                           |                           |
| DRB1*03:02:01+DRB1*11:04:07  | DRB1*03:03+DRB1*11:01:03    |                           |                           |
| DRB1*03:02:01+DRB1*11:07     | DRB1*03:03+DRB1*11:103      |                           |                           |
| DRB1*03:02:01+DRB1*11:14:01  | DRB1*11:107+DRB1*13:104     |                           |                           |
| DRB1*03:02:01+DRB1*11:16     | DRB1*03:03+DRB1*11:20       |                           |                           |
| DRB1*03:02:01+DRB1*11:18     | DRB1*03:03+DRB1*11:19:01    |                           |                           |
| DRB1*03:02:01+DRB1*11:25     | DRB1*11:107+DRB1*14:27      | DRB1*11:125+DRB1*14:12:01 |                           |
| DRB1*03:02:01+DRB1*11:26     | DRB1*11:103+DRB1*14:02      |                           |                           |
| DRB1*03:02:01+DRB1*11:27:01  | DRB1*03:02:02+DRB1*11:27:02 |                           |                           |
| DRB1*03:02:01+DRB1*11:34     | DRB1*03:03+DRB1*11:26       | DRB1*11:07+DRB1*14:02     | DRB1*11:103+DRB1*14:06:01 |
| DRB1*03:02:01+DRB1*11:35     | DRB1*03:03+DRB1*11:33       |                           |                           |
| DRB1*03:02:01+DRB1*11:36     | DRB1*03:03+DRB1*11:68       |                           |                           |
| DRB1*03:02:01+DRB1*11:37:01  | DRB1*11:107+DRB1*13:26:02   |                           |                           |
| DRB1*03:02:01+DRB1*11:40     | DRB1*03:03+DRB1*11:122      |                           |                           |
| DRB1*03:02:01+DRB1*11:42     | DRB1*03:03+DRB1*11:08:01    |                           |                           |
| DRB1*03:02:01+DRB1*11:43     | DRB1*03:03+DRB1*11:39       |                           |                           |
| DRB1*03:02:01+DRB1*11:44     | DRB1*03:03+DRB1*11:49:01    |                           |                           |
| DRB1*03:02:01+DRB1*11:45     | DRB1*11:103+DRB1*14:67      |                           |                           |
| DRB1*03:02:01+DRB1*11:46:02  | DRB1*03:03+DRB1*11:62       |                           |                           |
| DRB1*03:02:01+DRB1*11:48     | DRB1*11:107+DRB1*13:53      |                           |                           |
| DRB1*03:02:01+DRB1*11:56     | DRB1*03:03+DRB1*11:37:01    |                           |                           |
| DRB1*03:02:01+DRB1*11:58:01  | DRB1*03:03+DRB1*11:28:02    |                           |                           |
| DRB1*03:02:01+DRB1*11:58:02  | DRB1*03:03+DRB1*11:28:01    |                           |                           |
| DRB1*03:02:01+DRB1*11:60     | DRB1*03:03+DRB1*11:109      |                           |                           |
| DRB1*03:02:01+DRB1*11:64     | DRB1*11:103+DRB1*14:03:01   |                           |                           |
| DRB1*03:02:01+DRB1*11:79     | DRB1*11:103+DRB1*14:19      |                           |                           |
| DRB1*03:02:01+DRB1*11:82     | DRB1*11:103+DRB1*14:24      |                           |                           |
| DRB1*03:02:01+DRB1*11:84:01  | DRB1*03:02:02+DRB1*11:84:02 | DRB1*03:03+DRB1*11:27:01  |                           |
| DRB1*03:02:01+DRB1*11:84:02  | DRB1*03:03+DRB1*11:27:02    |                           |                           |
| DRB1*03:02:01+DRB1*11:103    | DRB1*03:29+DRB1*11:107      |                           |                           |
| DRB1*03:02:01+DRB1*11:113    | DRB1*03:03+DRB1*11:09       |                           |                           |
| DRB1*03:02:01+DRB1*11:116    | DRB1*03:03+DRB1*11:120      |                           |                           |
| DRB1*03:02:01+DRB1*11:119    | DRB1*03:03+DRB1*11:45       | DRB1*11:07+DRB1*14:67     |                           |
| DRB1*03:02:01+DRB1*12:01:01G | DRB1*03:38+DRB1*12:09       |                           |                           |
| DRB1*03:02:01+DRB1*12:02:01  | DRB1*03:29+DRB1*12:21       |                           |                           |
| DRB1*03:02:01+DRB1*13:01:01G | DRB1*03:03+DRB1*13:02:01    | DRB1*03:29+DRB1*13:40     |                           |
| DRB1*03:02:01+DRB1*13:01:05  | DRB1*03:03+DRB1*13:02:03    |                           |                           |
| DRB1*03:02:01+DRB1*13:02:01  | DRB1*03:29+DRB1*13:36       |                           |                           |
| DRB1*03:02:01+DRB1*13:04     | DRB1*03:29+DRB1*13:48       |                           |                           |
| DRB1*03:02:01+DRB1*13:07:01  | DRB1*03:41+DRB1*13:26:02    |                           |                           |
| DRB1*03:02:01+DRB1*13:09     | DRB1*03:07+DRB1*14:24       |                           |                           |
| DRB1*03:02:01+DRB1*13:10     | DRB1*03:07+DRB1*13:85       |                           |                           |
| DRB1*03:02:01+DRB1*13:11:01  | DRB1*03:03+DRB1*13:14:01    |                           |                           |
| DRB1*03:02:01+DRB1*13:11:02  | DRB1*03:03+DRB1*13:14:02    |                           |                           |
| DRB1*03:02:01+DRB1*13:13     | DRB1*03:41+DRB1*14:63       |                           |                           |
| DRB1*03:02:01+DRB1*13:14:01  | DRB1*03:29+DRB1*13:07:01    | DRB1*03:40+DRB1*13:26:02  |                           |
| DRB1*03:02:01+DRB1*13:14:02  | DRB1*03:29+DRB1*13:07:02    |                           |                           |

|                              |                             |                           |                        |
|------------------------------|-----------------------------|---------------------------|------------------------|
| DRB1*03:02:01+DRB1*13:15     | DRB1*03:03+DRB1*13:104      | DRB1*03:29+DRB1*13:53     |                        |
| DRB1*03:02:01+DRB1*13:17     | DRB1*03:29+DRB1*13:116      |                           |                        |
| DRB1*03:02:01+DRB1*13:18     | DRB1*03:07+DRB1*14:27       |                           |                        |
| DRB1*03:02:01+DRB1*13:20     | DRB1*03:03+DRB1*13:29       |                           |                        |
| DRB1*03:02:01+DRB1*13:21:01  | DRB1*03:29+DRB1*13:49       |                           |                        |
| DRB1*03:02:01+DRB1*13:22     | DRB1*03:03+DRB1*13:23:02    | DRB1*03:29+DRB1*13:70     | DRB1*03:40+DRB1*13:53  |
|                              | DRB1*03:41+DRB1*13:15       |                           |                        |
| DRB1*03:02:01+DRB1*13:23:02  | DRB1*03:41+DRB1*13:104      |                           |                        |
| DRB1*03:02:01+DRB1*13:27     | DRB1*03:03+DRB1*13:41       | DRB1*03:05:01+DRB1*13:53  | DRB1*03:06+DRB1*13:104 |
| DRB1*03:02:01+DRB1*13:30     | DRB1*03:29+DRB1*13:12:01    |                           |                        |
| DRB1*03:02:01+DRB1*13:32     | DRB1*03:03+DRB1*13:65       |                           |                        |
| DRB1*03:02:01+DRB1*13:33:03  | DRB1*03:02:02+DRB1*13:33:01 |                           |                        |
| DRB1*03:02:01+DRB1*13:40     | DRB1*03:03+DRB1*13:36       |                           |                        |
| DRB1*03:02:01+DRB1*13:42     | DRB1*03:03+DRB1*13:05:01    | DRB1*03:07+DRB1*13:26:02  |                        |
| DRB1*03:02:01+DRB1*13:44     | DRB1*03:40+DRB1*14:06:01    |                           |                        |
| DRB1*03:02:01+DRB1*13:52     | DRB1*03:03+DRB1*13:97:01    |                           |                        |
| DRB1*03:02:01+DRB1*13:54     | DRB1*03:38+DRB1*13:24       |                           |                        |
| DRB1*03:02:01+DRB1*13:57     | DRB1*03:29+DRB1*13:19       |                           |                        |
| DRB1*03:02:01+DRB1*13:61:01  | DRB1*03:02:02+DRB1*13:61:02 | DRB1*03:03+DRB1*13:96:02  |                        |
| DRB1*03:02:01+DRB1*13:61:02  | DRB1*03:03+DRB1*13:96:01    |                           |                        |
| DRB1*03:02:01+DRB1*13:66:01  | DRB1*03:29+DRB1*13:03:02    |                           |                        |
| DRB1*03:02:01+DRB1*13:66:02  | DRB1*03:29+DRB1*13:03:01    |                           |                        |
| DRB1*03:02:01+DRB1*13:70     | DRB1*03:41+DRB1*13:53       |                           |                        |
| DRB1*03:02:01+DRB1*13:79     | DRB1*03:03+DRB1*13:39       |                           |                        |
| DRB1*03:02:01+DRB1*13:83     | DRB1*03:03+DRB1*13:107      | DRB1*03:29+DRB1*13:08     |                        |
| DRB1*03:02:01+DRB1*13:89     | DRB1*03:03+DRB1*13:03:01    |                           |                        |
| DRB1*03:02:01+DRB1*13:93     | DRB1*03:03+DRB1*13:139      | DRB1*03:29+DRB1*13:32     |                        |
| DRB1*03:02:01+DRB1*13:96:02  | DRB1*03:02:02+DRB1*13:96:01 |                           |                        |
| DRB1*03:02:01+DRB1*13:100    | DRB1*03:38+DRB1*13:14:01    |                           |                        |
| DRB1*03:02:01+DRB1*13:108    | DRB1*03:03+DRB1*13:49       |                           |                        |
| DRB1*03:02:01+DRB1*13:111    | DRB1*03:03+DRB1*13:63       |                           |                        |
| DRB1*03:02:01+DRB1*13:112    | DRB1*03:03+DRB1*13:128      |                           |                        |
| DRB1*03:02:01+DRB1*13:139    | DRB1*03:29+DRB1*13:65       |                           |                        |
| DRB1*03:02:01+DRB1*14:01:01G | DRB1*03:03+DRB1*14:07:01    |                           |                        |
| DRB1*03:02:01+DRB1*14:04     | DRB1*03:03+DRB1*14:68       |                           |                        |
| DRB1*03:02:01+DRB1*14:05:01  | DRB1*03:03+DRB1*14:44:01    |                           |                        |
| DRB1*03:02:01+DRB1*14:05:03  | DRB1*03:03+DRB1*14:44:02    |                           |                        |
| DRB1*03:02:01+DRB1*14:06:01  | DRB1*03:03+DRB1*14:02       |                           |                        |
| DRB1*03:02:01+DRB1*14:12:01  | DRB1*03:03+DRB1*14:03:01    |                           |                        |
| DRB1*03:02:01+DRB1*14:17     | DRB1*03:03+DRB1*14:30       | DRB1*03:07+DRB1*14:02     | DRB1*03:29+DRB1*14:80  |
| DRB1*03:02:01+DRB1*14:21     | DRB1*03:07+DRB1*14:19       |                           |                        |
| DRB1*03:02:01+DRB1*14:23:01  | DRB1*03:03+DRB1*14:14       |                           |                        |
| DRB1*03:02:01+DRB1*14:30     | DRB1*03:29+DRB1*14:09       |                           |                        |
| DRB1*03:02:01+DRB1*14:33     | DRB1*03:07+DRB1*14:51       |                           |                        |
| DRB1*03:02:01+DRB1*14:35     | DRB1*03:29+DRB1*14:01:01G   |                           |                        |
| DRB1*03:02:01+DRB1*14:48     | DRB1*03:38+DRB1*14:02       |                           |                        |
| DRB1*03:02:01+DRB1*14:53     | DRB1*03:29+DRB1*14:25       |                           |                        |
| DRB1*03:02:01+DRB1*14:78     | DRB1*03:03+DRB1*14:63       |                           |                        |
| DRB1*03:02:01+DRB1*14:80     | DRB1*03:03+DRB1*14:09       |                           |                        |
| DRB1*03:02:01+DRB1*14:106    | DRB1*03:03+DRB1*14:51       |                           |                        |
| DRB1*03:02:01+DRB1*14:116    | DRB1*03:41+DRB1*14:03:01    |                           |                        |
| DRB1*03:02:01+DRB1*15:01:01G | DRB1*03:03+DRB1*15:02:01    | DRB1*03:29+DRB1*15:07:01  | DRB1*14:24+DRB1*15:25  |
| DRB1*03:02:01+DRB1*15:01:03  | DRB1*03:03+DRB1*15:02:06    |                           |                        |
| DRB1*03:02:01+DRB1*15:01:04  | DRB1*03:03+DRB1*15:02:02    | DRB1*03:29+DRB1*15:07:02  |                        |
| DRB1*03:02:01+DRB1*15:01:09  | DRB1*03:03+DRB1*15:02:04    |                           |                        |
| DRB1*03:02:01+DRB1*15:01:10  | DRB1*03:03+DRB1*15:02:08    |                           |                        |
| DRB1*03:02:01+DRB1*15:02:01  | DRB1*03:29+DRB1*15:11       |                           |                        |
| DRB1*03:02:01+DRB1*15:04     | DRB1*03:03+DRB1*15:15       |                           |                        |
| DRB1*03:02:01+DRB1*15:05     | DRB1*03:03+DRB1*15:31       |                           |                        |
| DRB1*03:02:01+DRB1*15:07:01  | DRB1*03:03+DRB1*15:11       |                           |                        |
| DRB1*03:02:01+DRB1*15:09     | DRB1*03:29+DRB1*15:48       |                           |                        |
| DRB1*03:02:01+DRB1*15:21     | DRB1*14:67+DRB1*15:25       |                           |                        |
| DRB1*03:02:01+DRB1*15:27     | DRB1*03:29+DRB1*15:34       |                           |                        |
| DRB1*03:02:01+DRB1*15:65     | DRB1*03:03+DRB1*15:47       |                           |                        |
| DRB1*03:02:01+DRB1*15:66     | DRB1*03:03+DRB1*15:27       | DRB1*14:02+DRB1*15:25     |                        |
| DRB1*03:02:01+DRB1*16:09     | DRB1*03:29+DRB1*16:01:01    |                           |                        |
| DRB1*03:02:01+DRB1*16:10     | DRB1*03:29+DRB1*16:02:01    |                           |                        |
| DRB1*03:02:01+DRB1*16:15     | DRB1*03:03+DRB1*16:01:01    |                           |                        |
| DRB1*03:02:02+DRB1*03:81     | DRB1*03:05:03+DRB1*03:27    |                           |                        |
| DRB1*03:02:02+DRB1*04:08:01  | DRB1*04:98:02+DRB1*14:47    |                           |                        |
| DRB1*03:02:02+DRB1*11:26     | DRB1*11:105+DRB1*14:47      |                           |                        |
| DRB1*03:02:02+DRB1*11:64     | DRB1*11:105+DRB1*14:98      |                           |                        |
| DRB1*03:02:02+DRB1*13:27     | DRB1*03:05:03+DRB1*13:53    |                           |                        |
| DRB1*03:02:02+DRB1*13:94     | DRB1*03:03+DRB1*13:33:02    |                           |                        |
| DRB1*03:03+DRB1*04:02:01     | DRB1*04:22+DRB1*13:53       |                           |                        |
| DRB1*03:03+DRB1*04:03:01     | DRB1*04:22+DRB1*14:106      |                           |                        |
| DRB1*03:03+DRB1*04:04:01     | DRB1*04:22+DRB1*14:06:01    |                           |                        |
| DRB1*03:03+DRB1*04:12        | DRB1*04:22+DRB1*14:78       |                           |                        |
| DRB1*03:03+DRB1*04:28        | DRB1*03:29+DRB1*04:10:01    |                           |                        |
| DRB1*03:03+DRB1*04:35        | DRB1*03:29+DRB1*04:13       |                           |                        |
| DRB1*03:03+DRB1*04:58        | DRB1*04:22+DRB1*14:12:01    |                           |                        |
| DRB1*03:03+DRB1*04:82        | DRB1*03:38+DRB1*04:53       |                           |                        |
| DRB1*03:03+DRB1*04:105:02    | DRB1*04:22+DRB1*14:24       |                           |                        |
| DRB1*03:03+DRB1*08:37        | DRB1*03:29+DRB1*08:10       |                           |                        |
| DRB1*03:03+DRB1*11:02:01     | DRB1*11:07+DRB1*13:53       |                           |                        |
| DRB1*03:03+DRB1*11:34        | DRB1*11:07+DRB1*14:06:01    |                           |                        |
| DRB1*03:03+DRB1*11:64        | DRB1*11:07+DRB1*14:03:01    | DRB1*11:103+DRB1*14:12:01 |                        |
| DRB1*03:03+DRB1*11:79        | DRB1*11:07+DRB1*14:19       |                           |                        |
| DRB1*03:03+DRB1*11:82        | DRB1*11:07+DRB1*14:24       |                           |                        |
| DRB1*03:03+DRB1*11:87        | DRB1*03:08+DRB1*13:26:02    | DRB1*03:29+DRB1*11:83     |                        |
| DRB1*03:03+DRB1*13:01:01G    | DRB1*03:07+DRB1*13:53       |                           |                        |
| DRB1*03:03+DRB1*13:13        | DRB1*03:41+DRB1*14:78       |                           |                        |
| DRB1*03:03+DRB1*13:21:01     | DRB1*03:29+DRB1*13:108      |                           |                        |
| DRB1*03:03+DRB1*13:66:02     | DRB1*03:29+DRB1*13:89       |                           |                        |
| DRB1*03:03+DRB1*13:83        | DRB1*03:07+DRB1*13:19       | DRB1*03:21+DRB1*13:53     |                        |
| DRB1*03:03+DRB1*13:100       | DRB1*03:38+DRB1*13:11:01    |                           |                        |
| DRB1*03:03+DRB1*13:119       | DRB1*03:07+DRB1*14:03:01    |                           |                        |
| DRB1*03:03+DRB1*14:17        | DRB1*03:07+DRB1*14:06:01    |                           |                        |
| DRB1*03:03+DRB1*14:33        | DRB1*03:07+DRB1*14:106      |                           |                        |
| DRB1*03:03+DRB1*14:48        | DRB1*03:38+DRB1*14:06:01    |                           |                        |
| DRB1*03:03+DRB1*14:116       | DRB1*03:41+DRB1*14:12:01    |                           |                        |
| DRB1*03:03+DRB1*15:10        | DRB1*13:53+DRB1*15:25       |                           |                        |
| DRB1*03:03+DRB1*15:54        | DRB1*14:121+DRB1*15:25      |                           |                        |
| DRB1*03:03+DRB1*15:66        | DRB1*14:06:01+DRB1*15:25    |                           |                        |
| DRB1*03:03+DRB1*16:09        | DRB1*03:29+DRB1*16:15       |                           |                        |

|                              |                              |                          |                        |
|------------------------------|------------------------------|--------------------------|------------------------|
| DRB1*03:04:01+DRB1*04:01:01  | DRB1*03:25+DRB1*04:21        |                          |                        |
| DRB1*03:04:01+DRB1*04:03:01  | DRB1*03:25+DRB1*04:06:01G    |                          |                        |
| DRB1*03:04:01+DRB1*04:03:02  | DRB1*03:04:02+DRB1*04:03:01  | DRB1*03:25+DRB1*04:06:04 |                        |
| DRB1*03:04:01+DRB1*04:03:04  | DRB1*03:25+DRB1*04:06:03     |                          |                        |
| DRB1*03:04:01+DRB1*04:04:01  | DRB1*03:25+DRB1*04:68        |                          |                        |
| DRB1*03:04:01+DRB1*04:04:02  | DRB1*03:04:02+DRB1*04:04:01  |                          |                        |
| DRB1*03:04:01+DRB1*04:05:01  | DRB1*03:25+DRB1*04:84        |                          |                        |
| DRB1*03:04:01+DRB1*04:06:04  | DRB1*03:04:02+DRB1*04:06:01G |                          |                        |
| DRB1*03:04:01+DRB1*04:07:01G | DRB1*03:25+DRB1*04:20        |                          |                        |
| DRB1*03:04:01+DRB1*04:08:01  | DRB1*03:25+DRB1*04:19        |                          |                        |
| DRB1*03:04:01+DRB1*04:08:02  | DRB1*03:04:02+DRB1*04:08:01  |                          |                        |
| DRB1*03:04:01+DRB1*04:11:01  | DRB1*03:25+DRB1*04:91        |                          |                        |
| DRB1*03:04:01+DRB1*04:101    | DRB1*03:25+DRB1*04:78        |                          |                        |
| DRB1*03:04:01+DRB1*04:105:01 | DRB1*03:04:02+DRB1*04:105:02 |                          |                        |
| DRB1*03:04:01+DRB1*08:02:01  | DRB1*03:25+DRB1*08:42        |                          |                        |
| DRB1*03:04:01+DRB1*08:04:06  | DRB1*03:04:02+DRB1*08:04:01  |                          |                        |
| DRB1*03:04:01+DRB1*09:02:01  | DRB1*03:04:02+DRB1*09:02:02  |                          |                        |
| DRB1*03:04:01+DRB1*11:01:01G | DRB1*03:25+DRB1*11:29        |                          |                        |
| DRB1*03:04:01+DRB1*11:03     | DRB1*03:25+DRB1*11:63        |                          |                        |
| DRB1*03:04:01+DRB1*11:06:01G | DRB1*03:25+DRB1*11:47        |                          |                        |
| DRB1*03:04:01+DRB1*11:12:01  | DRB1*03:30+DRB1*11:29        |                          |                        |
| DRB1*03:04:01+DRB1*11:37:01  | DRB1*03:31+DRB1*11:29        |                          |                        |
| DRB1*03:04:01+DRB1*11:41     | DRB1*03:31+DRB1*11:63        |                          |                        |
| DRB1*03:04:01+DRB1*11:49:01  | DRB1*03:44+DRB1*11:29        |                          |                        |
| DRB1*03:04:01+DRB1*11:85     | DRB1*03:44+DRB1*11:63        |                          |                        |
| DRB1*03:04:01+DRB1*11:114    | DRB1*03:43+DRB1*11:29        |                          |                        |
| DRB1*03:04:01+DRB1*13:01:05  | DRB1*03:04:02+DRB1*13:01:01G |                          |                        |
| DRB1*03:04:01+DRB1*13:02:03  | DRB1*03:04:02+DRB1*13:02:01  |                          |                        |
| DRB1*03:04:01+DRB1*13:07:02  | DRB1*03:04:02+DRB1*13:07:01  |                          |                        |
| DRB1*03:04:01+DRB1*13:08     | DRB1*03:30+DRB1*13:84        |                          |                        |
| DRB1*03:04:01+DRB1*13:11:02  | DRB1*03:04:02+DRB1*13:11:01  |                          |                        |
| DRB1*03:04:01+DRB1*13:14:02  | DRB1*03:04:02+DRB1*13:14:01  |                          |                        |
| DRB1*03:04:01+DRB1*13:32     | DRB1*03:12+DRB1*13:84        |                          |                        |
| DRB1*03:04:01+DRB1*13:36     | DRB1*03:05:01+DRB1*13:84     |                          |                        |
| DRB1*03:04:01+DRB1*14:05:01  | DRB1*03:30+DRB1*14:91        |                          |                        |
| DRB1*03:04:01+DRB1*14:13     | DRB1*03:12+DRB1*14:94        |                          |                        |
| DRB1*03:04:01+DRB1*14:41     | DRB1*03:43+DRB1*14:94        |                          |                        |
| DRB1*03:04:01+DRB1*14:46     | DRB1*03:42+DRB1*14:94        |                          |                        |
| DRB1*03:04:01+DRB1*14:48     | DRB1*03:79+DRB1*14:94        |                          |                        |
| DRB1*03:04:01+DRB1*15:01:01G | DRB1*03:04:02+DRB1*15:01:04  |                          |                        |
| DRB1*03:04:01+DRB1*15:02:01  | DRB1*03:04:02+DRB1*15:02:02  |                          |                        |
| DRB1*03:04:01+DRB1*15:02:09  | DRB1*03:04:02+DRB1*15:02:05  |                          |                        |
| DRB1*03:04:01+DRB1*15:07:01  | DRB1*03:04:02+DRB1*15:07:02  |                          |                        |
| DRB1*03:05:01+DRB1*03:13:02  | DRB1*03:05:03+DRB1*03:13:01  |                          |                        |
| DRB1*03:05:01+DRB1*03:24     | DRB1*03:07+DRB1*03:81        |                          |                        |
| DRB1*03:05:01+DRB1*04:01:01  | DRB1*03:14+DRB1*04:72:01     |                          |                        |
| DRB1*03:05:01+DRB1*04:01:08  | DRB1*03:05:02+DRB1*04:01:01  |                          |                        |
| DRB1*03:05:01+DRB1*04:05:04  | DRB1*03:05:02+DRB1*04:05:01  |                          |                        |
| DRB1*03:05:01+DRB1*04:07:03  | DRB1*03:05:02+DRB1*04:07:01G |                          |                        |
| DRB1*03:05:01+DRB1*04:15     | DRB1*04:22+DRB1*11:87        |                          |                        |
| DRB1*03:05:01+DRB1*04:17:01  | DRB1*03:05:02+DRB1*04:17:02  |                          |                        |
| DRB1*03:05:01+DRB1*04:27     | DRB1*03:20+DRB1*04:07:01G    |                          |                        |
| DRB1*03:05:01+DRB1*04:32     | DRB1*03:70+DRB1*04:08:01     |                          |                        |
| DRB1*03:05:01+DRB1*04:40     | DRB1*03:46+DRB1*04:08:01     |                          |                        |
| DRB1*03:05:01+DRB1*04:56     | DRB1*03:19+DRB1*04:08:01     |                          |                        |
| DRB1*03:05:01+DRB1*04:72:02  | DRB1*03:05:03+DRB1*04:72:01  |                          |                        |
| DRB1*03:05:01+DRB1*04:88     | DRB1*03:19+DRB1*04:07:01G    |                          |                        |
| DRB1*03:05:01+DRB1*04:91     | DRB1*03:12+DRB1*04:20        |                          |                        |
| DRB1*03:05:01+DRB1*08:01:01G | DRB1*03:05:02+DRB1*08:01:05  |                          |                        |
| DRB1*03:05:01+DRB1*08:02:01  | DRB1*03:05:02+DRB1*08:02:02  |                          |                        |
| DRB1*03:05:01+DRB1*08:03:03  | DRB1*03:05:02+DRB1*08:03:02  |                          |                        |
| DRB1*03:05:01+DRB1*08:04:03  | DRB1*03:05:02+DRB1*08:04:02  |                          |                        |
| DRB1*03:05:01+DRB1*08:12     | DRB1*03:20+DRB1*08:03:02     |                          |                        |
| DRB1*03:05:01+DRB1*08:20     | DRB1*03:58+DRB1*14:116       |                          |                        |
| DRB1*03:05:01+DRB1*08:22     | DRB1*03:20+DRB1*08:01:01G    |                          |                        |
| DRB1*03:05:01+DRB1*08:27     | DRB1*03:09+DRB1*08:03:02     |                          |                        |
| DRB1*03:05:01+DRB1*08:30:03  | DRB1*03:05:02+DRB1*08:30:01  |                          |                        |
| DRB1*03:05:01+DRB1*11:01:01G | DRB1*03:14+DRB1*11:27:02     | DRB1*03:40+DRB1*11:87    |                        |
| DRB1*03:05:01+DRB1*11:01:02  | DRB1*03:05:02+DRB1*11:01:01G | DRB1*03:14+DRB1*11:27:03 |                        |
| DRB1*03:05:01+DRB1*11:01:11  | DRB1*03:05:02+DRB1*11:01:03  |                          |                        |
| DRB1*03:05:01+DRB1*11:06:01G | DRB1*03:20+DRB1*11:01:01G    |                          |                        |
| DRB1*03:05:01+DRB1*11:06:02  | DRB1*03:20+DRB1*11:01:05     |                          |                        |
| DRB1*03:05:01+DRB1*11:06:03  | DRB1*03:20+DRB1*11:01:04     |                          |                        |
| DRB1*03:05:01+DRB1*11:08:02  | DRB1*03:05:02+DRB1*11:08:01  |                          |                        |
| DRB1*03:05:01+DRB1*11:10:01  | DRB1*03:05:02+DRB1*11:10:02  |                          |                        |
| DRB1*03:05:01+DRB1*11:14:01  | DRB1*11:103+DRB1*13:41       |                          |                        |
| DRB1*03:05:01+DRB1*11:14:02  | DRB1*03:05:02+DRB1*11:14:01  |                          |                        |
| DRB1*03:05:01+DRB1*11:17     | DRB1*03:08+DRB1*14:14        |                          |                        |
| DRB1*03:05:01+DRB1*11:19:03  | DRB1*03:05:02+DRB1*11:19:01  |                          |                        |
| DRB1*03:05:01+DRB1*11:21     | DRB1*03:20+DRB1*11:14:01     |                          |                        |
| DRB1*03:05:01+DRB1*11:25     | DRB1*03:58+DRB1*11:64        |                          |                        |
| DRB1*03:05:01+DRB1*11:27:01  | DRB1*03:05:03+DRB1*11:27:02  |                          |                        |
| DRB1*03:05:01+DRB1*11:27:03  | DRB1*03:05:02+DRB1*11:27:02  |                          |                        |
| DRB1*03:05:01+DRB1*11:37:01  | DRB1*03:41+DRB1*11:87        |                          |                        |
| DRB1*03:05:01+DRB1*11:37:02  | DRB1*03:05:02+DRB1*11:37:01  |                          |                        |
| DRB1*03:05:01+DRB1*11:41     | DRB1*03:06+DRB1*11:11:01G    | DRB1*03:41+DRB1*11:59    | DRB1*03:75+DRB1*11:122 |
| DRB1*03:05:01+DRB1*11:46:01  | DRB1*03:08+DRB1*13:132       | DRB1*03:25+DRB1*11:09    |                        |
| DRB1*03:05:01+DRB1*11:47     | DRB1*03:20+DRB1*11:29        |                          |                        |
| DRB1*03:05:01+DRB1*11:48     | DRB1*03:06+DRB1*11:14:01     | DRB1*03:75+DRB1*11:20    | DRB1*11:107+DRB1*13:27 |
| DRB1*03:05:01+DRB1*11:49:02  | DRB1*03:05:02+DRB1*11:49:01  |                          |                        |
| DRB1*03:05:01+DRB1*11:50     | DRB1*03:26+DRB1*11:39        | DRB1*03:80+DRB1*11:49:01 |                        |
| DRB1*03:05:01+DRB1*11:57     | DRB1*03:20+DRB1*11:08:01     |                          |                        |
| DRB1*03:05:01+DRB1*11:74:02  | DRB1*03:05:02+DRB1*11:74:01  |                          |                        |
| DRB1*03:05:01+DRB1*11:76     | DRB1*03:71+DRB1*11:11:01G    |                          |                        |
| DRB1*03:05:01+DRB1*11:83     | DRB1*03:06+DRB1*11:87        |                          |                        |
| DRB1*03:05:01+DRB1*11:85     | DRB1*03:33+DRB1*11:11:01G    |                          |                        |
| DRB1*03:05:01+DRB1*11:102:01 | DRB1*03:49+DRB1*11:87        |                          |                        |
| DRB1*03:05:01+DRB1*11:105    | DRB1*03:14+DRB1*11:103       |                          |                        |
| DRB1*03:05:01+DRB1*11:115    | DRB1*03:37+DRB1*11:28:02     |                          |                        |
| DRB1*03:05:01+DRB1*11:118    | DRB1*03:08+DRB1*13:97:01     | DRB1*03:25+DRB1*11:20    |                        |
| DRB1*03:05:01+DRB1*11:127    | DRB1*03:33+DRB1*11:14:01     |                          |                        |
| DRB1*03:05:01+DRB1*13:02:01  | DRB1*03:14+DRB1*13:96:01     |                          |                        |
| DRB1*03:05:01+DRB1*13:03:01  | DRB1*03:05:02+DRB1*13:03:02  | DRB1*03:14+DRB1*13:33:01 |                        |
| DRB1*03:05:01+DRB1*13:04     | DRB1*03:12+DRB1*13:23:02     |                          |                        |
| DRB1*03:05:01+DRB1*13:05:02  | DRB1*03:05:02+DRB1*13:05:01  |                          |                        |

|                              |                             |                             |                          |
|------------------------------|-----------------------------|-----------------------------|--------------------------|
| DRB1*03:05:01+DRB1*13:06     | DRB1*03:19+DRB1*13:56       |                             |                          |
| DRB1*03:05:01+DRB1*13:08     | DRB1*03:06+DRB1*13:107      | DRB1*03:30+DRB1*13:36       |                          |
| DRB1*03:05:01+DRB1*13:12:02  | DRB1*03:05:02+DRB1*13:12:01 |                             |                          |
| DRB1*03:05:01+DRB1*13:14:03  | DRB1*03:05:02+DRB1*13:14:01 |                             |                          |
| DRB1*03:05:01+DRB1*13:18     | DRB1*03:58+DRB1*13:119      |                             |                          |
| DRB1*03:05:01+DRB1*13:21:02  | DRB1*03:05:02+DRB1*13:21:01 |                             |                          |
| DRB1*03:05:01+DRB1*13:23:01  | DRB1*03:05:02+DRB1*13:23:02 |                             |                          |
| DRB1*03:05:01+DRB1*13:23:02  | DRB1*03:40+DRB1*13:41       |                             |                          |
| DRB1*03:05:01+DRB1*13:33:03  | DRB1*03:05:02+DRB1*13:33:02 | DRB1*03:05:03+DRB1*13:33:01 |                          |
| DRB1*03:05:01+DRB1*13:43     | DRB1*03:10+DRB1*13:29       |                             |                          |
| DRB1*03:05:01+DRB1*13:48     | DRB1*03:75+DRB1*13:139      |                             |                          |
| DRB1*03:05:01+DRB1*13:57     | DRB1*03:30+DRB1*13:104      |                             |                          |
| DRB1*03:05:01+DRB1*13:58     | DRB1*03:20+DRB1*13:12:01    |                             |                          |
| DRB1*03:05:01+DRB1*13:64     | DRB1*03:30+DRB1*13:34       | DRB1*03:43+DRB1*13:02:01    | DRB1*03:71+DRB1*13:107   |
| DRB1*03:05:01+DRB1*13:66:02  | DRB1*03:05:02+DRB1*13:66:01 |                             |                          |
| DRB1*03:05:01+DRB1*13:70     | DRB1*03:06+DRB1*13:23:02    | DRB1*03:41+DRB1*13:27       | DRB1*03:75+DRB1*13:02:01 |
| DRB1*03:05:01+DRB1*13:78     | DRB1*03:13:01+DRB1*13:29    |                             |                          |
| DRB1*03:05:01+DRB1*13:80     | DRB1*03:16+DRB1*13:02:01    |                             |                          |
| DRB1*03:05:01+DRB1*13:81     | DRB1*03:20+DRB1*13:03:02    |                             |                          |
| DRB1*03:05:01+DRB1*13:92     | DRB1*03:54+DRB1*13:02:01    |                             |                          |
| DRB1*03:05:01+DRB1*13:96:02  | DRB1*03:05:03+DRB1*13:96:01 |                             |                          |
| DRB1*03:05:01+DRB1*13:104    | DRB1*03:29+DRB1*13:41       |                             |                          |
| DRB1*03:05:01+DRB1*13:106    | DRB1*03:33+DRB1*13:97:01    | DRB1*03:44+DRB1*13:02:01    |                          |
| DRB1*03:05:01+DRB1*13:131    | DRB1*03:37+DRB1*13:02:01    |                             |                          |
| DRB1*03:05:01+DRB1*13:141    | DRB1*03:56+DRB1*13:02:01    |                             |                          |
| DRB1*03:05:01+DRB1*14:07:02  | DRB1*03:05:02+DRB1*14:07:01 |                             |                          |
| DRB1*03:05:01+DRB1*14:20     | DRB1*03:30+DRB1*14:02       |                             |                          |
| DRB1*03:05:01+DRB1*14:26     | DRB1*03:54+DRB1*14:07:01    |                             |                          |
| DRB1*03:05:01+DRB1*14:28     | DRB1*03:20+DRB1*14:68       |                             |                          |
| DRB1*03:05:01+DRB1*14:29     | DRB1*03:20+DRB1*14:02       |                             |                          |
| DRB1*03:05:01+DRB1*14:44:03  | DRB1*03:05:02+DRB1*14:44:01 |                             |                          |
| DRB1*03:05:01+DRB1*14:45     | DRB1*03:19+DRB1*14:44:01    |                             |                          |
| DRB1*03:05:01+DRB1*14:86     | DRB1*03:37+DRB1*14:07:01    |                             |                          |
| DRB1*03:05:01+DRB1*14:96     | DRB1*03:37+DRB1*14:44:01    |                             |                          |
| DRB1*03:05:01+DRB1*14:99     | DRB1*03:20+DRB1*14:07:01    |                             |                          |
| DRB1*03:05:01+DRB1*14:108    | DRB1*03:58+DRB1*14:02       |                             |                          |
| DRB1*03:05:01+DRB1*14:110    | DRB1*03:71+DRB1*14:07:01    |                             |                          |
| DRB1*03:05:01+DRB1*14:120    | DRB1*03:19+DRB1*14:68       |                             |                          |
| DRB1*03:05:01+DRB1*14:122    | DRB1*03:19+DRB1*14:07:01    |                             |                          |
| DRB1*03:05:01+DRB1*15:02:05  | DRB1*03:05:02+DRB1*15:02:02 |                             |                          |
| DRB1*03:05:01+DRB1*15:02:09  | DRB1*03:05:02+DRB1*15:02:01 |                             |                          |
| DRB1*03:05:01+DRB1*15:07:02  | DRB1*03:06+DRB1*15:02:02    |                             |                          |
| DRB1*03:05:01+DRB1*15:10     | DRB1*13:41+DRB1*15:25       |                             |                          |
| DRB1*03:05:01+DRB1*15:12     | DRB1*03:12+DRB1*15:02:02    |                             |                          |
| DRB1*03:05:01+DRB1*15:24     | DRB1*03:54+DRB1*15:02:01    |                             |                          |
| DRB1*03:05:01+DRB1*15:35     | DRB1*03:20+DRB1*15:02:01    |                             |                          |
| DRB1*03:05:01+DRB1*15:41     | DRB1*03:59+DRB1*15:02:01    |                             |                          |
| DRB1*03:05:02+DRB1*04:27     | DRB1*03:20+DRB1*04:07:03    |                             |                          |
| DRB1*03:05:02+DRB1*04:88     | DRB1*03:19+DRB1*04:07:03    |                             |                          |
| DRB1*03:05:02+DRB1*08:12     | DRB1*03:20+DRB1*08:03:03    |                             |                          |
| DRB1*03:05:02+DRB1*08:27     | DRB1*03:09+DRB1*08:03:03    |                             |                          |
| DRB1*03:05:02+DRB1*11:06:01G | DRB1*03:20+DRB1*11:01:02    |                             |                          |
| DRB1*03:05:02+DRB1*11:21     | DRB1*03:20+DRB1*11:14:02    |                             |                          |
| DRB1*03:05:02+DRB1*11:27:01  | DRB1*03:05:03+DRB1*11:27:03 |                             |                          |
| DRB1*03:05:02+DRB1*11:48     | DRB1*03:06+DRB1*11:14:02    |                             |                          |
| DRB1*03:05:02+DRB1*11:50     | DRB1*03:80+DRB1*11:49:02    |                             |                          |
| DRB1*03:05:02+DRB1*11:57     | DRB1*03:20+DRB1*11:08:02    |                             |                          |
| DRB1*03:05:02+DRB1*11:127    | DRB1*03:33+DRB1*11:14:02    |                             |                          |
| DRB1*03:05:02+DRB1*13:04     | DRB1*03:12+DRB1*13:23:01    |                             |                          |
| DRB1*03:05:02+DRB1*13:58     | DRB1*03:20+DRB1*13:12:02    |                             |                          |
| DRB1*03:05:02+DRB1*13:70     | DRB1*03:06+DRB1*13:23:01    |                             |                          |
| DRB1*03:05:02+DRB1*13:81     | DRB1*03:20+DRB1*13:03:01    |                             |                          |
| DRB1*03:05:02+DRB1*14:26     | DRB1*03:54+DRB1*14:07:02    |                             |                          |
| DRB1*03:05:02+DRB1*14:45     | DRB1*03:19+DRB1*14:44:03    |                             |                          |
| DRB1*03:05:02+DRB1*14:86     | DRB1*03:37+DRB1*14:07:02    |                             |                          |
| DRB1*03:05:02+DRB1*14:96     | DRB1*03:37+DRB1*14:44:03    |                             |                          |
| DRB1*03:05:02+DRB1*14:99     | DRB1*03:20+DRB1*14:07:02    |                             |                          |
| DRB1*03:05:02+DRB1*14:110    | DRB1*03:71+DRB1*14:07:02    |                             |                          |
| DRB1*03:05:02+DRB1*14:122    | DRB1*03:19+DRB1*14:07:02    |                             |                          |
| DRB1*03:05:02+DRB1*15:07:02  | DRB1*03:06+DRB1*15:02:05    |                             |                          |
| DRB1*03:05:02+DRB1*15:12     | DRB1*03:12+DRB1*15:02:05    |                             |                          |
| DRB1*03:05:02+DRB1*15:24     | DRB1*03:54+DRB1*15:02:09    |                             |                          |
| DRB1*03:05:02+DRB1*15:35     | DRB1*03:20+DRB1*15:02:09    |                             |                          |
| DRB1*03:05:02+DRB1*15:41     | DRB1*03:59+DRB1*15:02:09    |                             |                          |
| DRB1*03:05:02+DRB1*15:71     | DRB1*03:13:01+DRB1*15:02:09 |                             |                          |
| DRB1*03:05:03+DRB1*04:01:01  | DRB1*03:14+DRB1*04:72:02    |                             |                          |
| DRB1*03:05:03+DRB1*04:07:01G | DRB1*03:14+DRB1*04:74       |                             |                          |
| DRB1*03:05:03+DRB1*07:11     | DRB1*03:14+DRB1*07:04       |                             |                          |
| DRB1*03:05:03+DRB1*11:01:01G | DRB1*03:14+DRB1*11:27:01    |                             |                          |
| DRB1*03:05:03+DRB1*12:03:02  | DRB1*03:15+DRB1*12:22       |                             |                          |
| DRB1*03:05:03+DRB1*13:02:01  | DRB1*03:14+DRB1*13:96:02    |                             |                          |
| DRB1*03:05:03+DRB1*13:03:01  | DRB1*03:14+DRB1*13:33:03    |                             |                          |
| DRB1*03:05:03+DRB1*13:03:02  | DRB1*03:14+DRB1*13:33:02    |                             |                          |
| DRB1*03:05:03+DRB1*13:78     | DRB1*03:13:02+DRB1*13:29    |                             |                          |
| DRB1*03:05:03+DRB1*14:01:02  | DRB1*03:14+DRB1*14:38       |                             |                          |
| DRB1*03:05:03+DRB1*14:02     | DRB1*03:14+DRB1*14:47       |                             |                          |
| DRB1*03:05:03+DRB1*14:03:01  | DRB1*03:14+DRB1*14:98       |                             |                          |
| DRB1*03:05:03+DRB1*15:03:01G | DRB1*03:14+DRB1*15:57       |                             |                          |
| DRB1*03:05:03+DRB1*15:71     | DRB1*03:13:02+DRB1*15:02:01 |                             |                          |
| DRB1*03:06+DRB1*03:44        | DRB1*03:25+DRB1*03:26       | DRB1*03:31+DRB1*03:33       |                          |
| DRB1*03:06+DRB1*04:01:01     | DRB1*03:31+DRB1*04:113      |                             |                          |
| DRB1*03:06+DRB1*04:03:01     | DRB1*03:31+DRB1*04:41       |                             |                          |
| DRB1*03:06+DRB1*04:05:01     | DRB1*03:31+DRB1*04:77       |                             |                          |
| DRB1*03:06+DRB1*04:07:01G    | DRB1*03:31+DRB1*04:102      |                             |                          |
| DRB1*03:06+DRB1*04:15        | DRB1*04:22+DRB1*11:83       |                             |                          |
| DRB1*03:06+DRB1*09:17        | DRB1*03:60+DRB1*09:01:02    |                             |                          |
| DRB1*03:06+DRB1*11:01:12     | DRB1*03:31+DRB1*11:28:02    |                             |                          |
| DRB1*03:06+DRB1*11:04:04     | DRB1*03:31+DRB1*11:58:01    |                             |                          |
| DRB1*03:06+DRB1*11:06:01G    | DRB1*03:20+DRB1*11:56       |                             |                          |
| DRB1*03:06+DRB1*11:13:01G    | DRB1*03:08+DRB1*14:123      |                             |                          |
| DRB1*03:06+DRB1*11:16        | DRB1*03:08+DRB1*13:40       |                             |                          |
| DRB1*03:06+DRB1*11:20        | DRB1*03:08+DRB1*13:36       |                             |                          |
| DRB1*03:06+DRB1*11:21        | DRB1*03:20+DRB1*11:48       |                             |                          |
| DRB1*03:06+DRB1*11:23        | DRB1*03:08+DRB1*13:47       |                             |                          |
| DRB1*03:06+DRB1*11:25        | DRB1*03:08+DRB1*08:20       |                             |                          |



|                           |                             |                             |                            |
|---------------------------|-----------------------------|-----------------------------|----------------------------|
| DRB1*03:06+DRB1*11:37:01  | DRB1*03:41+DRB1*11:83       |                             |                            |
| DRB1*03:06+DRB1*11:39     | DRB1*03:37+DRB1*11:37:01    | DRB1*03:80+DRB1*11:01:01G   |                            |
| DRB1*03:06+DRB1*11:43     | DRB1*03:37+DRB1*11:56       | DRB1*03:80+DRB1*11:04:01    |                            |
| DRB1*03:06+DRB1*11:44     | DRB1*03:26+DRB1*11:04:01    | DRB1*03:33+DRB1*11:56       |                            |
| DRB1*03:06+DRB1*11:46:01  | DRB1*03:31+DRB1*11:113      |                             |                            |
| DRB1*03:06+DRB1*11:49:01  | DRB1*03:26+DRB1*11:01:01G   | DRB1*03:33+DRB1*11:37:01    |                            |
| DRB1*03:06+DRB1*11:49:02  | DRB1*03:26+DRB1*11:01:02    | DRB1*03:33+DRB1*11:37:02    |                            |
| DRB1*03:06+DRB1*11:51     | DRB1*03:70+DRB1*11:37:01    |                             |                            |
| DRB1*03:06+DRB1*11:64     | DRB1*03:08+DRB1*14:116      |                             |                            |
| DRB1*03:06+DRB1*11:67     | DRB1*03:08+DRB1*08:04:01    |                             |                            |
| DRB1*03:06+DRB1*11:68     | DRB1*11:107+DRB1*13:71      |                             |                            |
| DRB1*03:06+DRB1*11:73     | DRB1*03:08+DRB1*13:37       |                             |                            |
| DRB1*03:06+DRB1*11:76     | DRB1*03:71+DRB1*11:41       |                             |                            |
| DRB1*03:06+DRB1*11:82     | DRB1*11:107+DRB1*13:129     |                             |                            |
| DRB1*03:06+DRB1*11:85     | DRB1*03:26+DRB1*11:03       | DRB1*03:33+DRB1*11:41       |                            |
| DRB1*03:06+DRB1*11:91     | DRB1*03:48+DRB1*11:37:01    |                             |                            |
| DRB1*03:06+DRB1*11:101    | DRB1*03:73+DRB1*11:37:01    |                             |                            |
| DRB1*03:06+DRB1*11:102:01 | DRB1*03:49+DRB1*11:83       |                             |                            |
| DRB1*03:06+DRB1*11:105    | DRB1*03:15+DRB1*11:107      |                             |                            |
| DRB1*03:06+DRB1*11:113    | DRB1*03:07+DRB1*11:83       |                             |                            |
| DRB1*03:06+DRB1*11:115    | DRB1*03:80+DRB1*11:58:01    |                             |                            |
| DRB1*03:06+DRB1*11:116    | DRB1*03:13:01+DRB1*11:56    |                             |                            |
| DRB1*03:06+DRB1*11:118    | DRB1*03:31+DRB1*11:16       |                             |                            |
| DRB1*03:06+DRB1*11:120    | DRB1*03:13:01+DRB1*11:37:01 |                             |                            |
| DRB1*03:06+DRB1*11:125    | DRB1*03:41+DRB1*03:65       | DRB1*03:58+DRB1*11:107      |                            |
| DRB1*03:06+DRB1*11:127    | DRB1*03:26+DRB1*11:02:01    | DRB1*03:33+DRB1*11:48       |                            |
| DRB1*03:06+DRB1*12:18     | DRB1*03:64+DRB1*12:21       |                             |                            |
| DRB1*03:06+DRB1*12:34     | DRB1*03:80+DRB1*12:01:01G   |                             |                            |
| DRB1*03:06+DRB1*13:03:01  | DRB1*03:31+DRB1*13:115      | DRB1*03:75+DRB1*13:120      |                            |
| DRB1*03:06+DRB1*13:11:01  | DRB1*03:75+DRB1*13:42       |                             |                            |
| DRB1*03:06+DRB1*13:24     | DRB1*03:75+DRB1*13:111      |                             |                            |
| DRB1*03:06+DRB1*13:25     | DRB1*03:75+DRB1*13:56       |                             |                            |
| DRB1*03:06+DRB1*13:34     | DRB1*03:71+DRB1*13:36       |                             |                            |
| DRB1*03:06+DRB1*13:39     | DRB1*03:13:01+DRB1*13:36    |                             |                            |
| DRB1*03:06+DRB1*13:44     | DRB1*03:75+DRB1*14:17       |                             |                            |
| DRB1*03:06+DRB1*13:48     | DRB1*03:75+DRB1*13:32       |                             |                            |
| DRB1*03:06+DRB1*13:52     | DRB1*03:25+DRB1*13:40       | DRB1*03:31+DRB1*13:01:01G   |                            |
| DRB1*03:06+DRB1*13:64     | DRB1*03:43+DRB1*13:40       | DRB1*03:71+DRB1*13:08       |                            |
| DRB1*03:06+DRB1*13:70     | DRB1*03:75+DRB1*13:40       |                             |                            |
| DRB1*03:06+DRB1*13:79     | DRB1*03:13:01+DRB1*13:40    |                             |                            |
| DRB1*03:06+DRB1*13:80     | DRB1*03:16+DRB1*13:40       |                             |                            |
| DRB1*03:06+DRB1*13:92     | DRB1*03:54+DRB1*13:40       |                             |                            |
| DRB1*03:06+DRB1*13:97:01  | DRB1*03:25+DRB1*13:36       | DRB1*03:31+DRB1*13:02:01    |                            |
| DRB1*03:06+DRB1*13:100    | DRB1*03:79+DRB1*13:07:01    |                             |                            |
| DRB1*03:06+DRB1*13:106    | DRB1*03:26+DRB1*13:52       | DRB1*03:44+DRB1*13:40       |                            |
| DRB1*03:06+DRB1*13:118    | DRB1*03:80+DRB1*13:12:01    |                             |                            |
| DRB1*03:06+DRB1*13:131    | DRB1*03:37+DRB1*13:40       | DRB1*03:80+DRB1*13:01:01G   |                            |
| DRB1*03:06+DRB1*13:132    | DRB1*03:31+DRB1*13:05:01    |                             |                            |
| DRB1*03:06+DRB1*13:141    | DRB1*03:56+DRB1*13:40       |                             |                            |
| DRB1*03:06+DRB1*14:42     | DRB1*03:41+DRB1*14:95       |                             |                            |
| DRB1*03:06+DRB1*14:65     | DRB1*03:12+DRB1*14:123      |                             |                            |
| DRB1*03:06+DRB1*14:86     | DRB1*03:80+DRB1*14:01:01G   |                             |                            |
| DRB1*03:06+DRB1*14:96     | DRB1*03:80+DRB1*14:05:01    |                             |                            |
| DRB1*03:06+DRB1*14:102    | DRB1*03:75+DRB1*14:03:01    |                             |                            |
| DRB1*03:06+DRB1*15:12     | DRB1*03:12+DRB1*15:07:02    |                             |                            |
| DRB1*03:06+DRB1*15:19     | DRB1*03:50+DRB1*15:11       |                             |                            |
| DRB1*03:06+DRB1*15:24     | DRB1*03:54+DRB1*15:07:01    |                             |                            |
| DRB1*03:06+DRB1*15:35     | DRB1*03:20+DRB1*15:07:01    |                             |                            |
| DRB1*03:06+DRB1*15:41     | DRB1*03:59+DRB1*15:07:01    |                             |                            |
| DRB1*03:06+DRB1*15:47     | DRB1*03:37+DRB1*15:11       | DRB1*03:80+DRB1*15:02:01    |                            |
| DRB1*03:06+DRB1*15:65     | DRB1*03:37+DRB1*15:07:01    | DRB1*03:80+DRB1*15:01:01G   |                            |
| DRB1*03:06+DRB1*15:71     | DRB1*03:13:01+DRB1*15:07:01 |                             |                            |
| DRB1*03:07+DRB1*03:43     | DRB1*03:21+DRB1*03:71       |                             |                            |
| DRB1*03:07+DRB1*04:02:01  | DRB1*04:22+DRB1*13:01:01G   |                             |                            |
| DRB1*03:07+DRB1*04:03:01  | DRB1*04:22+DRB1*14:33       |                             |                            |
| DRB1*03:07+DRB1*04:04:01  | DRB1*04:22+DRB1*14:17       |                             |                            |
| DRB1*03:07+DRB1*04:08:01  | DRB1*04:22+DRB1*14:30       |                             |                            |
| DRB1*03:07+DRB1*04:13     | DRB1*04:22+DRB1*14:21       |                             |                            |
| DRB1*03:07+DRB1*04:14     | DRB1*04:22+DRB1*13:02:01    | DRB1*04:98:02+DRB1*13:61:02 |                            |
| DRB1*03:07+DRB1*04:15     | DRB1*04:22+DRB1*11:113      |                             |                            |
| DRB1*03:07+DRB1*04:25     | DRB1*04:22+DRB1*13:18       |                             |                            |
| DRB1*03:07+DRB1*04:36     | DRB1*04:22+DRB1*13:42       |                             |                            |
| DRB1*03:07+DRB1*04:37     | DRB1*04:22+DRB1*13:20       |                             |                            |
| DRB1*03:07+DRB1*04:106    | DRB1*04:22+DRB1*13:139      |                             |                            |
| DRB1*03:07+DRB1*11:01:01G | DRB1*03:40+DRB1*11:113      | DRB1*11:07+DRB1*13:05:01    | DRB1*11:103+DRB1*13:42     |
| DRB1*03:07+DRB1*11:01:02  | DRB1*11:07+DRB1*13:05:02    |                             |                            |
| DRB1*03:07+DRB1*11:02:01  | DRB1*11:07+DRB1*13:01:01G   |                             |                            |
| DRB1*03:07+DRB1*11:03     | DRB1*11:07+DRB1*13:111      |                             |                            |
| DRB1*03:07+DRB1*11:04:01  | DRB1*11:07+DRB1*13:42       |                             |                            |
| DRB1*03:07+DRB1*11:08:01  | DRB1*11:07+DRB1*13:56       |                             |                            |
| DRB1*03:07+DRB1*11:10:02  | DRB1*03:21+DRB1*11:09       |                             |                            |
| DRB1*03:07+DRB1*11:11:01G | DRB1*03:40+DRB1*11:40       | DRB1*11:07+DRB1*13:63       | DRB1*11:103+DRB1*13:111    |
|                           | DRB1*11:125+DRB1*13:20      |                             |                            |
| DRB1*03:07+DRB1*11:12:01  | DRB1*03:21+DRB1*11:28:01    |                             |                            |
| DRB1*03:07+DRB1*11:12:02  | DRB1*03:21+DRB1*11:28:02    |                             |                            |
| DRB1*03:07+DRB1*11:14:01  | DRB1*03:40+DRB1*11:16       | DRB1*11:07+DRB1*13:02:01    | DRB1*11:103+DRB1*13:01:01G |
|                           | DRB1*11:105+DRB1*13:61:02   |                             |                            |
| DRB1*03:07+DRB1*11:14:02  | DRB1*11:103+DRB1*13:01:08   |                             |                            |
| DRB1*03:07+DRB1*11:18     | DRB1*11:07+DRB1*13:06       |                             |                            |
| DRB1*03:07+DRB1*11:19:01  | DRB1*11:103+DRB1*13:06      |                             |                            |
| DRB1*03:07+DRB1*11:25     | DRB1*11:07+DRB1*13:18       |                             |                            |
| DRB1*03:07+DRB1*11:26     | DRB1*11:07+DRB1*14:30       | DRB1*11:103+DRB1*14:17      |                            |
| DRB1*03:07+DRB1*11:34     | DRB1*11:07+DRB1*14:17       |                             |                            |
| DRB1*03:07+DRB1*11:36     | DRB1*11:07+DRB1*13:20       |                             |                            |
| DRB1*03:07+DRB1*11:37:01  | DRB1*03:41+DRB1*11:113      | DRB1*11:107+DRB1*13:42      |                            |
| DRB1*03:07+DRB1*11:48     | DRB1*11:07+DRB1*13:40       |                             |                            |
| DRB1*03:07+DRB1*11:64     | DRB1*11:07+DRB1*13:119      |                             |                            |
| DRB1*03:07+DRB1*11:68     | DRB1*11:07+DRB1*13:29       | DRB1*11:103+DRB1*13:20      |                            |
| DRB1*03:07+DRB1*11:79     | DRB1*11:103+DRB1*14:21      |                             |                            |
| DRB1*03:07+DRB1*11:82     | DRB1*11:103+DRB1*13:09      |                             |                            |
| DRB1*03:07+DRB1*11:86     | DRB1*11:07+DRB1*13:16       |                             |                            |
| DRB1*03:07+DRB1*11:102:01 | DRB1*03:49+DRB1*11:113      |                             |                            |
| DRB1*03:07+DRB1*11:124    | DRB1*11:07+DRB1*13:61:01    |                             |                            |
| DRB1*03:07+DRB1*13:07:01  | DRB1*03:41+DRB1*13:42       |                             |                            |
| DRB1*03:07+DRB1*13:08     | DRB1*03:21+DRB1*13:40       |                             |                            |

|                           |                           |                        |
|---------------------------|---------------------------|------------------------|
| DRB1*03:07+DRB1*13:14:01  | DRB1*03:40+DRB1*13:42     |                        |
| DRB1*03:07+DRB1*13:23:01  | DRB1*03:40+DRB1*13:01:08  |                        |
| DRB1*03:07+DRB1*13:23:02  | DRB1*03:40+DRB1*13:01:01G |                        |
| DRB1*03:07+DRB1*13:57     | DRB1*03:21+DRB1*13:15     |                        |
| DRB1*03:07+DRB1*13:82     | DRB1*03:40+DRB1*13:06     |                        |
| DRB1*03:07+DRB1*13:83     | DRB1*03:21+DRB1*13:01:01G |                        |
| DRB1*03:07+DRB1*13:86     | DRB1*03:29+DRB1*13:44     |                        |
| DRB1*03:07+DRB1*13:104    | DRB1*03:29+DRB1*13:01:01G |                        |
| DRB1*03:07+DRB1*13:107    | DRB1*03:21+DRB1*13:02:01  |                        |
| DRB1*03:07+DRB1*14:20     | DRB1*03:21+DRB1*14:06:01  |                        |
| DRB1*03:07+DRB1*14:40     | DRB1*03:21+DRB1*14:03:01  |                        |
| DRB1*03:07+DRB1*14:48     | DRB1*03:38+DRB1*14:17     |                        |
| DRB1*03:07+DRB1*14:102    | DRB1*03:40+DRB1*14:12:01  |                        |
| DRB1*03:07+DRB1*15:01:01G | DRB1*13:09+DRB1*15:25     |                        |
| DRB1*03:07+DRB1*15:10     | DRB1*13:01:01G+DRB1*15:25 |                        |
| DRB1*03:07+DRB1*15:27     | DRB1*14:30+DRB1*15:25     |                        |
| DRB1*03:07+DRB1*15:34     | DRB1*14:09+DRB1*15:25     |                        |
| DRB1*03:07+DRB1*15:66     | DRB1*14:17+DRB1*15:25     |                        |
| DRB1*03:08+DRB1*04:05:01  | DRB1*03:12+DRB1*04:61     |                        |
| DRB1*03:08+DRB1*04:25     | DRB1*03:65+DRB1*04:58     |                        |
| DRB1*03:08+DRB1*04:80     | DRB1*03:65+DRB1*04:05:01  |                        |
| DRB1*03:08+DRB1*08:01:01G | DRB1*03:65+DRB1*08:48     |                        |
| DRB1*03:08+DRB1*08:02:01  | DRB1*03:65+DRB1*08:13     |                        |
| DRB1*03:08+DRB1*09:01:02  | DRB1*03:65+DRB1*09:04     |                        |
| DRB1*03:08+DRB1*11:01:01G | DRB1*03:65+DRB1*11:08:01  | DRB1*11:07+DRB1*11:87  |
| DRB1*03:08+DRB1*11:01:02  | DRB1*03:65+DRB1*11:08:02  |                        |
| DRB1*03:08+DRB1*11:03     | DRB1*03:65+DRB1*11:36     | DRB1*11:07+DRB1*11:59  |
| DRB1*03:08+DRB1*11:04:01  | DRB1*03:65+DRB1*11:42     |                        |
| DRB1*03:08+DRB1*11:06:01G | DRB1*03:65+DRB1*11:57     |                        |
| DRB1*03:08+DRB1*11:11:01G | DRB1*03:65+DRB1*11:68     | DRB1*11:59+DRB1*11:103 |
| DRB1*03:08+DRB1*11:37:01  | DRB1*11:83+DRB1*11:103    |                        |
| DRB1*03:08+DRB1*11:56     | DRB1*11:07+DRB1*11:83     |                        |
| DRB1*03:08+DRB1*11:125    | DRB1*03:65+DRB1*11:103    |                        |
| DRB1*03:08+DRB1*12:01:01G | DRB1*03:79+DRB1*12:04     |                        |
| DRB1*03:08+DRB1*12:02:01  | DRB1*03:65+DRB1*12:12     |                        |
| DRB1*03:08+DRB1*13:04     | DRB1*03:12+DRB1*11:02:01  |                        |
| DRB1*03:08+DRB1*13:21:01  | DRB1*03:12+DRB1*11:01:01G |                        |
| DRB1*03:08+DRB1*13:21:02  | DRB1*03:12+DRB1*11:01:02  |                        |
| DRB1*03:08+DRB1*13:30     | DRB1*03:12+DRB1*11:19:01  |                        |
| DRB1*03:08+DRB1*13:34     | DRB1*03:71+DRB1*11:20     |                        |
| DRB1*03:08+DRB1*13:39     | DRB1*03:13:01+DRB1*11:20  |                        |
| DRB1*03:08+DRB1*13:45     | DRB1*03:10+DRB1*11:14:02  |                        |
| DRB1*03:08+DRB1*13:48     | DRB1*03:12+DRB1*11:48     |                        |
| DRB1*03:08+DRB1*13:49     | DRB1*03:12+DRB1*11:37:01  | DRB1*03:65+DRB1*13:134 |
| DRB1*03:08+DRB1*13:54     | DRB1*03:79+DRB1*11:03     |                        |
| DRB1*03:08+DRB1*13:64     | DRB1*03:43+DRB1*11:16     |                        |
| DRB1*03:08+DRB1*13:66:02  | DRB1*03:12+DRB1*11:73     |                        |
| DRB1*03:08+DRB1*13:75     | DRB1*03:12+DRB1*11:03     |                        |
| DRB1*03:08+DRB1*13:79     | DRB1*03:13:01+DRB1*11:16  |                        |
| DRB1*03:08+DRB1*13:80     | DRB1*03:16+DRB1*11:16     |                        |
| DRB1*03:08+DRB1*13:83     | DRB1*03:30+DRB1*11:16     |                        |
| DRB1*03:08+DRB1*13:92     | DRB1*03:54+DRB1*11:16     |                        |
| DRB1*03:08+DRB1*13:93     | DRB1*03:12+DRB1*11:16     |                        |
| DRB1*03:08+DRB1*13:100    | DRB1*03:79+DRB1*11:01:01G |                        |
| DRB1*03:08+DRB1*13:106    | DRB1*03:33+DRB1*11:118    | DRB1*03:44+DRB1*11:16  |
| DRB1*03:08+DRB1*13:107    | DRB1*03:30+DRB1*11:20     |                        |
| DRB1*03:08+DRB1*13:108    | DRB1*03:12+DRB1*11:56     |                        |
| DRB1*03:08+DRB1*13:131    | DRB1*03:37+DRB1*11:16     |                        |
| DRB1*03:08+DRB1*13:136    | DRB1*03:71+DRB1*11:09     |                        |
| DRB1*03:08+DRB1*13:139    | DRB1*03:12+DRB1*11:20     |                        |
| DRB1*03:08+DRB1*13:141    | DRB1*03:56+DRB1*11:16     |                        |
| DRB1*03:08+DRB1*14:01:01G | DRB1*03:10+DRB1*11:17     |                        |
| DRB1*03:08+DRB1*14:04     | DRB1*03:10+DRB1*14:11     |                        |
| DRB1*03:08+DRB1*14:25     | DRB1*03:10+DRB1*11:37:01  | DRB1*03:65+DRB1*14:69  |
| DRB1*03:08+DRB1*14:27     | DRB1*03:65+DRB1*14:03:01  |                        |
| DRB1*03:08+DRB1*14:42     | DRB1*11:103+DRB1*14:95    |                        |
| DRB1*03:08+DRB1*14:53     | DRB1*03:10+DRB1*11:01:01G |                        |
| DRB1*03:08+DRB1*14:65     | DRB1*03:12+DRB1*11:13:01G |                        |
| DRB1*03:08+DRB1*14:108    | DRB1*03:65+DRB1*14:06:01  |                        |
| DRB1*03:08+DRB1*15:04     | DRB1*03:65+DRB1*15:05     |                        |
| DRB1*03:08+DRB1*15:15     | DRB1*03:65+DRB1*15:31     |                        |
| DRB1*03:08+DRB1*16:01:01  | DRB1*03:65+DRB1*16:02:01  |                        |
| DRB1*03:08+DRB1*16:01:02  | DRB1*03:65+DRB1*16:02:02  |                        |
| DRB1*03:08+DRB1*16:09     | DRB1*03:65+DRB1*16:10     |                        |
| DRB1*03:09+DRB1*03:15     | DRB1*03:14+DRB1*03:23     |                        |
| DRB1*03:09+DRB1*04:02:01  | DRB1*03:23+DRB1*04:14     |                        |
| DRB1*03:09+DRB1*04:03:01  | DRB1*03:23+DRB1*04:07:01G |                        |
| DRB1*03:09+DRB1*04:03:08  | DRB1*03:23+DRB1*04:07:04  |                        |
| DRB1*03:09+DRB1*04:04:01  | DRB1*03:23+DRB1*04:08:01  |                        |
| DRB1*03:09+DRB1*04:04:02  | DRB1*03:23+DRB1*04:08:02  |                        |
| DRB1*03:09+DRB1*04:06:01G | DRB1*03:23+DRB1*04:20     |                        |
| DRB1*03:09+DRB1*04:10:01  | DRB1*03:23+DRB1*04:05:01  |                        |
| DRB1*03:09+DRB1*04:11:01  | DRB1*03:23+DRB1*04:17:02  |                        |
| DRB1*03:09+DRB1*04:12     | DRB1*03:23+DRB1*04:86     |                        |
| DRB1*03:09+DRB1*04:13     | DRB1*03:23+DRB1*04:01:01  |                        |
| DRB1*03:09+DRB1*04:41     | DRB1*03:23+DRB1*04:102    |                        |
| DRB1*03:09+DRB1*04:42     | DRB1*03:23+DRB1*04:43     |                        |
| DRB1*03:09+DRB1*04:55     | DRB1*03:23+DRB1*04:31     |                        |
| DRB1*03:09+DRB1*04:67     | DRB1*03:23+DRB1*04:09     |                        |
| DRB1*03:09+DRB1*04:68     | DRB1*03:23+DRB1*04:19     |                        |
| DRB1*03:09+DRB1*04:73     | DRB1*03:23+DRB1*04:105:01 |                        |
| DRB1*03:09+DRB1*04:95     | DRB1*03:23+DRB1*04:74     |                        |
| DRB1*03:09+DRB1*08:04:01  | DRB1*03:23+DRB1*08:02:02  |                        |
| DRB1*03:09+DRB1*08:04:04  | DRB1*03:23+DRB1*08:02:01  |                        |
| DRB1*03:09+DRB1*08:06     | DRB1*03:23+DRB1*08:01:05  |                        |
| DRB1*03:09+DRB1*08:12     | DRB1*03:20+DRB1*08:27     |                        |
| DRB1*03:09+DRB1*08:31     | DRB1*03:23+DRB1*08:41     |                        |
| DRB1*03:09+DRB1*09:06     | DRB1*03:23+DRB1*09:01:02  |                        |
| DRB1*03:09+DRB1*10:02     | DRB1*03:23+DRB1*10:01:01  |                        |
| DRB1*03:09+DRB1*11:02:01  | DRB1*03:23+DRB1*11:14:01  |                        |
| DRB1*03:09+DRB1*11:03     | DRB1*03:23+DRB1*11:11:01G |                        |
| DRB1*03:09+DRB1*11:04:01  | DRB1*03:23+DRB1*11:01:01G |                        |
| DRB1*03:09+DRB1*11:04:02  | DRB1*03:23+DRB1*11:01:02  |                        |
| DRB1*03:09+DRB1*11:04:03  | DRB1*03:23+DRB1*11:01:05  |                        |
| DRB1*03:09+DRB1*11:04:04  | DRB1*03:23+DRB1*11:01:12  |                        |

---

|                             |                           |
|-----------------------------|---------------------------|
| DRB1*03:09+DRB1*11:04:05    | DRB1*03:23+DRB1*11:01:04  |
| DRB1*03:09+DRB1*11:04:07    | DRB1*03:23+DRB1*11:01:03  |
| DRB1*03:09+DRB1*11:07       | DRB1*03:23+DRB1*11:10:3   |
| DRB1*03:09+DRB1*11:16       | DRB1*03:23+DRB1*11:20     |
| DRB1*03:09+DRB1*11:18       | DRB1*03:23+DRB1*11:19:01  |
| DRB1*03:09+DRB1*11:34       | DRB1*03:23+DRB1*11:26     |
| DRB1*03:09+DRB1*11:35       | DRB1*03:23+DRB1*11:33     |
| DRB1*03:09+DRB1*11:36       | DRB1*03:23+DRB1*11:68     |
| DRB1*03:09+DRB1*11:40       | DRB1*03:23+DRB1*11:122    |
| DRB1*03:09+DRB1*11:42       | DRB1*03:23+DRB1*11:08:01  |
| DRB1*03:09+DRB1*11:43       | DRB1*03:23+DRB1*11:39     |
| DRB1*03:09+DRB1*11:44       | DRB1*03:23+DRB1*11:49:01  |
| DRB1*03:09+DRB1*11:46:02    | DRB1*03:23+DRB1*11:62     |
| DRB1*03:09+DRB1*11:56       | DRB1*03:23+DRB1*11:37:01  |
| DRB1*03:09+DRB1*11:58:01    | DRB1*03:23+DRB1*11:28:02  |
| DRB1*03:09+DRB1*11:58:02    | DRB1*03:23+DRB1*11:28:01  |
| DRB1*03:09+DRB1*11:60       | DRB1*03:23+DRB1*11:109    |
| DRB1*03:09+DRB1*11:84:01    | DRB1*03:23+DRB1*11:27:01  |
| DRB1*03:09+DRB1*11:84:02    | DRB1*03:23+DRB1*11:27:02  |
| DRB1*03:09+DRB1*11:113      | DRB1*03:23+DRB1*11:09     |
| DRB1*03:09+DRB1*11:116      | DRB1*03:23+DRB1*11:120    |
| DRB1*03:09+DRB1*11:119      | DRB1*03:23+DRB1*11:45     |
| DRB1*03:09+DRB1*13:01:01G   | DRB1*03:23+DRB1*13:02:01  |
| DRB1*03:09+DRB1*13:01:05    | DRB1*03:23+DRB1*13:02:03  |
| DRB1*03:09+DRB1*13:11:01    | DRB1*03:23+DRB1*13:14:01  |
| DRB1*03:09+DRB1*13:11:02    | DRB1*03:23+DRB1*13:14:02  |
| DRB1*03:09+DRB1*13:15       | DRB1*03:23+DRB1*13:104    |
| DRB1*03:09+DRB1*13:20       | DRB1*03:23+DRB1*13:29     |
| DRB1*03:09+DRB1*13:22       | DRB1*03:23+DRB1*13:23:02  |
| DRB1*03:09+DRB1*13:27       | DRB1*03:23+DRB1*13:41     |
| DRB1*03:09+DRB1*13:32       | DRB1*03:23+DRB1*13:65     |
| DRB1*03:09+DRB1*13:40       | DRB1*03:23+DRB1*13:36     |
| DRB1*03:09+DRB1*13:42       | DRB1*03:23+DRB1*13:05:01  |
| DRB1*03:09+DRB1*13:52       | DRB1*03:23+DRB1*13:97:01  |
| DRB1*03:09+DRB1*13:61:01    | DRB1*03:23+DRB1*13:96:02  |
| DRB1*03:09+DRB1*13:61:02    | DRB1*03:23+DRB1*13:96:01  |
| DRB1*03:09+DRB1*13:79       | DRB1*03:23+DRB1*13:39     |
| DRB1*03:09+DRB1*13:83       | DRB1*03:23+DRB1*13:107    |
| DRB1*03:09+DRB1*13:89       | DRB1*03:23+DRB1*13:03:01  |
| DRB1*03:09+DRB1*13:93       | DRB1*03:23+DRB1*13:139    |
| DRB1*03:09+DRB1*13:108      | DRB1*03:23+DRB1*13:49     |
| DRB1*03:09+DRB1*13:111      | DRB1*03:23+DRB1*13:63     |
| DRB1*03:09+DRB1*13:112      | DRB1*03:23+DRB1*13:128    |
| DRB1*03:09+DRB1*14:01:01G   | DRB1*03:23+DRB1*14:07:01  |
| DRB1*03:09+DRB1*14:04       | DRB1*03:23+DRB1*14:68     |
| DRB1*03:09+DRB1*14:05:01    | DRB1*03:23+DRB1*14:44:01  |
| DRB1*03:09+DRB1*14:05:03    | DRB1*03:23+DRB1*14:44:02  |
| DRB1*03:09+DRB1*14:06:01    | DRB1*03:23+DRB1*14:02     |
| DRB1*03:09+DRB1*14:12:01    | DRB1*03:23+DRB1*14:03:01  |
| DRB1*03:09+DRB1*14:17       | DRB1*03:23+DRB1*14:30     |
| DRB1*03:09+DRB1*14:23:01    | DRB1*03:23+DRB1*14:14     |
| DRB1*03:09+DRB1*14:78       | DRB1*03:23+DRB1*14:63     |
| DRB1*03:09+DRB1*14:80       | DRB1*03:23+DRB1*14:09     |
| DRB1*03:09+DRB1*14:106      | DRB1*03:23+DRB1*14:51     |
| DRB1*03:09+DRB1*15:01:01G   | DRB1*03:23+DRB1*15:02:01  |
| DRB1*03:09+DRB1*15:01:03    | DRB1*03:23+DRB1*15:02:06  |
| DRB1*03:09+DRB1*15:01:04    | DRB1*03:23+DRB1*15:02:02  |
| DRB1*03:09+DRB1*15:01:09    | DRB1*03:23+DRB1*15:02:04  |
| DRB1*03:09+DRB1*15:01:10    | DRB1*03:23+DRB1*15:02:08  |
| DRB1*03:09+DRB1*15:04       | DRB1*03:23+DRB1*15:15     |
| DRB1*03:09+DRB1*15:05       | DRB1*03:23+DRB1*15:31     |
| DRB1*03:09+DRB1*15:07:01    | DRB1*03:23+DRB1*15:11     |
| DRB1*03:09+DRB1*15:65       | DRB1*03:23+DRB1*15:47     |
| DRB1*03:09+DRB1*15:66       | DRB1*03:23+DRB1*15:27     |
| DRB1*03:09+DRB1*16:15       | DRB1*03:23+DRB1*16:01:01  |
| DRB1*03:10+DRB1*04:09       | DRB1*03:12+DRB1*04:62     |
| DRB1*03:10+DRB1*04:16       | DRB1*03:64+DRB1*04:62     |
| DRB1*03:10+DRB1*04:38       | DRB1*03:19+DRB1*04:62     |
| DRB1*03:10+DRB1*04:117      | DRB1*03:77+DRB1*04:62     |
| DRB1*03:10+DRB1*08:01:01G   | DRB1*03:12+DRB1*08:08     |
| DRB1*03:10+DRB1*11:40       | DRB1*03:65+DRB1*13:43     |
| DRB1*03:10+DRB1*13:01:01G   | DRB1*03:19+DRB1*13:43     |
| DRB1*03:10+DRB1*13:21:01    | DRB1*03:12+DRB1*14:53     |
| DRB1*03:10+DRB1*13:49       | DRB1*03:12+DRB1*14:25     |
| DRB1*03:10+DRB1*13:78       | DRB1*03:13:01+DRB1*13:43  |
| DRB1*03:10+DRB1*13:100      | DRB1*03:79+DRB1*14:53     |
| DRB1*03:10+DRB1*13:111      | DRB1*03:58+DRB1*13:43     |
| DRB1*03:10+DRB1*13:134      | DRB1*03:12+DRB1*14:69     |
| DRB1*03:10+DRB1*14:36       | DRB1*03:18+DRB1*14:07:01  |
| DRB1*03:10+DRB1*14:41       | DRB1*03:71+DRB1*14:49     |
| DRB1*03:11:01+DRB1*11:27:01 | DRB1*03:81+DRB1*11:84:02  |
| DRB1*03:11:01+DRB1*13:33:02 | DRB1*03:81+DRB1*13:94     |
| DRB1*03:11:01+DRB1*13:96:02 | DRB1*03:81+DRB1*13:61:02  |
| DRB1*03:12+DRB1*04:16       | DRB1*03:64+DRB1*04:09     |
| DRB1*03:12+DRB1*04:27       | DRB1*03:20+DRB1*04:11:01  |
| DRB1*03:12+DRB1*04:32       | DRB1*03:70+DRB1*04:10:01  |
| DRB1*03:12+DRB1*04:38       | DRB1*03:19+DRB1*04:09     |
| DRB1*03:12+DRB1*04:40       | DRB1*03:46+DRB1*04:10:01  |
| DRB1*03:12+DRB1*04:56       | DRB1*03:19+DRB1*04:10:01  |
| DRB1*03:12+DRB1*04:88       | DRB1*03:19+DRB1*04:11:01  |
| DRB1*03:12+DRB1*04:117      | DRB1*03:77+DRB1*04:09     |
| DRB1*03:12+DRB1*08:34       | DRB1*03:79+DRB1*08:03:02  |
| DRB1*03:12+DRB1*13:08       | DRB1*03:30+DRB1*13:32     |
| DRB1*03:12+DRB1*13:34       | DRB1*03:71+DRB1*13:139    |
| DRB1*03:12+DRB1*13:39       | DRB1*03:13:01+DRB1*13:139 |
| DRB1*03:12+DRB1*13:52       | DRB1*03:25+DRB1*13:93     |
| DRB1*03:12+DRB1*13:54       | DRB1*03:79+DRB1*13:75     |
| DRB1*03:12+DRB1*13:64       | DRB1*03:43+DRB1*13:93     |
| DRB1*03:12+DRB1*13:79       | DRB1*03:13:01+DRB1*13:93  |
| DRB1*03:12+DRB1*13:80       | DRB1*03:16+DRB1*13:93     |
| DRB1*03:12+DRB1*13:83       | DRB1*03:30+DRB1*13:93     |
| DRB1*03:12+DRB1*13:92       | DRB1*03:54+DRB1*13:93     |
| DRB1*03:12+DRB1*13:97:01    | DRB1*03:25+DRB1*13:139    |
| DRB1*03:12+DRB1*13:100      | DRB1*03:79+DRB1*13:21:01  |
| DRB1*03:12+DRB1*13:106      | DRB1*03:44+DRB1*13:93     |

---

|                              |                             |                          |
|------------------------------|-----------------------------|--------------------------|
| DRB1*03:12+DRB1*13:107       | DRB1*03:30+DRB1*13:139      |                          |
| DRB1*03:12+DRB1*13:131       | DRB1*03:37+DRB1*13:93       |                          |
| DRB1*03:12+DRB1*13:141       | DRB1*03:56+DRB1*13:93       |                          |
| DRB1*03:12+DRB1*14:27        | DRB1*03:58+DRB1*14:85       |                          |
| DRB1*03:12+DRB1*14:40        | DRB1*03:30+DRB1*14:85       |                          |
| DRB1*03:12+DRB1*14:41        | DRB1*03:43+DRB1*14:13       |                          |
| DRB1*03:12+DRB1*14:46        | DRB1*03:42+DRB1*14:13       |                          |
| DRB1*03:12+DRB1*14:48        | DRB1*03:79+DRB1*14:13       |                          |
| DRB1*03:12+DRB1*14:77        | DRB1*03:43+DRB1*14:85       |                          |
| DRB1*03:12+DRB1*14:115       | DRB1*03:13:01+DRB1*14:85    |                          |
| DRB1*03:13:01+DRB1*04:72:02  | DRB1*03:13:02+DRB1*04:72:01 |                          |
| DRB1*03:13:01+DRB1*11:06:01G | DRB1*03:20+DRB1*11:116      |                          |
| DRB1*03:13:01+DRB1*11:27:01  | DRB1*03:13:02+DRB1*11:27:02 |                          |
| DRB1*03:13:01+DRB1*11:39     | DRB1*03:37+DRB1*11:120      |                          |
| DRB1*03:13:01+DRB1*11:40     | DRB1*03:65+DRB1*13:78       |                          |
| DRB1*03:13:01+DRB1*11:43     | DRB1*03:37+DRB1*11:116      |                          |
| DRB1*03:13:01+DRB1*11:44     | DRB1*03:33+DRB1*11:116      |                          |
| DRB1*03:13:01+DRB1*11:49:01  | DRB1*03:33+DRB1*11:120      |                          |
| DRB1*03:13:01+DRB1*11:51     | DRB1*03:70+DRB1*11:120      |                          |
| DRB1*03:13:01+DRB1*11:84:01  | DRB1*03:13:02+DRB1*11:84:02 |                          |
| DRB1*03:13:01+DRB1*11:91     | DRB1*03:48+DRB1*11:120      |                          |
| DRB1*03:13:01+DRB1*11:101    | DRB1*03:73+DRB1*11:120      |                          |
| DRB1*03:13:01+DRB1*13:31     | DRB1*03:79+DRB1*13:02:01    |                          |
| DRB1*03:13:01+DRB1*13:33:03  | DRB1*03:13:02+DRB1*13:33:01 |                          |
| DRB1*03:13:01+DRB1*13:34     | DRB1*03:71+DRB1*13:39       |                          |
| DRB1*03:13:01+DRB1*13:52     | DRB1*03:25+DRB1*13:79       |                          |
| DRB1*03:13:01+DRB1*13:61:01  | DRB1*03:13:02+DRB1*13:61:02 |                          |
| DRB1*03:13:01+DRB1*13:64     | DRB1*03:43+DRB1*13:79       |                          |
| DRB1*03:13:01+DRB1*13:70     | DRB1*03:75+DRB1*13:79       |                          |
| DRB1*03:13:01+DRB1*13:80     | DRB1*03:16+DRB1*13:79       |                          |
| DRB1*03:13:01+DRB1*13:83     | DRB1*03:30+DRB1*13:79       |                          |
| DRB1*03:13:01+DRB1*13:92     | DRB1*03:54+DRB1*13:79       |                          |
| DRB1*03:13:01+DRB1*13:96:02  | DRB1*03:13:02+DRB1*13:96:01 |                          |
| DRB1*03:13:01+DRB1*13:97:01  | DRB1*03:25+DRB1*13:39       |                          |
| DRB1*03:13:01+DRB1*13:106    | DRB1*03:44+DRB1*13:79       |                          |
| DRB1*03:13:01+DRB1*13:107    | DRB1*03:30+DRB1*13:39       |                          |
| DRB1*03:13:01+DRB1*13:111    | DRB1*03:58+DRB1*13:78       |                          |
| DRB1*03:13:01+DRB1*13:131    | DRB1*03:37+DRB1*13:79       |                          |
| DRB1*03:13:01+DRB1*13:141    | DRB1*03:56+DRB1*13:79       |                          |
| DRB1*03:13:01+DRB1*14:27     | DRB1*03:58+DRB1*14:115      |                          |
| DRB1*03:13:01+DRB1*14:40     | DRB1*03:30+DRB1*14:115      |                          |
| DRB1*03:13:01+DRB1*14:59     | DRB1*03:80+DRB1*14:64       |                          |
| DRB1*03:13:01+DRB1*14:67     | DRB1*03:19+DRB1*14:115      |                          |
| DRB1*03:13:01+DRB1*14:77     | DRB1*03:43+DRB1*14:115      |                          |
| DRB1*03:13:01+DRB1*15:24     | DRB1*03:54+DRB1*15:71       |                          |
| DRB1*03:13:01+DRB1*15:35     | DRB1*03:20+DRB1*15:71       |                          |
| DRB1*03:13:01+DRB1*15:41     | DRB1*03:59+DRB1*15:71       |                          |
| DRB1*03:13:01+DRB1*15:65     | DRB1*03:37+DRB1*15:71       |                          |
| DRB1*03:14+DRB1*04:02:01     | DRB1*03:15+DRB1*04:14       | DRB1*04:98:02+DRB1*13:27 |
| DRB1*03:14+DRB1*04:03:01     | DRB1*03:15+DRB1*04:07:01G   |                          |
| DRB1*03:14+DRB1*04:03:08     | DRB1*03:15+DRB1*04:07:04    |                          |
| DRB1*03:14+DRB1*04:04:01     | DRB1*03:15+DRB1*04:08:01    |                          |
| DRB1*03:14+DRB1*04:04:02     | DRB1*03:15+DRB1*04:08:02    |                          |
| DRB1*03:14+DRB1*04:06:01G    | DRB1*03:15+DRB1*04:20       |                          |
| DRB1*03:14+DRB1*04:10:01     | DRB1*03:15+DRB1*04:05:01    |                          |
| DRB1*03:14+DRB1*04:11:01     | DRB1*03:15+DRB1*04:17:02    |                          |
| DRB1*03:14+DRB1*04:12        | DRB1*03:15+DRB1*04:86       |                          |
| DRB1*03:14+DRB1*04:13        | DRB1*03:15+DRB1*04:01:01    |                          |
| DRB1*03:14+DRB1*04:14        | DRB1*04:98:02+DRB1*13:41    |                          |
| DRB1*03:14+DRB1*04:37        | DRB1*04:98:02+DRB1*13:71    |                          |
| DRB1*03:14+DRB1*04:41        | DRB1*03:15+DRB1*04:102      |                          |
| DRB1*03:14+DRB1*04:42        | DRB1*03:15+DRB1*04:43       |                          |
| DRB1*03:14+DRB1*04:55        | DRB1*03:15+DRB1*04:31       |                          |
| DRB1*03:14+DRB1*04:67        | DRB1*03:15+DRB1*04:09       |                          |
| DRB1*03:14+DRB1*04:68        | DRB1*03:15+DRB1*04:19       |                          |
| DRB1*03:14+DRB1*04:73        | DRB1*03:15+DRB1*04:105:01   |                          |
| DRB1*03:14+DRB1*08:04:01     | DRB1*03:15+DRB1*08:02:02    |                          |
| DRB1*03:14+DRB1*08:04:04     | DRB1*03:15+DRB1*08:02:01    |                          |
| DRB1*03:14+DRB1*08:06        | DRB1*03:15+DRB1*08:01:05    |                          |
| DRB1*03:14+DRB1*08:10        | DRB1*03:15+DRB1*08:03:02    |                          |
| DRB1*03:14+DRB1*08:31        | DRB1*03:15+DRB1*08:41       |                          |
| DRB1*03:14+DRB1*09:06        | DRB1*03:15+DRB1*09:01:02    |                          |
| DRB1*03:14+DRB1*10:02        | DRB1*03:15+DRB1*10:01:01    |                          |
| DRB1*03:14+DRB1*11:02:01     | DRB1*03:15+DRB1*11:14:01    | DRB1*11:105+DRB1*13:27   |
| DRB1*03:14+DRB1*11:03        | DRB1*03:15+DRB1*11:11:01G   |                          |
| DRB1*03:14+DRB1*11:04:01     | DRB1*03:15+DRB1*11:01:01G   |                          |
| DRB1*03:14+DRB1*11:04:02     | DRB1*03:15+DRB1*11:01:02    |                          |
| DRB1*03:14+DRB1*11:04:03     | DRB1*03:15+DRB1*11:01:05    |                          |
| DRB1*03:14+DRB1*11:04:04     | DRB1*03:15+DRB1*11:01:12    |                          |
| DRB1*03:14+DRB1*11:04:05     | DRB1*03:15+DRB1*11:01:04    |                          |
| DRB1*03:14+DRB1*11:04:07     | DRB1*03:15+DRB1*11:01:03    |                          |
| DRB1*03:14+DRB1*11:14:01     | DRB1*11:105+DRB1*13:41      |                          |
| DRB1*03:14+DRB1*11:16        | DRB1*03:15+DRB1*11:20       |                          |
| DRB1*03:14+DRB1*11:18        | DRB1*03:15+DRB1*11:19:01    |                          |
| DRB1*03:14+DRB1*11:34        | DRB1*03:15+DRB1*11:26       |                          |
| DRB1*03:14+DRB1*11:35        | DRB1*03:15+DRB1*11:33       | DRB1*11:105+DRB1*13:71   |
| DRB1*03:14+DRB1*11:36        | DRB1*03:15+DRB1*11:68       |                          |
| DRB1*03:14+DRB1*11:40        | DRB1*03:15+DRB1*11:122      |                          |
| DRB1*03:14+DRB1*11:42        | DRB1*03:15+DRB1*11:08:01    |                          |
| DRB1*03:14+DRB1*11:43        | DRB1*03:15+DRB1*11:39       |                          |
| DRB1*03:14+DRB1*11:44        | DRB1*03:15+DRB1*11:49:01    |                          |
| DRB1*03:14+DRB1*11:46:02     | DRB1*03:15+DRB1*11:62       |                          |
| DRB1*03:14+DRB1*11:56        | DRB1*03:15+DRB1*11:37:01    |                          |
| DRB1*03:14+DRB1*11:58:01     | DRB1*03:15+DRB1*11:28:02    |                          |
| DRB1*03:14+DRB1*11:58:02     | DRB1*03:15+DRB1*11:28:01    |                          |
| DRB1*03:14+DRB1*11:60        | DRB1*03:15+DRB1*11:109      |                          |
| DRB1*03:14+DRB1*11:113       | DRB1*03:15+DRB1*11:09       |                          |
| DRB1*03:14+DRB1*11:116       | DRB1*03:15+DRB1*11:120      |                          |
| DRB1*03:14+DRB1*11:119       | DRB1*03:15+DRB1*11:45       |                          |
| DRB1*03:14+DRB1*13:01:01G    | DRB1*03:15+DRB1*13:02:01    |                          |
| DRB1*03:14+DRB1*13:01:05     | DRB1*03:15+DRB1*13:02:03    |                          |
| DRB1*03:14+DRB1*13:11:01     | DRB1*03:15+DRB1*13:14:01    |                          |
| DRB1*03:14+DRB1*13:11:02     | DRB1*03:15+DRB1*13:14:02    |                          |
| DRB1*03:14+DRB1*13:15        | DRB1*03:15+DRB1*13:104      |                          |
| DRB1*03:14+DRB1*13:20        | DRB1*03:15+DRB1*13:29       |                          |

|                           |                           |                           |                        |
|---------------------------|---------------------------|---------------------------|------------------------|
| DRB1*03:14+DRB1*13:22     | DRB1*03:15+DRB1*13:23:02  |                           |                        |
| DRB1*03:14+DRB1*13:27     | DRB1*03:15+DRB1*13:41     |                           |                        |
| DRB1*03:14+DRB1*13:32     | DRB1*03:15+DRB1*13:65     |                           |                        |
| DRB1*03:14+DRB1*13:40     | DRB1*03:15+DRB1*13:36     |                           |                        |
| DRB1*03:14+DRB1*13:42     | DRB1*03:15+DRB1*13:05:01  |                           |                        |
| DRB1*03:14+DRB1*13:52     | DRB1*03:15+DRB1*13:97:01  |                           |                        |
| DRB1*03:14+DRB1*13:79     | DRB1*03:15+DRB1*13:39     |                           |                        |
| DRB1*03:14+DRB1*13:83     | DRB1*03:15+DRB1*13:107    |                           |                        |
| DRB1*03:14+DRB1*13:89     | DRB1*03:15+DRB1*13:03:01  |                           |                        |
| DRB1*03:14+DRB1*13:93     | DRB1*03:15+DRB1*13:139    |                           |                        |
| DRB1*03:14+DRB1*13:108    | DRB1*03:15+DRB1*13:49     |                           |                        |
| DRB1*03:14+DRB1*13:111    | DRB1*03:15+DRB1*13:63     |                           |                        |
| DRB1*03:14+DRB1*13:112    | DRB1*03:15+DRB1*13:128    |                           |                        |
| DRB1*03:14+DRB1*14:01:01G | DRB1*03:15+DRB1*14:07:01  |                           |                        |
| DRB1*03:14+DRB1*14:04     | DRB1*03:15+DRB1*14:68     |                           |                        |
| DRB1*03:14+DRB1*14:05:01  | DRB1*03:15+DRB1*14:44:01  |                           |                        |
| DRB1*03:14+DRB1*14:05:03  | DRB1*03:15+DRB1*14:44:02  |                           |                        |
| DRB1*03:14+DRB1*14:06:01  | DRB1*03:15+DRB1*14:02     |                           |                        |
| DRB1*03:14+DRB1*14:12:01  | DRB1*03:15+DRB1*14:03:01  |                           |                        |
| DRB1*03:14+DRB1*14:17     | DRB1*03:15+DRB1*14:30     |                           |                        |
| DRB1*03:14+DRB1*14:23:01  | DRB1*03:15+DRB1*14:14     |                           |                        |
| DRB1*03:14+DRB1*14:78     | DRB1*03:15+DRB1*14:63     |                           |                        |
| DRB1*03:14+DRB1*14:80     | DRB1*03:15+DRB1*14:09     |                           |                        |
| DRB1*03:14+DRB1*14:106    | DRB1*03:15+DRB1*14:51     |                           |                        |
| DRB1*03:14+DRB1*15:01:01G | DRB1*03:15+DRB1*15:02:01  |                           |                        |
| DRB1*03:14+DRB1*15:01:03  | DRB1*03:15+DRB1*15:02:06  |                           |                        |
| DRB1*03:14+DRB1*15:01:04  | DRB1*03:15+DRB1*15:02:02  |                           |                        |
| DRB1*03:14+DRB1*15:01:09  | DRB1*03:15+DRB1*15:02:04  |                           |                        |
| DRB1*03:14+DRB1*15:01:10  | DRB1*03:15+DRB1*15:02:08  |                           |                        |
| DRB1*03:14+DRB1*15:04     | DRB1*03:15+DRB1*15:15     |                           |                        |
| DRB1*03:14+DRB1*15:05     | DRB1*03:15+DRB1*15:31     |                           |                        |
| DRB1*03:14+DRB1*15:07:01  | DRB1*03:15+DRB1*15:11     |                           |                        |
| DRB1*03:14+DRB1*15:65     | DRB1*03:15+DRB1*15:47     |                           |                        |
| DRB1*03:14+DRB1*15:66     | DRB1*03:15+DRB1*15:27     |                           |                        |
| DRB1*03:14+DRB1*16:15     | DRB1*03:15+DRB1*16:01:01  |                           |                        |
| DRB1*03:15+DRB1*04:105:02 | DRB1*04:98:02+DRB1*13:129 |                           |                        |
| DRB1*03:15+DRB1*11:82     | DRB1*11:105+DRB1*13:129   |                           |                        |
| DRB1*03:15+DRB1*11:112    | DRB1*03:78+DRB1*11:01:01G |                           |                        |
| DRB1*03:15+DRB1*11:125    | DRB1*03:58+DRB1*11:105    |                           |                        |
| DRB1*03:16+DRB1*08:27     | DRB1*03:23+DRB1*08:33     |                           |                        |
| DRB1*03:16+DRB1*13:52     | DRB1*03:25+DRB1*13:80     |                           |                        |
| DRB1*03:16+DRB1*13:64     | DRB1*03:43+DRB1*13:80     |                           |                        |
| DRB1*03:16+DRB1*13:70     | DRB1*03:75+DRB1*13:80     |                           |                        |
| DRB1*03:16+DRB1*13:83     | DRB1*03:30+DRB1*13:80     |                           |                        |
| DRB1*03:16+DRB1*13:92     | DRB1*03:54+DRB1*13:80     |                           |                        |
| DRB1*03:16+DRB1*13:106    | DRB1*03:44+DRB1*13:80     |                           |                        |
| DRB1*03:16+DRB1*13:131    | DRB1*03:37+DRB1*13:80     |                           |                        |
| DRB1*03:16+DRB1*13:141    | DRB1*03:56+DRB1*13:80     |                           |                        |
| DRB1*03:19+DRB1*04:16     | DRB1*03:64+DRB1*04:38     |                           |                        |
| DRB1*03:19+DRB1*04:25     | DRB1*03:58+DRB1*04:18     |                           |                        |
| DRB1*03:19+DRB1*04:27     | DRB1*03:20+DRB1*04:88     |                           |                        |
| DRB1*03:19+DRB1*04:32     | DRB1*03:70+DRB1*04:56     |                           |                        |
| DRB1*03:19+DRB1*04:40     | DRB1*03:46+DRB1*04:56     |                           |                        |
| DRB1*03:19+DRB1*04:80     | DRB1*03:58+DRB1*04:107    |                           |                        |
| DRB1*03:19+DRB1*04:117    | DRB1*03:77+DRB1*04:38     |                           |                        |
| DRB1*03:19+DRB1*04:122    | DRB1*04:22+DRB1*13:129    |                           |                        |
| DRB1*03:19+DRB1*08:01:01G | DRB1*03:58+DRB1*08:03:03  |                           |                        |
| DRB1*03:19+DRB1*08:01:05  | DRB1*03:58+DRB1*08:03:02  |                           |                        |
| DRB1*03:19+DRB1*08:02:01  | DRB1*03:58+DRB1*08:30:03  |                           |                        |
| DRB1*03:19+DRB1*08:02:02  | DRB1*03:58+DRB1*08:30:01  |                           |                        |
| DRB1*03:19+DRB1*08:06     | DRB1*03:58+DRB1*08:10     |                           |                        |
| DRB1*03:19+DRB1*11:01:01G | DRB1*03:58+DRB1*11:19:01  | DRB1*03:65+DRB1*13:82     |                        |
| DRB1*03:19+DRB1*11:01:02  | DRB1*03:58+DRB1*11:19:03  |                           |                        |
| DRB1*03:19+DRB1*11:01:03  | DRB1*03:58+DRB1*11:19:02  |                           |                        |
| DRB1*03:19+DRB1*11:03     | DRB1*03:58+DRB1*11:02:01  | DRB1*03:65+DRB1*13:22     |                        |
| DRB1*03:19+DRB1*11:04:01  | DRB1*03:58+DRB1*11:18     |                           |                        |
| DRB1*03:19+DRB1*11:11:01G | DRB1*03:58+DRB1*11:14:01  | DRB1*03:65+DRB1*13:23:02  | DRB1*11:125+DRB1*13:27 |
| DRB1*03:19+DRB1*11:25     | DRB1*03:58+DRB1*11:119    |                           |                        |
| DRB1*03:19+DRB1*11:40     | DRB1*03:58+DRB1*11:16     | DRB1*03:65+DRB1*13:01:01G |                        |
| DRB1*03:19+DRB1*11:41     | DRB1*03:58+DRB1*11:48     | DRB1*03:65+DRB1*13:70     |                        |
| DRB1*03:19+DRB1*11:57     | DRB1*03:20+DRB1*11:18     |                           |                        |
| DRB1*03:19+DRB1*11:59     | DRB1*03:65+DRB1*13:27     |                           |                        |
| DRB1*03:19+DRB1*11:69     | DRB1*03:58+DRB1*11:82     | DRB1*11:125+DRB1*13:129   |                        |
| DRB1*03:19+DRB1*11:85     | DRB1*03:58+DRB1*11:127    |                           |                        |
| DRB1*03:19+DRB1*11:93     | DRB1*03:58+DRB1*11:73     |                           |                        |
| DRB1*03:19+DRB1*11:96     | DRB1*03:58+DRB1*11:31     |                           |                        |
| DRB1*03:19+DRB1*11:113    | DRB1*03:65+DRB1*13:06     |                           |                        |
| DRB1*03:19+DRB1*11:122    | DRB1*03:58+DRB1*11:20     | DRB1*03:65+DRB1*13:02:01  |                        |
| DRB1*03:19+DRB1*12:02:01  | DRB1*03:58+DRB1*12:01:01G |                           |                        |
| DRB1*03:19+DRB1*12:02:02  | DRB1*03:58+DRB1*12:01:03  |                           |                        |
| DRB1*03:19+DRB1*12:15     | DRB1*03:58+DRB1*12:05     |                           |                        |
| DRB1*03:19+DRB1*12:19     | DRB1*03:58+DRB1*12:03:03  |                           |                        |
| DRB1*03:19+DRB1*13:14:01  | DRB1*03:58+DRB1*13:82     |                           |                        |
| DRB1*03:19+DRB1*13:21:01  | DRB1*03:58+DRB1*13:30     |                           |                        |
| DRB1*03:19+DRB1*13:24     | DRB1*03:58+DRB1*13:22     |                           |                        |
| DRB1*03:19+DRB1*13:42     | DRB1*03:58+DRB1*13:06     |                           |                        |
| DRB1*03:19+DRB1*13:49     | DRB1*03:58+DRB1*13:12:01  |                           |                        |
| DRB1*03:19+DRB1*13:63     | DRB1*03:58+DRB1*13:02:01  |                           |                        |
| DRB1*03:19+DRB1*13:75     | DRB1*03:58+DRB1*13:04     |                           |                        |
| DRB1*03:19+DRB1*13:111    | DRB1*03:58+DRB1*13:01:01G |                           |                        |
| DRB1*03:19+DRB1*14:26     | DRB1*03:54+DRB1*14:122    |                           |                        |
| DRB1*03:19+DRB1*14:27     | DRB1*03:58+DRB1*14:67     |                           |                        |
| DRB1*03:19+DRB1*14:28     | DRB1*03:20+DRB1*14:120    |                           |                        |
| DRB1*03:19+DRB1*14:40     | DRB1*03:30+DRB1*14:67     |                           |                        |
| DRB1*03:19+DRB1*14:77     | DRB1*03:43+DRB1*14:67     |                           |                        |
| DRB1*03:19+DRB1*14:86     | DRB1*03:37+DRB1*14:122    |                           |                        |
| DRB1*03:19+DRB1*14:96     | DRB1*03:37+DRB1*14:45     |                           |                        |
| DRB1*03:19+DRB1*14:99     | DRB1*03:20+DRB1*14:122    |                           |                        |
| DRB1*03:19+DRB1*14:110    | DRB1*03:71+DRB1*14:122    |                           |                        |
| DRB1*03:19+DRB1*15:04     | DRB1*03:58+DRB1*15:01:01G |                           |                        |
| DRB1*03:19+DRB1*15:15     | DRB1*03:58+DRB1*15:02:01  |                           |                        |
| DRB1*03:19+DRB1*16:01:01  | DRB1*03:58+DRB1*16:05:01  |                           |                        |
| DRB1*03:20+DRB1*11:43     | DRB1*03:37+DRB1*11:06:01G |                           |                        |
| DRB1*03:20+DRB1*11:44     | DRB1*03:33+DRB1*11:06:01G |                           |                        |
| DRB1*03:20+DRB1*11:127    | DRB1*03:33+DRB1*11:21     |                           |                        |

|                           |                           |                          |
|---------------------------|---------------------------|--------------------------|
| DRB1*03:20+DRB1*14:20     | DRB1*03:30+DRB1*14:29     |                          |
| DRB1*03:20+DRB1*14:26     | DRB1*03:54+DRB1*14:99     |                          |
| DRB1*03:20+DRB1*14:86     | DRB1*03:37+DRB1*14:99     |                          |
| DRB1*03:20+DRB1*14:108    | DRB1*03:58+DRB1*14:29     |                          |
| DRB1*03:20+DRB1*14:110    | DRB1*03:71+DRB1*14:99     |                          |
| DRB1*03:20+DRB1*15:24     | DRB1*03:54+DRB1*15:35     |                          |
| DRB1*03:20+DRB1*15:41     | DRB1*03:59+DRB1*15:35     |                          |
| DRB1*03:20+DRB1*15:65     | DRB1*03:37+DRB1*15:35     |                          |
| DRB1*03:21+DRB1*04:02:01  | DRB1*04:22+DRB1*13:83     |                          |
| DRB1*03:21+DRB1*04:14     | DRB1*04:22+DRB1*13:107    |                          |
| DRB1*03:21+DRB1*08:02:02  | DRB1*03:40+DRB1*14:15     |                          |
| DRB1*03:21+DRB1*08:38     | DRB1*03:49+DRB1*08:35     |                          |
| DRB1*03:21+DRB1*11:02:01  | DRB1*11:07+DRB1*13:83     |                          |
| DRB1*03:21+DRB1*11:14:01  | DRB1*11:07+DRB1*13:107    | DRB1*11:103+DRB1*13:83   |
| DRB1*03:21+DRB1*11:48     | DRB1*11:07+DRB1*13:08     |                          |
| DRB1*03:21+DRB1*11:59     | DRB1*03:30+DRB1*11:40     |                          |
| DRB1*03:21+DRB1*11:80     | DRB1*03:30+DRB1*11:62     |                          |
| DRB1*03:21+DRB1*13:23:02  | DRB1*03:40+DRB1*13:83     |                          |
| DRB1*03:21+DRB1*13:71     | DRB1*03:30+DRB1*13:20     |                          |
| DRB1*03:21+DRB1*13:104    | DRB1*03:29+DRB1*13:83     |                          |
| DRB1*03:21+DRB1*13:129    | DRB1*03:30+DRB1*13:09     |                          |
| DRB1*03:21+DRB1*14:04     | DRB1*14:72+DRB1*14:76     |                          |
| DRB1*03:21+DRB1*14:69     | DRB1*03:40+DRB1*14:74     |                          |
| DRB1*03:21+DRB1*14:82     | DRB1*03:30+DRB1*14:01:01G |                          |
| DRB1*03:21+DRB1*15:10     | DRB1*13:83+DRB1*15:25     |                          |
| DRB1*03:24+DRB1*11:80     | DRB1*03:81+DRB1*11:46:02  |                          |
| DRB1*03:24+DRB1*11:87     | DRB1*03:81+DRB1*11:113    |                          |
| DRB1*03:24+DRB1*13:26:02  | DRB1*03:27+DRB1*13:42     |                          |
| DRB1*03:24+DRB1*13:41     | DRB1*03:81+DRB1*13:01:01G |                          |
| DRB1*03:24+DRB1*13:85     | DRB1*03:27+DRB1*13:10     |                          |
| DRB1*03:24+DRB1*14:02     | DRB1*03:27+DRB1*14:17     |                          |
| DRB1*03:24+DRB1*14:19     | DRB1*03:27+DRB1*14:21     |                          |
| DRB1*03:24+DRB1*14:24     | DRB1*03:27+DRB1*13:09     |                          |
| DRB1*03:24+DRB1*14:27     | DRB1*03:27+DRB1*13:18     |                          |
| DRB1*03:24+DRB1*14:51     | DRB1*03:27+DRB1*14:33     |                          |
| DRB1*03:25+DRB1*03:41     | DRB1*03:31+DRB1*03:40     |                          |
| DRB1*03:25+DRB1*03:80     | DRB1*03:31+DRB1*03:37     |                          |
| DRB1*03:25+DRB1*04:01:01  | DRB1*03:31+DRB1*04:35     |                          |
| DRB1*03:25+DRB1*04:03:01  | DRB1*03:31+DRB1*04:59     |                          |
| DRB1*03:25+DRB1*04:04:01  | DRB1*03:31+DRB1*04:42     |                          |
| DRB1*03:25+DRB1*04:05:01  | DRB1*03:31+DRB1*04:28     |                          |
| DRB1*03:25+DRB1*04:08:01  | DRB1*03:31+DRB1*04:43     |                          |
| DRB1*03:25+DRB1*08:01:01G | DRB1*03:31+DRB1*08:17     |                          |
| DRB1*03:25+DRB1*08:03:02  | DRB1*03:31+DRB1*08:37     |                          |
| DRB1*03:25+DRB1*08:04:01  | DRB1*03:31+DRB1*08:28     |                          |
| DRB1*03:25+DRB1*08:30:03  | DRB1*03:31+DRB1*08:45     |                          |
| DRB1*03:25+DRB1*11:12:01  | DRB1*03:30+DRB1*11:01:01G |                          |
| DRB1*03:25+DRB1*11:12:02  | DRB1*03:30+DRB1*11:01:12  |                          |
| DRB1*03:25+DRB1*11:37:01  | DRB1*03:31+DRB1*11:01:01G |                          |
| DRB1*03:25+DRB1*11:37:02  | DRB1*03:31+DRB1*11:01:02  |                          |
| DRB1*03:25+DRB1*11:41     | DRB1*03:31+DRB1*11:03     |                          |
| DRB1*03:25+DRB1*11:44     | DRB1*03:44+DRB1*11:04:01  |                          |
| DRB1*03:25+DRB1*11:48     | DRB1*03:31+DRB1*11:02:01  | DRB1*03:75+DRB1*11:118   |
| DRB1*03:25+DRB1*11:49:01  | DRB1*03:44+DRB1*11:01:01G |                          |
| DRB1*03:25+DRB1*11:49:02  | DRB1*03:44+DRB1*11:01:02  |                          |
| DRB1*03:25+DRB1*11:56     | DRB1*03:31+DRB1*11:04:01  | DRB1*03:75+DRB1*11:46:01 |
| DRB1*03:25+DRB1*11:85     | DRB1*03:44+DRB1*11:03     |                          |
| DRB1*03:25+DRB1*11:107    | DRB1*03:31+DRB1*11:103    |                          |
| DRB1*03:25+DRB1*11:114    | DRB1*03:43+DRB1*11:01:01G |                          |
| DRB1*03:25+DRB1*11:115    | DRB1*03:37+DRB1*11:04:04  |                          |
| DRB1*03:25+DRB1*11:127    | DRB1*03:44+DRB1*11:02:01  |                          |
| DRB1*03:25+DRB1*12:21     | DRB1*03:31+DRB1*12:02:01  |                          |
| DRB1*03:25+DRB1*13:03:01  | DRB1*03:31+DRB1*13:66:02  |                          |
| DRB1*03:25+DRB1*13:03:02  | DRB1*03:31+DRB1*13:66:01  |                          |
| DRB1*03:25+DRB1*13:07:01  | DRB1*03:31+DRB1*13:14:01  | DRB1*03:75+DRB1*13:132   |
| DRB1*03:25+DRB1*13:07:02  | DRB1*03:31+DRB1*13:14:02  |                          |
| DRB1*03:25+DRB1*13:08     | DRB1*03:31+DRB1*13:83     |                          |
| DRB1*03:25+DRB1*13:12:01  | DRB1*03:31+DRB1*13:30     |                          |
| DRB1*03:25+DRB1*13:19     | DRB1*03:31+DRB1*13:57     |                          |
| DRB1*03:25+DRB1*13:32     | DRB1*03:31+DRB1*13:93     |                          |
| DRB1*03:25+DRB1*13:34     | DRB1*03:71+DRB1*13:97:01  |                          |
| DRB1*03:25+DRB1*13:48     | DRB1*03:31+DRB1*13:04     |                          |
| DRB1*03:25+DRB1*13:49     | DRB1*03:31+DRB1*13:21:01  |                          |
| DRB1*03:25+DRB1*13:53     | DRB1*03:31+DRB1*13:15     |                          |
| DRB1*03:25+DRB1*13:64     | DRB1*03:43+DRB1*13:52     |                          |
| DRB1*03:25+DRB1*13:65     | DRB1*03:31+DRB1*13:139    |                          |
| DRB1*03:25+DRB1*13:70     | DRB1*03:31+DRB1*13:22     | DRB1*03:75+DRB1*13:52    |
| DRB1*03:25+DRB1*13:83     | DRB1*03:30+DRB1*13:52     |                          |
| DRB1*03:25+DRB1*13:92     | DRB1*03:54+DRB1*13:52     |                          |
| DRB1*03:25+DRB1*13:106    | DRB1*03:44+DRB1*13:52     |                          |
| DRB1*03:25+DRB1*13:107    | DRB1*03:30+DRB1*13:97:01  |                          |
| DRB1*03:25+DRB1*13:116    | DRB1*03:31+DRB1*13:17     |                          |
| DRB1*03:25+DRB1*13:131    | DRB1*03:37+DRB1*13:52     |                          |
| DRB1*03:25+DRB1*13:136    | DRB1*03:71+DRB1*13:132    |                          |
| DRB1*03:25+DRB1*13:141    | DRB1*03:56+DRB1*13:52     |                          |
| DRB1*03:25+DRB1*14:01:01G | DRB1*03:31+DRB1*14:35     |                          |
| DRB1*03:25+DRB1*14:09     | DRB1*03:31+DRB1*14:30     |                          |
| DRB1*03:25+DRB1*14:25     | DRB1*03:31+DRB1*14:53     |                          |
| DRB1*03:25+DRB1*14:80     | DRB1*03:31+DRB1*14:17     |                          |
| DRB1*03:25+DRB1*15:07:01  | DRB1*03:31+DRB1*15:01:01G |                          |
| DRB1*03:25+DRB1*15:07:02  | DRB1*03:31+DRB1*15:01:04  |                          |
| DRB1*03:25+DRB1*15:11     | DRB1*03:31+DRB1*15:02:01  |                          |
| DRB1*03:25+DRB1*15:34     | DRB1*03:31+DRB1*15:27     |                          |
| DRB1*03:25+DRB1*15:48     | DRB1*03:31+DRB1*15:09     |                          |
| DRB1*03:25+DRB1*16:01:01  | DRB1*03:31+DRB1*16:09     |                          |
| DRB1*03:25+DRB1*16:02:01  | DRB1*03:31+DRB1*16:10     |                          |
| DRB1*03:26+DRB1*03:37     | DRB1*03:33+DRB1*03:80     |                          |
| DRB1*03:26+DRB1*03:40     | DRB1*03:33+DRB1*03:41     |                          |
| DRB1*03:26+DRB1*04:28     | DRB1*03:33+DRB1*04:05:01  | DRB1*03:44+DRB1*04:77    |
| DRB1*03:26+DRB1*04:35     | DRB1*03:33+DRB1*04:01:01  | DRB1*03:44+DRB1*04:113   |
| DRB1*03:26+DRB1*04:42     | DRB1*03:33+DRB1*04:04:01  |                          |
| DRB1*03:26+DRB1*04:43     | DRB1*03:33+DRB1*04:08:01  |                          |
| DRB1*03:26+DRB1*04:59     | DRB1*03:33+DRB1*04:03:01  | DRB1*03:44+DRB1*04:41    |
| DRB1*03:26+DRB1*08:17     | DRB1*03:33+DRB1*08:01:01G |                          |
| DRB1*03:26+DRB1*08:28     | DRB1*03:33+DRB1*08:04:01  |                          |

|                           |                           |
|---------------------------|---------------------------|
| DRB1*03:26+DRB1*08:37     | DRB1*03:33+DRB1*08:03:02  |
| DRB1*03:26+DRB1*08:45     | DRB1*03:33+DRB1*08:30:03  |
| DRB1*03:26+DRB1*11:103    | DRB1*03:33+DRB1*11:107    |
| DRB1*03:26+DRB1*12:02:01  | DRB1*03:33+DRB1*12:21     |
| DRB1*03:26+DRB1*13:01:01G | DRB1*03:33+DRB1*13:40     |
| DRB1*03:26+DRB1*13:02:01  | DRB1*03:33+DRB1*13:36     |
| DRB1*03:26+DRB1*13:04     | DRB1*03:33+DRB1*13:48     |
| DRB1*03:26+DRB1*13:14:01  | DRB1*03:33+DRB1*13:07:01  |
| DRB1*03:26+DRB1*13:14:02  | DRB1*03:33+DRB1*13:07:02  |
| DRB1*03:26+DRB1*13:15     | DRB1*03:33+DRB1*13:53     |
| DRB1*03:26+DRB1*13:17     | DRB1*03:33+DRB1*13:116    |
| DRB1*03:26+DRB1*13:21:01  | DRB1*03:33+DRB1*13:49     |
| DRB1*03:26+DRB1*13:22     | DRB1*03:33+DRB1*13:70     |
| DRB1*03:26+DRB1*13:30     | DRB1*03:33+DRB1*13:12:01  |
| DRB1*03:26+DRB1*13:57     | DRB1*03:33+DRB1*13:19     |
| DRB1*03:26+DRB1*13:66:01  | DRB1*03:33+DRB1*13:03:02  |
| DRB1*03:26+DRB1*13:66:02  | DRB1*03:33+DRB1*13:03:01  |
| DRB1*03:26+DRB1*13:83     | DRB1*03:33+DRB1*13:08     |
| DRB1*03:26+DRB1*13:93     | DRB1*03:33+DRB1*13:32     |
| DRB1*03:26+DRB1*13:97:01  | DRB1*03:44+DRB1*13:36     |
| DRB1*03:26+DRB1*13:139    | DRB1*03:33+DRB1*13:65     |
| DRB1*03:26+DRB1*14:17     | DRB1*03:33+DRB1*14:80     |
| DRB1*03:26+DRB1*14:30     | DRB1*03:33+DRB1*14:09     |
| DRB1*03:26+DRB1*14:35     | DRB1*03:33+DRB1*14:01:01G |
| DRB1*03:26+DRB1*14:53     | DRB1*03:33+DRB1*14:25     |
| DRB1*03:26+DRB1*15:01:01G | DRB1*03:33+DRB1*15:07:01  |
| DRB1*03:26+DRB1*15:01:04  | DRB1*03:33+DRB1*15:07:02  |
| DRB1*03:26+DRB1*15:02:01  | DRB1*03:33+DRB1*15:11     |
| DRB1*03:26+DRB1*15:09     | DRB1*03:33+DRB1*15:48     |
| DRB1*03:26+DRB1*15:27     | DRB1*03:33+DRB1*15:34     |
| DRB1*03:26+DRB1*16:09     | DRB1*03:33+DRB1*16:01:01  |
| DRB1*03:26+DRB1*16:10     | DRB1*03:33+DRB1*16:02:01  |
| DRB1*03:27+DRB1*13:27     | DRB1*03:81+DRB1*13:53     |
| DRB1*03:27+DRB1*13:72     | DRB1*03:35+DRB1*13:53     |
| DRB1*03:29+DRB1*04:02:01  | DRB1*04:22+DRB1*13:104    |
| DRB1*03:29+DRB1*11:02:01  | DRB1*11:07+DRB1*13:104    |
| DRB1*03:29+DRB1*11:14:01  | DRB1*11:103+DRB1*13:104   |
| DRB1*03:29+DRB1*13:13     | DRB1*03:40+DRB1*14:63     |
| DRB1*03:29+DRB1*13:22     | DRB1*03:40+DRB1*13:15     |
| DRB1*03:29+DRB1*13:23:02  | DRB1*03:40+DRB1*13:104    |
| DRB1*03:29+DRB1*14:116    | DRB1*03:40+DRB1*14:03:01  |
| DRB1*03:29+DRB1*15:10     | DRB1*13:104+DRB1*15:25    |
| DRB1*03:30+DRB1*11:37:01  | DRB1*03:31+DRB1*11:12:01  |
| DRB1*03:30+DRB1*11:37:02  | DRB1*03:75+DRB1*11:10:01  |
| DRB1*03:30+DRB1*11:49:01  | DRB1*03:44+DRB1*11:12:01  |
| DRB1*03:30+DRB1*11:76     | DRB1*03:43+DRB1*11:03     |
| DRB1*03:30+DRB1*11:114    | DRB1*03:43+DRB1*11:12:01  |
| DRB1*03:30+DRB1*12:05     | DRB1*03:43+DRB1*12:14     |
| DRB1*03:30+DRB1*13:64     | DRB1*03:43+DRB1*13:83     |
| DRB1*03:30+DRB1*13:70     | DRB1*03:75+DRB1*13:83     |
| DRB1*03:30+DRB1*13:92     | DRB1*03:54+DRB1*13:83     |
| DRB1*03:30+DRB1*13:106    | DRB1*03:44+DRB1*13:83     |
| DRB1*03:30+DRB1*13:131    | DRB1*03:37+DRB1*13:83     |
| DRB1*03:30+DRB1*13:136    | DRB1*03:43+DRB1*13:05:01  |
| DRB1*03:30+DRB1*13:141    | DRB1*03:56+DRB1*13:83     |
| DRB1*03:30+DRB1*14:27     | DRB1*03:58+DRB1*14:40     |
| DRB1*03:30+DRB1*14:58     | DRB1*03:75+DRB1*14:35     |
| DRB1*03:30+DRB1*14:59     | DRB1*03:37+DRB1*14:23:01  |
| DRB1*03:30+DRB1*14:77     | DRB1*03:43+DRB1*14:40     |
| DRB1*03:30+DRB1*14:97     | DRB1*03:44+DRB1*14:01:01G |
| DRB1*03:30+DRB1*14:108    | DRB1*03:58+DRB1*14:20     |
| DRB1*03:30+DRB1*14:110    | DRB1*03:43+DRB1*14:01:01G |
| DRB1*03:31+DRB1*11:44     | DRB1*03:44+DRB1*11:56     |
| DRB1*03:31+DRB1*11:49:01  | DRB1*03:44+DRB1*11:37:01  |
| DRB1*03:31+DRB1*11:49:02  | DRB1*03:44+DRB1*11:37:02  |
| DRB1*03:31+DRB1*11:85     | DRB1*03:44+DRB1*11:41     |
| DRB1*03:31+DRB1*11:114    | DRB1*03:43+DRB1*11:37:01  |
| DRB1*03:31+DRB1*11:115    | DRB1*03:80+DRB1*11:04:04  |
| DRB1*03:31+DRB1*11:127    | DRB1*03:44+DRB1*11:48     |
| DRB1*03:31+DRB1*13:23:02  | DRB1*03:75+DRB1*13:97:01  |
| DRB1*03:31+DRB1*13:131    | DRB1*03:80+DRB1*13:52     |
| DRB1*03:33+DRB1*04:07:01G | DRB1*03:44+DRB1*04:102    |
| DRB1*03:33+DRB1*11:01:12  | DRB1*03:44+DRB1*11:28:02  |
| DRB1*03:33+DRB1*11:04:04  | DRB1*03:44+DRB1*11:58:01  |
| DRB1*03:33+DRB1*11:39     | DRB1*03:37+DRB1*11:49:01  |
| DRB1*03:33+DRB1*11:43     | DRB1*03:37+DRB1*11:44     |
| DRB1*03:33+DRB1*11:46:01  | DRB1*03:44+DRB1*11:113    |
| DRB1*03:33+DRB1*11:51     | DRB1*03:70+DRB1*11:49:01  |
| DRB1*03:33+DRB1*11:76     | DRB1*03:71+DRB1*11:85     |
| DRB1*03:33+DRB1*11:91     | DRB1*03:48+DRB1*11:49:01  |
| DRB1*03:33+DRB1*11:101    | DRB1*03:73+DRB1*11:49:01  |
| DRB1*03:33+DRB1*13:14:01  | DRB1*03:44+DRB1*13:50:01  |
| DRB1*03:33+DRB1*13:22     | DRB1*03:52+DRB1*13:106    |
| DRB1*03:33+DRB1*13:83     | DRB1*03:44+DRB1*13:87     |
| DRB1*03:33+DRB1*13:132    | DRB1*03:44+DRB1*13:05:01  |
| DRB1*03:33+DRB1*14:58     | DRB1*03:52+DRB1*14:97     |
| DRB1*03:33+DRB1*15:01:01G | DRB1*03:44+DRB1*15:32     |
| DRB1*03:35+DRB1*11:89     | DRB1*11:53+DRB1*14:127    |
| DRB1*03:35+DRB1*13:27     | DRB1*03:81+DRB1*13:72     |
| DRB1*03:35+DRB1*13:129    | DRB1*03:81+DRB1*14:37     |
| DRB1*03:35+DRB1*14:95     | DRB1*03:81+DRB1*14:05:01  |
| DRB1*03:37+DRB1*03:41     | DRB1*03:40+DRB1*03:80     |
| DRB1*03:37+DRB1*04:01:01  | DRB1*03:80+DRB1*04:35     |
| DRB1*03:37+DRB1*04:03:01  | DRB1*03:80+DRB1*04:59     |
| DRB1*03:37+DRB1*04:04:01  | DRB1*03:80+DRB1*04:42     |
| DRB1*03:37+DRB1*04:05:01  | DRB1*03:80+DRB1*04:28     |
| DRB1*03:37+DRB1*04:08:01  | DRB1*03:80+DRB1*04:43     |
| DRB1*03:37+DRB1*08:01:01G | DRB1*03:80+DRB1*08:17     |
| DRB1*03:37+DRB1*08:03:02  | DRB1*03:80+DRB1*08:37     |
| DRB1*03:37+DRB1*08:04:01  | DRB1*03:80+DRB1*08:28     |
| DRB1*03:37+DRB1*08:30:03  | DRB1*03:80+DRB1*08:45     |
| DRB1*03:37+DRB1*11:37:02  | DRB1*03:80+DRB1*11:01:02  |
| DRB1*03:37+DRB1*11:41     | DRB1*03:80+DRB1*11:03     |
| DRB1*03:37+DRB1*11:48     | DRB1*03:80+DRB1*11:02:01  |
| DRB1*03:37+DRB1*11:51     | DRB1*03:70+DRB1*11:39     |

DRB1\*03:44+DRB1\*13:115

DRB1\*11:103+DRB1\*13:15

DRB1\*03:75+DRB1\*11:10:02

|                           |                           |                           |                             |
|---------------------------|---------------------------|---------------------------|-----------------------------|
| DRB1*03:37+DRB1*11:91     | DRB1*03:48+DRB1*11:39     |                           |                             |
| DRB1*03:37+DRB1*11:101    | DRB1*03:73+DRB1*11:39     |                           |                             |
| DRB1*03:37+DRB1*11:107    | DRB1*03:80+DRB1*11:103    |                           |                             |
| DRB1*03:37+DRB1*12:21     | DRB1*03:80+DRB1*12:02:01  |                           |                             |
| DRB1*03:37+DRB1*12:24N    | DRB1*03:67N+DRB1*12:34    |                           |                             |
| DRB1*03:37+DRB1*13:03:01  | DRB1*03:80+DRB1*13:66:02  |                           |                             |
| DRB1*03:37+DRB1*13:03:02  | DRB1*03:80+DRB1*13:66:01  |                           |                             |
| DRB1*03:37+DRB1*13:07:01  | DRB1*03:80+DRB1*13:14:01  |                           |                             |
| DRB1*03:37+DRB1*13:07:02  | DRB1*03:80+DRB1*13:14:02  |                           |                             |
| DRB1*03:37+DRB1*13:08     | DRB1*03:80+DRB1*13:83     |                           |                             |
| DRB1*03:37+DRB1*13:19     | DRB1*03:80+DRB1*13:57     |                           |                             |
| DRB1*03:37+DRB1*13:32     | DRB1*03:80+DRB1*13:93     |                           |                             |
| DRB1*03:37+DRB1*13:36     | DRB1*03:80+DRB1*13:02:01  |                           |                             |
| DRB1*03:37+DRB1*13:48     | DRB1*03:80+DRB1*13:04     |                           |                             |
| DRB1*03:37+DRB1*13:49     | DRB1*03:80+DRB1*13:21:01  |                           |                             |
| DRB1*03:37+DRB1*13:53     | DRB1*03:80+DRB1*13:15     |                           |                             |
| DRB1*03:37+DRB1*13:64     | DRB1*03:43+DRB1*13:131    |                           |                             |
| DRB1*03:37+DRB1*13:65     | DRB1*03:80+DRB1*13:139    |                           |                             |
| DRB1*03:37+DRB1*13:70     | DRB1*03:75+DRB1*13:131    | DRB1*03:80+DRB1*13:22     |                             |
| DRB1*03:37+DRB1*13:92     | DRB1*03:54+DRB1*13:131    |                           |                             |
| DRB1*03:37+DRB1*13:106    | DRB1*03:44+DRB1*13:131    |                           |                             |
| DRB1*03:37+DRB1*13:116    | DRB1*03:80+DRB1*13:17     |                           |                             |
| DRB1*03:37+DRB1*13:141    | DRB1*03:56+DRB1*13:131    |                           |                             |
| DRB1*03:37+DRB1*14:09     | DRB1*03:80+DRB1*14:30     |                           |                             |
| DRB1*03:37+DRB1*14:25     | DRB1*03:80+DRB1*14:53     |                           |                             |
| DRB1*03:37+DRB1*14:26     | DRB1*03:54+DRB1*14:86     |                           |                             |
| DRB1*03:37+DRB1*14:80     | DRB1*03:80+DRB1*14:17     |                           |                             |
| DRB1*03:37+DRB1*14:110    | DRB1*03:71+DRB1*14:86     |                           |                             |
| DRB1*03:37+DRB1*15:07:02  | DRB1*03:80+DRB1*15:01:04  |                           |                             |
| DRB1*03:37+DRB1*15:19     | DRB1*03:50+DRB1*15:47     |                           |                             |
| DRB1*03:37+DRB1*15:24     | DRB1*03:54+DRB1*15:65     |                           |                             |
| DRB1*03:37+DRB1*15:34     | DRB1*03:80+DRB1*15:27     |                           |                             |
| DRB1*03:37+DRB1*15:41     | DRB1*03:59+DRB1*15:65     |                           |                             |
| DRB1*03:37+DRB1*15:48     | DRB1*03:80+DRB1*15:09     |                           |                             |
| DRB1*03:37+DRB1*16:01:01  | DRB1*03:80+DRB1*16:09     |                           |                             |
| DRB1*03:37+DRB1*16:02:01  | DRB1*03:80+DRB1*16:10     |                           |                             |
| DRB1*03:38+DRB1*04:04:01  | DRB1*04:22+DRB1*14:48     |                           |                             |
| DRB1*03:38+DRB1*11:26     | DRB1*11:103+DRB1*14:48    |                           |                             |
| DRB1*03:38+DRB1*11:34     | DRB1*11:07+DRB1*14:48     |                           |                             |
| DRB1*03:38+DRB1*13:129    | DRB1*03:79+DRB1*14:24     |                           |                             |
| DRB1*03:38+DRB1*15:66     | DRB1*14:48+DRB1*15:25     |                           |                             |
| DRB1*03:40+DRB1*04:01:01  | DRB1*03:41+DRB1*04:35     |                           |                             |
| DRB1*03:40+DRB1*04:02:01  | DRB1*04:22+DRB1*13:23:02  |                           |                             |
| DRB1*03:40+DRB1*04:03:01  | DRB1*03:41+DRB1*04:59     |                           |                             |
| DRB1*03:40+DRB1*04:04:01  | DRB1*03:41+DRB1*04:42     |                           |                             |
| DRB1*03:40+DRB1*04:05:01  | DRB1*03:41+DRB1*04:28     |                           |                             |
| DRB1*03:40+DRB1*04:08:01  | DRB1*03:41+DRB1*04:43     |                           |                             |
| DRB1*03:40+DRB1*04:13     | DRB1*03:49+DRB1*04:63     |                           |                             |
| DRB1*03:40+DRB1*04:15     | DRB1*04:22+DRB1*11:01:01G | DRB1*04:36+DRB1*11:103    | DRB1*04:98:02+DRB1*11:84:02 |
| DRB1*03:40+DRB1*04:36     | DRB1*04:22+DRB1*13:14:01  |                           |                             |
| DRB1*03:40+DRB1*04:61     | DRB1*04:08:01+DRB1*11:103 | DRB1*04:43+DRB1*11:107    |                             |
| DRB1*03:40+DRB1*08:01:01G | DRB1*03:41+DRB1*08:17     |                           |                             |
| DRB1*03:40+DRB1*08:03:02  | DRB1*03:41+DRB1*08:37     |                           |                             |
| DRB1*03:40+DRB1*08:04:01  | DRB1*03:41+DRB1*08:28     |                           |                             |
| DRB1*03:40+DRB1*08:30:03  | DRB1*03:41+DRB1*08:45     |                           |                             |
| DRB1*03:40+DRB1*08:31     | DRB1*08:24+DRB1*11:07     |                           |                             |
| DRB1*03:40+DRB1*08:41     | DRB1*08:24+DRB1*11:103    |                           |                             |
| DRB1*03:40+DRB1*11:01:01G | DRB1*11:103+DRB1*13:14:01 | DRB1*11:125+DRB1*13:25    |                             |
| DRB1*03:40+DRB1*11:01:02  | DRB1*11:103+DRB1*13:14:03 |                           |                             |
| DRB1*03:40+DRB1*11:02:01  | DRB1*11:07+DRB1*13:23:02  | DRB1*11:103+DRB1*13:22    |                             |
| DRB1*03:40+DRB1*11:03     | DRB1*11:103+DRB1*13:24    |                           |                             |
| DRB1*03:40+DRB1*11:04:01  | DRB1*11:07+DRB1*13:14:01  | DRB1*11:103+DRB1*13:11:01 |                             |
| DRB1*03:40+DRB1*11:04:02  | DRB1*11:07+DRB1*13:14:03  |                           |                             |
| DRB1*03:40+DRB1*11:08:01  | DRB1*11:103+DRB1*13:25    |                           |                             |
| DRB1*03:40+DRB1*11:09     | DRB1*11:103+DRB1*13:05:01 | DRB1*11:125+DRB1*13:56    |                             |
| DRB1*03:40+DRB1*11:14:01  | DRB1*11:103+DRB1*13:23:02 |                           |                             |
| DRB1*03:40+DRB1*11:14:02  | DRB1*11:103+DRB1*13:23:01 |                           |                             |
| DRB1*03:40+DRB1*11:15     | DRB1*11:103+DRB1*13:62    |                           |                             |
| DRB1*03:40+DRB1*11:17     | DRB1*11:07+DRB1*14:14     | DRB1*11:103+DRB1*14:23:01 |                             |
| DRB1*03:40+DRB1*11:18     | DRB1*11:07+DRB1*13:82     |                           |                             |
| DRB1*03:40+DRB1*11:19:01  | DRB1*11:103+DRB1*13:82    |                           |                             |
| DRB1*03:40+DRB1*11:20     | DRB1*11:103+DRB1*13:02:01 | DRB1*11:105+DRB1*13:96:01 |                             |
| DRB1*03:40+DRB1*11:28:01  | DRB1*11:103+DRB1*13:50:01 |                           |                             |
| DRB1*03:40+DRB1*11:28:02  | DRB1*11:103+DRB1*13:50:02 |                           |                             |
| DRB1*03:40+DRB1*11:34     | DRB1*11:103+DRB1*13:44    |                           |                             |
| DRB1*03:40+DRB1*11:37:01  | DRB1*03:41+DRB1*11:01:01G | DRB1*11:103+DRB1*13:07:01 | DRB1*11:107+DRB1*13:14:01   |
| DRB1*03:40+DRB1*11:37:02  | DRB1*03:41+DRB1*11:01:02  | DRB1*11:107+DRB1*13:14:03 |                             |
| DRB1*03:40+DRB1*11:41     | DRB1*03:41+DRB1*11:03     | DRB1*11:107+DRB1*13:24    |                             |
| DRB1*03:40+DRB1*11:42     | DRB1*11:07+DRB1*13:25     |                           |                             |
| DRB1*03:40+DRB1*11:46:01  | DRB1*11:07+DRB1*13:132    |                           |                             |
| DRB1*03:40+DRB1*11:48     | DRB1*03:41+DRB1*11:02:01  | DRB1*11:103+DRB1*13:70    | DRB1*11:107+DRB1*13:22      |
| DRB1*03:40+DRB1*11:52     | DRB1*11:107+DRB1*14:72    |                           |                             |
| DRB1*03:40+DRB1*11:56     | DRB1*03:41+DRB1*11:04:01  | DRB1*11:07+DRB1*13:07:01  | DRB1*11:107+DRB1*13:11:01   |
| DRB1*03:40+DRB1*11:58:01  | DRB1*11:07+DRB1*13:50:02  |                           |                             |
| DRB1*03:40+DRB1*11:58:02  | DRB1*11:07+DRB1*13:50:01  |                           |                             |
| DRB1*03:40+DRB1*11:67     | DRB1*08:28+DRB1*11:103    |                           |                             |
| DRB1*03:40+DRB1*11:102:01 | DRB1*03:49+DRB1*11:01:01G |                           |                             |
| DRB1*03:40+DRB1*11:102:02 | DRB1*03:49+DRB1*11:01:04  |                           |                             |
| DRB1*03:40+DRB1*11:107    | DRB1*03:41+DRB1*11:103    |                           |                             |
| DRB1*03:40+DRB1*11:118    | DRB1*11:07+DRB1*13:97:01  | DRB1*11:103+DRB1*13:52    |                             |
| DRB1*03:40+DRB1*11:122    | DRB1*11:103+DRB1*13:63    | DRB1*11:125+DRB1*13:29    |                             |
| DRB1*03:40+DRB1*12:04     | DRB1*11:103+DRB1*12:09    |                           |                             |
| DRB1*03:40+DRB1*12:21     | DRB1*03:41+DRB1*12:02:01  |                           |                             |
| DRB1*03:40+DRB1*13:03:01  | DRB1*03:41+DRB1*13:66:02  |                           |                             |
| DRB1*03:40+DRB1*13:03:02  | DRB1*03:41+DRB1*13:66:01  |                           |                             |
| DRB1*03:40+DRB1*13:07:01  | DRB1*03:41+DRB1*13:14:01  |                           |                             |
| DRB1*03:40+DRB1*13:07:02  | DRB1*03:41+DRB1*13:14:02  |                           |                             |
| DRB1*03:40+DRB1*13:08     | DRB1*03:41+DRB1*13:83     |                           |                             |
| DRB1*03:40+DRB1*13:12:01  | DRB1*03:41+DRB1*13:30     |                           |                             |
| DRB1*03:40+DRB1*13:19     | DRB1*03:41+DRB1*13:57     |                           |                             |
| DRB1*03:40+DRB1*13:32     | DRB1*03:41+DRB1*13:93     |                           |                             |
| DRB1*03:40+DRB1*13:36     | DRB1*03:41+DRB1*13:02:01  |                           |                             |
| DRB1*03:40+DRB1*13:40     | DRB1*03:41+DRB1*13:01:01G |                           |                             |
| DRB1*03:40+DRB1*13:48     | DRB1*03:41+DRB1*13:04     |                           |                             |
| DRB1*03:40+DRB1*13:49     | DRB1*03:41+DRB1*13:21:01  |                           |                             |



|                           |                           |                           |                            |
|---------------------------|---------------------------|---------------------------|----------------------------|
| DRB1*03:40+DRB1*13:65     | DRB1*03:41+DRB1*13:139    |                           |                            |
| DRB1*03:40+DRB1*13:70     | DRB1*03:41+DRB1*13:22     |                           |                            |
| DRB1*03:40+DRB1*13:116    | DRB1*03:41+DRB1*13:17     |                           |                            |
| DRB1*03:40+DRB1*14:01:01G | DRB1*03:41+DRB1*14:35     |                           |                            |
| DRB1*03:40+DRB1*14:04     | DRB1*14:42+DRB1*14:79     |                           |                            |
| DRB1*03:40+DRB1*14:09     | DRB1*03:41+DRB1*14:30     |                           |                            |
| DRB1*03:40+DRB1*14:11     | DRB1*11:103+DRB1*14:126   |                           |                            |
| DRB1*03:40+DRB1*14:25     | DRB1*03:41+DRB1*14:53     |                           |                            |
| DRB1*03:40+DRB1*14:80     | DRB1*03:41+DRB1*14:17     |                           |                            |
| DRB1*03:40+DRB1*15:07:01  | DRB1*03:41+DRB1*15:01:01G |                           |                            |
| DRB1*03:40+DRB1*15:07:02  | DRB1*03:41+DRB1*15:01:04  |                           |                            |
| DRB1*03:40+DRB1*15:10     | DRB1*13:23:02+DRB1*15:25  |                           |                            |
| DRB1*03:40+DRB1*15:11     | DRB1*03:41+DRB1*15:02:01  |                           |                            |
| DRB1*03:40+DRB1*15:34     | DRB1*03:41+DRB1*15:27     |                           |                            |
| DRB1*03:40+DRB1*15:48     | DRB1*03:41+DRB1*15:09     |                           |                            |
| DRB1*03:40+DRB1*16:01:01  | DRB1*03:41+DRB1*16:09     |                           |                            |
| DRB1*03:40+DRB1*16:02:01  | DRB1*03:41+DRB1*16:10     |                           |                            |
| DRB1*03:41+DRB1*04:12     | DRB1*04:22+DRB1*13:13     |                           |                            |
| DRB1*03:41+DRB1*04:15     | DRB1*04:22+DRB1*11:37:01  | DRB1*04:36+DRB1*11:107    |                            |
| DRB1*03:41+DRB1*04:36     | DRB1*04:22+DRB1*13:07:01  |                           |                            |
| DRB1*03:41+DRB1*04:58     | DRB1*04:22+DRB1*14:116    |                           |                            |
| DRB1*03:41+DRB1*04:61     | DRB1*04:08:01+DRB1*11:107 |                           |                            |
| DRB1*03:41+DRB1*08:41     | DRB1*08:24+DRB1*11:107    |                           |                            |
| DRB1*03:41+DRB1*11:08:01  | DRB1*11:107+DRB1*13:25    |                           |                            |
| DRB1*03:41+DRB1*11:09     | DRB1*11:107+DRB1*13:05:01 |                           |                            |
| DRB1*03:41+DRB1*11:13:01G | DRB1*11:103+DRB1*14:123   |                           |                            |
| DRB1*03:41+DRB1*11:14:01  | DRB1*11:107+DRB1*13:23:02 |                           |                            |
| DRB1*03:41+DRB1*11:14:02  | DRB1*11:107+DRB1*13:23:01 |                           |                            |
| DRB1*03:41+DRB1*11:15     | DRB1*11:107+DRB1*13:62    |                           |                            |
| DRB1*03:41+DRB1*11:16     | DRB1*11:07+DRB1*13:36     | DRB1*11:103+DRB1*13:40    | DRB1*11:107+DRB1*13:01:01G |
| DRB1*03:41+DRB1*11:17     | DRB1*11:107+DRB1*14:23:01 |                           |                            |
| DRB1*03:41+DRB1*11:19:01  | DRB1*11:107+DRB1*13:82    |                           |                            |
| DRB1*03:41+DRB1*11:20     | DRB1*11:103+DRB1*13:36    | DRB1*11:107+DRB1*13:02:01 |                            |
| DRB1*03:41+DRB1*11:23     | DRB1*11:103+DRB1*13:47    |                           |                            |
| DRB1*03:41+DRB1*11:25     | DRB1*08:20+DRB1*11:103    |                           |                            |
| DRB1*03:41+DRB1*11:28:01  | DRB1*11:107+DRB1*13:50:01 |                           |                            |
| DRB1*03:41+DRB1*11:28:02  | DRB1*11:107+DRB1*13:50:02 |                           |                            |
| DRB1*03:41+DRB1*11:34     | DRB1*11:107+DRB1*13:44    |                           |                            |
| DRB1*03:41+DRB1*11:37:01  | DRB1*11:107+DRB1*13:07:01 |                           |                            |
| DRB1*03:41+DRB1*11:40     | DRB1*11:107+DRB1*13:111   |                           |                            |
| DRB1*03:41+DRB1*11:48     | DRB1*11:107+DRB1*13:70    |                           |                            |
| DRB1*03:41+DRB1*11:64     | DRB1*11:103+DRB1*14:116   |                           |                            |
| DRB1*03:41+DRB1*11:67     | DRB1*08:02:02+DRB1*11:07  | DRB1*08:04:01+DRB1*11:103 | DRB1*08:28+DRB1*11:107     |
| DRB1*03:41+DRB1*11:73     | DRB1*11:103+DRB1*13:37    |                           |                            |
| DRB1*03:41+DRB1*11:102:01 | DRB1*03:49+DRB1*11:37:01  |                           |                            |
| DRB1*03:41+DRB1*11:118    | DRB1*11:107+DRB1*13:52    |                           |                            |
| DRB1*03:41+DRB1*11:122    | DRB1*11:107+DRB1*13:63    |                           |                            |
| DRB1*03:41+DRB1*12:04     | DRB1*11:107+DRB1*12:09    |                           |                            |
| DRB1*03:41+DRB1*13:71     | DRB1*03:75+DRB1*13:29     |                           |                            |
| DRB1*03:41+DRB1*14:11     | DRB1*11:107+DRB1*14:126   |                           |                            |
| DRB1*03:41+DRB1*14:82     | DRB1*03:75+DRB1*14:07:01  |                           |                            |
| DRB1*03:42+DRB1*14:41     | DRB1*03:43+DRB1*14:46     |                           |                            |
| DRB1*03:42+DRB1*14:48     | DRB1*03:79+DRB1*14:46     |                           |                            |
| DRB1*03:43+DRB1*11:09     | DRB1*03:71+DRB1*11:10:02  |                           |                            |
| DRB1*03:43+DRB1*11:28:02  | DRB1*03:71+DRB1*11:12:02  |                           |                            |
| DRB1*03:43+DRB1*11:49:01  | DRB1*03:44+DRB1*11:114    |                           |                            |
| DRB1*03:43+DRB1*13:15     | DRB1*03:71+DRB1*13:57     |                           |                            |
| DRB1*03:43+DRB1*13:53     | DRB1*03:71+DRB1*13:19     |                           |                            |
| DRB1*03:43+DRB1*13:70     | DRB1*03:75+DRB1*13:64     |                           |                            |
| DRB1*03:43+DRB1*13:92     | DRB1*03:54+DRB1*13:64     |                           |                            |
| DRB1*03:43+DRB1*13:106    | DRB1*03:44+DRB1*13:64     |                           |                            |
| DRB1*03:43+DRB1*13:141    | DRB1*03:56+DRB1*13:64     |                           |                            |
| DRB1*03:43+DRB1*14:06:01  | DRB1*03:71+DRB1*14:20     |                           |                            |
| DRB1*03:43+DRB1*14:27     | DRB1*03:58+DRB1*14:77     |                           |                            |
| DRB1*03:43+DRB1*14:48     | DRB1*03:79+DRB1*14:41     |                           |                            |
| DRB1*03:43+DRB1*14:97     | DRB1*03:44+DRB1*14:110    |                           |                            |
| DRB1*03:44+DRB1*13:70     | DRB1*03:75+DRB1*13:106    |                           |                            |
| DRB1*03:44+DRB1*13:92     | DRB1*03:54+DRB1*13:106    |                           |                            |
| DRB1*03:44+DRB1*13:141    | DRB1*03:56+DRB1*13:106    |                           |                            |
| DRB1*03:46+DRB1*04:32     | DRB1*03:70+DRB1*04:40     |                           |                            |
| DRB1*03:48+DRB1*11:51     | DRB1*03:70+DRB1*11:91     |                           |                            |
| DRB1*03:48+DRB1*11:101    | DRB1*03:73+DRB1*11:91     |                           |                            |
| DRB1*03:49+DRB1*04:15     | DRB1*04:22+DRB1*11:102:01 |                           |                            |
| DRB1*03:52+DRB1*11:37:01  | DRB1*03:75+DRB1*11:28:01  |                           |                            |
| DRB1*03:52+DRB1*11:56     | DRB1*03:75+DRB1*11:58:02  |                           |                            |
| DRB1*03:52+DRB1*13:07:01  | DRB1*03:75+DRB1*13:50:01  |                           |                            |
| DRB1*03:52+DRB1*13:08     | DRB1*03:75+DRB1*13:87     |                           |                            |
| DRB1*03:52+DRB1*13:136    | DRB1*03:71+DRB1*13:50:01  |                           |                            |
| DRB1*03:52+DRB1*15:07:01  | DRB1*03:75+DRB1*15:32     |                           |                            |
| DRB1*03:54+DRB1*13:70     | DRB1*03:75+DRB1*13:92     |                           |                            |
| DRB1*03:54+DRB1*13:141    | DRB1*03:56+DRB1*13:92     |                           |                            |
| DRB1*03:54+DRB1*14:110    | DRB1*03:71+DRB1*14:26     |                           |                            |
| DRB1*03:54+DRB1*15:41     | DRB1*03:59+DRB1*15:24     |                           |                            |
| DRB1*03:56+DRB1*13:70     | DRB1*03:75+DRB1*13:141    |                           |                            |
| DRB1*03:58+DRB1*04:15     | DRB1*03:65+DRB1*04:36     |                           |                            |
| DRB1*03:58+DRB1*04:61     | DRB1*03:65+DRB1*04:08:01  |                           |                            |
| DRB1*03:58+DRB1*08:41     | DRB1*03:65+DRB1*08:24     |                           |                            |
| DRB1*03:58+DRB1*11:01:01G | DRB1*03:65+DRB1*13:14:01  |                           |                            |
| DRB1*03:58+DRB1*11:01:02  | DRB1*03:65+DRB1*13:14:03  |                           |                            |
| DRB1*03:58+DRB1*11:03     | DRB1*03:65+DRB1*13:24     |                           |                            |
| DRB1*03:58+DRB1*11:04:01  | DRB1*03:65+DRB1*13:11:01  |                           |                            |
| DRB1*03:58+DRB1*11:09     | DRB1*03:65+DRB1*13:05:01  |                           |                            |
| DRB1*03:58+DRB1*11:14:02  | DRB1*03:65+DRB1*13:23:01  |                           |                            |
| DRB1*03:58+DRB1*11:15     | DRB1*03:65+DRB1*13:62     |                           |                            |
| DRB1*03:58+DRB1*11:17     | DRB1*03:65+DRB1*14:23:01  |                           |                            |
| DRB1*03:58+DRB1*11:28:01  | DRB1*03:65+DRB1*13:50:01  |                           |                            |
| DRB1*03:58+DRB1*11:28:02  | DRB1*03:65+DRB1*13:50:02  |                           |                            |
| DRB1*03:58+DRB1*11:34     | DRB1*03:65+DRB1*13:44     |                           |                            |
| DRB1*03:58+DRB1*11:37:01  | DRB1*03:65+DRB1*13:07:01  |                           |                            |
| DRB1*03:58+DRB1*11:40     | DRB1*03:65+DRB1*13:111    |                           |                            |
| DRB1*03:58+DRB1*11:67     | DRB1*03:65+DRB1*08:28     |                           |                            |
| DRB1*03:58+DRB1*11:113    | DRB1*03:65+DRB1*13:42     |                           |                            |
| DRB1*03:58+DRB1*11:118    | DRB1*03:65+DRB1*13:52     |                           |                            |
| DRB1*03:58+DRB1*11:122    | DRB1*03:65+DRB1*13:63     |                           |                            |
| DRB1*03:58+DRB1*12:04     | DRB1*03:65+DRB1*12:09     |                           |                            |

|                              |                              |                           |                          |
|------------------------------|------------------------------|---------------------------|--------------------------|
| DRB1*03:58+DRB1*14:11        | DRB1*03:65+DRB1*14:126       |                           |                          |
| DRB1*03:64+DRB1*04:117       | DRB1*03:77+DRB1*04:16        |                           |                          |
| DRB1*03:65+DRB1*04:37        | DRB1*04:22+DRB1*11:59        |                           |                          |
| DRB1*03:65+DRB1*11:11:01G    | DRB1*11:59+DRB1*11:125       |                           |                          |
| DRB1*03:65+DRB1*11:37:01     | DRB1*11:83+DRB1*11:125       |                           |                          |
| DRB1*03:65+DRB1*14:42        | DRB1*11:125+DRB1*14:95       |                           |                          |
| DRB1*03:70+DRB1*11:101       | DRB1*03:73+DRB1*11:51        |                           |                          |
| DRB1*03:71+DRB1*13:07:01     | DRB1*03:75+DRB1*13:136       |                           |                          |
| DRB1*03:76+DRB1*04:14        | DRB1*04:72:01+DRB1*13:27     |                           |                          |
| DRB1*03:76+DRB1*04:105:02    | DRB1*04:72:01+DRB1*13:129    |                           |                          |
| DRB1*04:01:01+DRB1*04:02:01  | DRB1*04:13+DRB1*04:14        | DRB1*04:37+DRB1*04:38     |                          |
| DRB1*04:01:01+DRB1*04:03:01  | DRB1*04:07:01G+DRB1*04:13    |                           |                          |
| DRB1*04:01:01+DRB1*04:03:06  | DRB1*04:01:05+DRB1*04:03:01  |                           |                          |
| DRB1*04:01:01+DRB1*04:03:08  | DRB1*04:07:04+DRB1*04:13     |                           |                          |
| DRB1*04:01:01+DRB1*04:04:01  | DRB1*04:08:01+DRB1*04:13     |                           |                          |
| DRB1*04:01:01+DRB1*04:04:02  | DRB1*04:08:02+DRB1*04:13     |                           |                          |
| DRB1*04:01:01+DRB1*04:05:01  | DRB1*04:08:01+DRB1*04:09     |                           |                          |
| DRB1*04:01:01+DRB1*04:05:04  | DRB1*04:01:08+DRB1*04:05:01  |                           |                          |
| DRB1*04:01:01+DRB1*04:06:01G | DRB1*04:03:01+DRB1*04:21     | DRB1*04:08:01+DRB1*04:114 | DRB1*04:13+DRB1*04:20    |
| DRB1*04:01:01+DRB1*04:06:03  | DRB1*04:03:04+DRB1*04:21     |                           |                          |
| DRB1*04:01:01+DRB1*04:06:04  | DRB1*04:03:02+DRB1*04:21     | DRB1*04:08:02+DRB1*04:114 |                          |
| DRB1*04:01:01+DRB1*04:07:03  | DRB1*04:01:08+DRB1*04:07:01G |                           |                          |
| DRB1*04:01:01+DRB1*04:10:01  | DRB1*04:04:01+DRB1*04:09     | DRB1*04:05:01+DRB1*04:13  | DRB1*04:08:01+DRB1*04:67 |
| DRB1*04:01:01+DRB1*04:10:02  | DRB1*04:04:04+DRB1*04:09     |                           |                          |
| DRB1*04:01:01+DRB1*04:11:01  | DRB1*04:03:01+DRB1*04:09     | DRB1*04:07:01G+DRB1*04:67 | DRB1*04:13+DRB1*04:17:02 |
| DRB1*04:01:01+DRB1*04:12     | DRB1*04:09+DRB1*04:18        | DRB1*04:13+DRB1*04:86     |                          |
| DRB1*04:01:01+DRB1*04:17:01  | DRB1*04:01:08+DRB1*04:17:02  | DRB1*04:07:03+DRB1*04:09  |                          |
| DRB1*04:01:01+DRB1*04:17:02  | DRB1*04:07:01G+DRB1*04:09    |                           |                          |
| DRB1*04:01:01+DRB1*04:18     | DRB1*04:38+DRB1*04:58        |                           |                          |
| DRB1*04:01:01+DRB1*04:19     | DRB1*04:08:01+DRB1*04:21     |                           |                          |
| DRB1*04:01:01+DRB1*04:20     | DRB1*04:07:01G+DRB1*04:21    |                           |                          |
| DRB1*04:01:01+DRB1*04:28     | DRB1*04:05:01+DRB1*04:35     | DRB1*04:09+DRB1*04:43     |                          |
| DRB1*04:01:01+DRB1*04:41     | DRB1*04:03:01+DRB1*04:113    | DRB1*04:13+DRB1*04:102    |                          |
| DRB1*04:01:01+DRB1*04:42     | DRB1*04:04:01+DRB1*04:35     | DRB1*04:13+DRB1*04:43     |                          |
| DRB1*04:01:01+DRB1*04:43     | DRB1*04:08:01+DRB1*04:35     |                           |                          |
| DRB1*04:01:01+DRB1*04:44     | DRB1*04:04:01+DRB1*04:72:02  |                           |                          |
| DRB1*04:01:01+DRB1*04:55     | DRB1*04:13+DRB1*04:31        |                           |                          |
| DRB1*04:01:01+DRB1*04:56     | DRB1*04:04:01+DRB1*04:38     |                           |                          |
| DRB1*04:01:01+DRB1*04:59     | DRB1*04:03:01+DRB1*04:35     |                           |                          |
| DRB1*04:01:01+DRB1*04:67     | DRB1*04:09+DRB1*04:13        |                           |                          |
| DRB1*04:01:01+DRB1*04:68     | DRB1*04:04:01+DRB1*04:21     | DRB1*04:13+DRB1*04:19     |                          |
| DRB1*04:01:01+DRB1*04:73     | DRB1*04:13+DRB1*04:105:01    |                           |                          |
| DRB1*04:01:01+DRB1*04:74     | DRB1*04:07:01G+DRB1*04:72:02 |                           |                          |
| DRB1*04:01:01+DRB1*04:77     | DRB1*04:05:01+DRB1*04:113    |                           |                          |
| DRB1*04:01:01+DRB1*04:78     | DRB1*04:21+DRB1*04:101       |                           |                          |
| DRB1*04:01:01+DRB1*04:84     | DRB1*04:05:01+DRB1*04:21     | DRB1*04:09+DRB1*04:19     |                          |
| DRB1*04:01:01+DRB1*04:88     | DRB1*04:03:01+DRB1*04:38     | DRB1*04:08:01+DRB1*04:100 |                          |
| DRB1*04:01:01+DRB1*04:91     | DRB1*04:05:01+DRB1*04:114    | DRB1*04:06:01G+DRB1*04:09 | DRB1*04:11:01+DRB1*04:21 |
|                              | DRB1*04:20+DRB1*04:67        |                           |                          |
| DRB1*04:01:01+DRB1*04:95     | DRB1*04:03:01+DRB1*04:72:02  | DRB1*04:13+DRB1*04:74     |                          |
| DRB1*04:01:01+DRB1*04:102    | DRB1*04:07:01G+DRB1*04:113   |                           |                          |
| DRB1*04:01:01+DRB1*04:103    | DRB1*04:09+DRB1*04:31        |                           |                          |
| DRB1*04:01:01+DRB1*04:106    | DRB1*04:09+DRB1*04:14        |                           |                          |
| DRB1*04:01:01+DRB1*04:107    | DRB1*04:05:01+DRB1*04:38     |                           |                          |
| DRB1*04:01:01+DRB1*04:110    | DRB1*04:03:01+DRB1*04:63     |                           |                          |
| DRB1*04:01:01+DRB1*07:01:03  | DRB1*04:01:06+DRB1*07:01:01G |                           |                          |
| DRB1*04:01:01+DRB1*07:04     | DRB1*04:72:02+DRB1*07:11     |                           |                          |
| DRB1*04:01:01+DRB1*08:01:01G | DRB1*04:01:08+DRB1*08:01:05  | DRB1*04:09+DRB1*08:02:01  |                          |
| DRB1*04:01:01+DRB1*08:01:05  | DRB1*04:09+DRB1*08:02:02     |                           |                          |
| DRB1*04:01:01+DRB1*08:02:01  | DRB1*04:01:08+DRB1*08:02:02  |                           |                          |
| DRB1*04:01:01+DRB1*08:03:02  | DRB1*04:09+DRB1*08:30:01     | DRB1*04:63+DRB1*08:38     |                          |
| DRB1*04:01:01+DRB1*08:03:03  | DRB1*04:01:08+DRB1*08:03:02  | DRB1*04:09+DRB1*08:30:03  | DRB1*04:31+DRB1*08:40    |
|                              | DRB1*04:38+DRB1*08:48        |                           |                          |
| DRB1*04:01:01+DRB1*08:04:01  | DRB1*04:13+DRB1*08:02:02     |                           |                          |
| DRB1*04:01:01+DRB1*08:04:03  | DRB1*04:01:08+DRB1*08:04:02  |                           |                          |
| DRB1*04:01:01+DRB1*08:04:04  | DRB1*04:01:08+DRB1*08:04:01  | DRB1*04:13+DRB1*08:02:01  |                          |
| DRB1*04:01:01+DRB1*08:06     | DRB1*04:09+DRB1*08:04:01     | DRB1*04:13+DRB1*08:01:05  | DRB1*04:67+DRB1*08:02:02 |
| DRB1*04:01:01+DRB1*08:08     | DRB1*04:62+DRB1*08:02:01     |                           |                          |
| DRB1*04:01:01+DRB1*08:10     | DRB1*04:13+DRB1*08:03:02     | DRB1*04:67+DRB1*08:30:01  |                          |
| DRB1*04:01:01+DRB1*08:17     | DRB1*04:35+DRB1*08:01:01G    |                           |                          |
| DRB1*04:01:01+DRB1*08:28     | DRB1*04:35+DRB1*08:04:01     |                           |                          |
| DRB1*04:01:01+DRB1*08:30:03  | DRB1*04:01:08+DRB1*08:30:01  | DRB1*04:38+DRB1*08:13     |                          |
| DRB1*04:01:01+DRB1*08:31     | DRB1*04:13+DRB1*08:41        |                           |                          |
| DRB1*04:01:01+DRB1*08:37     | DRB1*04:35+DRB1*08:03:02     |                           |                          |
| DRB1*04:01:01+DRB1*08:42     | DRB1*04:21+DRB1*08:02:01     |                           |                          |
| DRB1*04:01:01+DRB1*08:45     | DRB1*04:35+DRB1*08:30:03     |                           |                          |
| DRB1*04:01:01+DRB1*08:48     | DRB1*04:09+DRB1*08:13        |                           |                          |
| DRB1*04:01:01+DRB1*09:01:04  | DRB1*04:01:03+DRB1*09:01:02  |                           |                          |
| DRB1*04:01:01+DRB1*09:06     | DRB1*04:13+DRB1*09:01:02     |                           |                          |
| DRB1*04:01:01+DRB1*10:02     | DRB1*04:13+DRB1*10:01:01     |                           |                          |
| DRB1*04:01:01+DRB1*11:01:01G | DRB1*04:35+DRB1*11:37:01     |                           |                          |
| DRB1*04:01:01+DRB1*11:01:02  | DRB1*04:01:08+DRB1*11:01:01G | DRB1*04:08:01+DRB1*11:93  | DRB1*04:35+DRB1*11:37:02 |
| DRB1*04:01:01+DRB1*11:01:03  | DRB1*04:47+DRB1*11:79        |                           |                          |
| DRB1*04:01:01+DRB1*11:01:11  | DRB1*04:01:08+DRB1*11:01:03  |                           |                          |
| DRB1*04:01:01+DRB1*11:01:12  | DRB1*04:01:03+DRB1*11:01:01G |                           |                          |
| DRB1*04:01:01+DRB1*11:02:01  | DRB1*04:02:01+DRB1*11:79     | DRB1*04:13+DRB1*11:14:01  | DRB1*04:35+DRB1*11:48    |
|                              | DRB1*04:38+DRB1*11:36        |                           |                          |
| DRB1*04:01:01+DRB1*11:02:02  | DRB1*04:02:03+DRB1*11:79     |                           |                          |
| DRB1*04:01:01+DRB1*11:03     | DRB1*04:13+DRB1*11:11:01G    | DRB1*04:35+DRB1*11:41     |                          |
| DRB1*04:01:01+DRB1*11:04:01  | DRB1*04:13+DRB1*11:01:01G    | DRB1*04:35+DRB1*11:56     | DRB1*04:36+DRB1*11:79    |
|                              | DRB1*04:63+DRB1*11:102:01    |                           |                          |
| DRB1*04:01:01+DRB1*11:04:02  | DRB1*04:01:08+DRB1*11:04:01  | DRB1*04:04:01+DRB1*11:93  | DRB1*04:13+DRB1*11:01:02 |
| DRB1*04:01:01+DRB1*11:04:03  | DRB1*04:13+DRB1*11:01:05     |                           |                          |
| DRB1*04:01:01+DRB1*11:04:04  | DRB1*04:01:03+DRB1*11:04:01  | DRB1*04:13+DRB1*11:01:12  |                          |
| DRB1*04:01:01+DRB1*11:04:05  | DRB1*04:13+DRB1*11:01:04     | DRB1*04:63+DRB1*11:102:02 |                          |
| DRB1*04:01:01+DRB1*11:04:07  | DRB1*04:13+DRB1*11:01:03     |                           |                          |
| DRB1*04:01:01+DRB1*11:07     | DRB1*04:13+DRB1*11:103       | DRB1*04:22+DRB1*11:79     |                          |
| DRB1*04:01:01+DRB1*11:08:02  | DRB1*04:01:08+DRB1*11:08:01  |                           |                          |
| DRB1*04:01:01+DRB1*11:10:01  | DRB1*04:01:08+DRB1*11:10:02  |                           |                          |
| DRB1*04:01:01+DRB1*11:12:02  | DRB1*04:01:03+DRB1*11:12:01  |                           |                          |
| DRB1*04:01:01+DRB1*11:14:01  | DRB1*04:14+DRB1*11:79        | DRB1*04:38+DRB1*11:68     |                          |
| DRB1*04:01:01+DRB1*11:14:02  | DRB1*04:01:08+DRB1*11:14:01  |                           |                          |
| DRB1*04:01:01+DRB1*11:16     | DRB1*04:13+DRB1*11:20        | DRB1*04:113+DRB1*11:118   |                          |
| DRB1*04:01:01+DRB1*11:18     | DRB1*04:13+DRB1*11:19:01     | DRB1*04:38+DRB1*11:42     |                          |
| DRB1*04:01:01+DRB1*11:19:01  | DRB1*04:38+DRB1*11:08:01     |                           |                          |

|                              |                              |                              |                             |
|------------------------------|------------------------------|------------------------------|-----------------------------|
| DRB1*04:01:01+DRB1*11:19:03  | DRB1*04:01:08+DRB1*11:19:01  | DRB1*04:08:01+DRB1*11:73     | DRB1*04:38+DRB1*11:08:02    |
| DRB1*04:01:01+DRB1*11:23     | DRB1*04:31+DRB1*11:93        | DRB1*04:54+DRB1*11:79        |                             |
| DRB1*04:01:01+DRB1*11:25     | DRB1*04:25+DRB1*11:79        |                              |                             |
| DRB1*04:01:01+DRB1*11:26     | DRB1*04:08:01+DRB1*11:79     |                              |                             |
| DRB1*04:01:01+DRB1*11:27:01  | DRB1*04:72:02+DRB1*11:01:01G |                              |                             |
| DRB1*04:01:01+DRB1*11:27:02  | DRB1*04:72:01+DRB1*11:01:01G |                              |                             |
| DRB1*04:01:01+DRB1*11:27:03  | DRB1*04:01:08+DRB1*11:27:02  | DRB1*04:72:01+DRB1*11:01:02  |                             |
| DRB1*04:01:01+DRB1*11:28:01  | DRB1*04:113+DRB1*11:01:01G   |                              |                             |
| DRB1*04:01:01+DRB1*11:28:02  | DRB1*04:01:03+DRB1*11:28:01  | DRB1*04:113+DRB1*11:01:12    |                             |
| DRB1*04:01:01+DRB1*11:29     | DRB1*04:21+DRB1*11:01:01G    |                              |                             |
| DRB1*04:01:01+DRB1*11:34     | DRB1*04:04:01+DRB1*11:79     | DRB1*04:13+DRB1*11:26        |                             |
| DRB1*04:01:01+DRB1*11:35     | DRB1*04:13+DRB1*11:33        |                              |                             |
| DRB1*04:01:01+DRB1*11:36     | DRB1*04:13+DRB1*11:68        | DRB1*04:37+DRB1*11:79        |                             |
| DRB1*04:01:01+DRB1*11:37:02  | DRB1*04:01:08+DRB1*11:37:01  |                              |                             |
| DRB1*04:01:01+DRB1*11:40     | DRB1*04:13+DRB1*11:122       |                              |                             |
| DRB1*04:01:01+DRB1*11:42     | DRB1*04:13+DRB1*11:08:01     |                              |                             |
| DRB1*04:01:01+DRB1*11:43     | DRB1*04:13+DRB1*11:39        |                              |                             |
| DRB1*04:01:01+DRB1*11:44     | DRB1*04:13+DRB1*11:49:01     |                              |                             |
| DRB1*04:01:01+DRB1*11:45     | DRB1*04:38+DRB1*11:64        |                              |                             |
| DRB1*04:01:01+DRB1*11:46:01  | DRB1*04:01:03+DRB1*11:46:02  |                              |                             |
| DRB1*04:01:01+DRB1*11:46:02  | DRB1*04:13+DRB1*11:62        |                              |                             |
| DRB1*04:01:01+DRB1*11:47     | DRB1*04:21+DRB1*11:06:01G    |                              |                             |
| DRB1*04:01:01+DRB1*11:49:02  | DRB1*04:01:08+DRB1*11:49:01  |                              |                             |
| DRB1*04:01:01+DRB1*11:56     | DRB1*04:13+DRB1*11:37:01     |                              |                             |
| DRB1*04:01:01+DRB1*11:58:01  | DRB1*04:01:03+DRB1*11:58:02  | DRB1*04:13+DRB1*11:28:02     | DRB1*04:113+DRB1*11:04:04   |
| DRB1*04:01:01+DRB1*11:58:02  | DRB1*04:13+DRB1*11:28:01     | DRB1*04:113+DRB1*11:04:01    |                             |
| DRB1*04:01:01+DRB1*11:60     | DRB1*04:13+DRB1*11:109       |                              |                             |
| DRB1*04:01:01+DRB1*11:63     | DRB1*04:21+DRB1*11:03        |                              |                             |
| DRB1*04:01:01+DRB1*11:74:02  | DRB1*04:01:08+DRB1*11:74:01  |                              |                             |
| DRB1*04:01:01+DRB1*11:82     | DRB1*04:105:02+DRB1*11:79    |                              |                             |
| DRB1*04:01:01+DRB1*11:84:01  | DRB1*04:13+DRB1*11:27:01     | DRB1*04:72:02+DRB1*11:04:01  |                             |
| DRB1*04:01:01+DRB1*11:84:02  | DRB1*04:13+DRB1*11:27:02     | DRB1*04:72:01+DRB1*11:04:01  |                             |
| DRB1*04:01:01+DRB1*11:98     | DRB1*04:02:01+DRB1*11:26     | DRB1*04:04:01+DRB1*11:14:01  | DRB1*04:08:01+DRB1*11:02:01 |
|                              | DRB1*04:14+DRB1*11:34        | DRB1*04:43+DRB1*11:48        | DRB1*04:56+DRB1*11:68       |
|                              | DRB1*04:61+DRB1*13:22        |                              |                             |
| DRB1*04:01:01+DRB1*11:103    | DRB1*04:35+DRB1*11:107       | DRB1*04:72:01+DRB1*11:105    |                             |
| DRB1*04:01:01+DRB1*11:105    | DRB1*04:98:02+DRB1*11:79     |                              |                             |
| DRB1*04:01:01+DRB1*11:113    | DRB1*04:13+DRB1*11:09        | DRB1*04:113+DRB1*11:46:01    |                             |
| DRB1*04:01:01+DRB1*11:116    | DRB1*04:13+DRB1*11:120       |                              |                             |
| DRB1*04:01:01+DRB1*11:119    | DRB1*04:13+DRB1*11:45        | DRB1*04:18+DRB1*11:79        |                             |
| DRB1*04:01:01+DRB1*11:124    | DRB1*04:72:02+DRB1*11:02:01  |                              |                             |
| DRB1*04:01:01+DRB1*12:01:01G | DRB1*04:38+DRB1*12:12        |                              |                             |
| DRB1*04:01:01+DRB1*12:02:01  | DRB1*04:35+DRB1*12:21        |                              |                             |
| DRB1*04:01:01+DRB1*12:18     | DRB1*04:16+DRB1*12:02:01     |                              |                             |
| DRB1*04:01:01+DRB1*13:01:01G | DRB1*04:13+DRB1*13:02:01     | DRB1*04:14+DRB1*14:21        | DRB1*04:35+DRB1*13:40       |
|                              | DRB1*04:38+DRB1*13:20        | DRB1*04:113+DRB1*13:52       |                             |
| DRB1*04:01:01+DRB1*13:01:05  | DRB1*04:13+DRB1*13:02:03     |                              |                             |
| DRB1*04:01:01+DRB1*13:01:08  | DRB1*04:01:08+DRB1*13:01:01G |                              |                             |
| DRB1*04:01:01+DRB1*13:02:01  | DRB1*04:35+DRB1*13:36        | DRB1*04:38+DRB1*13:29        | DRB1*04:113+DRB1*13:97:01   |
| DRB1*04:01:01+DRB1*13:03:01  | DRB1*04:01:08+DRB1*13:03:02  | DRB1*04:09+DRB1*13:37        | DRB1*04:38+DRB1*13:88       |
| DRB1*04:01:01+DRB1*13:04     | DRB1*04:09+DRB1*13:22        | DRB1*04:35+DRB1*13:48        | DRB1*04:67+DRB1*13:23:02    |
| DRB1*04:01:01+DRB1*13:05:01  | DRB1*04:113+DRB1*13:132      |                              |                             |
| DRB1*04:01:01+DRB1*13:05:02  | DRB1*04:01:08+DRB1*13:05:01  |                              |                             |
| DRB1*04:01:01+DRB1*13:06     | DRB1*04:08:01+DRB1*13:10     |                              |                             |
| DRB1*04:01:01+DRB1*13:09     | DRB1*04:105:02+DRB1*14:21    |                              |                             |
| DRB1*04:01:01+DRB1*13:11:01  | DRB1*04:13+DRB1*13:14:01     |                              |                             |
| DRB1*04:01:01+DRB1*13:11:02  | DRB1*04:13+DRB1*13:14:02     |                              |                             |
| DRB1*04:01:01+DRB1*13:12:01  | DRB1*04:08:01+DRB1*13:03:02  | DRB1*04:38+DRB1*13:134       |                             |
| DRB1*04:01:01+DRB1*13:12:02  | DRB1*04:01:08+DRB1*13:12:01  | DRB1*04:05:01+DRB1*13:37     | DRB1*04:08:01+DRB1*13:03:01 |
| DRB1*04:01:01+DRB1*13:13     | DRB1*04:31+DRB1*13:03:02     |                              |                             |
| DRB1*04:01:01+DRB1*13:14:01  | DRB1*04:35+DRB1*13:07:01     |                              |                             |
| DRB1*04:01:01+DRB1*13:14:02  | DRB1*04:35+DRB1*13:07:02     |                              |                             |
| DRB1*04:01:01+DRB1*13:14:03  | DRB1*04:01:08+DRB1*13:14:01  |                              |                             |
| DRB1*04:01:01+DRB1*13:15     | DRB1*04:13+DRB1*13:104       | DRB1*04:35+DRB1*13:53        |                             |
| DRB1*04:01:01+DRB1*13:17     | DRB1*04:35+DRB1*13:116       |                              |                             |
| DRB1*04:01:01+DRB1*13:20     | DRB1*04:13+DRB1*13:29        |                              |                             |
| DRB1*04:01:01+DRB1*13:21:01  | DRB1*04:09+DRB1*13:14:01     | DRB1*04:35+DRB1*13:49        |                             |
| DRB1*04:01:01+DRB1*13:21:02  | DRB1*04:01:08+DRB1*13:21:01  | DRB1*04:09+DRB1*13:14:03     |                             |
| DRB1*04:01:01+DRB1*13:22     | DRB1*04:13+DRB1*13:23:02     | DRB1*04:35+DRB1*13:70        |                             |
| DRB1*04:01:01+DRB1*13:23:01  | DRB1*04:01:08+DRB1*13:23:02  |                              |                             |
| DRB1*04:01:01+DRB1*13:27     | DRB1*04:13+DRB1*13:41        | DRB1*04:38+DRB1*13:71        |                             |
| DRB1*04:01:01+DRB1*13:30     | DRB1*04:08:01+DRB1*13:66:01  | DRB1*04:09+DRB1*13:82        | DRB1*04:35+DRB1*13:12:01    |
|                              | DRB1*04:43+DRB1*13:03:02     |                              |                             |
| DRB1*04:01:01+DRB1*13:32     | DRB1*04:09+DRB1*13:40        | DRB1*04:13+DRB1*13:65        | DRB1*04:67+DRB1*13:36       |
| DRB1*04:01:01+DRB1*13:33:01  | DRB1*04:72:01+DRB1*13:03:01  |                              |                             |
| DRB1*04:01:01+DRB1*13:33:02  | DRB1*04:72:02+DRB1*13:03:02  |                              |                             |
| DRB1*04:01:01+DRB1*13:33:03  | DRB1*04:01:08+DRB1*13:33:02  | DRB1*04:72:02+DRB1*13:03:01  |                             |
| DRB1*04:01:01+DRB1*13:40     | DRB1*04:13+DRB1*13:36        |                              |                             |
| DRB1*04:01:01+DRB1*13:42     | DRB1*04:13+DRB1*13:05:01     |                              |                             |
| DRB1*04:01:01+DRB1*13:43     | DRB1*04:62+DRB1*13:20        |                              |                             |
| DRB1*04:01:01+DRB1*13:45     | DRB1*04:62+DRB1*13:23:01     |                              |                             |
| DRB1*04:01:01+DRB1*13:48     | DRB1*04:09+DRB1*13:70        |                              |                             |
| DRB1*04:01:01+DRB1*13:49     | DRB1*04:09+DRB1*13:07:01     |                              |                             |
| DRB1*04:01:01+DRB1*13:50:01  | DRB1*04:113+DRB1*13:14:01    |                              |                             |
| DRB1*04:01:01+DRB1*13:50:02  | DRB1*04:01:03+DRB1*13:50:01  |                              |                             |
| DRB1*04:01:01+DRB1*13:52     | DRB1*04:13+DRB1*13:97:01     |                              |                             |
| DRB1*04:01:01+DRB1*13:53     | DRB1*04:02:01+DRB1*14:19     |                              |                             |
| DRB1*04:01:01+DRB1*13:55     | DRB1*04:09+DRB1*13:47        |                              |                             |
| DRB1*04:01:01+DRB1*13:57     | DRB1*04:35+DRB1*13:19        |                              |                             |
| DRB1*04:01:01+DRB1*13:58     | DRB1*04:08:01+DRB1*13:81     |                              |                             |
| DRB1*04:01:01+DRB1*13:61:01  | DRB1*04:13+DRB1*13:96:02     | DRB1*04:72:02+DRB1*13:01:01G |                             |
| DRB1*04:01:01+DRB1*13:61:02  | DRB1*04:13+DRB1*13:96:01     | DRB1*04:72:01+DRB1*13:01:01G |                             |
| DRB1*04:01:01+DRB1*13:65     | DRB1*04:09+DRB1*13:36        |                              |                             |
| DRB1*04:01:01+DRB1*13:66:01  | DRB1*04:35+DRB1*13:03:02     |                              |                             |
| DRB1*04:01:01+DRB1*13:66:02  | DRB1*04:01:08+DRB1*13:66:01  | DRB1*04:35+DRB1*13:03:01     |                             |
| DRB1*04:01:01+DRB1*13:75     | DRB1*04:09+DRB1*13:24        |                              |                             |
| DRB1*04:01:01+DRB1*13:77     | DRB1*04:82+DRB1*14:21        |                              |                             |
| DRB1*04:01:01+DRB1*13:79     | DRB1*04:13+DRB1*13:39        | DRB1*04:38+DRB1*13:78        |                             |
| DRB1*04:01:01+DRB1*13:82     | DRB1*04:38+DRB1*13:25        |                              |                             |
| DRB1*04:01:01+DRB1*13:83     | DRB1*04:13+DRB1*13:107       | DRB1*04:35+DRB1*13:08        |                             |
| DRB1*04:01:01+DRB1*13:87     | DRB1*04:113+DRB1*13:83       |                              |                             |
| DRB1*04:01:01+DRB1*13:89     | DRB1*04:13+DRB1*13:03:01     | DRB1*04:67+DRB1*13:37        |                             |
| DRB1*04:01:01+DRB1*13:93     | DRB1*04:09+DRB1*13:01:01G    | DRB1*04:13+DRB1*13:139       | DRB1*04:35+DRB1*13:32       |
|                              | DRB1*04:67+DRB1*13:02:01     | DRB1*04:106+DRB1*14:21       |                             |
| DRB1*04:01:01+DRB1*13:96:01  | DRB1*04:72:01+DRB1*13:02:01  |                              |                             |

|                              |                              |                          |                       |
|------------------------------|------------------------------|--------------------------|-----------------------|
| DRB1*04:01:01+DRB1*13:96:02  | DRB1*04:72:02+DRB1*13:02:01  |                          |                       |
| DRB1*04:01:01+DRB1*13:97:01  | DRB1*04:01:03+DRB1*13:97:02  |                          |                       |
| DRB1*04:01:01+DRB1*13:108    | DRB1*04:13+DRB1*13:49        | DRB1*04:67+DRB1*13:07:01 |                       |
| DRB1*04:01:01+DRB1*13:111    | DRB1*04:13+DRB1*13:63        |                          |                       |
| DRB1*04:01:01+DRB1*13:112    | DRB1*04:13+DRB1*13:128       |                          |                       |
| DRB1*04:01:01+DRB1*13:115    | DRB1*04:113+DRB1*13:03:01    |                          |                       |
| DRB1*04:01:01+DRB1*13:127    | DRB1*04:26+DRB1*13:01:01G    |                          |                       |
| DRB1*04:01:01+DRB1*13:139    | DRB1*04:09+DRB1*13:02:01     | DRB1*04:35+DRB1*13:65    |                       |
| DRB1*04:01:01+DRB1*14:01:01G | DRB1*04:13+DRB1*14:07:01     | DRB1*04:62+DRB1*14:23:01 |                       |
| DRB1*04:01:01+DRB1*14:01:03  | DRB1*04:01:02+DRB1*14:01:01G |                          |                       |
| DRB1*04:01:01+DRB1*14:02     | DRB1*04:08:01+DRB1*14:19     |                          |                       |
| DRB1*04:01:01+DRB1*14:03:02  | DRB1*04:01:07+DRB1*14:03:01  |                          |                       |
| DRB1*04:01:01+DRB1*14:04     | DRB1*04:13+DRB1*14:68        | DRB1*04:62+DRB1*14:126   |                       |
| DRB1*04:01:01+DRB1*14:05:01  | DRB1*04:13+DRB1*14:44:01     |                          |                       |
| DRB1*04:01:01+DRB1*14:05:03  | DRB1*04:13+DRB1*14:44:02     |                          |                       |
| DRB1*04:01:01+DRB1*14:06:01  | DRB1*04:04:01+DRB1*14:19     | DRB1*04:13+DRB1*14:02    |                       |
| DRB1*04:01:01+DRB1*14:06:02  | DRB1*04:01:08+DRB1*14:06:01  |                          |                       |
| DRB1*04:01:01+DRB1*14:07:01  | DRB1*04:62+DRB1*14:14        |                          |                       |
| DRB1*04:01:01+DRB1*14:07:02  | DRB1*04:01:08+DRB1*14:07:01  |                          |                       |
| DRB1*04:01:01+DRB1*14:12:01  | DRB1*04:13+DRB1*14:03:01     | DRB1*04:58+DRB1*14:19    |                       |
| DRB1*04:01:01+DRB1*14:13     | DRB1*04:05:01+DRB1*14:19     | DRB1*04:09+DRB1*14:02    |                       |
| DRB1*04:01:01+DRB1*14:16     | DRB1*04:62+DRB1*13:08        |                          |                       |
| DRB1*04:01:01+DRB1*14:17     | DRB1*04:08:01+DRB1*14:21     | DRB1*04:13+DRB1*14:30    | DRB1*04:35+DRB1*14:80 |
| DRB1*04:01:01+DRB1*14:23:01  | DRB1*04:13+DRB1*14:14        |                          |                       |
| DRB1*04:01:01+DRB1*14:24     | DRB1*04:105:02+DRB1*14:19    |                          |                       |
| DRB1*04:01:01+DRB1*14:25     | DRB1*04:62+DRB1*13:07:01     |                          |                       |
| DRB1*04:01:01+DRB1*14:30     | DRB1*04:35+DRB1*14:09        |                          |                       |
| DRB1*04:01:01+DRB1*14:32:02  | DRB1*04:62+DRB1*14:123       |                          |                       |
| DRB1*04:01:01+DRB1*14:33     | DRB1*04:07:01G+DRB1*14:21    |                          |                       |
| DRB1*04:01:01+DRB1*14:35     | DRB1*04:35+DRB1*14:01:01G    |                          |                       |
| DRB1*04:01:01+DRB1*14:38     | DRB1*04:72:02+DRB1*14:01:02  |                          |                       |
| DRB1*04:01:01+DRB1*14:44:03  | DRB1*04:01:08+DRB1*14:44:01  |                          |                       |
| DRB1*04:01:01+DRB1*14:45     | DRB1*04:38+DRB1*14:05:01     |                          |                       |
| DRB1*04:01:01+DRB1*14:47     | DRB1*04:72:02+DRB1*14:02     |                          |                       |
| DRB1*04:01:01+DRB1*14:51     | DRB1*04:07:01G+DRB1*14:19    |                          |                       |
| DRB1*04:01:01+DRB1*14:53     | DRB1*04:35+DRB1*14:25        | DRB1*04:62+DRB1*13:14:01 |                       |
| DRB1*04:01:01+DRB1*14:63     | DRB1*04:09+DRB1*14:67        | DRB1*04:38+DRB1*14:85    | DRB1*04:86+DRB1*14:19 |
|                              | DRB1*04:103+DRB1*13:85       |                          |                       |
| DRB1*04:01:01+DRB1*14:67     | DRB1*04:31+DRB1*13:85        | DRB1*04:38+DRB1*14:03:01 |                       |
| DRB1*04:01:01+DRB1*14:78     | DRB1*04:12+DRB1*14:19        | DRB1*04:13+DRB1*14:63    | DRB1*04:67+DRB1*14:67 |
| DRB1*04:01:01+DRB1*14:80     | DRB1*04:13+DRB1*14:09        |                          |                       |
| DRB1*04:01:01+DRB1*14:85     | DRB1*04:09+DRB1*14:03:01     |                          |                       |
| DRB1*04:01:01+DRB1*14:89     | DRB1*04:31+DRB1*14:19        |                          |                       |
| DRB1*04:01:01+DRB1*14:98     | DRB1*04:72:02+DRB1*14:03:01  |                          |                       |
| DRB1*04:01:01+DRB1*14:104    | DRB1*04:98:02+DRB1*14:32:02  |                          |                       |
| DRB1*04:01:01+DRB1*14:106    | DRB1*04:03:01+DRB1*14:19     | DRB1*04:13+DRB1*14:51    |                       |
| DRB1*04:01:01+DRB1*14:120    | DRB1*04:38+DRB1*14:04        |                          |                       |
| DRB1*04:01:01+DRB1*14:122    | DRB1*04:38+DRB1*14:01:01G    |                          |                       |
| DRB1*04:01:01+DRB1*14:127    | DRB1*04:72:02+DRB1*14:05:03  |                          |                       |
| DRB1*04:01:01+DRB1*15:01:01G | DRB1*04:13+DRB1*15:02:01     | DRB1*04:35+DRB1*15:07:01 | DRB1*04:38+DRB1*15:05 |
| DRB1*04:01:01+DRB1*15:01:03  | DRB1*04:13+DRB1*15:02:06     |                          |                       |
| DRB1*04:01:01+DRB1*15:01:04  | DRB1*04:13+DRB1*15:02:02     | DRB1*04:35+DRB1*15:07:02 |                       |
| DRB1*04:01:01+DRB1*15:01:09  | DRB1*04:13+DRB1*15:02:04     |                          |                       |
| DRB1*04:01:01+DRB1*15:01:10  | DRB1*04:13+DRB1*15:02:08     |                          |                       |
| DRB1*04:01:01+DRB1*15:01:13  | DRB1*04:01:06+DRB1*15:01:01G |                          |                       |
| DRB1*04:01:01+DRB1*15:02:01  | DRB1*04:35+DRB1*15:11        | DRB1*04:38+DRB1*15:31    |                       |
| DRB1*04:01:01+DRB1*15:02:05  | DRB1*04:01:08+DRB1*15:02:02  |                          |                       |
| DRB1*04:01:01+DRB1*15:02:09  | DRB1*04:01:08+DRB1*15:02:01  |                          |                       |
| DRB1*04:01:01+DRB1*15:03:01G | DRB1*04:38+DRB1*15:23        |                          |                       |
| DRB1*04:01:01+DRB1*15:03:02  | DRB1*04:01:06+DRB1*15:03:01G |                          |                       |
| DRB1*04:01:01+DRB1*15:04     | DRB1*04:13+DRB1*15:15        |                          |                       |
| DRB1*04:01:01+DRB1*15:05     | DRB1*04:13+DRB1*15:31        |                          |                       |
| DRB1*04:01:01+DRB1*15:06:01  | DRB1*04:38+DRB1*15:73        |                          |                       |
| DRB1*04:01:01+DRB1*15:07:01  | DRB1*04:13+DRB1*15:11        |                          |                       |
| DRB1*04:01:01+DRB1*15:09     | DRB1*04:35+DRB1*15:48        | DRB1*04:67+DRB1*15:02:02 |                       |
| DRB1*04:01:01+DRB1*15:12     | DRB1*04:09+DRB1*15:01:04     |                          |                       |
| DRB1*04:01:01+DRB1*15:27     | DRB1*04:35+DRB1*15:34        |                          |                       |
| DRB1*04:01:01+DRB1*15:32     | DRB1*04:113+DRB1*15:01:01G   |                          |                       |
| DRB1*04:01:01+DRB1*15:37     | DRB1*04:72:01+DRB1*15:01:01G |                          |                       |
| DRB1*04:01:01+DRB1*15:38     | DRB1*04:38+DRB1*15:63        |                          |                       |
| DRB1*04:01:01+DRB1*15:39     | DRB1*04:26+DRB1*15:02:01     |                          |                       |
| DRB1*04:01:01+DRB1*15:57     | DRB1*04:72:02+DRB1*15:03:01G |                          |                       |
| DRB1*04:01:01+DRB1*15:65     | DRB1*04:13+DRB1*15:47        |                          |                       |
| DRB1*04:01:01+DRB1*15:66     | DRB1*04:13+DRB1*15:27        |                          |                       |
| DRB1*04:01:01+DRB1*16:05:01  | DRB1*04:38+DRB1*16:02:01     |                          |                       |
| DRB1*04:01:01+DRB1*16:09     | DRB1*04:35+DRB1*16:01:01     |                          |                       |
| DRB1*04:01:01+DRB1*16:10     | DRB1*04:35+DRB1*16:02:01     |                          |                       |
| DRB1*04:01:01+DRB1*16:15     | DRB1*04:13+DRB1*16:01:01     |                          |                       |
| DRB1*04:01:01+DRB1*16:19     | DRB1*04:33+DRB1*16:02:01     |                          |                       |
| DRB1*04:01:02+DRB1*14:35     | DRB1*04:35+DRB1*14:01:03     |                          |                       |
| DRB1*04:01:02+DRB1*14:122    | DRB1*04:38+DRB1*14:01:03     |                          |                       |
| DRB1*04:01:03+DRB1*09:06     | DRB1*04:13+DRB1*09:01:04     |                          |                       |
| DRB1*04:01:03+DRB1*11:01:02  | DRB1*04:01:08+DRB1*11:01:12  |                          |                       |
| DRB1*04:01:03+DRB1*11:04:02  | DRB1*04:01:08+DRB1*11:04:04  |                          |                       |
| DRB1*04:01:03+DRB1*11:27:01  | DRB1*04:72:02+DRB1*11:01:12  |                          |                       |
| DRB1*04:01:03+DRB1*11:27:02  | DRB1*04:72:01+DRB1*11:01:12  |                          |                       |
| DRB1*04:01:03+DRB1*11:29     | DRB1*04:21+DRB1*11:01:12     |                          |                       |
| DRB1*04:01:03+DRB1*11:84:01  | DRB1*04:72:02+DRB1*11:04:04  |                          |                       |
| DRB1*04:01:03+DRB1*11:84:02  | DRB1*04:72:01+DRB1*11:04:04  |                          |                       |
| DRB1*04:01:05+DRB1*04:06:01G | DRB1*04:03:06+DRB1*04:21     |                          |                       |
| DRB1*04:01:05+DRB1*04:11:01  | DRB1*04:03:06+DRB1*04:09     |                          |                       |
| DRB1*04:01:05+DRB1*04:41     | DRB1*04:03:06+DRB1*04:113    |                          |                       |
| DRB1*04:01:05+DRB1*04:59     | DRB1*04:03:06+DRB1*04:35     |                          |                       |
| DRB1*04:01:05+DRB1*04:88     | DRB1*04:03:06+DRB1*04:38     |                          |                       |
| DRB1*04:01:05+DRB1*04:95     | DRB1*04:03:06+DRB1*04:72:02  |                          |                       |
| DRB1*04:01:05+DRB1*04:110    | DRB1*04:03:06+DRB1*04:63     |                          |                       |
| DRB1*04:01:05+DRB1*14:106    | DRB1*04:03:06+DRB1*14:19     |                          |                       |
| DRB1*04:01:06+DRB1*15:32     | DRB1*04:113+DRB1*15:01:13    |                          |                       |
| DRB1*04:01:06+DRB1*15:37     | DRB1*04:72:01+DRB1*15:01:13  |                          |                       |
| DRB1*04:01:06+DRB1*15:57     | DRB1*04:72:02+DRB1*15:03:02  |                          |                       |
| DRB1*04:01:07+DRB1*14:12:01  | DRB1*04:13+DRB1*14:03:02     |                          |                       |
| DRB1*04:01:07+DRB1*14:67     | DRB1*04:38+DRB1*14:03:02     |                          |                       |
| DRB1*04:01:07+DRB1*14:85     | DRB1*04:09+DRB1*14:03:02     |                          |                       |
| DRB1*04:01:07+DRB1*14:98     | DRB1*04:72:02+DRB1*14:03:02  |                          |                       |
| DRB1*04:01:08+DRB1*04:03:01  | DRB1*04:07:03+DRB1*04:13     |                          |                       |

|                              |                             |                             |                          |
|------------------------------|-----------------------------|-----------------------------|--------------------------|
| DRB1*04:01:08+DRB1*04:10:01  | DRB1*04:05:04+DRB1*04:13    | DRB1*04:13+DRB1*04:17:01    |                          |
| DRB1*04:01:08+DRB1*04:11:01  | DRB1*04:07:03+DRB1*04:67    |                             |                          |
| DRB1*04:01:08+DRB1*04:20     | DRB1*04:07:03+DRB1*04:21    |                             |                          |
| DRB1*04:01:08+DRB1*04:25     | DRB1*04:13+DRB1*04:54       |                             |                          |
| DRB1*04:01:08+DRB1*04:28     | DRB1*04:05:04+DRB1*04:35    |                             |                          |
| DRB1*04:01:08+DRB1*04:74     | DRB1*04:07:03+DRB1*04:72:02 |                             |                          |
| DRB1*04:01:08+DRB1*04:77     | DRB1*04:05:04+DRB1*04:113   |                             |                          |
| DRB1*04:01:08+DRB1*04:84     | DRB1*04:05:04+DRB1*04:21    |                             |                          |
| DRB1*04:01:08+DRB1*04:91     | DRB1*04:05:04+DRB1*04:114   |                             |                          |
| DRB1*04:01:08+DRB1*04:102    | DRB1*04:07:03+DRB1*04:113   |                             |                          |
| DRB1*04:01:08+DRB1*04:107    | DRB1*04:05:04+DRB1*04:38    |                             |                          |
| DRB1*04:01:08+DRB1*08:06     | DRB1*04:09+DRB1*08:04:04    | DRB1*04:13+DRB1*08:01:01G   | DRB1*04:67+DRB1*08:02:01 |
| DRB1*04:01:08+DRB1*08:10     | DRB1*04:13+DRB1*08:03:03    | DRB1*04:55+DRB1*08:40       | DRB1*04:67+DRB1*08:30:03 |
| DRB1*04:01:08+DRB1*08:18     | DRB1*04:08:01+DRB1*08:40    |                             |                          |
| DRB1*04:01:08+DRB1*08:20     | DRB1*04:13+DRB1*13:47       |                             |                          |
| DRB1*04:01:08+DRB1*08:28     | DRB1*04:35+DRB1*08:04:04    |                             |                          |
| DRB1*04:01:08+DRB1*08:29     | DRB1*04:07:01G+DRB1*08:40   |                             |                          |
| DRB1*04:01:08+DRB1*08:37     | DRB1*04:09+DRB1*08:45       | DRB1*04:35+DRB1*08:03:03    |                          |
| DRB1*04:01:08+DRB1*11:02:01  | DRB1*04:13+DRB1*11:14:02    |                             |                          |
| DRB1*04:01:08+DRB1*11:04:07  | DRB1*04:04:05+DRB1*11:93    | DRB1*04:13+DRB1*11:01:11    |                          |
| DRB1*04:01:08+DRB1*11:18     | DRB1*04:04:01+DRB1*11:73    | DRB1*04:13+DRB1*11:19:03    |                          |
| DRB1*04:01:08+DRB1*11:25     | DRB1*04:13+DRB1*11:23       | DRB1*04:55+DRB1*11:93       |                          |
| DRB1*04:01:08+DRB1*11:27:01  | DRB1*04:72:02+DRB1*11:01:02 |                             |                          |
| DRB1*04:01:08+DRB1*11:28:01  | DRB1*04:113+DRB1*11:01:02   |                             |                          |
| DRB1*04:01:08+DRB1*11:29     | DRB1*04:19+DRB1*11:93       | DRB1*04:21+DRB1*11:01:02    |                          |
| DRB1*04:01:08+DRB1*11:42     | DRB1*04:13+DRB1*11:08:02    |                             |                          |
| DRB1*04:01:08+DRB1*11:44     | DRB1*04:13+DRB1*11:49:02    |                             |                          |
| DRB1*04:01:08+DRB1*11:45     | DRB1*04:31+DRB1*11:73       |                             |                          |
| DRB1*04:01:08+DRB1*11:54:02  | DRB1*04:03:01+DRB1*11:93    |                             |                          |
| DRB1*04:01:08+DRB1*11:56     | DRB1*04:13+DRB1*11:37:02    |                             |                          |
| DRB1*04:01:08+DRB1*11:58:02  | DRB1*04:113+DRB1*11:04:02   |                             |                          |
| DRB1*04:01:08+DRB1*11:84:01  | DRB1*04:44+DRB1*11:93       | DRB1*04:72:02+DRB1*11:04:02 |                          |
| DRB1*04:01:08+DRB1*11:84:02  | DRB1*04:13+DRB1*11:27:03    | DRB1*04:72:01+DRB1*11:04:02 |                          |
| DRB1*04:01:08+DRB1*11:92     | DRB1*04:13+DRB1*11:72       |                             |                          |
| DRB1*04:01:08+DRB1*11:98     | DRB1*04:04:01+DRB1*11:14:02 |                             |                          |
| DRB1*04:01:08+DRB1*11:119    | DRB1*04:55+DRB1*11:73       |                             |                          |
| DRB1*04:01:08+DRB1*13:04     | DRB1*04:67+DRB1*13:23:01    |                             |                          |
| DRB1*04:01:08+DRB1*13:11:01  | DRB1*04:13+DRB1*13:14:03    |                             |                          |
| DRB1*04:01:08+DRB1*13:12:02  | DRB1*04:05:04+DRB1*13:37    |                             |                          |
| DRB1*04:01:08+DRB1*13:13     | DRB1*04:31+DRB1*13:03:01    | DRB1*04:103+DRB1*13:37      |                          |
| DRB1*04:01:08+DRB1*13:18     | DRB1*04:54+DRB1*14:21       |                             |                          |
| DRB1*04:01:08+DRB1*13:22     | DRB1*04:13+DRB1*13:23:01    |                             |                          |
| DRB1*04:01:08+DRB1*13:30     | DRB1*04:08:01+DRB1*13:66:02 | DRB1*04:28+DRB1*13:37       | DRB1*04:35+DRB1*13:12:02 |
|                              | DRB1*04:43+DRB1*13:03:01    |                             |                          |
| DRB1*04:01:08+DRB1*13:42     | DRB1*04:13+DRB1*13:05:02    |                             |                          |
| DRB1*04:01:08+DRB1*13:48     | DRB1*04:13+DRB1*13:38       |                             |                          |
| DRB1*04:01:08+DRB1*13:50:01  | DRB1*04:113+DRB1*13:14:03   |                             |                          |
| DRB1*04:01:08+DRB1*13:61:01  | DRB1*04:72:02+DRB1*13:01:08 |                             |                          |
| DRB1*04:01:08+DRB1*13:61:02  | DRB1*04:72:01+DRB1*13:01:08 |                             |                          |
| DRB1*04:01:08+DRB1*13:82     | DRB1*04:43+DRB1*13:37       |                             |                          |
| DRB1*04:01:08+DRB1*13:93     | DRB1*04:09+DRB1*13:01:08    |                             |                          |
| DRB1*04:01:08+DRB1*13:94     | DRB1*04:13+DRB1*13:33:01    | DRB1*04:72:01+DRB1*13:89    |                          |
| DRB1*04:01:08+DRB1*13:127    | DRB1*04:26+DRB1*13:01:08    |                             |                          |
| DRB1*04:01:08+DRB1*13:134    | DRB1*04:08:01+DRB1*13:88    |                             |                          |
| DRB1*04:01:08+DRB1*14:01:01G | DRB1*04:13+DRB1*14:07:02    |                             |                          |
| DRB1*04:01:08+DRB1*14:05:01  | DRB1*04:13+DRB1*14:44:03    |                             |                          |
| DRB1*04:01:08+DRB1*14:13     | DRB1*04:05:04+DRB1*14:19    |                             |                          |
| DRB1*04:01:08+DRB1*14:15     | DRB1*04:13+DRB1*08:09       |                             |                          |
| DRB1*04:01:08+DRB1*14:27     | DRB1*04:54+DRB1*14:19       |                             |                          |
| DRB1*04:01:08+DRB1*14:33     | DRB1*04:07:03+DRB1*14:21    |                             |                          |
| DRB1*04:01:08+DRB1*14:51     | DRB1*04:07:03+DRB1*14:19    |                             |                          |
| DRB1*04:01:08+DRB1*14:53     | DRB1*04:62+DRB1*13:14:03    |                             |                          |
| DRB1*04:01:08+DRB1*15:01:01G | DRB1*04:13+DRB1*15:02:09    |                             |                          |
| DRB1*04:01:08+DRB1*15:01:04  | DRB1*04:13+DRB1*15:02:05    |                             |                          |
| DRB1*04:01:08+DRB1*15:12     | DRB1*04:67+DRB1*15:02:05    |                             |                          |
| DRB1*04:01:08+DRB1*15:39     | DRB1*04:26+DRB1*15:02:09    |                             |                          |
| DRB1*04:02:01+DRB1*04:03:01  | DRB1*04:37+DRB1*04:88       |                             |                          |
| DRB1*04:02:01+DRB1*04:03:07  | DRB1*04:02:02+DRB1*04:03:01 |                             |                          |
| DRB1*04:02:01+DRB1*04:04:01  | DRB1*04:37+DRB1*04:56       |                             |                          |
| DRB1*04:02:01+DRB1*04:05:01  | DRB1*04:04:01+DRB1*04:106   | DRB1*04:10:01+DRB1*04:14    | DRB1*04:37+DRB1*04:107   |
| DRB1*04:02:01+DRB1*04:05:07  | DRB1*04:04:03+DRB1*04:106   |                             |                          |
| DRB1*04:02:01+DRB1*04:05:08  | DRB1*04:04:05+DRB1*04:106   |                             |                          |
| DRB1*04:02:01+DRB1*04:05:12  | DRB1*04:02:02+DRB1*04:05:14 |                             |                          |
| DRB1*04:02:01+DRB1*04:07:01G | DRB1*04:03:01+DRB1*04:14    |                             |                          |
| DRB1*04:02:01+DRB1*04:07:04  | DRB1*04:03:08+DRB1*04:14    |                             |                          |
| DRB1*04:02:01+DRB1*04:08:01  | DRB1*04:04:01+DRB1*04:14    |                             |                          |
| DRB1*04:02:01+DRB1*04:08:02  | DRB1*04:04:02+DRB1*04:14    |                             |                          |
| DRB1*04:02:01+DRB1*04:09     | DRB1*04:13+DRB1*04:106      | DRB1*04:14+DRB1*04:67       |                          |
| DRB1*04:02:01+DRB1*04:17:02  | DRB1*04:03:01+DRB1*04:106   | DRB1*04:11:01+DRB1*04:14    |                          |
| DRB1*04:02:01+DRB1*04:19     | DRB1*04:14+DRB1*04:68       |                             |                          |
| DRB1*04:02:01+DRB1*04:20     | DRB1*04:06:01G+DRB1*04:14   |                             |                          |
| DRB1*04:02:01+DRB1*04:28     | DRB1*04:42+DRB1*04:106      |                             |                          |
| DRB1*04:02:01+DRB1*04:31     | DRB1*04:14+DRB1*04:55       |                             |                          |
| DRB1*04:02:01+DRB1*04:43     | DRB1*04:14+DRB1*04:42       |                             |                          |
| DRB1*04:02:01+DRB1*04:58     | DRB1*04:18+DRB1*04:37       |                             |                          |
| DRB1*04:02:01+DRB1*04:74     | DRB1*04:14+DRB1*04:95       |                             |                          |
| DRB1*04:02:01+DRB1*04:84     | DRB1*04:68+DRB1*04:106      |                             |                          |
| DRB1*04:02:01+DRB1*04:86     | DRB1*04:12+DRB1*04:14       | DRB1*04:18+DRB1*04:106      |                          |
| DRB1*04:02:01+DRB1*04:87     | DRB1*04:70+DRB1*04:106      |                             |                          |
| DRB1*04:02:01+DRB1*04:102    | DRB1*04:14+DRB1*04:41       |                             |                          |
| DRB1*04:02:01+DRB1*04:103    | DRB1*04:55+DRB1*04:106      |                             |                          |
| DRB1*04:02:01+DRB1*04:105:01 | DRB1*04:14+DRB1*04:73       |                             |                          |
| DRB1*04:02:01+DRB1*04:107    | DRB1*04:56+DRB1*04:106      |                             |                          |
| DRB1*04:02:01+DRB1*08:01:01G | DRB1*04:02:02+DRB1*08:01:04 | DRB1*04:106+DRB1*08:04:04   |                          |
| DRB1*04:02:01+DRB1*08:01:05  | DRB1*04:14+DRB1*08:06       | DRB1*04:106+DRB1*08:04:01   |                          |
| DRB1*04:02:01+DRB1*08:02:01  | DRB1*04:14+DRB1*08:04:04    | DRB1*04:54+DRB1*13:116      |                          |
| DRB1*04:02:01+DRB1*08:02:02  | DRB1*04:14+DRB1*08:04:01    |                             |                          |
| DRB1*04:02:01+DRB1*08:03:02  | DRB1*04:14+DRB1*08:10       | DRB1*04:86+DRB1*13:116      |                          |
| DRB1*04:02:01+DRB1*08:04:01  | DRB1*04:25+DRB1*13:116      |                             |                          |
| DRB1*04:02:01+DRB1*08:10     | DRB1*04:12+DRB1*13:116      |                             |                          |
| DRB1*04:02:01+DRB1*08:13     | DRB1*04:37+DRB1*08:30:03    |                             |                          |
| DRB1*04:02:01+DRB1*08:20     | DRB1*04:25+DRB1*13:70       |                             |                          |
| DRB1*04:02:01+DRB1*08:25     | DRB1*04:82+DRB1*13:116      |                             |                          |
| DRB1*04:02:01+DRB1*08:28     | DRB1*04:25+DRB1*13:17       |                             |                          |
| DRB1*04:02:01+DRB1*08:31     | DRB1*04:15+DRB1*13:116      |                             |                          |

|                              |                              |                            |                           |
|------------------------------|------------------------------|----------------------------|---------------------------|
| DRB1*04:02:01+DRB1*08:37     | DRB1*04:86+DRB1*13:17        |                            |                           |
| DRB1*04:02:01+DRB1*08:41     | DRB1*04:14+DRB1*08:31        |                            |                           |
| DRB1*04:02:01+DRB1*08:48     | DRB1*04:37+DRB1*08:03:03     |                            |                           |
| DRB1*04:02:01+DRB1*09:01:02  | DRB1*04:14+DRB1*09:06        |                            |                           |
| DRB1*04:02:01+DRB1*10:01:01  | DRB1*04:14+DRB1*10:02        |                            |                           |
| DRB1*04:02:01+DRB1*11:01:01G | DRB1*04:02:02+DRB1*11:01:04  | DRB1*04:14+DRB1*11:04:01   | DRB1*04:15+DRB1*13:23:02  |
|                              | DRB1*04:36+DRB1*11:14:01     |                            |                           |
| DRB1*04:02:01+DRB1*11:01:02  | DRB1*04:14+DRB1*11:04:02     | DRB1*04:15+DRB1*13:23:01   | DRB1*04:36+DRB1*11:14:02  |
| DRB1*04:02:01+DRB1*11:01:03  | DRB1*04:14+DRB1*11:04:07     | DRB1*04:47+DRB1*11:02:01   | DRB1*04:53+DRB1*11:11:01G |
| DRB1*04:02:01+DRB1*11:01:04  | DRB1*04:14+DRB1*11:04:05     |                            |                           |
| DRB1*04:02:01+DRB1*11:01:05  | DRB1*04:14+DRB1*11:04:03     |                            |                           |
| DRB1*04:02:01+DRB1*11:01:12  | DRB1*04:14+DRB1*11:04:04     |                            |                           |
| DRB1*04:02:01+DRB1*11:02:02  | DRB1*04:02:03+DRB1*11:02:01  |                            |                           |
| DRB1*04:02:01+DRB1*11:04:01  | DRB1*04:02:02+DRB1*11:04:05  | DRB1*04:15+DRB1*13:22      | DRB1*04:36+DRB1*11:02:01  |
| DRB1*04:02:01+DRB1*11:04:07  | DRB1*04:53+DRB1*11:03        |                            |                           |
| DRB1*04:02:01+DRB1*11:06:01G | DRB1*04:02:02+DRB1*11:06:03  | DRB1*04:36+DRB1*11:21      |                           |
| DRB1*04:02:01+DRB1*11:07     | DRB1*04:22+DRB1*11:02:01     |                            |                           |
| DRB1*04:02:01+DRB1*11:08:01  | DRB1*04:14+DRB1*11:42        | DRB1*04:37+DRB1*11:19:01   |                           |
| DRB1*04:02:01+DRB1*11:08:02  | DRB1*04:37+DRB1*11:19:03     |                            |                           |
| DRB1*04:02:01+DRB1*11:09     | DRB1*04:14+DRB1*11:113       | DRB1*04:15+DRB1*13:02:01   | DRB1*04:36+DRB1*11:20     |
| DRB1*04:02:01+DRB1*11:10:02  | DRB1*04:15+DRB1*13:107       |                            |                           |
| DRB1*04:02:01+DRB1*11:11:01G | DRB1*04:14+DRB1*11:03        |                            |                           |
| DRB1*04:02:01+DRB1*11:14:01  | DRB1*04:14+DRB1*11:02:01     |                            |                           |
| DRB1*04:02:01+DRB1*11:19:01  | DRB1*04:14+DRB1*11:18        |                            |                           |
| DRB1*04:02:01+DRB1*11:19:02  | DRB1*04:53+DRB1*11:14:01     |                            |                           |
| DRB1*04:02:01+DRB1*11:20     | DRB1*04:14+DRB1*11:16        |                            |                           |
| DRB1*04:02:01+DRB1*11:23     | DRB1*04:25+DRB1*11:14:02     | DRB1*04:54+DRB1*11:02:01   |                           |
| DRB1*04:02:01+DRB1*11:25     | DRB1*04:18+DRB1*11:03        | DRB1*04:25+DRB1*11:02:01   |                           |
| DRB1*04:02:01+DRB1*11:27:01  | DRB1*04:14+DRB1*11:84:01     |                            |                           |
| DRB1*04:02:01+DRB1*11:27:02  | DRB1*04:14+DRB1*11:84:02     |                            |                           |
| DRB1*04:02:01+DRB1*11:28:01  | DRB1*04:14+DRB1*11:58:02     |                            |                           |
| DRB1*04:02:01+DRB1*11:28:02  | DRB1*04:14+DRB1*11:58:01     |                            |                           |
| DRB1*04:02:01+DRB1*11:33     | DRB1*04:14+DRB1*11:35        |                            |                           |
| DRB1*04:02:01+DRB1*11:34     | DRB1*04:04:01+DRB1*11:02:01  | DRB1*04:13+DRB1*11:98      | DRB1*04:42+DRB1*11:48     |
|                              | DRB1*04:56+DRB1*11:36        |                            |                           |
| DRB1*04:02:01+DRB1*11:35     | DRB1*04:36+DRB1*11:65:01     |                            |                           |
| DRB1*04:02:01+DRB1*11:36     | DRB1*04:37+DRB1*11:02:01     |                            |                           |
| DRB1*04:02:01+DRB1*11:37:01  | DRB1*04:14+DRB1*11:56        |                            |                           |
| DRB1*04:02:01+DRB1*11:39     | DRB1*04:14+DRB1*11:43        |                            |                           |
| DRB1*04:02:01+DRB1*11:42     | DRB1*04:37+DRB1*11:18        |                            |                           |
| DRB1*04:02:01+DRB1*11:44     | DRB1*04:36+DRB1*11:127       |                            |                           |
| DRB1*04:02:01+DRB1*11:45     | DRB1*04:14+DRB1*11:119       | DRB1*04:18+DRB1*11:14:01   |                           |
| DRB1*04:02:01+DRB1*11:46:01  | DRB1*04:15+DRB1*13:52        | DRB1*04:36+DRB1*11:118     |                           |
| DRB1*04:02:01+DRB1*11:49:01  | DRB1*04:14+DRB1*11:44        |                            |                           |
| DRB1*04:02:01+DRB1*11:56     | DRB1*04:15+DRB1*13:70        | DRB1*04:36+DRB1*11:48      |                           |
| DRB1*04:02:01+DRB1*11:58:01  | DRB1*04:15+DRB1*13:69        |                            |                           |
| DRB1*04:02:01+DRB1*11:62     | DRB1*04:14+DRB1*11:46:02     | DRB1*04:15+DRB1*13:97:02   |                           |
| DRB1*04:02:01+DRB1*11:64     | DRB1*04:18+DRB1*11:68        | DRB1*04:37+DRB1*11:45      | DRB1*04:58+DRB1*11:14:01  |
| DRB1*04:02:01+DRB1*11:68     | DRB1*04:14+DRB1*11:36        | DRB1*04:37+DRB1*11:14:01   |                           |
| DRB1*04:02:01+DRB1*11:69     | DRB1*04:105:02+DRB1*11:03    |                            |                           |
| DRB1*04:02:01+DRB1*11:82     | DRB1*04:105:02+DRB1*11:02:01 |                            |                           |
| DRB1*04:02:01+DRB1*11:84:01  | DRB1*04:36+DRB1*11:124       |                            |                           |
| DRB1*04:02:01+DRB1*11:87     | DRB1*04:15+DRB1*13:41        |                            |                           |
| DRB1*04:02:01+DRB1*11:102:01 | DRB1*04:02:02+DRB1*11:102:02 |                            |                           |
| DRB1*04:02:01+DRB1*11:103    | DRB1*04:14+DRB1*11:07        | DRB1*04:22+DRB1*11:14:01   |                           |
| DRB1*04:02:01+DRB1*11:105    | DRB1*04:98:02+DRB1*11:02:01  |                            |                           |
| DRB1*04:02:01+DRB1*11:109    | DRB1*04:14+DRB1*11:60        |                            |                           |
| DRB1*04:02:01+DRB1*11:113    | DRB1*04:15+DRB1*13:01:01G    | DRB1*04:36+DRB1*11:16      |                           |
| DRB1*04:02:01+DRB1*11:119    | DRB1*04:18+DRB1*11:02:01     |                            |                           |
| DRB1*04:02:01+DRB1*11:120    | DRB1*04:14+DRB1*11:116       |                            |                           |
| DRB1*04:02:01+DRB1*11:122    | DRB1*04:14+DRB1*11:40        |                            |                           |
| DRB1*04:02:01+DRB1*12:12     | DRB1*04:37+DRB1*12:01:01G    |                            |                           |
| DRB1*04:02:01+DRB1*13:02:01  | DRB1*04:14+DRB1*13:01:01G    |                            |                           |
| DRB1*04:02:01+DRB1*13:02:03  | DRB1*04:14+DRB1*13:01:05     |                            |                           |
| DRB1*04:02:01+DRB1*13:03:01  | DRB1*04:14+DRB1*13:89        |                            |                           |
| DRB1*04:02:01+DRB1*13:03:03  | DRB1*04:02:03+DRB1*13:03:01  |                            |                           |
| DRB1*04:02:01+DRB1*13:05:01  | DRB1*04:14+DRB1*13:42        | DRB1*04:36+DRB1*13:02:01   |                           |
| DRB1*04:02:01+DRB1*13:11:01  | DRB1*04:36+DRB1*13:22        |                            |                           |
| DRB1*04:02:01+DRB1*13:13     | DRB1*04:86+DRB1*13:70        |                            |                           |
| DRB1*04:02:01+DRB1*13:14:01  | DRB1*04:14+DRB1*13:11:01     | DRB1*04:36+DRB1*13:23:02   |                           |
| DRB1*04:02:01+DRB1*13:14:02  | DRB1*04:14+DRB1*13:11:02     |                            |                           |
| DRB1*04:02:01+DRB1*13:14:03  | DRB1*04:36+DRB1*13:23:01     |                            |                           |
| DRB1*04:02:01+DRB1*13:18     | DRB1*04:18+DRB1*13:111       | DRB1*04:25+DRB1*13:01:01G  |                           |
| DRB1*04:02:01+DRB1*13:20     | DRB1*04:37+DRB1*13:01:01G    |                            |                           |
| DRB1*04:02:01+DRB1*13:21:01  | DRB1*04:106+DRB1*13:11:01    |                            |                           |
| DRB1*04:02:01+DRB1*13:23:02  | DRB1*04:14+DRB1*13:22        |                            |                           |
| DRB1*04:02:01+DRB1*13:25     | DRB1*04:37+DRB1*13:82        |                            |                           |
| DRB1*04:02:01+DRB1*13:29     | DRB1*04:14+DRB1*13:20        | DRB1*04:37+DRB1*13:02:01   |                           |
| DRB1*04:02:01+DRB1*13:36     | DRB1*04:14+DRB1*13:40        |                            |                           |
| DRB1*04:02:01+DRB1*13:39     | DRB1*04:14+DRB1*13:79        |                            |                           |
| DRB1*04:02:01+DRB1*13:41     | DRB1*04:14+DRB1*13:27        |                            |                           |
| DRB1*04:02:01+DRB1*13:42     | DRB1*04:36+DRB1*13:01:01G    |                            |                           |
| DRB1*04:02:01+DRB1*13:44     | DRB1*04:04:01+DRB1*13:22     | DRB1*04:42+DRB1*13:70      |                           |
| DRB1*04:02:01+DRB1*13:47     | DRB1*04:54+DRB1*13:70        |                            |                           |
| DRB1*04:02:01+DRB1*13:49     | DRB1*04:14+DRB1*13:108       |                            |                           |
| DRB1*04:02:01+DRB1*13:55     | DRB1*04:25+DRB1*13:38        | DRB1*04:54+DRB1*13:48      |                           |
| DRB1*04:02:01+DRB1*13:63     | DRB1*04:14+DRB1*13:111       |                            |                           |
| DRB1*04:02:01+DRB1*13:65     | DRB1*04:14+DRB1*13:32        | DRB1*04:106+DRB1*13:40     |                           |
| DRB1*04:02:01+DRB1*13:71     | DRB1*04:37+DRB1*13:27        |                            |                           |
| DRB1*04:02:01+DRB1*13:78     | DRB1*04:37+DRB1*13:79        |                            |                           |
| DRB1*04:02:01+DRB1*13:88     | DRB1*04:37+DRB1*13:03:01     |                            |                           |
| DRB1*04:02:01+DRB1*13:96:01  | DRB1*04:14+DRB1*13:61:02     |                            |                           |
| DRB1*04:02:01+DRB1*13:96:02  | DRB1*04:14+DRB1*13:61:01     |                            |                           |
| DRB1*04:02:01+DRB1*13:97:01  | DRB1*04:14+DRB1*13:52        |                            |                           |
| DRB1*04:02:01+DRB1*13:104    | DRB1*04:14+DRB1*13:15        |                            |                           |
| DRB1*04:02:01+DRB1*13:107    | DRB1*04:14+DRB1*13:83        |                            |                           |
| DRB1*04:02:01+DRB1*13:108    | DRB1*04:36+DRB1*13:48        |                            |                           |
| DRB1*04:02:01+DRB1*13:119    | DRB1*04:18+DRB1*13:29        | DRB1*04:58+DRB1*13:02:01   |                           |
| DRB1*04:02:01+DRB1*13:128    | DRB1*04:14+DRB1*13:112       |                            |                           |
| DRB1*04:02:01+DRB1*13:132    | DRB1*04:36+DRB1*13:97:01     |                            |                           |
| DRB1*04:02:01+DRB1*13:134    | DRB1*04:37+DRB1*13:12:01     |                            |                           |
| DRB1*04:02:01+DRB1*13:136    | DRB1*04:36+DRB1*13:34        |                            |                           |
| DRB1*04:02:01+DRB1*13:139    | DRB1*04:14+DRB1*13:93        | DRB1*04:106+DRB1*13:01:01G |                           |
| DRB1*04:02:01+DRB1*14:01:01G | DRB1*04:37+DRB1*14:122       |                            |                           |
| DRB1*04:02:01+DRB1*14:01:02  | DRB1*04:101+DRB1*14:16       |                            |                           |

|                              |                               |                              |                             |
|------------------------------|-------------------------------|------------------------------|-----------------------------|
| DRB1*04:02:01+DRB1*14:02     | DRB1*04:08:01+DRB1*13:53      | DRB1*04:14+DRB1*14:06:01     |                             |
| DRB1*04:02:01+DRB1*14:03:01  | DRB1*04:14+DRB1*14:12:01      | DRB1*04:37+DRB1*14:67        |                             |
| DRB1*04:02:01+DRB1*14:04     | DRB1*04:37+DRB1*14:120        |                              |                             |
| DRB1*04:02:01+DRB1*14:05:01  | DRB1*04:37+DRB1*14:45         |                              |                             |
| DRB1*04:02:01+DRB1*14:05:03  | DRB1*04:101+DRB1*13:72        |                              |                             |
| DRB1*04:02:01+DRB1*14:06:01  | DRB1*04:04:01+DRB1*13:53      |                              |                             |
| DRB1*04:02:01+DRB1*14:07:01  | DRB1*04:14+DRB1*14:01:01G     |                              |                             |
| DRB1*04:02:01+DRB1*14:09     | DRB1*04:04:01+DRB1*13:36      | DRB1*04:08:01+DRB1*13:40     | DRB1*04:14+DRB1*14:80       |
| DRB1*04:02:01+DRB1*14:12:01  | DRB1*04:58+DRB1*13:53         |                              |                             |
| DRB1*04:02:01+DRB1*14:13     | DRB1*04:05:01+DRB1*13:53      | DRB1*04:106+DRB1*14:06:01    |                             |
| DRB1*04:02:01+DRB1*14:14     | DRB1*04:14+DRB1*14:23:01      |                              |                             |
| DRB1*04:02:01+DRB1*14:17     | DRB1*04:04:01+DRB1*13:01:01G  | DRB1*04:42+DRB1*13:40        | DRB1*04:56+DRB1*13:20       |
| DRB1*04:02:01+DRB1*14:20     | DRB1*04:04:01+DRB1*13:19      |                              |                             |
| DRB1*04:02:01+DRB1*14:21     | DRB1*04:13+DRB1*13:01:01G     |                              |                             |
| DRB1*04:02:01+DRB1*14:24     | DRB1*04:105:02+DRB1*13:53     |                              |                             |
| DRB1*04:02:01+DRB1*14:30     | DRB1*04:04:01+DRB1*13:02:01   | DRB1*04:08:01+DRB1*13:01:01G | DRB1*04:14+DRB1*14:17       |
|                              | DRB1*04:42+DRB1*13:36         | DRB1*04:43+DRB1*13:40        | DRB1*04:56+DRB1*13:29       |
| DRB1*04:02:01+DRB1*14:33     | DRB1*04:03:01+DRB1*13:01:01G  | DRB1*04:41+DRB1*13:52        | DRB1*04:59+DRB1*13:40       |
|                              | DRB1*04:88+DRB1*13:20         |                              |                             |
| DRB1*04:02:01+DRB1*14:44:01  | DRB1*04:14+DRB1*14:05:01      |                              |                             |
| DRB1*04:02:01+DRB1*14:44:02  | DRB1*04:14+DRB1*14:05:03      |                              |                             |
| DRB1*04:02:01+DRB1*14:51     | DRB1*04:07:01G+DRB1*13:53     | DRB1*04:14+DRB1*14:106       |                             |
| DRB1*04:02:01+DRB1*14:63     | DRB1*04:14+DRB1*14:78         | DRB1*04:86+DRB1*13:53        |                             |
| DRB1*04:02:01+DRB1*14:68     | DRB1*04:14+DRB1*14:04         |                              |                             |
| DRB1*04:02:01+DRB1*14:78     | DRB1*04:12+DRB1*13:53         |                              |                             |
| DRB1*04:02:01+DRB1*14:80     | DRB1*04:04:01+DRB1*13:40      |                              |                             |
| DRB1*04:02:01+DRB1*14:85     | DRB1*04:37+DRB1*14:63         | DRB1*04:106+DRB1*14:12:01    |                             |
| DRB1*04:02:01+DRB1*14:89     | DRB1*04:31+DRB1*13:53         |                              |                             |
| DRB1*04:02:01+DRB1*14:106    | DRB1*04:03:01+DRB1*13:53      |                              |                             |
| DRB1*04:02:01+DRB1*14:119    | DRB1*04:08:01+DRB1*14:16      |                              |                             |
| DRB1*04:02:01+DRB1*15:01:01G | DRB1*04:02:02+DRB1*15:01:19   |                              |                             |
| DRB1*04:02:01+DRB1*15:02:01  | DRB1*04:14+DRB1*15:01:01G     | DRB1*04:105:02+DRB1*15:10    |                             |
| DRB1*04:02:01+DRB1*15:02:02  | DRB1*04:14+DRB1*15:01:04      |                              |                             |
| DRB1*04:02:01+DRB1*15:02:04  | DRB1*04:14+DRB1*15:01:09      |                              |                             |
| DRB1*04:02:01+DRB1*15:02:06  | DRB1*04:14+DRB1*15:01:03      |                              |                             |
| DRB1*04:02:01+DRB1*15:02:08  | DRB1*04:14+DRB1*15:01:10      |                              |                             |
| DRB1*04:02:01+DRB1*15:05     | DRB1*04:37+DRB1*15:01:01G     | DRB1*04:122+DRB1*15:10       |                             |
| DRB1*04:02:01+DRB1*15:11     | DRB1*04:14+DRB1*15:07:01      |                              |                             |
| DRB1*04:02:01+DRB1*15:15     | DRB1*04:14+DRB1*15:04         |                              |                             |
| DRB1*04:02:01+DRB1*15:21     | DRB1*04:18+DRB1*15:10         |                              |                             |
| DRB1*04:02:01+DRB1*15:23     | DRB1*04:37+DRB1*15:03:01G     |                              |                             |
| DRB1*04:02:01+DRB1*15:25     | DRB1*04:22+DRB1*15:10         |                              |                             |
| DRB1*04:02:01+DRB1*15:27     | DRB1*04:08:01+DRB1*15:10      | DRB1*04:14+DRB1*15:66        |                             |
| DRB1*04:02:01+DRB1*15:31     | DRB1*04:14+DRB1*15:05         | DRB1*04:37+DRB1*15:02:01     |                             |
| DRB1*04:02:01+DRB1*15:47     | DRB1*04:14+DRB1*15:65         |                              |                             |
| DRB1*04:02:01+DRB1*15:63     | DRB1*04:37+DRB1*15:38         |                              |                             |
| DRB1*04:02:01+DRB1*15:66     | DRB1*04:04:01+DRB1*15:10      |                              |                             |
| DRB1*04:02:01+DRB1*15:73     | DRB1*04:37+DRB1*15:06:01      |                              |                             |
| DRB1*04:02:01+DRB1*16:01:01  | DRB1*04:14+DRB1*16:15         |                              |                             |
| DRB1*04:02:01+DRB1*16:02:01  | DRB1*04:37+DRB1*16:05:01      |                              |                             |
| DRB1*04:02:01+DRB1*16:09     | DRB1*04:47+DRB1*15:10         |                              |                             |
| DRB1*04:02:02+DRB1*04:07:01G | DRB1*04:03:07+DRB1*04:14      |                              |                             |
| DRB1*04:02:02+DRB1*04:17:02  | DRB1*04:03:07+DRB1*04:106     |                              |                             |
| DRB1*04:02:02+DRB1*14:33     | DRB1*04:03:07+DRB1*13:01:01G  |                              |                             |
| DRB1*04:02:02+DRB1*14:106    | DRB1*04:03:07+DRB1*13:53      |                              |                             |
| DRB1*04:02:03+DRB1*11:01:03  | DRB1*04:47+DRB1*11:02:02      |                              |                             |
| DRB1*04:02:03+DRB1*11:04:01  | DRB1*04:36+DRB1*11:02:02      |                              |                             |
| DRB1*04:02:03+DRB1*11:07     | DRB1*04:22+DRB1*11:02:02      |                              |                             |
| DRB1*04:02:03+DRB1*11:14:01  | DRB1*04:14+DRB1*11:02:02      |                              |                             |
| DRB1*04:02:03+DRB1*11:23     | DRB1*04:54+DRB1*11:02:02      |                              |                             |
| DRB1*04:02:03+DRB1*11:25     | DRB1*04:25+DRB1*11:02:02      |                              |                             |
| DRB1*04:02:03+DRB1*11:26     | DRB1*04:08:01+DRB1*11:02:02   |                              |                             |
| DRB1*04:02:03+DRB1*11:34     | DRB1*04:04:01+DRB1*11:02:02   |                              |                             |
| DRB1*04:02:03+DRB1*11:36     | DRB1*04:37+DRB1*11:02:02      |                              |                             |
| DRB1*04:02:03+DRB1*11:82     | DRB1*04:105:02+DRB1*11:02:02  |                              |                             |
| DRB1*04:02:03+DRB1*11:105    | DRB1*04:98:02+DRB1*11:02:02   |                              |                             |
| DRB1*04:02:03+DRB1*11:119    | DRB1*04:18+DRB1*11:02:02      |                              |                             |
| DRB1*04:02:03+DRB1*13:88     | DRB1*04:37+DRB1*13:03:03      |                              |                             |
| DRB1*04:03:01+DRB1*04:04:02  | DRB1*04:03:02+DRB1*04:04:01   |                              |                             |
| DRB1*04:03:01+DRB1*04:04:04  | DRB1*04:03:08+DRB1*04:04:01   |                              |                             |
| DRB1*04:03:01+DRB1*04:04:06  | DRB1*04:03:04+DRB1*04:04:01   |                              |                             |
| DRB1*04:03:01+DRB1*04:05:01  | DRB1*04:04:01+DRB1*04:17:02   | DRB1*04:07:01G+DRB1*04:10:01 | DRB1*04:08:01+DRB1*04:11:01 |
| DRB1*04:03:01+DRB1*04:05:04  | DRB1*04:04:01+DRB1*04:17:01   | DRB1*04:07:03+DRB1*04:10:01  |                             |
| DRB1*04:03:01+DRB1*04:05:07  | DRB1*04:04:03+DRB1*04:17:02   |                              |                             |
| DRB1*04:03:01+DRB1*04:05:08  | DRB1*04:04:05+DRB1*04:17:02   |                              |                             |
| DRB1*04:03:01+DRB1*04:05:12  | DRB1*04:03:07+DRB1*04:05:14   |                              |                             |
| DRB1*04:03:01+DRB1*04:06:03  | DRB1*04:03:04+DRB1*04:06:01G  |                              |                             |
| DRB1*04:03:01+DRB1*04:06:04  | DRB1*04:03:02+DRB1*04:06:01G  |                              |                             |
| DRB1*04:03:01+DRB1*04:07:04  | DRB1*04:03:08+DRB1*04:07:01G  |                              |                             |
| DRB1*04:03:01+DRB1*04:08:01  | DRB1*04:04:01+DRB1*04:07:01G  |                              |                             |
| DRB1*04:03:01+DRB1*04:08:02  | DRB1*04:03:02+DRB1*04:08:01   | DRB1*04:04:02+DRB1*04:07:01G |                             |
| DRB1*04:03:01+DRB1*04:10:01  | DRB1*04:04:01+DRB1*04:11:01   |                              |                             |
| DRB1*04:03:01+DRB1*04:10:02  | DRB1*04:03:08+DRB1*04:10:01   | DRB1*04:04:04+DRB1*04:11:01  |                             |
| DRB1*04:03:01+DRB1*04:12     | DRB1*04:11:01+DRB1*04:18      |                              |                             |
| DRB1*04:03:01+DRB1*04:17:01  | DRB1*04:07:03+DRB1*04:11:01   |                              |                             |
| DRB1*04:03:01+DRB1*04:17:02  | DRB1*04:07:01G+DRB1*04:11:01  |                              |                             |
| DRB1*04:03:01+DRB1*04:18     | DRB1*04:58+DRB1*04:88         |                              |                             |
| DRB1*04:03:01+DRB1*04:19     | DRB1*04:04:01+DRB1*04:20      | DRB1*04:06:01G+DRB1*04:08:01 | DRB1*04:07:01G+DRB1*04:68   |
| DRB1*04:03:01+DRB1*04:20     | DRB1*04:06:01G+DRB1*04:07:01G |                              |                             |
| DRB1*04:03:01+DRB1*04:23     | DRB1*04:04:01+DRB1*04:52      |                              |                             |
| DRB1*04:03:01+DRB1*04:24     | DRB1*04:05:01+DRB1*04:101     |                              |                             |
| DRB1*04:03:01+DRB1*04:28     | DRB1*04:05:01+DRB1*04:59      | DRB1*04:11:01+DRB1*04:43     | DRB1*04:17:02+DRB1*04:42    |
| DRB1*04:03:01+DRB1*04:31     | DRB1*04:07:01G+DRB1*04:55     |                              |                             |
| DRB1*04:03:01+DRB1*04:42     | DRB1*04:04:01+DRB1*04:59      |                              |                             |
| DRB1*04:03:01+DRB1*04:43     | DRB1*04:07:01G+DRB1*04:42     | DRB1*04:08:01+DRB1*04:59     |                             |
| DRB1*04:03:01+DRB1*04:44     | DRB1*04:04:01+DRB1*04:95      |                              |                             |
| DRB1*04:03:01+DRB1*04:54     | DRB1*04:07:03+DRB1*04:25      |                              |                             |
| DRB1*04:03:01+DRB1*04:56     | DRB1*04:04:01+DRB1*04:88      |                              |                             |
| DRB1*04:03:01+DRB1*04:67     | DRB1*04:11:01+DRB1*04:13      |                              |                             |
| DRB1*04:03:01+DRB1*04:68     | DRB1*04:04:01+DRB1*04:06:01G  |                              |                             |
| DRB1*04:03:01+DRB1*04:70     | DRB1*04:04:01+DRB1*04:51      |                              |                             |
| DRB1*04:03:01+DRB1*04:74     | DRB1*04:07:01G+DRB1*04:95     |                              |                             |
| DRB1*04:03:01+DRB1*04:77     | DRB1*04:05:01+DRB1*04:41      | DRB1*04:10:01+DRB1*04:102    |                             |
| DRB1*04:03:01+DRB1*04:78     | DRB1*04:06:01G+DRB1*04:101    |                              |                             |
| DRB1*04:03:01+DRB1*04:84     | DRB1*04:05:01+DRB1*04:06:01G  | DRB1*04:08:01+DRB1*04:91     | DRB1*04:10:01+DRB1*04:20    |

|                              |                               |                              |                             |
|------------------------------|-------------------------------|------------------------------|-----------------------------|
| DRB1*04:03:01+DRB1*04:86     | DRB1*04:11:01+DRB1*04:19      | DRB1*04:17:02+DRB1*04:68     |                             |
| DRB1*04:03:01+DRB1*04:87     | DRB1*04:07:01G+DRB1*04:12     | DRB1*04:17:02+DRB1*04:18     |                             |
| DRB1*04:03:01+DRB1*04:91     | DRB1*04:05:01+DRB1*04:51      | DRB1*04:17:02+DRB1*04:70     |                             |
| DRB1*04:03:01+DRB1*04:102    | DRB1*04:06:01G+DRB1*04:11:01  |                              |                             |
| DRB1*04:03:01+DRB1*04:103    | DRB1*04:07:01G+DRB1*04:41     |                              |                             |
| DRB1*04:03:01+DRB1*04:105:01 | DRB1*04:11:01+DRB1*04:31      | DRB1*04:17:02+DRB1*04:55     |                             |
| DRB1*04:03:01+DRB1*04:107    | DRB1*04:03:02+DRB1*04:105:02  | DRB1*04:07:01G+DRB1*04:73    |                             |
| DRB1*04:03:01+DRB1*07:01:04  | DRB1*04:05:01+DRB1*04:88      | DRB1*04:17:02+DRB1*04:56     |                             |
| DRB1*04:03:01+DRB1*07:04     | DRB1*04:03:08+DRB1*07:01:01G  |                              |                             |
| DRB1*04:03:01+DRB1*07:17     | DRB1*04:95+DRB1*07:11         |                              |                             |
| DRB1*04:03:01+DRB1*07:21     | DRB1*04:97+DRB1*07:01:01G     |                              |                             |
| DRB1*04:03:01+DRB1*08:01:01G | DRB1*04:71+DRB1*07:01:01G     |                              |                             |
|                              | DRB1*04:03:07+DRB1*08:01:04   | DRB1*04:07:03+DRB1*08:06     | DRB1*04:11:01+DRB1*08:02:01 |
|                              | DRB1*04:17:01+DRB1*08:04:01   | DRB1*04:17:02+DRB1*08:04:04  |                             |
| DRB1*04:03:01+DRB1*08:01:05  | DRB1*04:07:01G+DRB1*08:06     | DRB1*04:11:01+DRB1*08:02:02  | DRB1*04:17:02+DRB1*08:04:01 |
| DRB1*04:03:01+DRB1*08:02:01  | DRB1*04:07:01G+DRB1*08:04:04  | DRB1*04:07:03+DRB1*08:04:01  |                             |
| DRB1*04:03:01+DRB1*08:02:02  | DRB1*04:07:01G+DRB1*08:04:01  |                              |                             |
| DRB1*04:03:01+DRB1*08:03:02  | DRB1*04:07:01G+DRB1*08:10     | DRB1*04:11:01+DRB1*08:30:01  | DRB1*04:55+DRB1*08:29       |
|                              | DRB1*04:110+DRB1*08:38        |                              |                             |
| DRB1*04:03:01+DRB1*08:03:03  | DRB1*04:07:03+DRB1*08:10      | DRB1*04:11:01+DRB1*08:30:03  | DRB1*04:88+DRB1*08:48       |
| DRB1*04:03:01+DRB1*08:04:06  | DRB1*04:03:02+DRB1*08:04:01   |                              |                             |
| DRB1*04:03:01+DRB1*08:06     | DRB1*04:11:01+DRB1*08:04:01   |                              |                             |
| DRB1*04:03:01+DRB1*08:09     | DRB1*04:07:03+DRB1*14:15      |                              |                             |
| DRB1*04:03:01+DRB1*08:12     | DRB1*04:27+DRB1*08:10         |                              |                             |
| DRB1*04:03:01+DRB1*08:17     | DRB1*04:17:01+DRB1*08:28      | DRB1*04:59+DRB1*08:01:01G    |                             |
| DRB1*04:03:01+DRB1*08:18     | DRB1*04:04:01+DRB1*08:29      |                              |                             |
| DRB1*04:03:01+DRB1*08:28     | DRB1*04:59+DRB1*08:04:01      |                              |                             |
| DRB1*04:03:01+DRB1*08:30:02  | DRB1*04:03:04+DRB1*08:30:01   |                              |                             |
| DRB1*04:03:01+DRB1*08:30:03  | DRB1*04:88+DRB1*08:13         |                              |                             |
| DRB1*04:03:01+DRB1*08:37     | DRB1*04:59+DRB1*08:03:02      |                              |                             |
| DRB1*04:03:01+DRB1*08:41     | DRB1*04:07:01G+DRB1*08:31     |                              |                             |
| DRB1*04:03:01+DRB1*08:42     | DRB1*04:06:01G+DRB1*08:02:01  | DRB1*04:20+DRB1*08:04:04     |                             |
| DRB1*04:03:01+DRB1*08:45     | DRB1*04:59+DRB1*08:30:03      |                              |                             |
| DRB1*04:03:01+DRB1*08:48     | DRB1*04:11:01+DRB1*08:13      |                              |                             |
| DRB1*04:03:01+DRB1*09:01:02  | DRB1*04:07:01G+DRB1*09:06     |                              |                             |
| DRB1*04:03:01+DRB1*09:01:08  | DRB1*04:03:04+DRB1*09:01:02   |                              |                             |
| DRB1*04:03:01+DRB1*09:02:01  | DRB1*04:03:02+DRB1*09:02:02   |                              |                             |
| DRB1*04:03:01+DRB1*10:01:01  | DRB1*04:07:01G+DRB1*10:02     |                              |                             |
| DRB1*04:03:01+DRB1*10:01:03  | DRB1*04:101+DRB1*10:04        |                              |                             |
| DRB1*04:03:01+DRB1*11:01:01G | DRB1*04:03:07+DRB1*11:01:04   | DRB1*04:07:01G+DRB1*11:04:01 | DRB1*04:08:01+DRB1*11:54:02 |
|                              | DRB1*04:59+DRB1*11:37:01      |                              |                             |
| DRB1*04:03:01+DRB1*11:01:02  | DRB1*04:07:01G+DRB1*11:04:02  | DRB1*04:07:03+DRB1*11:04:01  | DRB1*04:59+DRB1*11:37:02    |
| DRB1*04:03:01+DRB1*11:01:03  | DRB1*04:07:01G+DRB1*11:04:07  |                              |                             |
| DRB1*04:03:01+DRB1*11:01:04  | DRB1*04:07:01G+DRB1*11:04:05  |                              |                             |
| DRB1*04:03:01+DRB1*11:01:05  | DRB1*04:07:01G+DRB1*11:04:03  | DRB1*04:08:01+DRB1*11:54:01  |                             |
| DRB1*04:03:01+DRB1*11:01:11  | DRB1*04:07:03+DRB1*11:04:07   |                              |                             |
| DRB1*04:03:01+DRB1*11:01:12  | DRB1*04:07:01G+DRB1*11:04:04  |                              |                             |
| DRB1*04:03:01+DRB1*11:02:01  | DRB1*04:59+DRB1*11:48         | DRB1*04:88+DRB1*11:36        |                             |
| DRB1*04:03:01+DRB1*11:03     | DRB1*04:59+DRB1*11:41         |                              |                             |
| DRB1*04:03:01+DRB1*11:04:01  | DRB1*04:03:07+DRB1*11:04:05   | DRB1*04:04:01+DRB1*11:54:02  | DRB1*04:59+DRB1*11:56       |
|                              | DRB1*04:110+DRB1*11:102:01    |                              |                             |
| DRB1*04:03:01+DRB1*11:04:03  | DRB1*04:04:01+DRB1*11:54:01   |                              |                             |
| DRB1*04:03:01+DRB1*11:04:05  | DRB1*04:110+DRB1*11:102:02    |                              |                             |
| DRB1*04:03:01+DRB1*11:04:07  | DRB1*04:04:05+DRB1*11:54:02   |                              |                             |
| DRB1*04:03:01+DRB1*11:06:01G | DRB1*04:03:07+DRB1*11:06:03   | DRB1*04:27+DRB1*11:04:01     |                             |
| DRB1*04:03:01+DRB1*11:06:02  | DRB1*04:27+DRB1*11:04:03      |                              |                             |
| DRB1*04:03:01+DRB1*11:06:03  | DRB1*04:27+DRB1*11:04:05      |                              |                             |
| DRB1*04:03:01+DRB1*11:08:01  | DRB1*04:07:01G+DRB1*11:42     |                              |                             |
| DRB1*04:03:01+DRB1*11:08:02  | DRB1*04:07:03+DRB1*11:42      |                              |                             |
| DRB1*04:03:01+DRB1*11:09     | DRB1*04:07:01G+DRB1*11:113    | DRB1*04:102+DRB1*11:46:01    |                             |
| DRB1*04:03:01+DRB1*11:11:01G | DRB1*04:07:01G+DRB1*11:03     |                              |                             |
| DRB1*04:03:01+DRB1*11:13:01G | DRB1*04:42+DRB1*11:17         |                              |                             |
| DRB1*04:03:01+DRB1*11:14:01  | DRB1*04:07:01G+DRB1*11:02:01  | DRB1*04:88+DRB1*11:68        |                             |
| DRB1*04:03:01+DRB1*11:14:02  | DRB1*04:07:03+DRB1*11:02:01   |                              |                             |
| DRB1*04:03:01+DRB1*11:16     | DRB1*04:41+DRB1*11:118        |                              |                             |
| DRB1*04:03:01+DRB1*11:18     | DRB1*04:88+DRB1*11:42         |                              |                             |
| DRB1*04:03:01+DRB1*11:19:01  | DRB1*04:07:01G+DRB1*11:18     | DRB1*04:88+DRB1*11:08:01     |                             |
| DRB1*04:03:01+DRB1*11:19:03  | DRB1*04:07:03+DRB1*11:18      | DRB1*04:88+DRB1*11:08:02     |                             |
| DRB1*04:03:01+DRB1*11:20     | DRB1*04:07:01G+DRB1*11:16     | DRB1*04:102+DRB1*11:118      |                             |
| DRB1*04:03:01+DRB1*11:21     | DRB1*04:27+DRB1*11:02:01      |                              |                             |
| DRB1*04:03:01+DRB1*11:23     | DRB1*04:07:03+DRB1*11:25      |                              |                             |
| DRB1*04:03:01+DRB1*11:25     | DRB1*04:55+DRB1*11:54:02      |                              |                             |
| DRB1*04:03:01+DRB1*11:26     | DRB1*04:07:01G+DRB1*11:34     |                              |                             |
| DRB1*04:03:01+DRB1*11:27:01  | DRB1*04:07:01G+DRB1*11:84:01  | DRB1*04:74+DRB1*11:04:01     | DRB1*04:95+DRB1*11:01:01G   |
| DRB1*04:03:01+DRB1*11:27:02  | DRB1*04:07:01G+DRB1*11:84:02  |                              |                             |
| DRB1*04:03:01+DRB1*11:27:03  | DRB1*04:07:03+DRB1*11:84:02   |                              |                             |
| DRB1*04:03:01+DRB1*11:28:01  | DRB1*04:07:01G+DRB1*11:58:02  | DRB1*04:41+DRB1*11:01:01G    | DRB1*04:102+DRB1*11:04:01   |
| DRB1*04:03:01+DRB1*11:28:02  | DRB1*04:07:01G+DRB1*11:58:01  | DRB1*04:41+DRB1*11:01:12     | DRB1*04:102+DRB1*11:04:04   |
| DRB1*04:03:01+DRB1*11:29     | DRB1*04:06:01G+DRB1*11:01:01G | DRB1*04:19+DRB1*11:54:02     | DRB1*04:20+DRB1*11:04:01    |
| DRB1*04:03:01+DRB1*11:33     | DRB1*04:07:01G+DRB1*11:35     |                              |                             |
| DRB1*04:03:01+DRB1*11:37:01  | DRB1*04:07:01G+DRB1*11:56     |                              |                             |
| DRB1*04:03:01+DRB1*11:37:02  | DRB1*04:07:03+DRB1*11:56      |                              |                             |
| DRB1*04:03:01+DRB1*11:39     | DRB1*04:07:01G+DRB1*11:43     |                              |                             |
| DRB1*04:03:01+DRB1*11:45     | DRB1*04:07:01G+DRB1*11:119    | DRB1*04:88+DRB1*11:64        |                             |
| DRB1*04:03:01+DRB1*11:47     | DRB1*04:06:01G+DRB1*11:06:01G |                              |                             |
| DRB1*04:03:01+DRB1*11:49:01  | DRB1*04:07:01G+DRB1*11:44     |                              |                             |
| DRB1*04:03:01+DRB1*11:49:02  | DRB1*04:07:03+DRB1*11:44      |                              |                             |
| DRB1*04:03:01+DRB1*11:57     | DRB1*04:27+DRB1*11:42         |                              |                             |
| DRB1*04:03:01+DRB1*11:58:01  | DRB1*04:41+DRB1*11:04:04      |                              |                             |
| DRB1*04:03:01+DRB1*11:58:02  | DRB1*04:41+DRB1*11:04:01      |                              |                             |
| DRB1*04:03:01+DRB1*11:61     | DRB1*04:96+DRB1*11:01:01G     |                              |                             |
| DRB1*04:03:01+DRB1*11:62     | DRB1*04:07:01G+DRB1*11:46:02  |                              |                             |
| DRB1*04:03:01+DRB1*11:63     | DRB1*04:06:01G+DRB1*11:03     |                              |                             |
| DRB1*04:03:01+DRB1*11:68     | DRB1*04:07:01G+DRB1*11:36     |                              |                             |
| DRB1*04:03:01+DRB1*11:72     | DRB1*04:07:03+DRB1*11:92      |                              |                             |
| DRB1*04:03:01+DRB1*11:73     | DRB1*04:100+DRB1*11:08:02     |                              |                             |
| DRB1*04:03:01+DRB1*11:84:01  | DRB1*04:44+DRB1*11:54:02      | DRB1*04:95+DRB1*11:04:01     |                             |
| DRB1*04:03:01+DRB1*11:102:01 | DRB1*04:03:07+DRB1*11:102:02  |                              |                             |
| DRB1*04:03:01+DRB1*11:103    | DRB1*04:07:01G+DRB1*11:07     | DRB1*04:59+DRB1*11:107       |                             |
| DRB1*04:03:01+DRB1*11:106    | DRB1*04:109+DRB1*11:01:01G    |                              |                             |
| DRB1*04:03:01+DRB1*11:108    | DRB1*04:51+DRB1*11:01:01G     |                              |                             |
| DRB1*04:03:01+DRB1*11:109    | DRB1*04:07:01G+DRB1*11:60     |                              |                             |
| DRB1*04:03:01+DRB1*11:113    | DRB1*04:15+DRB1*11:4:33       | DRB1*04:41+DRB1*11:46:01     |                             |
| DRB1*04:03:01+DRB1*11:120    | DRB1*04:07:01G+DRB1*11:116    |                              |                             |
| DRB1*04:03:01+DRB1*11:122    | DRB1*04:07:01G+DRB1*11:40     |                              |                             |



|                              |                               |                              |                              |
|------------------------------|-------------------------------|------------------------------|------------------------------|
| DRB1*04:03:01+DRB1*11:124    | DRB1*04:95+DRB1*11:02:01      |                              |                              |
| DRB1*04:03:01+DRB1*12:01:01G | DRB1*04:27+DRB1*12:03:03      | DRB1*04:88+DRB1*12:12        |                              |
| DRB1*04:03:01+DRB1*12:01:03  | DRB1*04:27+DRB1*12:03:02      |                              |                              |
| DRB1*04:03:01+DRB1*12:02:01  | DRB1*04:27+DRB1*12:19         | DRB1*04:59+DRB1*12:21        |                              |
| DRB1*04:03:01+DRB1*12:02:03  | DRB1*04:03:08+DRB1*12:02:01   |                              |                              |
| DRB1*04:03:01+DRB1*12:22     | DRB1*04:74+DRB1*12:03:02      |                              |                              |
| DRB1*04:03:01+DRB1*13:01:05  | DRB1*04:03:02+DRB1*13:01:01G  |                              |                              |
| DRB1*04:03:01+DRB1*13:01:06  | DRB1*04:03:04+DRB1*13:01:01G  |                              |                              |
| DRB1*04:03:01+DRB1*13:02:01  | DRB1*04:07:01G+DRB1*13:01:01G | DRB1*04:14+DRB1*14:33        | DRB1*04:41+DRB1*13:97:01     |
|                              | DRB1*04:59+DRB1*13:36         | DRB1*04:88+DRB1*13:29        | DRB1*04:102+DRB1*13:52       |
| DRB1*04:03:01+DRB1*13:02:03  | DRB1*04:03:02+DRB1*13:02:01   | DRB1*04:07:01G+DRB1*13:01:05 |                              |
| DRB1*04:03:01+DRB1*13:02:06  | DRB1*04:03:08+DRB1*13:02:01   | DRB1*04:07:04+DRB1*13:01:01G |                              |
| DRB1*04:03:01+DRB1*13:03:01  | DRB1*04:07:01G+DRB1*13:89     | DRB1*04:11:01+DRB1*13:37     | DRB1*04:88+DRB1*13:88        |
| DRB1*04:03:01+DRB1*13:03:02  | DRB1*04:100+DRB1*13:134       |                              |                              |
| DRB1*04:03:01+DRB1*13:04     | DRB1*04:11:01+DRB1*13:22      | DRB1*04:59+DRB1*13:48        |                              |
| DRB1*04:03:01+DRB1*13:05:01  | DRB1*04:07:01G+DRB1*13:42     | DRB1*04:41+DRB1*13:132       |                              |
| DRB1*04:03:01+DRB1*13:05:02  | DRB1*04:07:03+DRB1*13:42      |                              |                              |
| DRB1*04:03:01+DRB1*13:07:02  | DRB1*04:03:02+DRB1*13:07:01   |                              |                              |
| DRB1*04:03:01+DRB1*13:11:02  | DRB1*04:03:02+DRB1*13:11:01   |                              |                              |
| DRB1*04:03:01+DRB1*13:12:01  | DRB1*04:88+DRB1*13:134        |                              |                              |
| DRB1*04:03:01+DRB1*13:14:01  | DRB1*04:07:01G+DRB1*13:11:01  | DRB1*04:59+DRB1*13:07:01     |                              |
| DRB1*04:03:01+DRB1*13:14:02  | DRB1*04:03:02+DRB1*13:14:01   | DRB1*04:07:01G+DRB1*13:11:02 | DRB1*04:59+DRB1*13:07:02     |
| DRB1*04:03:01+DRB1*13:14:03  | DRB1*04:07:03+DRB1*13:11:01   |                              |                              |
| DRB1*04:03:01+DRB1*13:15     | DRB1*04:59+DRB1*13:53         |                              |                              |
| DRB1*04:03:01+DRB1*13:17     | DRB1*04:59+DRB1*13:116        |                              |                              |
| DRB1*04:03:01+DRB1*13:18     | DRB1*04:25+DRB1*14:33         |                              |                              |
| DRB1*04:03:01+DRB1*13:20     | DRB1*04:37+DRB1*14:33         |                              |                              |
| DRB1*04:03:01+DRB1*13:21:01  | DRB1*04:11:01+DRB1*13:14:01   | DRB1*04:17:02+DRB1*13:11:01  | DRB1*04:59+DRB1*13:49        |
| DRB1*04:03:01+DRB1*13:21:02  | DRB1*04:11:01+DRB1*13:14:03   | DRB1*04:17:01+DRB1*13:11:01  |                              |
| DRB1*04:03:01+DRB1*13:22     | DRB1*04:59+DRB1*13:70         |                              |                              |
| DRB1*04:03:01+DRB1*13:23:01  | DRB1*04:07:03+DRB1*13:22      |                              |                              |
| DRB1*04:03:01+DRB1*13:23:02  | DRB1*04:07:01G+DRB1*13:22     |                              |                              |
| DRB1*04:03:01+DRB1*13:26:02  | DRB1*04:36+DRB1*14:51         |                              |                              |
| DRB1*04:03:01+DRB1*13:27     | DRB1*04:88+DRB1*13:71         |                              |                              |
| DRB1*04:03:01+DRB1*13:29     | DRB1*04:07:01G+DRB1*13:20     |                              |                              |
| DRB1*04:03:01+DRB1*13:30     | DRB1*04:11:01+DRB1*13:82      | DRB1*04:59+DRB1*13:12:01     |                              |
| DRB1*04:03:01+DRB1*13:32     | DRB1*04:11:01+DRB1*13:40      |                              |                              |
| DRB1*04:03:01+DRB1*13:33:01  | DRB1*04:07:03+DRB1*13:94      |                              |                              |
| DRB1*04:03:01+DRB1*13:33:02  | DRB1*04:95+DRB1*13:03:02      |                              |                              |
| DRB1*04:03:01+DRB1*13:33:03  | DRB1*04:74+DRB1*13:89         | DRB1*04:95+DRB1*13:03:01     |                              |
| DRB1*04:03:01+DRB1*13:36     | DRB1*04:07:01G+DRB1*13:40     |                              |                              |
| DRB1*04:03:01+DRB1*13:38     | DRB1*04:07:03+DRB1*13:48      | DRB1*04:17:01+DRB1*13:70     |                              |
| DRB1*04:03:01+DRB1*13:39     | DRB1*04:07:01G+DRB1*13:79     |                              |                              |
| DRB1*04:03:01+DRB1*13:41     | DRB1*04:07:01G+DRB1*13:27     |                              |                              |
| DRB1*04:03:01+DRB1*13:42     | DRB1*04:36+DRB1*14:33         |                              |                              |
| DRB1*04:03:01+DRB1*13:47     | DRB1*04:07:03+DRB1*08:20      |                              |                              |
| DRB1*04:03:01+DRB1*13:48     | DRB1*04:11:01+DRB1*13:70      |                              |                              |
| DRB1*04:03:01+DRB1*13:49     | DRB1*04:07:01G+DRB1*13:108    | DRB1*04:11:01+DRB1*13:07:01  |                              |
| DRB1*04:03:01+DRB1*13:50:01  | DRB1*04:41+DRB1*13:14:01      | DRB1*04:102+DRB1*13:11:01    |                              |
| DRB1*04:03:01+DRB1*13:55     | DRB1*04:11:01+DRB1*13:47      | DRB1*04:17:01+DRB1*08:20     |                              |
| DRB1*04:03:01+DRB1*13:57     | DRB1*04:59+DRB1*13:19         |                              |                              |
| DRB1*04:03:01+DRB1*13:61:01  | DRB1*04:95+DRB1*13:01:01G     |                              |                              |
| DRB1*04:03:01+DRB1*13:63     | DRB1*04:07:01G+DRB1*13:111    |                              |                              |
| DRB1*04:03:01+DRB1*13:65     | DRB1*04:07:01G+DRB1*13:32     | DRB1*04:11:01+DRB1*13:36     | DRB1*04:17:02+DRB1*13:40     |
| DRB1*04:03:01+DRB1*13:66:01  | DRB1*04:59+DRB1*13:03:02      |                              |                              |
| DRB1*04:03:01+DRB1*13:66:02  | DRB1*04:59+DRB1*13:03:01      |                              |                              |
| DRB1*04:03:01+DRB1*13:75     | DRB1*04:11:01+DRB1*13:24      |                              |                              |
| DRB1*04:03:01+DRB1*13:79     | DRB1*04:88+DRB1*13:78         |                              |                              |
| DRB1*04:03:01+DRB1*13:82     | DRB1*04:88+DRB1*13:25         |                              |                              |
| DRB1*04:03:01+DRB1*13:83     | DRB1*04:59+DRB1*13:08         |                              |                              |
| DRB1*04:03:01+DRB1*13:87     | DRB1*04:41+DRB1*13:83         |                              |                              |
| DRB1*04:03:01+DRB1*13:93     | DRB1*04:11:01+DRB1*13:01:01G  | DRB1*04:59+DRB1*13:32        |                              |
| DRB1*04:03:01+DRB1*13:96:01  | DRB1*04:07:01G+DRB1*13:61:02  |                              |                              |
| DRB1*04:03:01+DRB1*13:96:02  | DRB1*04:07:01G+DRB1*13:61:01  | DRB1*04:74+DRB1*13:01:01G    | DRB1*04:95+DRB1*13:02:01     |
| DRB1*04:03:01+DRB1*13:97:01  | DRB1*04:07:01G+DRB1*13:52     |                              |                              |
| DRB1*04:03:01+DRB1*13:104    | DRB1*04:07:01G+DRB1*13:15     |                              |                              |
| DRB1*04:03:01+DRB1*13:107    | DRB1*04:07:01G+DRB1*13:83     |                              |                              |
| DRB1*04:03:01+DRB1*13:110    | DRB1*04:97+DRB1*13:01:01G     |                              |                              |
| DRB1*04:03:01+DRB1*13:114    | DRB1*04:93+DRB1*13:20         |                              |                              |
| DRB1*04:03:01+DRB1*13:115    | DRB1*04:41+DRB1*13:03:01      | DRB1*04:102+DRB1*13:89       |                              |
| DRB1*04:03:01+DRB1*13:128    | DRB1*04:07:01G+DRB1*13:112    | DRB1*04:11:01+DRB1*13:02:01  | DRB1*04:17:02+DRB1*13:01:01G |
| DRB1*04:03:01+DRB1*13:139    | DRB1*04:59+DRB1*13:93         | DRB1*04:106+DRB1*14:33       |                              |
|                              | DRB1*04:59+DRB1*13:65         | DRB1*04:07:01G+DRB1*14:06:01 | DRB1*04:08:01+DRB1*14:106    |
| DRB1*04:03:01+DRB1*14:02     | DRB1*04:04:01+DRB1*14:51      | DRB1*04:58+DRB1*14:51        |                              |
| DRB1*04:03:01+DRB1*14:03:01  | DRB1*04:07:01G+DRB1*14:12:01  |                              |                              |
| DRB1*04:03:01+DRB1*14:05:01  | DRB1*04:03:04+DRB1*14:05:02   |                              |                              |
| DRB1*04:03:01+DRB1*14:06:01  | DRB1*04:04:01+DRB1*14:106     |                              |                              |
| DRB1*04:03:01+DRB1*14:07:01  | DRB1*04:07:01G+DRB1*14:01:01G |                              |                              |
| DRB1*04:03:01+DRB1*14:07:02  | DRB1*04:07:03+DRB1*14:01:01G  |                              |                              |
| DRB1*04:03:01+DRB1*14:09     | DRB1*04:07:01G+DRB1*14:80     |                              |                              |
| DRB1*04:03:01+DRB1*14:12:01  | DRB1*04:58+DRB1*14:106        |                              |                              |
| DRB1*04:03:01+DRB1*14:13     | DRB1*04:05:01+DRB1*14:106     | DRB1*04:10:01+DRB1*14:51     | DRB1*04:11:01+DRB1*14:02     |
|                              | DRB1*04:17:02+DRB1*14:06:01   |                              |                              |
| DRB1*04:03:01+DRB1*14:14     | DRB1*04:07:01G+DRB1*14:23:01  |                              |                              |
| DRB1*04:03:01+DRB1*14:17     | DRB1*04:04:01+DRB1*14:33      | DRB1*04:59+DRB1*14:80        |                              |
| DRB1*04:03:01+DRB1*14:21     | DRB1*04:13+DRB1*14:33         |                              |                              |
| DRB1*04:03:01+DRB1*14:23:03  | DRB1*04:03:04+DRB1*14:23:01   |                              |                              |
| DRB1*04:03:01+DRB1*14:24     | DRB1*04:105:02+DRB1*14:106    |                              |                              |
| DRB1*04:03:01+DRB1*14:27     | DRB1*04:25+DRB1*14:51         |                              |                              |
| DRB1*04:03:01+DRB1*14:28     | DRB1*04:27+DRB1*14:04         |                              |                              |
| DRB1*04:03:01+DRB1*14:29     | DRB1*04:27+DRB1*14:06:01      |                              |                              |
| DRB1*04:03:01+DRB1*14:30     | DRB1*04:07:01G+DRB1*14:17     | DRB1*04:08:01+DRB1*14:33     | DRB1*04:59+DRB1*14:09        |
| DRB1*04:03:01+DRB1*14:31     | DRB1*04:04:01+DRB1*14:04      |                              |                              |
| DRB1*04:03:01+DRB1*14:32:01  | DRB1*04:04:01+DRB1*14:01:02   |                              |                              |
| DRB1*04:03:01+DRB1*14:32:02  | DRB1*04:04:01+DRB1*14:01:01G  |                              |                              |
| DRB1*04:03:01+DRB1*14:34     | DRB1*04:04:01+DRB1*14:08      |                              |                              |
| DRB1*04:03:01+DRB1*14:35     | DRB1*04:59+DRB1*14:01:01G     |                              |                              |
| DRB1*04:03:01+DRB1*14:38     | DRB1*04:95+DRB1*14:01:02      |                              |                              |
| DRB1*04:03:01+DRB1*14:44:01  | DRB1*04:07:01G+DRB1*14:05:01  |                              |                              |
| DRB1*04:03:01+DRB1*14:44:02  | DRB1*04:07:01G+DRB1*14:05:03  |                              |                              |
| DRB1*04:03:01+DRB1*14:44:03  | DRB1*04:07:03+DRB1*14:05:01   |                              |                              |
| DRB1*04:03:01+DRB1*14:45     | DRB1*04:88+DRB1*14:05:01      |                              |                              |
| DRB1*04:03:01+DRB1*14:47     | DRB1*04:44+DRB1*14:51         | DRB1*04:74+DRB1*14:06:01     | DRB1*04:95+DRB1*14:02        |
| DRB1*04:03:01+DRB1*14:51     | DRB1*04:07:01G+DRB1*14:106    |                              |                              |
| DRB1*04:03:01+DRB1*14:53     | DRB1*04:59+DRB1*14:25         |                              |                              |

|                              |                              |                               |                              |
|------------------------------|------------------------------|-------------------------------|------------------------------|
| DRB1*04:03:01+DRB1*14:55     | DRB1*04:55+DRB1*14:01:01G    |                               |                              |
| DRB1*04:03:01+DRB1*14:63     | DRB1*04:07:01G+DRB1*14:78    | DRB1*04:11:01+DRB1*14:67      | DRB1*04:12+DRB1*14:51        |
|                              | DRB1*04:86+DRB1*14:106       | DRB1*04:88+DRB1*14:85         |                              |
| DRB1*04:03:01+DRB1*14:67     | DRB1*04:18+DRB1*14:51        | DRB1*04:88+DRB1*14:03:01      |                              |
| DRB1*04:03:01+DRB1*14:68     | DRB1*04:07:01G+DRB1*14:04    |                               |                              |
| DRB1*04:03:01+DRB1*14:75     | DRB1*04:51+DRB1*14:01:02     |                               |                              |
| DRB1*04:03:01+DRB1*14:78     | DRB1*04:12+DRB1*14:106       |                               |                              |
| DRB1*04:03:01+DRB1*14:81     | DRB1*04:101+DRB1*14:06:01    |                               |                              |
| DRB1*04:03:01+DRB1*14:85     | DRB1*04:11:01+DRB1*14:03:01  | DRB1*04:17:02+DRB1*14:12:01   |                              |
| DRB1*04:03:01+DRB1*14:89     | DRB1*04:31+DRB1*14:106       | DRB1*04:55+DRB1*14:51         |                              |
| DRB1*04:03:01+DRB1*14:98     | DRB1*04:74+DRB1*14:12:01     | DRB1*04:95+DRB1*14:03:01      |                              |
| DRB1*04:03:01+DRB1*14:99     | DRB1*04:27+DRB1*14:01:01G    |                               |                              |
| DRB1*04:03:01+DRB1*14:100    | DRB1*04:04:01+DRB1*14:05:01  | DRB1*04:04:06+DRB1*14:05:02   |                              |
| DRB1*04:03:01+DRB1*14:103    | DRB1*04:51+DRB1*14:05:03     |                               |                              |
| DRB1*04:03:01+DRB1*14:120    | DRB1*04:88+DRB1*14:04        |                               |                              |
| DRB1*04:03:01+DRB1*14:122    | DRB1*04:88+DRB1*14:01:01G    |                               |                              |
| DRB1*04:03:01+DRB1*14:123    | DRB1*04:04:01+DRB1*14:23:01  |                               |                              |
| DRB1*04:03:01+DRB1*14:127    | DRB1*04:95+DRB1*14:05:03     |                               |                              |
| DRB1*04:03:01+DRB1*15:01:01G | DRB1*04:03:02+DRB1*15:01:04  | DRB1*04:03:07+DRB1*15:01:19   | DRB1*04:59+DRB1*15:07:01     |
|                              | DRB1*04:88+DRB1*15:05        |                               |                              |
| DRB1*04:03:01+DRB1*15:01:04  | DRB1*04:59+DRB1*15:07:02     |                               |                              |
| DRB1*04:03:01+DRB1*15:01:09  | DRB1*04:03:08+DRB1*15:01:01G | DRB1*04:07:01G+DRB1*15:01:01G | DRB1*04:59+DRB1*15:11        |
| DRB1*04:03:01+DRB1*15:02:01  | DRB1*04:03:02+DRB1*15:02:02  |                               |                              |
|                              | DRB1*04:88+DRB1*15:31        |                               |                              |
| DRB1*04:03:01+DRB1*15:02:02  | DRB1*04:07:01G+DRB1*15:01:04 |                               |                              |
| DRB1*04:03:01+DRB1*15:02:04  | DRB1*04:03:08+DRB1*15:02:01  | DRB1*04:07:01G+DRB1*15:01:09  | DRB1*04:07:04+DRB1*15:01:01G |
| DRB1*04:03:01+DRB1*15:02:05  | DRB1*04:07:03+DRB1*15:01:04  |                               |                              |
| DRB1*04:03:01+DRB1*15:02:06  | DRB1*04:07:01G+DRB1*15:01:03 |                               |                              |
| DRB1*04:03:01+DRB1*15:02:08  | DRB1*04:07:01G+DRB1*15:01:10 |                               |                              |
| DRB1*04:03:01+DRB1*15:02:09  | DRB1*04:03:02+DRB1*15:02:05  | DRB1*04:07:03+DRB1*15:01:01G  |                              |
| DRB1*04:03:01+DRB1*15:03:01G | DRB1*04:88+DRB1*15:23        |                               |                              |
| DRB1*04:03:01+DRB1*15:06:01  | DRB1*04:88+DRB1*15:73        |                               |                              |
| DRB1*04:03:01+DRB1*15:07:01  | DRB1*04:03:02+DRB1*15:07:02  |                               |                              |
| DRB1*04:03:01+DRB1*15:09     | DRB1*04:59+DRB1*15:48        |                               |                              |
| DRB1*04:03:01+DRB1*15:11     | DRB1*04:07:01G+DRB1*15:07:01 |                               |                              |
| DRB1*04:03:01+DRB1*15:12     | DRB1*04:11:01+DRB1*15:01:04  |                               |                              |
| DRB1*04:03:01+DRB1*15:15     | DRB1*04:07:01G+DRB1*15:04    |                               |                              |
| DRB1*04:03:01+DRB1*15:27     | DRB1*04:07:01G+DRB1*15:66    | DRB1*04:59+DRB1*15:34         |                              |
| DRB1*04:03:01+DRB1*15:31     | DRB1*04:07:01G+DRB1*15:05    |                               |                              |
| DRB1*04:03:01+DRB1*15:32     | DRB1*04:41+DRB1*15:01:01G    |                               |                              |
| DRB1*04:03:01+DRB1*15:35     | DRB1*04:27+DRB1*15:01:01G    |                               |                              |
| DRB1*04:03:01+DRB1*15:38     | DRB1*04:88+DRB1*15:63        |                               |                              |
| DRB1*04:03:01+DRB1*15:42     | DRB1*04:109+DRB1*15:01:01G   |                               |                              |
| DRB1*04:03:01+DRB1*15:47     | DRB1*04:07:01G+DRB1*15:65    |                               |                              |
| DRB1*04:03:01+DRB1*15:57     | DRB1*04:95+DRB1*15:03:01G    |                               |                              |
| DRB1*04:03:01+DRB1*15:60     | DRB1*04:51+DRB1*15:02:01     |                               |                              |
| DRB1*04:03:01+DRB1*16:01:01  | DRB1*04:07:01G+DRB1*16:15    |                               |                              |
| DRB1*04:03:01+DRB1*16:05:01  | DRB1*04:88+DRB1*16:02:01     |                               |                              |
| DRB1*04:03:01+DRB1*16:09     | DRB1*04:59+DRB1*16:01:01     |                               |                              |
| DRB1*04:03:01+DRB1*16:10     | DRB1*04:59+DRB1*16:02:01     |                               |                              |
| DRB1*04:03:02+DRB1*04:04:04  | DRB1*04:03:08+DRB1*04:04:02  |                               |                              |
| DRB1*04:03:02+DRB1*04:04:06  | DRB1*04:03:04+DRB1*04:04:02  |                               |                              |
| DRB1*04:03:02+DRB1*04:05:01  | DRB1*04:04:02+DRB1*04:17:02  | DRB1*04:08:02+DRB1*04:11:01   |                              |
| DRB1*04:03:02+DRB1*04:05:04  | DRB1*04:04:02+DRB1*04:17:01  |                               |                              |
| DRB1*04:03:02+DRB1*04:06:03  | DRB1*04:03:04+DRB1*04:06:04  |                               |                              |
| DRB1*04:03:02+DRB1*04:10:01  | DRB1*04:04:02+DRB1*04:11:01  |                               |                              |
| DRB1*04:03:02+DRB1*04:19     | DRB1*04:04:02+DRB1*04:20     | DRB1*04:06:01G+DRB1*04:08:02  | DRB1*04:06:04+DRB1*04:08:01  |
| DRB1*04:03:02+DRB1*04:20     | DRB1*04:06:04+DRB1*04:07:01G |                               |                              |
| DRB1*04:03:02+DRB1*04:23     | DRB1*04:04:02+DRB1*04:52     |                               |                              |
| DRB1*04:03:02+DRB1*04:38     | DRB1*04:08:02+DRB1*04:100    |                               |                              |
| DRB1*04:03:02+DRB1*04:42     | DRB1*04:04:02+DRB1*04:59     |                               |                              |
| DRB1*04:03:02+DRB1*04:43     | DRB1*04:08:02+DRB1*04:59     |                               |                              |
| DRB1*04:03:02+DRB1*04:44     | DRB1*04:04:02+DRB1*04:95     |                               |                              |
| DRB1*04:03:02+DRB1*04:56     | DRB1*04:04:02+DRB1*04:88     |                               |                              |
| DRB1*04:03:02+DRB1*04:68     | DRB1*04:04:01+DRB1*04:06:04  | DRB1*04:04:02+DRB1*04:06:01G  |                              |
| DRB1*04:03:02+DRB1*04:70     | DRB1*04:04:02+DRB1*04:51     |                               |                              |
| DRB1*04:03:02+DRB1*04:78     | DRB1*04:06:04+DRB1*04:101    |                               |                              |
| DRB1*04:03:02+DRB1*04:84     | DRB1*04:05:01+DRB1*04:06:04  | DRB1*04:08:02+DRB1*04:91      |                              |
| DRB1*04:03:02+DRB1*04:91     | DRB1*04:06:04+DRB1*04:11:01  |                               |                              |
| DRB1*04:03:02+DRB1*08:01:01G | DRB1*04:17:01+DRB1*08:04:06  |                               |                              |
| DRB1*04:03:02+DRB1*08:01:05  | DRB1*04:17:02+DRB1*08:04:06  |                               |                              |
| DRB1*04:03:02+DRB1*08:02:01  | DRB1*04:07:03+DRB1*08:04:06  |                               |                              |
| DRB1*04:03:02+DRB1*08:02:02  | DRB1*04:07:01G+DRB1*08:04:06 |                               |                              |
| DRB1*04:03:02+DRB1*08:06     | DRB1*04:11:01+DRB1*08:04:06  |                               |                              |
| DRB1*04:03:02+DRB1*08:18     | DRB1*04:04:02+DRB1*08:29     |                               |                              |
| DRB1*04:03:02+DRB1*08:28     | DRB1*04:59+DRB1*08:04:06     |                               |                              |
| DRB1*04:03:02+DRB1*08:42     | DRB1*04:06:04+DRB1*08:02:01  |                               |                              |
| DRB1*04:03:02+DRB1*11:01:01G | DRB1*04:08:02+DRB1*11:54:02  |                               |                              |
| DRB1*04:03:02+DRB1*11:01:05  | DRB1*04:08:02+DRB1*11:54:01  |                               |                              |
| DRB1*04:03:02+DRB1*11:04:01  | DRB1*04:04:02+DRB1*11:54:02  |                               |                              |
| DRB1*04:03:02+DRB1*11:04:03  | DRB1*04:04:02+DRB1*11:54:01  |                               |                              |
| DRB1*04:03:02+DRB1*11:29     | DRB1*04:06:04+DRB1*11:01:01G |                               |                              |
| DRB1*04:03:02+DRB1*11:47     | DRB1*04:06:04+DRB1*11:06:01G |                               |                              |
| DRB1*04:03:02+DRB1*11:63     | DRB1*04:06:04+DRB1*11:03     |                               |                              |
| DRB1*04:03:02+DRB1*13:01:06  | DRB1*04:03:04+DRB1*13:01:05  |                               |                              |
| DRB1*04:03:02+DRB1*13:02:06  | DRB1*04:03:08+DRB1*13:02:03  | DRB1*04:07:04+DRB1*13:01:05   |                              |
| DRB1*04:03:02+DRB1*13:09     | DRB1*04:73+DRB1*14:33        |                               |                              |
| DRB1*04:03:02+DRB1*13:14:03  | DRB1*04:07:03+DRB1*13:11:02  |                               |                              |
| DRB1*04:03:02+DRB1*13:21:01  | DRB1*04:11:01+DRB1*13:14:02  | DRB1*04:17:02+DRB1*13:11:02   |                              |
| DRB1*04:03:02+DRB1*13:21:02  | DRB1*04:17:01+DRB1*13:11:02  |                               |                              |
| DRB1*04:03:02+DRB1*13:49     | DRB1*04:11:01+DRB1*13:07:02  |                               |                              |
| DRB1*04:03:02+DRB1*13:50:01  | DRB1*04:41+DRB1*13:14:02     | DRB1*04:102+DRB1*13:11:02     |                              |
| DRB1*04:03:02+DRB1*13:61:01  | DRB1*04:95+DRB1*13:01:05     |                               |                              |
| DRB1*04:03:02+DRB1*13:93     | DRB1*04:11:01+DRB1*13:01:05  |                               |                              |
| DRB1*04:03:02+DRB1*13:96:02  | DRB1*04:74+DRB1*13:01:05     | DRB1*04:95+DRB1*13:02:03      |                              |
| DRB1*04:03:02+DRB1*13:110    | DRB1*04:97+DRB1*13:01:05     |                               |                              |
| DRB1*04:03:02+DRB1*13:139    | DRB1*04:11:01+DRB1*13:02:03  | DRB1*04:17:02+DRB1*13:01:05   |                              |
| DRB1*04:03:02+DRB1*14:01:01G | DRB1*04:03:04+DRB1*14:54:02  |                               |                              |
| DRB1*04:03:02+DRB1*14:02     | DRB1*04:04:02+DRB1*14:51     | DRB1*04:08:02+DRB1*14:106     |                              |
| DRB1*04:03:02+DRB1*14:06:01  | DRB1*04:04:02+DRB1*14:106    |                               |                              |
| DRB1*04:03:02+DRB1*14:17     | DRB1*04:04:02+DRB1*14:33     |                               |                              |
| DRB1*04:03:02+DRB1*14:24     | DRB1*04:73+DRB1*14:51        | DRB1*04:105:01+DRB1*14:106    |                              |
| DRB1*04:03:02+DRB1*14:30     | DRB1*04:08:02+DRB1*14:33     |                               |                              |
| DRB1*04:03:02+DRB1*14:31     | DRB1*04:04:02+DRB1*14:04     |                               |                              |
| DRB1*04:03:02+DRB1*14:32:01  | DRB1*04:04:02+DRB1*14:01:02  |                               |                              |

|                              |                              |                                |                             |
|------------------------------|------------------------------|--------------------------------|-----------------------------|
| DRB1*04:03:02+DRB1*14:32:02  | DRB1*04:04:02+DRB1*14:01:01G | DRB1*04:04:06+DRB1*14:54:02    |                             |
| DRB1*04:03:02+DRB1*14:34     | DRB1*04:04:02+DRB1*14:08     |                                |                             |
| DRB1*04:03:02+DRB1*14:100    | DRB1*04:04:02+DRB1*14:05:01  |                                |                             |
| DRB1*04:03:02+DRB1*14:123    | DRB1*04:04:02+DRB1*14:23:01  |                                |                             |
| DRB1*04:03:02+DRB1*15:12     | DRB1*04:11:01+DRB1*15:01:01G |                                |                             |
| DRB1*04:03:02+DRB1*15:38     | DRB1*04:07:01G+DRB1*15:71    |                                |                             |
| DRB1*04:03:04+DRB1*04:04:04  | DRB1*04:03:08+DRB1*04:04:06  |                                |                             |
| DRB1*04:03:04+DRB1*04:05:01  | DRB1*04:04:06+DRB1*04:17:02  |                                |                             |
| DRB1*04:03:04+DRB1*04:05:04  | DRB1*04:04:06+DRB1*04:17:01  |                                |                             |
| DRB1*04:03:04+DRB1*04:08:01  | DRB1*04:04:06+DRB1*04:07:01G |                                |                             |
| DRB1*04:03:04+DRB1*04:10:01  | DRB1*04:04:06+DRB1*04:11:01  |                                |                             |
| DRB1*04:03:04+DRB1*04:19     | DRB1*04:04:06+DRB1*04:20     | DRB1*04:06:03+DRB1*04:08:01    |                             |
| DRB1*04:03:04+DRB1*04:20     | DRB1*04:06:03+DRB1*04:07:01G |                                |                             |
| DRB1*04:03:04+DRB1*04:23     | DRB1*04:04:06+DRB1*04:52     |                                |                             |
| DRB1*04:03:04+DRB1*04:42     | DRB1*04:04:06+DRB1*04:59     |                                |                             |
| DRB1*04:03:04+DRB1*04:44     | DRB1*04:04:06+DRB1*04:95     |                                |                             |
| DRB1*04:03:04+DRB1*04:56     | DRB1*04:04:06+DRB1*04:88     |                                |                             |
| DRB1*04:03:04+DRB1*04:68     | DRB1*04:04:01+DRB1*04:06:03  | DRB1*04:04:06+DRB1*04:06:01G   |                             |
| DRB1*04:03:04+DRB1*04:70     | DRB1*04:04:06+DRB1*04:51     |                                |                             |
| DRB1*04:03:04+DRB1*04:78     | DRB1*04:06:03+DRB1*04:101    |                                |                             |
| DRB1*04:03:04+DRB1*04:84     | DRB1*04:05:01+DRB1*04:06:03  |                                |                             |
| DRB1*04:03:04+DRB1*04:91     | DRB1*04:06:03+DRB1*04:11:01  |                                |                             |
| DRB1*04:03:04+DRB1*08:03:02  | DRB1*04:11:01+DRB1*08:30:02  |                                |                             |
| DRB1*04:03:04+DRB1*08:18     | DRB1*04:04:06+DRB1*08:29     |                                |                             |
| DRB1*04:03:04+DRB1*08:42     | DRB1*04:06:03+DRB1*08:02:01  |                                |                             |
| DRB1*04:03:04+DRB1*11:04:01  | DRB1*04:04:06+DRB1*11:54:02  |                                |                             |
| DRB1*04:03:04+DRB1*11:04:03  | DRB1*04:04:06+DRB1*11:54:01  |                                |                             |
| DRB1*04:03:04+DRB1*11:29     | DRB1*04:06:03+DRB1*11:01:01G |                                |                             |
| DRB1*04:03:04+DRB1*11:47     | DRB1*04:06:03+DRB1*11:06:01G |                                |                             |
| DRB1*04:03:04+DRB1*11:63     | DRB1*04:06:03+DRB1*11:03     |                                |                             |
| DRB1*04:03:04+DRB1*13:02:01  | DRB1*04:07:01G+DRB1*13:01:06 |                                |                             |
| DRB1*04:03:04+DRB1*13:02:06  | DRB1*04:07:04+DRB1*13:01:06  |                                |                             |
| DRB1*04:03:04+DRB1*13:61:01  | DRB1*04:95+DRB1*13:01:06     |                                |                             |
| DRB1*04:03:04+DRB1*13:93     | DRB1*04:11:01+DRB1*13:01:06  |                                |                             |
| DRB1*04:03:04+DRB1*13:96:02  | DRB1*04:74+DRB1*13:01:06     |                                |                             |
| DRB1*04:03:04+DRB1*13:110    | DRB1*04:97+DRB1*13:01:06     |                                |                             |
| DRB1*04:03:04+DRB1*13:139    | DRB1*04:17:02+DRB1*13:01:06  |                                |                             |
| DRB1*04:03:04+DRB1*14:02     | DRB1*04:04:06+DRB1*14:51     |                                |                             |
| DRB1*04:03:04+DRB1*14:06:01  | DRB1*04:04:06+DRB1*14:106    |                                |                             |
| DRB1*04:03:04+DRB1*14:14     | DRB1*04:07:01G+DRB1*14:23:03 |                                |                             |
| DRB1*04:03:04+DRB1*14:17     | DRB1*04:04:06+DRB1*14:33     |                                |                             |
| DRB1*04:03:04+DRB1*14:31     | DRB1*04:04:06+DRB1*14:04     |                                |                             |
| DRB1*04:03:04+DRB1*14:32:01  | DRB1*04:04:06+DRB1*14:01:02  |                                |                             |
| DRB1*04:03:04+DRB1*14:32:02  | DRB1*04:04:06+DRB1*14:01:01G |                                |                             |
| DRB1*04:03:04+DRB1*14:34     | DRB1*04:04:06+DRB1*14:08     |                                |                             |
| DRB1*04:03:04+DRB1*14:100    | DRB1*04:04:06+DRB1*14:05:01  |                                |                             |
| DRB1*04:03:04+DRB1*14:123    | DRB1*04:04:01+DRB1*14:23:03  | DRB1*04:04:06+DRB1*14:23:01    |                             |
| DRB1*04:03:08+DRB1*04:05:01  | DRB1*04:04:04+DRB1*04:17:02  | DRB1*04:07:01G+DRB1*04:10:02   | DRB1*04:07:04+DRB1*04:10:01 |
| DRB1*04:03:08+DRB1*04:05:04  | DRB1*04:04:04+DRB1*04:17:01  | DRB1*04:04:07:03+DRB1*04:10:02 |                             |
| DRB1*04:03:08+DRB1*04:08:01  | DRB1*04:04:01+DRB1*04:07:04  | DRB1*04:04:04+DRB1*04:07:01G   |                             |
| DRB1*04:03:08+DRB1*04:08:02  | DRB1*04:04:02+DRB1*04:07:04  |                                |                             |
| DRB1*04:03:08+DRB1*04:09     | DRB1*04:07:04+DRB1*04:67     |                                |                             |
| DRB1*04:03:08+DRB1*04:17:02  | DRB1*04:07:04+DRB1*04:11:01  |                                |                             |
| DRB1*04:03:08+DRB1*04:19     | DRB1*04:04:04+DRB1*04:20     | DRB1*04:07:04+DRB1*04:68       |                             |
| DRB1*04:03:08+DRB1*04:20     | DRB1*04:06:01G+DRB1*04:07:04 |                                |                             |
| DRB1*04:03:08+DRB1*04:23     | DRB1*04:04:04+DRB1*04:52     |                                |                             |
| DRB1*04:03:08+DRB1*04:31     | DRB1*04:07:04+DRB1*04:55     |                                |                             |
| DRB1*04:03:08+DRB1*04:42     | DRB1*04:04:04+DRB1*04:59     |                                |                             |
| DRB1*04:03:08+DRB1*04:43     | DRB1*04:07:04+DRB1*04:42     |                                |                             |
| DRB1*04:03:08+DRB1*04:44     | DRB1*04:04:04+DRB1*04:95     |                                |                             |
| DRB1*04:03:08+DRB1*04:56     | DRB1*04:04:04+DRB1*04:88     |                                |                             |
| DRB1*04:03:08+DRB1*04:68     | DRB1*04:04:04+DRB1*04:06:01G |                                |                             |
| DRB1*04:03:08+DRB1*04:70     | DRB1*04:04:04+DRB1*04:51     |                                |                             |
| DRB1*04:03:08+DRB1*04:74     | DRB1*04:07:04+DRB1*04:95     |                                |                             |
| DRB1*04:03:08+DRB1*04:77     | DRB1*04:10:02+DRB1*04:102    |                                |                             |
| DRB1*04:03:08+DRB1*04:84     | DRB1*04:10:02+DRB1*04:20     |                                |                             |
| DRB1*04:03:08+DRB1*04:86     | DRB1*04:07:04+DRB1*04:12     |                                |                             |
| DRB1*04:03:08+DRB1*04:102    | DRB1*04:07:04+DRB1*04:41     |                                |                             |
| DRB1*04:03:08+DRB1*04:105:01 | DRB1*04:07:04+DRB1*04:73     |                                |                             |
| DRB1*04:03:08+DRB1*07:17     | DRB1*04:97+DRB1*07:01:04     |                                |                             |
| DRB1*04:03:08+DRB1*07:21     | DRB1*04:71+DRB1*07:01:04     |                                |                             |
| DRB1*04:03:08+DRB1*08:01:05  | DRB1*04:07:04+DRB1*08:06     |                                |                             |
| DRB1*04:03:08+DRB1*08:02:01  | DRB1*04:07:04+DRB1*08:04:04  |                                |                             |
| DRB1*04:03:08+DRB1*08:02:02  | DRB1*04:07:04+DRB1*08:04:01  |                                |                             |
| DRB1*04:03:08+DRB1*08:03:02  | DRB1*04:07:04+DRB1*08:10     |                                |                             |
| DRB1*04:03:08+DRB1*08:18     | DRB1*04:04:04+DRB1*08:29     |                                |                             |
| DRB1*04:03:08+DRB1*08:41     | DRB1*04:07:04+DRB1*08:31     |                                |                             |
| DRB1*04:03:08+DRB1*09:01:02  | DRB1*04:07:04+DRB1*09:06     |                                |                             |
| DRB1*04:03:08+DRB1*10:01:01  | DRB1*04:07:04+DRB1*10:02     |                                |                             |
| DRB1*04:03:08+DRB1*11:01:01G | DRB1*04:07:04+DRB1*11:04:01  |                                |                             |
| DRB1*04:03:08+DRB1*11:01:02  | DRB1*04:07:04+DRB1*11:04:02  |                                |                             |
| DRB1*04:03:08+DRB1*11:01:03  | DRB1*04:07:04+DRB1*11:04:07  |                                |                             |
| DRB1*04:03:08+DRB1*11:01:04  | DRB1*04:07:04+DRB1*11:04:05  |                                |                             |
| DRB1*04:03:08+DRB1*11:01:05  | DRB1*04:07:04+DRB1*11:04:03  |                                |                             |
| DRB1*04:03:08+DRB1*11:01:12  | DRB1*04:07:04+DRB1*11:04:04  |                                |                             |
| DRB1*04:03:08+DRB1*11:04:01  | DRB1*04:04:04+DRB1*11:54:02  |                                |                             |
| DRB1*04:03:08+DRB1*11:04:03  | DRB1*04:04:04+DRB1*11:54:01  |                                |                             |
| DRB1*04:03:08+DRB1*11:08:01  | DRB1*04:07:04+DRB1*11:42     |                                |                             |
| DRB1*04:03:08+DRB1*11:09     | DRB1*04:07:04+DRB1*11:113    |                                |                             |
| DRB1*04:03:08+DRB1*11:11:01G | DRB1*04:07:04+DRB1*11:03     |                                |                             |
| DRB1*04:03:08+DRB1*11:14:01  | DRB1*04:07:04+DRB1*11:02:01  |                                |                             |
| DRB1*04:03:08+DRB1*11:19:01  | DRB1*04:07:04+DRB1*11:18     |                                |                             |
| DRB1*04:03:08+DRB1*11:20     | DRB1*04:07:04+DRB1*11:16     |                                |                             |
| DRB1*04:03:08+DRB1*11:26     | DRB1*04:07:04+DRB1*11:34     |                                |                             |
| DRB1*04:03:08+DRB1*11:27:01  | DRB1*04:07:04+DRB1*11:84:01  |                                |                             |
| DRB1*04:03:08+DRB1*11:27:02  | DRB1*04:07:04+DRB1*11:84:02  |                                |                             |
| DRB1*04:03:08+DRB1*11:28:01  | DRB1*04:07:04+DRB1*11:58:02  |                                |                             |
| DRB1*04:03:08+DRB1*11:28:02  | DRB1*04:07:04+DRB1*11:58:01  |                                |                             |
| DRB1*04:03:08+DRB1*11:33     | DRB1*04:07:04+DRB1*11:35     |                                |                             |
| DRB1*04:03:08+DRB1*11:37:01  | DRB1*04:07:04+DRB1*11:56     |                                |                             |
| DRB1*04:03:08+DRB1*11:39     | DRB1*04:07:04+DRB1*11:43     |                                |                             |
| DRB1*04:03:08+DRB1*11:45     | DRB1*04:07:04+DRB1*11:119    |                                |                             |
| DRB1*04:03:08+DRB1*11:49:01  | DRB1*04:07:04+DRB1*11:44     |                                |                             |
| DRB1*04:03:08+DRB1*11:62     | DRB1*04:07:04+DRB1*11:46:02  |                                |                             |
| DRB1*04:03:08+DRB1*11:68     | DRB1*04:07:04+DRB1*11:36     |                                |                             |

|                              |                              |                             |                             |
|------------------------------|------------------------------|-----------------------------|-----------------------------|
| DRB1*04:03:08+DRB1*11:103    | DRB1*04:07:04+DRB1*11:07     |                             |                             |
| DRB1*04:03:08+DRB1*11:109    | DRB1*04:07:04+DRB1*11:60     |                             |                             |
| DRB1*04:03:08+DRB1*11:120    | DRB1*04:07:04+DRB1*11:116    |                             |                             |
| DRB1*04:03:08+DRB1*11:122    | DRB1*04:07:04+DRB1*11:40     |                             |                             |
| DRB1*04:03:08+DRB1*13:03:01  | DRB1*04:07:04+DRB1*13:89     |                             |                             |
| DRB1*04:03:08+DRB1*13:05:01  | DRB1*04:07:04+DRB1*13:42     |                             |                             |
| DRB1*04:03:08+DRB1*13:14:01  | DRB1*04:07:04+DRB1*13:11:01  |                             |                             |
| DRB1*04:03:08+DRB1*13:14:02  | DRB1*04:07:04+DRB1*13:11:02  |                             |                             |
| DRB1*04:03:08+DRB1*13:23:02  | DRB1*04:07:04+DRB1*13:22     |                             |                             |
| DRB1*04:03:08+DRB1*13:29     | DRB1*04:07:04+DRB1*13:20     |                             |                             |
| DRB1*04:03:08+DRB1*13:36     | DRB1*04:07:04+DRB1*13:40     |                             |                             |
| DRB1*04:03:08+DRB1*13:39     | DRB1*04:07:04+DRB1*13:79     |                             |                             |
| DRB1*04:03:08+DRB1*13:41     | DRB1*04:07:04+DRB1*13:27     |                             |                             |
| DRB1*04:03:08+DRB1*13:49     | DRB1*04:07:04+DRB1*13:108    |                             |                             |
| DRB1*04:03:08+DRB1*13:63     | DRB1*04:07:04+DRB1*13:111    |                             |                             |
| DRB1*04:03:08+DRB1*13:65     | DRB1*04:07:04+DRB1*13:32     |                             |                             |
| DRB1*04:03:08+DRB1*13:96:01  | DRB1*04:07:04+DRB1*13:61:02  |                             |                             |
| DRB1*04:03:08+DRB1*13:96:02  | DRB1*04:07:04+DRB1*13:61:01  | DRB1*04:95+DRB1*13:02:06    |                             |
| DRB1*04:03:08+DRB1*13:97:01  | DRB1*04:07:04+DRB1*13:52     |                             |                             |
| DRB1*04:03:08+DRB1*13:104    | DRB1*04:07:04+DRB1*13:15     |                             |                             |
| DRB1*04:03:08+DRB1*13:107    | DRB1*04:07:04+DRB1*13:83     |                             |                             |
| DRB1*04:03:08+DRB1*13:128    | DRB1*04:07:04+DRB1*13:112    |                             |                             |
| DRB1*04:03:08+DRB1*13:139    | DRB1*04:07:04+DRB1*13:93     | DRB1*04:11:01+DRB1*13:02:06 |                             |
| DRB1*04:03:08+DRB1*14:02     | DRB1*04:04:04+DRB1*14:51     | DRB1*04:07:04+DRB1*14:06:01 |                             |
| DRB1*04:03:08+DRB1*14:03:01  | DRB1*04:07:04+DRB1*14:12:01  |                             |                             |
| DRB1*04:03:08+DRB1*14:06:01  | DRB1*04:04:04+DRB1*14:106    |                             |                             |
| DRB1*04:03:08+DRB1*14:07:01  | DRB1*04:07:04+DRB1*14:01:01G |                             |                             |
| DRB1*04:03:08+DRB1*14:09     | DRB1*04:07:04+DRB1*14:80     |                             |                             |
| DRB1*04:03:08+DRB1*14:13     | DRB1*04:10:02+DRB1*14:51     |                             |                             |
| DRB1*04:03:08+DRB1*14:14     | DRB1*04:07:04+DRB1*14:23:01  |                             |                             |
| DRB1*04:03:08+DRB1*14:17     | DRB1*04:04:04+DRB1*14:33     |                             |                             |
| DRB1*04:03:08+DRB1*14:30     | DRB1*04:07:04+DRB1*14:17     |                             |                             |
| DRB1*04:03:08+DRB1*14:31     | DRB1*04:04:04+DRB1*14:04     |                             |                             |
| DRB1*04:03:08+DRB1*14:32:01  | DRB1*04:04:04+DRB1*14:01:02  |                             |                             |
| DRB1*04:03:08+DRB1*14:32:02  | DRB1*04:04:04+DRB1*14:01:01G |                             |                             |
| DRB1*04:03:08+DRB1*14:34     | DRB1*04:04:04+DRB1*14:08     |                             |                             |
| DRB1*04:03:08+DRB1*14:44:01  | DRB1*04:07:04+DRB1*14:05:01  |                             |                             |
| DRB1*04:03:08+DRB1*14:44:02  | DRB1*04:07:04+DRB1*14:05:03  |                             |                             |
| DRB1*04:03:08+DRB1*14:51     | DRB1*04:07:04+DRB1*14:106    |                             |                             |
| DRB1*04:03:08+DRB1*14:63     | DRB1*04:07:04+DRB1*14:78     |                             |                             |
| DRB1*04:03:08+DRB1*14:68     | DRB1*04:07:04+DRB1*14:04     |                             |                             |
| DRB1*04:03:08+DRB1*14:100    | DRB1*04:04:04+DRB1*14:05:01  |                             |                             |
| DRB1*04:03:08+DRB1*14:123    | DRB1*04:04:04+DRB1*14:23:01  |                             |                             |
| DRB1*04:03:08+DRB1*15:02:02  | DRB1*04:07:04+DRB1*15:01:04  |                             |                             |
| DRB1*04:03:08+DRB1*15:02:04  | DRB1*04:07:04+DRB1*15:01:09  |                             |                             |
| DRB1*04:03:08+DRB1*15:02:06  | DRB1*04:07:04+DRB1*15:01:03  |                             |                             |
| DRB1*04:03:08+DRB1*15:02:08  | DRB1*04:07:04+DRB1*15:01:10  |                             |                             |
| DRB1*04:03:08+DRB1*15:02:09  | DRB1*04:07:03+DRB1*15:01:09  |                             |                             |
| DRB1*04:03:08+DRB1*15:11     | DRB1*04:07:04+DRB1*15:07:01  |                             |                             |
| DRB1*04:03:08+DRB1*15:15     | DRB1*04:07:04+DRB1*15:04     |                             |                             |
| DRB1*04:03:08+DRB1*15:27     | DRB1*04:07:04+DRB1*15:66     |                             |                             |
| DRB1*04:03:08+DRB1*15:31     | DRB1*04:07:04+DRB1*15:05     |                             |                             |
| DRB1*04:03:08+DRB1*15:32     | DRB1*04:41+DRB1*15:01:09     |                             |                             |
| DRB1*04:03:08+DRB1*15:35     | DRB1*04:27+DRB1*15:01:09     |                             |                             |
| DRB1*04:03:08+DRB1*15:42     | DRB1*04:109+DRB1*15:01:09    |                             |                             |
| DRB1*04:03:08+DRB1*15:47     | DRB1*04:07:04+DRB1*15:65     |                             |                             |
| DRB1*04:03:08+DRB1*15:60     | DRB1*04:51+DRB1*15:02:04     |                             |                             |
| DRB1*04:03:08+DRB1*16:01:01  | DRB1*04:07:04+DRB1*16:15     |                             |                             |
| DRB1*04:04:01+DRB1*04:05:01  | DRB1*04:08:01+DRB1*04:10:01  |                             |                             |
| DRB1*04:04:01+DRB1*04:05:07  | DRB1*04:04:03+DRB1*04:05:01  |                             |                             |
| DRB1*04:04:01+DRB1*04:05:08  | DRB1*04:04:05+DRB1*04:05:01  |                             |                             |
| DRB1*04:04:01+DRB1*04:08:02  | DRB1*04:04:02+DRB1*04:08:01  |                             |                             |
| DRB1*04:04:01+DRB1*04:10:02  | DRB1*04:04:04+DRB1*04:10:01  |                             |                             |
| DRB1*04:04:01+DRB1*04:12     | DRB1*04:10:01+DRB1*04:18     |                             |                             |
| DRB1*04:04:01+DRB1*04:18     | DRB1*04:56+DRB1*04:58        |                             |                             |
| DRB1*04:04:01+DRB1*04:19     | DRB1*04:08:01+DRB1*04:68     |                             |                             |
| DRB1*04:04:01+DRB1*04:25     | DRB1*04:36+DRB1*04:55        |                             |                             |
| DRB1*04:04:01+DRB1*04:28     | DRB1*04:05:01+DRB1*04:42     | DRB1*04:10:01+DRB1*04:43    |                             |
| DRB1*04:04:01+DRB1*04:31     | DRB1*04:08:01+DRB1*04:55     |                             |                             |
| DRB1*04:04:01+DRB1*04:43     | DRB1*04:08:01+DRB1*04:42     |                             |                             |
| DRB1*04:04:01+DRB1*04:67     | DRB1*04:10:01+DRB1*04:13     |                             |                             |
| DRB1*04:04:01+DRB1*04:74     | DRB1*04:07:01G+DRB1*04:44    | DRB1*04:08:01+DRB1*04:95    |                             |
| DRB1*04:04:01+DRB1*04:78     | DRB1*04:68+DRB1*04:101       |                             |                             |
| DRB1*04:04:01+DRB1*04:84     | DRB1*04:05:01+DRB1*04:68     | DRB1*04:10:01+DRB1*04:19    |                             |
| DRB1*04:04:01+DRB1*04:86     | DRB1*04:05:01+DRB1*04:18     | DRB1*04:08:01+DRB1*04:12    | DRB1*04:58+DRB1*04:107      |
| DRB1*04:04:01+DRB1*04:87     | DRB1*04:05:01+DRB1*04:70     |                             |                             |
| DRB1*04:04:01+DRB1*04:91     | DRB1*04:06:01G+DRB1*04:10:01 | DRB1*04:11:01+DRB1*04:68    |                             |
| DRB1*04:04:01+DRB1*04:100    | DRB1*04:13+DRB1*04:88        |                             |                             |
| DRB1*04:04:01+DRB1*04:102    | DRB1*04:08:01+DRB1*04:41     |                             |                             |
| DRB1*04:04:01+DRB1*04:103    | DRB1*04:05:01+DRB1*04:55     | DRB1*04:10:01+DRB1*04:31    |                             |
| DRB1*04:04:01+DRB1*04:105:01 | DRB1*04:04:02+DRB1*04:105:02 | DRB1*04:08:01+DRB1*04:73    |                             |
| DRB1*04:04:01+DRB1*04:107    | DRB1*04:05:01+DRB1*04:56     |                             |                             |
| DRB1*04:04:01+DRB1*04:114    | DRB1*04:06:01G+DRB1*04:13    |                             |                             |
| DRB1*04:04:01+DRB1*07:01:04  | DRB1*04:04:04+DRB1*07:01:01G |                             |                             |
| DRB1*04:04:01+DRB1*07:04     | DRB1*04:44+DRB1*07:11        |                             |                             |
| DRB1*04:04:01+DRB1*08:01:01G | DRB1*04:05:01+DRB1*08:04:04  | DRB1*04:05:04+DRB1*08:04:01 | DRB1*04:10:01+DRB1*08:02:01 |
|                              | DRB1*04:55+DRB1*08:05        |                             |                             |
| DRB1*04:04:01+DRB1*08:01:05  | DRB1*04:05:01+DRB1*08:04:01  | DRB1*04:08:01+DRB1*08:06    | DRB1*04:10:01+DRB1*08:02:02 |
| DRB1*04:04:01+DRB1*08:02:01  | DRB1*04:08:01+DRB1*08:04:04  |                             |                             |
| DRB1*04:04:01+DRB1*08:02:02  | DRB1*04:08:01+DRB1*08:04:01  | DRB1*04:55+DRB1*08:24       |                             |
| DRB1*04:04:01+DRB1*08:03:02  | DRB1*04:08:01+DRB1*08:10     | DRB1*04:10:01+DRB1*08:30:01 | DRB1*04:55+DRB1*08:18       |
| DRB1*04:04:01+DRB1*08:03:03  | DRB1*04:10:01+DRB1*08:30:03  | DRB1*04:56+DRB1*08:48       |                             |
| DRB1*04:04:01+DRB1*08:04:06  | DRB1*04:04:02+DRB1*08:04:01  |                             |                             |
| DRB1*04:04:01+DRB1*08:06     | DRB1*04:10:01+DRB1*08:04:01  |                             |                             |
| DRB1*04:04:01+DRB1*08:17     | DRB1*04:05:04+DRB1*08:28     | DRB1*04:28+DRB1*08:04:04    | DRB1*04:42+DRB1*08:01:01G   |
| DRB1*04:04:01+DRB1*08:28     | DRB1*04:42+DRB1*08:04:01     |                             |                             |
| DRB1*04:04:01+DRB1*08:30:02  | DRB1*04:04:06+DRB1*08:30:01  |                             |                             |
| DRB1*04:04:01+DRB1*08:30:03  | DRB1*04:56+DRB1*08:13        |                             |                             |
| DRB1*04:04:01+DRB1*08:37     | DRB1*04:42+DRB1*08:03:02     | DRB1*04:43+DRB1*08:10       |                             |
| DRB1*04:04:01+DRB1*08:41     | DRB1*04:08:01+DRB1*08:31     |                             |                             |
| DRB1*04:04:01+DRB1*08:42     | DRB1*04:19+DRB1*08:04:04     | DRB1*04:68+DRB1*08:02:01    |                             |
| DRB1*04:04:01+DRB1*08:45     | DRB1*04:42+DRB1*08:30:03     |                             |                             |
| DRB1*04:04:01+DRB1*08:48     | DRB1*04:10:01+DRB1*08:13     |                             |                             |
| DRB1*04:04:01+DRB1*09:01:02  | DRB1*04:08:01+DRB1*09:06     |                             |                             |
| DRB1*04:04:01+DRB1*09:01:08  | DRB1*04:04:06+DRB1*09:01:02  |                             |                             |

|                              |                              |                             |                              |
|------------------------------|------------------------------|-----------------------------|------------------------------|
| DRB1*04:04:01+DRB1*09:01:09  | DRB1*04:04:07+DRB1*09:01:02  |                             |                              |
| DRB1*04:04:01+DRB1*09:02:01  | DRB1*04:04:02+DRB1*09:02:02  |                             |                              |
| DRB1*04:04:01+DRB1*10:01:01  | DRB1*04:08:01+DRB1*10:02     |                             |                              |
| DRB1*04:04:01+DRB1*10:01:02  | DRB1*04:04:05+DRB1*10:01:03  |                             |                              |
| DRB1*04:04:01+DRB1*11:01:01G | DRB1*04:08:01+DRB1*11:04:01  | DRB1*04:36+DRB1*11:26       | DRB1*04:42+DRB1*11:37:01     |
|                              | DRB1*04:43+DRB1*11:56        | DRB1*04:61+DRB1*13:11:01    |                              |
| DRB1*04:04:01+DRB1*11:01:02  | DRB1*04:08:01+DRB1*11:04:02  | DRB1*04:42+DRB1*11:37:02    |                              |
| DRB1*04:04:01+DRB1*11:01:03  | DRB1*04:04:05+DRB1*11:01:01G | DRB1*04:08:01+DRB1*11:04:07 | DRB1*04:47+DRB1*11:34        |
| DRB1*04:04:01+DRB1*11:01:04  | DRB1*04:08:01+DRB1*11:04:05  |                             |                              |
| DRB1*04:04:01+DRB1*11:01:05  | DRB1*04:08:01+DRB1*11:04:03  |                             |                              |
| DRB1*04:04:01+DRB1*11:01:10  | DRB1*04:04:05+DRB1*11:01:05  |                             |                              |
| DRB1*04:04:01+DRB1*11:01:11  | DRB1*04:04:05+DRB1*11:01:02  |                             |                              |
| DRB1*04:04:01+DRB1*11:01:12  | DRB1*04:08:01+DRB1*11:04:04  |                             |                              |
| DRB1*04:04:01+DRB1*11:03     | DRB1*04:42+DRB1*11:41        |                             |                              |
| DRB1*04:04:01+DRB1*11:04:01  | DRB1*04:15+DRB1*13:44        | DRB1*04:36+DRB1*11:34       | DRB1*04:42+DRB1*11:56        |
| DRB1*04:04:01+DRB1*11:04:07  | DRB1*04:04:05+DRB1*11:04:01  |                             |                              |
| DRB1*04:04:01+DRB1*11:07     | DRB1*04:22+DRB1*11:34        |                             |                              |
| DRB1*04:04:01+DRB1*11:08:01  | DRB1*04:08:01+DRB1*11:42     |                             |                              |
| DRB1*04:04:01+DRB1*11:09     | DRB1*04:08:01+DRB1*11:113    | DRB1*04:15+DRB1*14:30       | DRB1*04:61+DRB1*13:42        |
| DRB1*04:04:01+DRB1*11:11:01G | DRB1*04:08:01+DRB1*11:03     | DRB1*04:43+DRB1*11:41       | DRB1*04:61+DRB1*13:24        |
| DRB1*04:04:01+DRB1*11:18     | DRB1*04:56+DRB1*11:42        |                             |                              |
| DRB1*04:04:01+DRB1*11:19:01  | DRB1*04:08:01+DRB1*11:18     | DRB1*04:56+DRB1*11:08:01    |                              |
| DRB1*04:04:01+DRB1*11:19:02  | DRB1*04:04:05+DRB1*11:19:01  | DRB1*04:53+DRB1*11:26       |                              |
| DRB1*04:04:01+DRB1*11:19:03  | DRB1*04:56+DRB1*11:08:02     |                             |                              |
| DRB1*04:04:01+DRB1*11:20     | DRB1*04:08:01+DRB1*11:16     | DRB1*04:61+DRB1*13:01:01G   |                              |
| DRB1*04:04:01+DRB1*11:23     | DRB1*04:31+DRB1*11:04:02     | DRB1*04:54+DRB1*11:34       | DRB1*04:55+DRB1*11:01:02     |
| DRB1*04:04:01+DRB1*11:25     | DRB1*04:25+DRB1*11:34        | DRB1*04:55+DRB1*11:04:01    |                              |
| DRB1*04:04:01+DRB1*11:26     | DRB1*04:08:01+DRB1*11:34     | DRB1*04:61+DRB1*13:44       |                              |
| DRB1*04:04:01+DRB1*11:27:01  | DRB1*04:08:01+DRB1*11:84:01  | DRB1*04:44+DRB1*11:01:01G   |                              |
| DRB1*04:04:01+DRB1*11:27:02  | DRB1*04:08:01+DRB1*11:84:02  |                             |                              |
| DRB1*04:04:01+DRB1*11:28:01  | DRB1*04:08:01+DRB1*11:58:02  |                             |                              |
| DRB1*04:04:01+DRB1*11:28:02  | DRB1*04:08:01+DRB1*11:58:01  |                             |                              |
| DRB1*04:04:01+DRB1*11:29     | DRB1*04:19+DRB1*11:04:01     | DRB1*04:68+DRB1*11:01:01G   |                              |
| DRB1*04:04:01+DRB1*11:33     | DRB1*04:08:01+DRB1*11:35     |                             |                              |
| DRB1*04:04:01+DRB1*11:36     | DRB1*04:37+DRB1*11:34        |                             |                              |
| DRB1*04:04:01+DRB1*11:37:01  | DRB1*04:08:01+DRB1*11:56     |                             |                              |
| DRB1*04:04:01+DRB1*11:39     | DRB1*04:08:01+DRB1*11:43     |                             |                              |
| DRB1*04:04:01+DRB1*11:45     | DRB1*04:08:01+DRB1*11:19     | DRB1*04:18+DRB1*11:26       | DRB1*04:31+DRB1*11:18        |
|                              | DRB1*04:55+DRB1*11:19:01     | DRB1*04:56+DRB1*11:64       |                              |
|                              | DRB1*04:68+DRB1*11:06:01G    |                             |                              |
| DRB1*04:04:01+DRB1*11:47     | DRB1*04:08:01+DRB1*11:44     |                             |                              |
| DRB1*04:04:01+DRB1*11:49:01  | DRB1*04:32+DRB1*11:01:01G    |                             |                              |
| DRB1*04:04:01+DRB1*11:51     | DRB1*04:55+DRB1*11:03        |                             |                              |
| DRB1*04:04:01+DRB1*11:55     | DRB1*04:08:01+DRB1*11:46:02  |                             |                              |
| DRB1*04:04:01+DRB1*11:62     | DRB1*04:68+DRB1*11:03        |                             |                              |
| DRB1*04:04:01+DRB1*11:63     | DRB1*04:31+DRB1*11:42        | DRB1*04:55+DRB1*11:08:01    | DRB1*04:58+DRB1*11:26        |
| DRB1*04:04:01+DRB1*11:64     | DRB1*04:08:01+DRB1*11:36     | DRB1*04:37+DRB1*11:26       |                              |
| DRB1*04:04:01+DRB1*11:68     | DRB1*04:105:02+DRB1*11:34    |                             |                              |
| DRB1*04:04:01+DRB1*11:82     | DRB1*04:44+DRB1*11:04:01     |                             |                              |
| DRB1*04:04:01+DRB1*11:84:01  | DRB1*04:43+DRB1*11:83        |                             |                              |
| DRB1*04:04:01+DRB1*11:87     | DRB1*04:08:01+DRB1*11:07     | DRB1*04:22+DRB1*11:26       | DRB1*04:42+DRB1*11:107       |
| DRB1*04:04:01+DRB1*11:103    | DRB1*04:98:02+DRB1*11:34     |                             |                              |
| DRB1*04:04:01+DRB1*11:105    | DRB1*04:70+DRB1*11:01:01G    |                             |                              |
| DRB1*04:04:01+DRB1*11:108    | DRB1*04:08:01+DRB1*11:60     |                             |                              |
| DRB1*04:04:01+DRB1*11:109    | DRB1*04:15+DRB1*14:17        |                             |                              |
| DRB1*04:04:01+DRB1*11:113    | DRB1*04:18+DRB1*11:34        | DRB1*04:55+DRB1*11:18       |                              |
| DRB1*04:04:01+DRB1*11:119    | DRB1*04:08:01+DRB1*11:116    |                             |                              |
| DRB1*04:04:01+DRB1*11:120    | DRB1*04:08:01+DRB1*11:40     | DRB1*04:61+DRB1*13:111      |                              |
| DRB1*04:04:01+DRB1*11:122    | DRB1*04:44+DRB1*11:02:01     |                             |                              |
| DRB1*04:04:01+DRB1*11:124    | DRB1*04:56+DRB1*12:12        |                             |                              |
| DRB1*04:04:01+DRB1*12:01:01G | DRB1*04:04:05+DRB1*12:01:02  |                             |                              |
| DRB1*04:04:01+DRB1*12:01:03  | DRB1*04:04:05+DRB1*12:02:04  | DRB1*04:42+DRB1*12:21       |                              |
| DRB1*04:04:01+DRB1*12:02:01  | DRB1*04:04:04+DRB1*12:02:01  |                             |                              |
| DRB1*04:04:01+DRB1*12:02:03  | DRB1*04:79+DRB1*12:01:01G    |                             |                              |
| DRB1*04:04:01+DRB1*12:11     | DRB1*04:04:02+DRB1*13:01:01G |                             |                              |
| DRB1*04:04:01+DRB1*13:01:05  | DRB1*04:04:06+DRB1*13:01:01G |                             |                              |
| DRB1*04:04:01+DRB1*13:01:06  | DRB1*04:04:05+DRB1*13:02:01  |                             |                              |
| DRB1*04:04:01+DRB1*13:02:02  | DRB1*04:04:02+DRB1*13:02:01  | DRB1*04:08:01+DRB1*13:01:05 | DRB1*04:08:02+DRB1*13:01:01G |
| DRB1*04:04:01+DRB1*13:02:03  | DRB1*04:04:04+DRB1*13:02:01  |                             |                              |
| DRB1*04:04:01+DRB1*13:02:06  | DRB1*04:08:01+DRB1*13:89     | DRB1*04:10:01+DRB1*13:37    | DRB1*04:13+DRB1*13:12:02     |
| DRB1*04:04:01+DRB1*13:03:01  | DRB1*04:56+DRB1*13:88        |                             |                              |
|                              | DRB1*04:13+DRB1*13:12:01     |                             |                              |
| DRB1*04:04:01+DRB1*13:03:02  | DRB1*04:10:01+DRB1*13:22     | DRB1*04:42+DRB1*13:48       |                              |
| DRB1*04:04:01+DRB1*13:04     | DRB1*04:08:01+DRB1*13:42     | DRB1*04:36+DRB1*14:30       |                              |
| DRB1*04:04:01+DRB1*13:05:01  | DRB1*04:04:02+DRB1*13:07:01  |                             |                              |
| DRB1*04:04:01+DRB1*13:07:02  | DRB1*04:13+DRB1*13:06        |                             |                              |
| DRB1*04:04:01+DRB1*13:10     | DRB1*04:36+DRB1*13:44        |                             |                              |
| DRB1*04:04:01+DRB1*13:11:01  | DRB1*04:04:02+DRB1*13:11:01  |                             |                              |
| DRB1*04:04:01+DRB1*13:11:02  | DRB1*04:56+DRB1*13:134       |                             |                              |
| DRB1*04:04:01+DRB1*13:12:01  | DRB1*04:55+DRB1*13:12:01     |                             |                              |
| DRB1*04:04:01+DRB1*13:13     | DRB1*04:08:01+DRB1*13:11:01  | DRB1*04:42+DRB1*13:07:01    |                              |
| DRB1*04:04:01+DRB1*13:14:01  | DRB1*04:04:02+DRB1*13:14:01  | DRB1*04:08:01+DRB1*13:11:02 | DRB1*04:08:02+DRB1*13:11:01  |
| DRB1*04:04:01+DRB1*13:14:02  | DRB1*04:42+DRB1*13:07:02     |                             |                              |
|                              | DRB1*04:42+DRB1*13:53        |                             |                              |
| DRB1*04:04:01+DRB1*13:15     | DRB1*04:42+DRB1*13:116       |                             |                              |
| DRB1*04:04:01+DRB1*13:17     | DRB1*04:25+DRB1*14:17        | DRB1*04:55+DRB1*13:42       |                              |
| DRB1*04:04:01+DRB1*13:18     | DRB1*04:37+DRB1*14:17        |                             |                              |
| DRB1*04:04:01+DRB1*13:20     | DRB1*04:05:01+DRB1*13:11:01  | DRB1*04:10:01+DRB1*13:14:01 | DRB1*04:42+DRB1*13:49        |
| DRB1*04:04:01+DRB1*13:21:01  | DRB1*04:43+DRB1*13:108       |                             |                              |
|                              | DRB1*04:05:04+DRB1*13:11:01  | DRB1*04:10:01+DRB1*13:14:03 |                              |
| DRB1*04:04:01+DRB1*13:21:02  | DRB1*04:08:01+DRB1*13:22     | DRB1*04:14+DRB1*13:44       | DRB1*04:43+DRB1*13:70        |
| DRB1*04:04:01+DRB1*13:23:02  | DRB1*04:36+DRB1*14:02        |                             |                              |
| DRB1*04:04:01+DRB1*13:26:02  | DRB1*04:56+DRB1*13:71        |                             |                              |
| DRB1*04:04:01+DRB1*13:27     | DRB1*04:08:01+DRB1*13:20     | DRB1*04:37+DRB1*14:30       |                              |
| DRB1*04:04:01+DRB1*13:29     | DRB1*04:10:01+DRB1*13:82     | DRB1*04:42+DRB1*13:12:01    |                              |
| DRB1*04:04:01+DRB1*13:30     | DRB1*04:10:01+DRB1*13:40     |                             |                              |
| DRB1*04:04:01+DRB1*13:32     | DRB1*04:44+DRB1*13:03:02     |                             |                              |
| DRB1*04:04:01+DRB1*13:33:02  | DRB1*04:44+DRB1*13:03:01     |                             |                              |
| DRB1*04:04:01+DRB1*13:33:03  | DRB1*04:05:04+DRB1*13:70     |                             |                              |
| DRB1*04:04:01+DRB1*13:38     | DRB1*04:08:01+DRB1*13:79     |                             |                              |
| DRB1*04:04:01+DRB1*13:39     | DRB1*04:08:01+DRB1*13:27     |                             |                              |
| DRB1*04:04:01+DRB1*13:41     | DRB1*04:36+DRB1*14:17        |                             |                              |
| DRB1*04:04:01+DRB1*13:42     | DRB1*04:10:01+DRB1*13:70     |                             |                              |
| DRB1*04:04:01+DRB1*13:48     | DRB1*04:08:01+DRB1*13:108    | DRB1*04:10:01+DRB1*13:07:01 |                              |
| DRB1*04:04:01+DRB1*13:49     | DRB1*04:05:04+DRB1*08:20     | DRB1*04:10:01+DRB1*13:47    |                              |
| DRB1*04:04:01+DRB1*13:55     |                              |                             |                              |

|                              |                              |                              |                             |
|------------------------------|------------------------------|------------------------------|-----------------------------|
| DRB1*04:04:01+DRB1*13:57     | DRB1*04:42+DRB1*13:19        |                              |                             |
| DRB1*04:04:01+DRB1*13:61:01  | DRB1*04:44+DRB1*13:01:01G    |                              |                             |
| DRB1*04:04:01+DRB1*13:63     | DRB1*04:08:01+DRB1*13:11     |                              |                             |
| DRB1*04:04:01+DRB1*13:65     | DRB1*04:05:01+DRB1*13:40     | DRB1*04:08:01+DRB1*13:32     | DRB1*04:10:01+DRB1*13:36    |
|                              | DRB1*04:106+DRB1*14:80       |                              |                             |
| DRB1*04:04:01+DRB1*13:66:01  | DRB1*04:13+DRB1*13:30        | DRB1*04:42+DRB1*13:03:02     | DRB1*04:67+DRB1*13:82       |
| DRB1*04:04:01+DRB1*13:66:02  | DRB1*04:42+DRB1*13:03:01     | DRB1*04:43+DRB1*13:89        |                             |
| DRB1*04:04:01+DRB1*13:75     | DRB1*04:10:01+DRB1*13:24     |                              |                             |
| DRB1*04:04:01+DRB1*13:79     | DRB1*04:56+DRB1*13:78        |                              |                             |
| DRB1*04:04:01+DRB1*13:81     | DRB1*04:13+DRB1*13:58        |                              |                             |
| DRB1*04:04:01+DRB1*13:82     | DRB1*04:56+DRB1*13:25        |                              |                             |
| DRB1*04:04:01+DRB1*13:83     | DRB1*04:42+DRB1*13:08        |                              |                             |
| DRB1*04:04:01+DRB1*13:93     | DRB1*04:10:01+DRB1*13:01:01G | DRB1*04:42+DRB1*13:32        |                             |
| DRB1*04:04:01+DRB1*13:96:01  | DRB1*04:08:01+DRB1*13:61:02  |                              |                             |
| DRB1*04:04:01+DRB1*13:96:02  | DRB1*04:08:01+DRB1*13:61:01  | DRB1*04:44+DRB1*13:02:01     |                             |
| DRB1*04:04:01+DRB1*13:97:01  | DRB1*04:08:01+DRB1*13:52     |                              |                             |
| DRB1*04:04:01+DRB1*13:104    | DRB1*04:08:01+DRB1*13:15     | DRB1*04:43+DRB1*13:53        |                             |
| DRB1*04:04:01+DRB1*13:107    | DRB1*04:08:01+DRB1*13:83     | DRB1*04:43+DRB1*13:08        |                             |
| DRB1*04:04:01+DRB1*13:119    | DRB1*04:55+DRB1*13:56        | DRB1*04:58+DRB1*14:30        |                             |
| DRB1*04:04:01+DRB1*13:128    | DRB1*04:08:01+DRB1*13:112    |                              |                             |
| DRB1*04:04:01+DRB1*13:139    | DRB1*04:05:01+DRB1*13:01:01G | DRB1*04:08:01+DRB1*13:93     | DRB1*04:10:01+DRB1*13:02:01 |
|                              | DRB1*04:28+DRB1*13:40        | DRB1*04:42+DRB1*13:65        | DRB1*04:43+DRB1*13:32       |
|                              | DRB1*04:77+DRB1*13:52        | DRB1*04:106+DRB1*14:17       | DRB1*04:107+DRB1*13:20      |
| DRB1*04:04:01+DRB1*14:02     | DRB1*04:08:01+DRB1*14:06:01  |                              |                             |
| DRB1*04:04:01+DRB1*14:03:01  | DRB1*04:08:01+DRB1*14:12:01  | DRB1*04:58+DRB1*14:02        |                             |
| DRB1*04:04:01+DRB1*14:07:01  | DRB1*04:07:01G+DRB1*14:32:02 | DRB1*04:08:01+DRB1*14:01:01G |                             |
| DRB1*04:04:01+DRB1*14:07:02  | DRB1*04:07:03+DRB1*14:32:02  |                              |                             |
| DRB1*04:04:01+DRB1*14:09     | DRB1*04:08:01+DRB1*14:80     |                              |                             |
| DRB1*04:04:01+DRB1*14:12:01  | DRB1*04:58+DRB1*14:06:01     |                              |                             |
| DRB1*04:04:01+DRB1*14:13     | DRB1*04:05:01+DRB1*14:06:01  | DRB1*04:10:01+DRB1*14:02     |                             |
| DRB1*04:04:01+DRB1*14:14     | DRB1*04:07:01G+DRB1*14:12:3  | DRB1*04:08:01+DRB1*14:23:01  |                             |
| DRB1*04:04:01+DRB1*14:17     | DRB1*04:42+DRB1*14:80        |                              |                             |
| DRB1*04:04:01+DRB1*14:21     | DRB1*04:13+DRB1*14:17        |                              |                             |
| DRB1*04:04:01+DRB1*14:22     | DRB1*04:36+DRB1*14:119       |                              |                             |
| DRB1*04:04:01+DRB1*14:23:02  | DRB1*04:04:07+DRB1*14:23:01  |                              |                             |
| DRB1*04:04:01+DRB1*14:24     | DRB1*04:105:02+DRB1*14:06:01 |                              |                             |
| DRB1*04:04:01+DRB1*14:27     | DRB1*04:25+DRB1*14:02        | DRB1*04:36+DRB1*14:89        | DRB1*04:55+DRB1*13:26:02    |
| DRB1*04:04:01+DRB1*14:28     | DRB1*04:27+DRB1*14:31        |                              |                             |
| DRB1*04:04:01+DRB1*14:30     | DRB1*04:08:01+DRB1*14:17     | DRB1*04:42+DRB1*14:09        | DRB1*04:43+DRB1*14:80       |
| DRB1*04:04:01+DRB1*14:35     | DRB1*04:42+DRB1*14:01:01G    | DRB1*04:59+DRB1*14:32:02     |                             |
| DRB1*04:04:01+DRB1*14:38     | DRB1*04:44+DRB1*14:01:02     | DRB1*04:95+DRB1*14:32:01     |                             |
| DRB1*04:04:01+DRB1*14:44:01  | DRB1*04:07:01G+DRB1*14:100   | DRB1*04:08:01+DRB1*14:05:01  |                             |
| DRB1*04:04:01+DRB1*14:44:02  | DRB1*04:08:01+DRB1*14:05:03  |                              |                             |
| DRB1*04:04:01+DRB1*14:44:03  | DRB1*04:07:03+DRB1*14:100    |                              |                             |
| DRB1*04:04:01+DRB1*14:45     | DRB1*04:56+DRB1*14:05:01     | DRB1*04:88+DRB1*14:100       |                             |
| DRB1*04:04:01+DRB1*14:47     | DRB1*04:44+DRB1*14:02        |                              |                             |
| DRB1*04:04:01+DRB1*14:53     | DRB1*04:42+DRB1*14:25        |                              |                             |
| DRB1*04:04:01+DRB1*14:55     | DRB1*04:55+DRB1*14:32:02     |                              |                             |
| DRB1*04:04:01+DRB1*14:63     | DRB1*04:08:01+DRB1*14:78     | DRB1*04:10:01+DRB1*14:67     | DRB1*04:12+DRB1*14:02       |
|                              | DRB1*04:18+DRB1*14:13        | DRB1*04:56+DRB1*14:85        | DRB1*04:86+DRB1*14:06:01    |
|                              | DRB1*04:107+DRB1*14:12:01    |                              |                             |
| DRB1*04:04:01+DRB1*14:67     | DRB1*04:18+DRB1*14:02        | DRB1*04:56+DRB1*14:03:01     |                             |
| DRB1*04:04:01+DRB1*14:68     | DRB1*04:07:01G+DRB1*14:31    | DRB1*04:08:01+DRB1*14:04     |                             |
| DRB1*04:04:01+DRB1*14:75     | DRB1*04:51+DRB1*14:32:01     | DRB1*04:70+DRB1*14:01:02     |                             |
| DRB1*04:04:01+DRB1*14:77     | DRB1*04:58+DRB1*14:41        |                              |                             |
| DRB1*04:04:01+DRB1*14:78     | DRB1*04:12+DRB1*14:06:01     |                              |                             |
| DRB1*04:04:01+DRB1*14:85     | DRB1*04:05:01+DRB1*14:12:01  | DRB1*04:10:01+DRB1*14:03:01  | DRB1*04:58+DRB1*14:13       |
| DRB1*04:04:01+DRB1*14:89     | DRB1*04:31+DRB1*14:06:01     | DRB1*04:55+DRB1*14:02        |                             |
| DRB1*04:04:01+DRB1*14:98     | DRB1*04:44+DRB1*14:03:01     | DRB1*04:58+DRB1*14:47        |                             |
| DRB1*04:04:01+DRB1*14:99     | DRB1*04:27+DRB1*14:32:02     |                              |                             |
| DRB1*04:04:01+DRB1*14:103    | DRB1*04:70+DRB1*14:05:03     |                              |                             |
| DRB1*04:04:01+DRB1*14:120    | DRB1*04:56+DRB1*14:04        | DRB1*04:88+DRB1*14:31        |                             |
| DRB1*04:04:01+DRB1*14:122    | DRB1*04:56+DRB1*14:01:01G    | DRB1*04:88+DRB1*14:32:02     |                             |
| DRB1*04:04:01+DRB1*14:127    | DRB1*04:44+DRB1*14:05:03     |                              |                             |
| DRB1*04:04:01+DRB1*15:01:01G | DRB1*04:04:02+DRB1*15:01:04  | DRB1*04:42+DRB1*15:07:01     | DRB1*04:56+DRB1*15:05       |
| DRB1*04:04:01+DRB1*15:01:04  | DRB1*04:42+DRB1*15:07:02     |                              |                             |
| DRB1*04:04:01+DRB1*15:01:09  | DRB1*04:04:04+DRB1*15:01:01G |                              |                             |
| DRB1*04:04:01+DRB1*15:02:01  | DRB1*04:04:02+DRB1*15:02:02  | DRB1*04:08:01+DRB1*15:01:01G | DRB1*04:08:02+DRB1*15:01:04 |
|                              | DRB1*04:42+DRB1*15:11        | DRB1*04:43+DRB1*15:07:01     | DRB1*04:56+DRB1*15:31       |
|                              | DRB1*04:105:02+DRB1*15:66    |                              |                             |
| DRB1*04:04:01+DRB1*15:02:02  | DRB1*04:08:01+DRB1*15:01:04  | DRB1*04:43+DRB1*15:07:02     |                             |
| DRB1*04:04:01+DRB1*15:02:04  | DRB1*04:04:04+DRB1*15:02:01  | DRB1*04:08:01+DRB1*15:01:09  |                             |
| DRB1*04:04:01+DRB1*15:02:06  | DRB1*04:08:01+DRB1*15:01:03  |                              |                             |
| DRB1*04:04:01+DRB1*15:02:07  | DRB1*04:04:03+DRB1*15:02:01  |                              |                             |
| DRB1*04:04:01+DRB1*15:02:08  | DRB1*04:08:01+DRB1*15:01:10  |                              |                             |
| DRB1*04:04:01+DRB1*15:02:09  | DRB1*04:04:02+DRB1*15:02:05  |                              |                             |
| DRB1*04:04:01+DRB1*15:03:01G | DRB1*04:56+DRB1*15:23        |                              |                             |
| DRB1*04:04:01+DRB1*15:05     | DRB1*04:122+DRB1*15:66       |                              |                             |
| DRB1*04:04:01+DRB1*15:06:01  | DRB1*04:56+DRB1*15:73        |                              |                             |
| DRB1*04:04:01+DRB1*15:07:01  | DRB1*04:04:02+DRB1*15:07:02  |                              |                             |
| DRB1*04:04:01+DRB1*15:09     | DRB1*04:42+DRB1*15:48        |                              |                             |
| DRB1*04:04:01+DRB1*15:11     | DRB1*04:08:01+DRB1*15:07:01  | DRB1*04:08:02+DRB1*15:07:02  |                             |
| DRB1*04:04:01+DRB1*15:12     | DRB1*04:10:01+DRB1*15:01:04  |                              |                             |
| DRB1*04:04:01+DRB1*15:15     | DRB1*04:08:01+DRB1*15:04     |                              |                             |
| DRB1*04:04:01+DRB1*15:21     | DRB1*04:18+DRB1*15:66        |                              |                             |
| DRB1*04:04:01+DRB1*15:23     | DRB1*04:122+DRB1*15:54       |                              |                             |
| DRB1*04:04:01+DRB1*15:25     | DRB1*04:22+DRB1*15:66        |                              |                             |
| DRB1*04:04:01+DRB1*15:27     | DRB1*04:08:01+DRB1*15:66     | DRB1*04:42+DRB1*15:34        |                             |
| DRB1*04:04:01+DRB1*15:31     | DRB1*04:08:01+DRB1*15:05     | DRB1*04:122+DRB1*15:27       |                             |
| DRB1*04:04:01+DRB1*15:38     | DRB1*04:56+DRB1*15:63        |                              |                             |
| DRB1*04:04:01+DRB1*15:47     | DRB1*04:08:01+DRB1*15:65     |                              |                             |
| DRB1*04:04:01+DRB1*15:57     | DRB1*04:44+DRB1*15:03:01G    |                              |                             |
| DRB1*04:04:01+DRB1*15:60     | DRB1*04:70+DRB1*15:02:01     |                              |                             |
| DRB1*04:04:01+DRB1*16:01:01  | DRB1*04:04:05+DRB1*16:01:02  | DRB1*04:08:01+DRB1*16:15     |                             |
| DRB1*04:04:01+DRB1*16:01:02  | DRB1*04:36+DRB1*15:34        |                              |                             |
| DRB1*04:04:01+DRB1*16:02:01  | DRB1*04:04:05+DRB1*16:02:02  |                              |                             |
| DRB1*04:04:01+DRB1*16:05:01  | DRB1*04:53+DRB1*15:34        | DRB1*04:56+DRB1*16:02:01     |                             |
| DRB1*04:04:01+DRB1*16:09     | DRB1*04:42+DRB1*16:01:01     | DRB1*04:43+DRB1*16:15        | DRB1*04:47+DRB1*15:66       |
| DRB1*04:04:01+DRB1*16:10     | DRB1*04:42+DRB1*16:02:01     |                              |                             |
| DRB1*04:04:01+DRB1*16:18     | DRB1*04:55+DRB1*16:02:02     | DRB1*04:58+DRB1*15:34        |                             |
| DRB1*04:04:02+DRB1*04:05:01  | DRB1*04:08:02+DRB1*04:10:01  |                              |                             |
| DRB1*04:04:02+DRB1*04:06:03  | DRB1*04:04:06+DRB1*04:06:04  |                              |                             |
| DRB1*04:04:02+DRB1*04:09     | DRB1*04:08:02+DRB1*04:67     |                              |                             |
| DRB1*04:04:02+DRB1*04:19     | DRB1*04:08:02+DRB1*04:68     |                              |                             |
| DRB1*04:04:02+DRB1*04:31     | DRB1*04:08:02+DRB1*04:55     |                              |                             |

|                              |                              |                              |                             |
|------------------------------|------------------------------|------------------------------|-----------------------------|
| DRB1*04:04:02+DRB1*04:43     | DRB1*04:08:02+DRB1*04:42     |                              |                             |
| DRB1*04:04:02+DRB1*04:74     | DRB1*04:08:02+DRB1*04:95     |                              |                             |
| DRB1*04:04:02+DRB1*04:86     | DRB1*04:08:02+DRB1*04:12     |                              |                             |
| DRB1*04:04:02+DRB1*04:91     | DRB1*04:06:04+DRB1*04:10:01  |                              |                             |
| DRB1*04:04:02+DRB1*04:102    | DRB1*04:08:02+DRB1*04:41     |                              |                             |
| DRB1*04:04:02+DRB1*04:105:01 | DRB1*04:08:02+DRB1*04:73     |                              |                             |
| DRB1*04:04:02+DRB1*04:114    | DRB1*04:06:04+DRB1*04:13     |                              |                             |
| DRB1*04:04:02+DRB1*08:01:01G | DRB1*04:05:04+DRB1*08:04:06  | DRB1*04:08:02+DRB1*08:06     |                             |
| DRB1*04:04:02+DRB1*08:01:05  | DRB1*04:05:01+DRB1*08:04:06  |                              |                             |
| DRB1*04:04:02+DRB1*08:02:01  | DRB1*04:08:02+DRB1*08:04:04  | DRB1*04:08:02+DRB1*08:04:01  |                             |
| DRB1*04:04:02+DRB1*08:02:02  | DRB1*04:08:01+DRB1*08:04:06  |                              |                             |
| DRB1*04:04:02+DRB1*08:03:02  | DRB1*04:08:02+DRB1*08:10     |                              |                             |
| DRB1*04:04:02+DRB1*08:06     | DRB1*04:10:01+DRB1*08:04:06  |                              |                             |
| DRB1*04:04:02+DRB1*08:28     | DRB1*04:42+DRB1*08:04:06     |                              |                             |
| DRB1*04:04:02+DRB1*08:41     | DRB1*04:08:02+DRB1*08:31     |                              |                             |
| DRB1*04:04:02+DRB1*09:01:02  | DRB1*04:08:02+DRB1*09:06     |                              |                             |
| DRB1*04:04:02+DRB1*10:01:01  | DRB1*04:08:02+DRB1*10:02     |                              |                             |
| DRB1*04:04:02+DRB1*11:01:01G | DRB1*04:08:02+DRB1*11:04:01  | DRB1*04:61+DRB1*13:11:02     |                             |
| DRB1*04:04:02+DRB1*11:01:02  | DRB1*04:08:02+DRB1*11:04:02  |                              |                             |
| DRB1*04:04:02+DRB1*11:01:03  | DRB1*04:08:02+DRB1*11:04:07  |                              |                             |
| DRB1*04:04:02+DRB1*11:01:04  | DRB1*04:08:02+DRB1*11:04:05  |                              |                             |
| DRB1*04:04:02+DRB1*11:01:05  | DRB1*04:08:02+DRB1*11:04:03  |                              |                             |
| DRB1*04:04:02+DRB1*11:01:12  | DRB1*04:08:02+DRB1*11:04:04  |                              |                             |
| DRB1*04:04:02+DRB1*11:08:01  | DRB1*04:08:02+DRB1*11:42     |                              |                             |
| DRB1*04:04:02+DRB1*11:09     | DRB1*04:08:02+DRB1*11:113    |                              |                             |
| DRB1*04:04:02+DRB1*11:11:01G | DRB1*04:08:02+DRB1*11:03     |                              |                             |
| DRB1*04:04:02+DRB1*11:14:01  | DRB1*04:08:02+DRB1*11:02:01  |                              |                             |
| DRB1*04:04:02+DRB1*11:19:01  | DRB1*04:08:02+DRB1*11:18     | DRB1*04:61+DRB1*13:01:05     |                             |
| DRB1*04:04:02+DRB1*11:20     | DRB1*04:08:02+DRB1*11:16     |                              |                             |
| DRB1*04:04:02+DRB1*11:26     | DRB1*04:08:02+DRB1*11:34     |                              |                             |
| DRB1*04:04:02+DRB1*11:27:01  | DRB1*04:08:02+DRB1*11:84:01  |                              |                             |
| DRB1*04:04:02+DRB1*11:27:02  | DRB1*04:08:02+DRB1*11:84:02  |                              |                             |
| DRB1*04:04:02+DRB1*11:28:01  | DRB1*04:08:02+DRB1*11:58:02  |                              |                             |
| DRB1*04:04:02+DRB1*11:28:02  | DRB1*04:08:02+DRB1*11:58:01  |                              |                             |
| DRB1*04:04:02+DRB1*11:33     | DRB1*04:08:02+DRB1*11:35     |                              |                             |
| DRB1*04:04:02+DRB1*11:37:01  | DRB1*04:08:02+DRB1*11:56     |                              |                             |
| DRB1*04:04:02+DRB1*11:39     | DRB1*04:08:02+DRB1*11:43     |                              |                             |
| DRB1*04:04:02+DRB1*11:45     | DRB1*04:08:02+DRB1*11:119    |                              |                             |
| DRB1*04:04:02+DRB1*11:49:01  | DRB1*04:08:02+DRB1*11:44     |                              |                             |
| DRB1*04:04:02+DRB1*11:62     | DRB1*04:08:02+DRB1*11:46:02  |                              |                             |
| DRB1*04:04:02+DRB1*11:68     | DRB1*04:08:02+DRB1*11:36     | DRB1*04:105:01+DRB1*11:34    |                             |
| DRB1*04:04:02+DRB1*11:82     | DRB1*04:73+DRB1*11:26        |                              |                             |
| DRB1*04:04:02+DRB1*11:103    | DRB1*04:08:02+DRB1*11:07     |                              |                             |
| DRB1*04:04:02+DRB1*11:109    | DRB1*04:08:02+DRB1*11:60     |                              |                             |
| DRB1*04:04:02+DRB1*11:120    | DRB1*04:08:02+DRB1*11:116    |                              |                             |
| DRB1*04:04:02+DRB1*11:122    | DRB1*04:08:02+DRB1*11:40     |                              |                             |
| DRB1*04:04:02+DRB1*13:01:06  | DRB1*04:04:06+DRB1*13:01:05  |                              |                             |
| DRB1*04:04:02+DRB1*13:02:02  | DRB1*04:04:05+DRB1*13:02:03  |                              |                             |
| DRB1*04:04:02+DRB1*13:02:03  | DRB1*04:08:02+DRB1*13:01:05  |                              |                             |
| DRB1*04:04:02+DRB1*13:02:06  | DRB1*04:04:04+DRB1*13:02:03  |                              |                             |
| DRB1*04:04:02+DRB1*13:03:01  | DRB1*04:08:02+DRB1*13:89     |                              |                             |
| DRB1*04:04:02+DRB1*13:05:01  | DRB1*04:08:02+DRB1*13:42     |                              |                             |
| DRB1*04:04:02+DRB1*13:09     | DRB1*04:73+DRB1*14:17        |                              |                             |
| DRB1*04:04:02+DRB1*13:14:02  | DRB1*04:08:02+DRB1*13:11:02  | DRB1*04:10:01+DRB1*13:14:02  |                             |
| DRB1*04:04:02+DRB1*13:21:01  | DRB1*04:05:01+DRB1*13:11:02  |                              |                             |
| DRB1*04:04:02+DRB1*13:21:02  | DRB1*04:05:04+DRB1*13:11:02  |                              |                             |
| DRB1*04:04:02+DRB1*13:23:02  | DRB1*04:08:02+DRB1*13:22     |                              |                             |
| DRB1*04:04:02+DRB1*13:29     | DRB1*04:08:02+DRB1*13:20     |                              |                             |
| DRB1*04:04:02+DRB1*13:36     | DRB1*04:08:02+DRB1*13:40     |                              |                             |
| DRB1*04:04:02+DRB1*13:39     | DRB1*04:08:02+DRB1*13:79     |                              |                             |
| DRB1*04:04:02+DRB1*13:41     | DRB1*04:08:02+DRB1*13:27     | DRB1*04:10:01+DRB1*13:07:02  |                             |
| DRB1*04:04:02+DRB1*13:49     | DRB1*04:08:02+DRB1*13:108    |                              |                             |
| DRB1*04:04:02+DRB1*13:61:01  | DRB1*04:44+DRB1*13:01:05     |                              |                             |
| DRB1*04:04:02+DRB1*13:63     | DRB1*04:08:02+DRB1*13:111    |                              |                             |
| DRB1*04:04:02+DRB1*13:65     | DRB1*04:08:02+DRB1*13:32     |                              |                             |
| DRB1*04:04:02+DRB1*13:93     | DRB1*04:10:01+DRB1*13:01:05  |                              |                             |
| DRB1*04:04:02+DRB1*13:96:01  | DRB1*04:08:02+DRB1*13:61:02  | DRB1*04:44+DRB1*13:02:03     |                             |
| DRB1*04:04:02+DRB1*13:96:02  | DRB1*04:08:02+DRB1*13:61:01  |                              |                             |
| DRB1*04:04:02+DRB1*13:97:01  | DRB1*04:08:02+DRB1*13:52     |                              |                             |
| DRB1*04:04:02+DRB1*13:104    | DRB1*04:08:02+DRB1*13:15     |                              |                             |
| DRB1*04:04:02+DRB1*13:107    | DRB1*04:08:02+DRB1*13:83     |                              |                             |
| DRB1*04:04:02+DRB1*13:128    | DRB1*04:08:02+DRB1*13:112    | DRB1*04:08:02+DRB1*13:93     | DRB1*04:10:01+DRB1*13:02:03 |
| DRB1*04:04:02+DRB1*13:139    | DRB1*04:05:01+DRB1*13:01:05  |                              |                             |
| DRB1*04:04:02+DRB1*14:02     | DRB1*04:08:02+DRB1*14:06:01  |                              |                             |
| DRB1*04:04:02+DRB1*14:03:01  | DRB1*04:08:02+DRB1*14:12:01  |                              |                             |
| DRB1*04:04:02+DRB1*14:07:01  | DRB1*04:08:02+DRB1*14:01:01G |                              |                             |
| DRB1*04:04:02+DRB1*14:09     | DRB1*04:08:02+DRB1*14:80     |                              |                             |
| DRB1*04:04:02+DRB1*14:14     | DRB1*04:08:02+DRB1*14:23:01  | DRB1*04:105:01+DRB1*14:06:01 |                             |
| DRB1*04:04:02+DRB1*14:24     | DRB1*04:73+DRB1*14:02        |                              |                             |
| DRB1*04:04:02+DRB1*14:30     | DRB1*04:08:02+DRB1*14:17     |                              |                             |
| DRB1*04:04:02+DRB1*14:44:01  | DRB1*04:08:02+DRB1*14:05:01  |                              |                             |
| DRB1*04:04:02+DRB1*14:44:02  | DRB1*04:08:02+DRB1*14:05:03  |                              |                             |
| DRB1*04:04:02+DRB1*14:63     | DRB1*04:08:02+DRB1*14:78     |                              |                             |
| DRB1*04:04:02+DRB1*14:68     | DRB1*04:08:02+DRB1*14:04     |                              |                             |
| DRB1*04:04:02+DRB1*15:01:01G | DRB1*04:73+DRB1*15:66        | DRB1*04:73+DRB1*15:27        | DRB1*04:105:01+DRB1*15:66   |
| DRB1*04:04:02+DRB1*15:02:01  | DRB1*04:08:02+DRB1*15:01:01G |                              |                             |
| DRB1*04:04:02+DRB1*15:02:04  | DRB1*04:08:02+DRB1*15:01:09  |                              |                             |
| DRB1*04:04:02+DRB1*15:02:06  | DRB1*04:08:02+DRB1*15:01:03  |                              |                             |
| DRB1*04:04:02+DRB1*15:02:08  | DRB1*04:08:02+DRB1*15:01:10  |                              |                             |
| DRB1*04:04:02+DRB1*15:03:01G | DRB1*04:73+DRB1*15:54        | DRB1*04:73+DRB1*15:34        |                             |
| DRB1*04:04:02+DRB1*15:11     | DRB1*04:08:02+DRB1*15:07:01  |                              |                             |
| DRB1*04:04:02+DRB1*15:12     | DRB1*04:10:01+DRB1*15:01:01G |                              |                             |
| DRB1*04:04:02+DRB1*15:15     | DRB1*04:08:02+DRB1*15:04     |                              |                             |
| DRB1*04:04:02+DRB1*15:27     | DRB1*04:08:02+DRB1*15:66     |                              |                             |
| DRB1*04:04:02+DRB1*15:31     | DRB1*04:08:02+DRB1*15:05     |                              |                             |
| DRB1*04:04:02+DRB1*15:38     | DRB1*04:08:01+DRB1*15:71     |                              |                             |
| DRB1*04:04:02+DRB1*15:47     | DRB1*04:08:02+DRB1*15:65     |                              |                             |
| DRB1*04:04:02+DRB1*16:01:01  | DRB1*04:08:02+DRB1*16:15     |                              |                             |
| DRB1*04:04:03+DRB1*04:05:08  | DRB1*04:04:05+DRB1*04:05:07  |                              |                             |
| DRB1*04:04:03+DRB1*04:09     | DRB1*04:05:07+DRB1*04:13     |                              |                             |
| DRB1*04:04:03+DRB1*04:28     | DRB1*04:05:07+DRB1*04:42     |                              |                             |
| DRB1*04:04:03+DRB1*04:84     | DRB1*04:05:07+DRB1*04:68     |                              |                             |
| DRB1*04:04:03+DRB1*04:86     | DRB1*04:05:07+DRB1*04:18     |                              |                             |
| DRB1*04:04:03+DRB1*04:87     | DRB1*04:05:07+DRB1*04:70     |                              |                             |
| DRB1*04:04:03+DRB1*04:103    | DRB1*04:05:07+DRB1*04:55     |                              |                             |

|                              |                              |                             |
|------------------------------|------------------------------|-----------------------------|
| DRB1*04:04:03+DRB1*04:107    | DRB1*04:05:07+DRB1*04:56     |                             |
| DRB1*04:04:03+DRB1*08:01:01G | DRB1*04:05:07+DRB1*08:04:04  |                             |
| DRB1*04:04:03+DRB1*08:01:05  | DRB1*04:05:07+DRB1*08:04:01  |                             |
| DRB1*04:04:03+DRB1*13:21:01  | DRB1*04:05:07+DRB1*13:11:01  |                             |
| DRB1*04:04:03+DRB1*13:65     | DRB1*04:05:07+DRB1*13:40     |                             |
| DRB1*04:04:03+DRB1*13:139    | DRB1*04:05:07+DRB1*13:01:01G |                             |
| DRB1*04:04:03+DRB1*14:13     | DRB1*04:05:07+DRB1*14:06:01  |                             |
| DRB1*04:04:03+DRB1*14:85     | DRB1*04:05:07+DRB1*14:12:01  |                             |
| DRB1*04:04:03+DRB1*15:02:04  | DRB1*04:04:04+DRB1*15:02:07  |                             |
| DRB1*04:04:03+DRB1*15:60     | DRB1*04:70+DRB1*15:02:07     |                             |
| DRB1*04:04:04+DRB1*04:05:01  | DRB1*04:08:01+DRB1*04:10:02  |                             |
| DRB1*04:04:04+DRB1*04:12     | DRB1*04:10:02+DRB1*04:18     |                             |
| DRB1*04:04:04+DRB1*04:28     | DRB1*04:10:02+DRB1*04:43     |                             |
| DRB1*04:04:04+DRB1*04:67     | DRB1*04:10:02+DRB1*04:13     |                             |
| DRB1*04:04:04+DRB1*04:74     | DRB1*04:07:04+DRB1*04:44     |                             |
| DRB1*04:04:04+DRB1*04:84     | DRB1*04:10:02+DRB1*04:19     |                             |
| DRB1*04:04:04+DRB1*04:91     | DRB1*04:06:01G+DRB1*04:10:02 |                             |
| DRB1*04:04:04+DRB1*04:103    | DRB1*04:10:02+DRB1*04:31     |                             |
| DRB1*04:04:04+DRB1*04:106    | DRB1*04:10:02+DRB1*04:14     |                             |
| DRB1*04:04:04+DRB1*08:01:01G | DRB1*04:10:02+DRB1*08:02:01  |                             |
| DRB1*04:04:04+DRB1*08:01:05  | DRB1*04:10:02+DRB1*08:02:02  |                             |
| DRB1*04:04:04+DRB1*08:03:02  | DRB1*04:10:02+DRB1*08:30:01  |                             |
| DRB1*04:04:04+DRB1*08:03:03  | DRB1*04:10:02+DRB1*08:30:03  |                             |
| DRB1*04:04:04+DRB1*08:06     | DRB1*04:10:02+DRB1*08:04:01  |                             |
| DRB1*04:04:04+DRB1*08:48     | DRB1*04:10:02+DRB1*08:13     |                             |
| DRB1*04:04:04+DRB1*13:02:02  | DRB1*04:04:05+DRB1*13:02:06  |                             |
| DRB1*04:04:04+DRB1*13:03:01  | DRB1*04:10:02+DRB1*13:37     |                             |
| DRB1*04:04:04+DRB1*13:04     | DRB1*04:10:02+DRB1*13:22     |                             |
| DRB1*04:04:04+DRB1*13:21:01  | DRB1*04:10:02+DRB1*13:14:01  |                             |
| DRB1*04:04:04+DRB1*13:21:02  | DRB1*04:10:02+DRB1*13:14:03  |                             |
| DRB1*04:04:04+DRB1*13:30     | DRB1*04:10:02+DRB1*13:82     |                             |
| DRB1*04:04:04+DRB1*13:32     | DRB1*04:10:02+DRB1*13:40     |                             |
| DRB1*04:04:04+DRB1*13:48     | DRB1*04:10:02+DRB1*13:70     |                             |
| DRB1*04:04:04+DRB1*13:49     | DRB1*04:10:02+DRB1*13:07:01  |                             |
| DRB1*04:04:04+DRB1*13:55     | DRB1*04:10:02+DRB1*13:47     |                             |
| DRB1*04:04:04+DRB1*13:65     | DRB1*04:10:02+DRB1*13:36     |                             |
| DRB1*04:04:04+DRB1*13:75     | DRB1*04:10:02+DRB1*13:24     |                             |
| DRB1*04:04:04+DRB1*13:93     | DRB1*04:10:02+DRB1*13:01:01G |                             |
| DRB1*04:04:04+DRB1*13:96:02  | DRB1*04:44+DRB1*13:02:06     |                             |
| DRB1*04:04:04+DRB1*13:139    | DRB1*04:10:01+DRB1*13:02:06  | DRB1*04:10:02+DRB1*13:02:01 |
| DRB1*04:04:04+DRB1*14:07:01  | DRB1*04:07:04+DRB1*14:32:02  |                             |
| DRB1*04:04:04+DRB1*14:13     | DRB1*04:10:02+DRB1*14:02     |                             |
| DRB1*04:04:04+DRB1*14:14     | DRB1*04:07:04+DRB1*14:123    |                             |
| DRB1*04:04:04+DRB1*14:44:01  | DRB1*04:07:04+DRB1*14:100    |                             |
| DRB1*04:04:04+DRB1*14:63     | DRB1*04:10:02+DRB1*14:67     |                             |
| DRB1*04:04:04+DRB1*14:68     | DRB1*04:07:04+DRB1*14:31     |                             |
| DRB1*04:04:04+DRB1*14:85     | DRB1*04:10:02+DRB1*14:03:01  |                             |
| DRB1*04:04:04+DRB1*15:12     | DRB1*04:10:02+DRB1*15:01:04  |                             |
| DRB1*04:04:04+DRB1*15:60     | DRB1*04:70+DRB1*15:02:04     |                             |
| DRB1*04:04:05+DRB1*04:09     | DRB1*04:05:08+DRB1*04:13     |                             |
| DRB1*04:04:05+DRB1*04:18     | DRB1*04:53+DRB1*04:55        |                             |
| DRB1*04:04:05+DRB1*04:28     | DRB1*04:05:08+DRB1*04:42     |                             |
| DRB1*04:04:05+DRB1*04:84     | DRB1*04:05:08+DRB1*04:68     |                             |
| DRB1*04:04:05+DRB1*04:86     | DRB1*04:05:08+DRB1*04:18     | DRB1*04:53+DRB1*04:103      |
| DRB1*04:04:05+DRB1*04:87     | DRB1*04:05:08+DRB1*04:70     |                             |
| DRB1*04:04:05+DRB1*04:103    | DRB1*04:05:08+DRB1*04:55     |                             |
| DRB1*04:04:05+DRB1*04:107    | DRB1*04:05:08+DRB1*04:56     |                             |
| DRB1*04:04:05+DRB1*08:01:01G | DRB1*04:05:08+DRB1*08:04:04  |                             |
| DRB1*04:04:05+DRB1*08:01:05  | DRB1*04:05:08+DRB1*08:04:01  |                             |
| DRB1*04:04:05+DRB1*08:34     | DRB1*04:55+DRB1*08:25        |                             |
| DRB1*04:04:05+DRB1*11:18     | DRB1*04:53+DRB1*11:34        |                             |
| DRB1*04:04:05+DRB1*11:23     | DRB1*04:55+DRB1*11:01:11     |                             |
| DRB1*04:04:05+DRB1*11:25     | DRB1*04:55+DRB1*11:04:07     |                             |
| DRB1*04:04:05+DRB1*11:27:01  | DRB1*04:44+DRB1*11:01:03     |                             |
| DRB1*04:04:05+DRB1*11:29     | DRB1*04:19+DRB1*11:04:07     | DRB1*04:68+DRB1*11:01:03    |
| DRB1*04:04:05+DRB1*11:45     | DRB1*04:55+DRB1*11:19:02     |                             |
| DRB1*04:04:05+DRB1*11:51     | DRB1*04:32+DRB1*11:01:03     |                             |
| DRB1*04:04:05+DRB1*11:84:01  | DRB1*04:44+DRB1*11:04:07     |                             |
| DRB1*04:04:05+DRB1*11:108    | DRB1*04:70+DRB1*11:01:03     |                             |
| DRB1*04:04:05+DRB1*13:05:01  | DRB1*04:47+DRB1*14:17        |                             |
| DRB1*04:04:05+DRB1*13:06     | DRB1*04:53+DRB1*14:17        |                             |
| DRB1*04:04:05+DRB1*13:10     | DRB1*04:53+DRB1*14:21        |                             |
| DRB1*04:04:05+DRB1*13:14:01  | DRB1*04:47+DRB1*13:44        |                             |
| DRB1*04:04:05+DRB1*13:21:01  | DRB1*04:05:08+DRB1*13:11:01  |                             |
| DRB1*04:04:05+DRB1*13:26:02  | DRB1*04:47+DRB1*14:06:01     |                             |
| DRB1*04:04:05+DRB1*13:65     | DRB1*04:05:08+DRB1*13:40     |                             |
| DRB1*04:04:05+DRB1*13:85     | DRB1*04:53+DRB1*14:19        |                             |
| DRB1*04:04:05+DRB1*13:96:02  | DRB1*04:44+DRB1*13:02:02     |                             |
| DRB1*04:04:05+DRB1*13:139    | DRB1*04:05:08+DRB1*13:01:01G | DRB1*04:10:01+DRB1*13:02:02 |
| DRB1*04:04:05+DRB1*14:13     | DRB1*04:05:08+DRB1*14:06:01  |                             |
| DRB1*04:04:05+DRB1*14:67     | DRB1*04:53+DRB1*14:89        |                             |
| DRB1*04:04:05+DRB1*14:85     | DRB1*04:05:08+DRB1*14:12:01  |                             |
| DRB1*04:04:05+DRB1*16:18     | DRB1*04:55+DRB1*16:02:01     |                             |
| DRB1*04:04:06+DRB1*04:91     | DRB1*04:06:03+DRB1*04:10:01  |                             |
| DRB1*04:04:06+DRB1*04:114    | DRB1*04:06:03+DRB1*04:13     |                             |
| DRB1*04:04:06+DRB1*08:03:02  | DRB1*04:10:01+DRB1*08:30:02  |                             |
| DRB1*04:04:06+DRB1*09:01:09  | DRB1*04:04:07+DRB1*09:01:08  |                             |
| DRB1*04:04:06+DRB1*11:20     | DRB1*04:61+DRB1*13:01:06     |                             |
| DRB1*04:04:06+DRB1*13:02:01  | DRB1*04:08:01+DRB1*13:01:06  |                             |
| DRB1*04:04:06+DRB1*13:02:03  | DRB1*04:08:02+DRB1*13:01:06  |                             |
| DRB1*04:04:06+DRB1*13:61:01  | DRB1*04:44+DRB1*13:01:06     |                             |
| DRB1*04:04:06+DRB1*13:93     | DRB1*04:10:01+DRB1*13:01:06  |                             |
| DRB1*04:04:06+DRB1*13:139    | DRB1*04:05:01+DRB1*13:01:06  |                             |
| DRB1*04:04:06+DRB1*14:14     | DRB1*04:08:01+DRB1*14:23:03  |                             |
| DRB1*04:04:06+DRB1*14:23:02  | DRB1*04:04:07+DRB1*14:23:03  |                             |
| DRB1*04:04:07+DRB1*14:14     | DRB1*04:08:01+DRB1*14:23:02  |                             |
| DRB1*04:04:07+DRB1*14:72     | DRB1*04:42+DRB1*14:08        | DRB1*04:59+DRB1*14:34       |
| DRB1*04:05:01+DRB1*04:06:05  | DRB1*04:05:14+DRB1*04:06:01G |                             |
| DRB1*04:05:01+DRB1*04:07:01G | DRB1*04:08:01+DRB1*04:17:02  |                             |
| DRB1*04:05:01+DRB1*04:07:03  | DRB1*04:05:04+DRB1*04:07:01G | DRB1*04:08:01+DRB1*04:17:01 |
| DRB1*04:05:01+DRB1*04:11:01  | DRB1*04:10:01+DRB1*04:17:02  |                             |
| DRB1*04:05:01+DRB1*04:12     | DRB1*04:10:01+DRB1*04:86     |                             |
| DRB1*04:05:01+DRB1*04:14     | DRB1*04:08:01+DRB1*04:106    |                             |
| DRB1*04:05:01+DRB1*04:17:01  | DRB1*04:05:04+DRB1*04:17:02  |                             |
| DRB1*04:05:01+DRB1*04:19     | DRB1*04:08:01+DRB1*04:84     |                             |



|                              |                              |                              |                             |
|------------------------------|------------------------------|------------------------------|-----------------------------|
| DRB1*04:05:01+DRB1*04:20     | DRB1*04:07:01G+DRB1*04:84    | DRB1*04:17:02+DRB1*04:19     |                             |
| DRB1*04:05:01+DRB1*04:25     | DRB1*04:36+DRB1*04:103       | DRB1*04:58+DRB1*04:80        |                             |
| DRB1*04:05:01+DRB1*04:31     | DRB1*04:08:01+DRB1*04:103    |                              |                             |
| DRB1*04:05:01+DRB1*04:43     | DRB1*04:08:01+DRB1*04:28     |                              |                             |
| DRB1*04:05:01+DRB1*04:52     | DRB1*04:17:02+DRB1*04:23     |                              |                             |
| DRB1*04:05:01+DRB1*04:67     | DRB1*04:09+DRB1*04:10:01     |                              |                             |
| DRB1*04:05:01+DRB1*04:73     | DRB1*04:10:01+DRB1*04:105:01 |                              |                             |
| DRB1*04:05:01+DRB1*04:78     | DRB1*04:06:01G+DRB1*04:24    | DRB1*04:84+DRB1*04:101       |                             |
| DRB1*04:05:01+DRB1*04:91     | DRB1*04:11:01+DRB1*04:84     |                              |                             |
| DRB1*04:05:01+DRB1*04:95     | DRB1*04:10:01+DRB1*04:74     | DRB1*04:17:02+DRB1*04:44     |                             |
| DRB1*04:05:01+DRB1*04:100    | DRB1*04:09+DRB1*04:88        | DRB1*04:11:01+DRB1*04:38     |                             |
| DRB1*04:05:01+DRB1*04:102    | DRB1*04:07:01G+DRB1*04:77    |                              |                             |
| DRB1*04:05:01+DRB1*07:01:01G | DRB1*04:90+DRB1*07:11        |                              |                             |
| DRB1*04:05:01+DRB1*07:16     | DRB1*04:104+DRB1*07:01:01G   |                              |                             |
| DRB1*04:05:01+DRB1*08:01:01G | DRB1*04:05:04+DRB1*08:01:05  | DRB1*04:80+DRB1*08:48        | DRB1*04:103+DRB1*08:05      |
| DRB1*04:05:01+DRB1*08:02:01  | DRB1*04:05:04+DRB1*08:02:02  | DRB1*04:08:01+DRB1*08:01:01G | DRB1*04:31+DRB1*08:05       |
|                              | DRB1*04:80+DRB1*08:13        |                              |                             |
| DRB1*04:05:01+DRB1*08:02:02  | DRB1*04:08:01+DRB1*08:01:05  | DRB1*04:103+DRB1*08:24       |                             |
| DRB1*04:05:01+DRB1*08:02:04  | DRB1*04:05:14+DRB1*08:02:01  |                              |                             |
| DRB1*04:05:01+DRB1*08:03:02  | DRB1*04:103+DRB1*08:18       |                              |                             |
| DRB1*04:05:01+DRB1*08:03:03  | DRB1*04:05:04+DRB1*08:03:02  | DRB1*04:107+DRB1*08:48       |                             |
| DRB1*04:05:01+DRB1*08:04:03  | DRB1*04:05:04+DRB1*08:04:02  |                              |                             |
| DRB1*04:05:01+DRB1*08:06     | DRB1*04:10:01+DRB1*08:01:05  |                              |                             |
| DRB1*04:05:01+DRB1*08:10     | DRB1*04:10:01+DRB1*08:03:02  |                              |                             |
| DRB1*04:05:01+DRB1*08:13     | DRB1*04:08:01+DRB1*08:48     |                              |                             |
| DRB1*04:05:01+DRB1*08:17     | DRB1*04:28+DRB1*08:01:01G    |                              |                             |
| DRB1*04:05:01+DRB1*08:20     | DRB1*04:31+DRB1*13:108       | DRB1*04:55+DRB1*13:49        |                             |
| DRB1*04:05:01+DRB1*08:28     | DRB1*04:28+DRB1*08:04:01     | DRB1*04:42+DRB1*08:01:05     | DRB1*04:43+DRB1*08:06       |
| DRB1*04:05:01+DRB1*08:29     | DRB1*04:17:02+DRB1*08:18     |                              |                             |
| DRB1*04:05:01+DRB1*08:30:01  | DRB1*04:08:01+DRB1*08:03:02  | DRB1*04:31+DRB1*08:18        |                             |
| DRB1*04:05:01+DRB1*08:30:03  | DRB1*04:05:04+DRB1*08:30:01  | DRB1*04:08:01+DRB1*08:03:03  | DRB1*04:107+DRB1*08:13      |
| DRB1*04:05:01+DRB1*08:31     | DRB1*04:10:01+DRB1*08:41     |                              |                             |
| DRB1*04:05:01+DRB1*08:37     | DRB1*04:28+DRB1*08:03:02     |                              |                             |
| DRB1*04:05:01+DRB1*08:42     | DRB1*04:19+DRB1*08:01:01G    | DRB1*04:84+DRB1*08:02:01     |                             |
| DRB1*04:05:01+DRB1*08:44     | DRB1*04:29+DRB1*08:02:01     |                              |                             |
| DRB1*04:05:01+DRB1*08:45     | DRB1*04:28+DRB1*08:30:03     | DRB1*04:43+DRB1*08:03:03     |                             |
| DRB1*04:05:01+DRB1*09:01:02  | DRB1*04:80+DRB1*09:04        | DRB1*04:90+DRB1*09:05        |                             |
| DRB1*04:05:01+DRB1*09:06     | DRB1*04:10:01+DRB1*09:01:02  |                              |                             |
| DRB1*04:05:01+DRB1*10:01:02  | DRB1*04:05:08+DRB1*10:01:03  |                              |                             |
| DRB1*04:05:01+DRB1*10:01:03  | DRB1*04:24+DRB1*10:04        |                              |                             |
| DRB1*04:05:01+DRB1*10:02     | DRB1*04:10:01+DRB1*10:01:01  |                              |                             |
| DRB1*04:05:01+DRB1*11:01:01G | DRB1*04:28+DRB1*11:37:01     | DRB1*04:61+DRB1*13:21:01     | DRB1*04:80+DRB1*11:08:01    |
| DRB1*04:05:01+DRB1*11:01:02  | DRB1*04:05:04+DRB1*11:01:01G | DRB1*04:28+DRB1*11:37:02     | DRB1*04:61+DRB1*13:21:02    |
|                              | DRB1*04:80+DRB1*11:08:02     |                              |                             |
| DRB1*04:05:01+DRB1*11:01:03  | DRB1*04:05:08+DRB1*11:01:01G |                              |                             |
| DRB1*04:05:01+DRB1*11:01:05  | DRB1*04:05:12+DRB1*11:01:04  | DRB1*04:05:14+DRB1*11:01:01G |                             |
| DRB1*04:05:01+DRB1*11:01:06  | DRB1*04:05:03+DRB1*11:01:01G |                              |                             |
| DRB1*04:05:01+DRB1*11:01:10  | DRB1*04:05:08+DRB1*11:01:05  | DRB1*04:05:14+DRB1*11:01:03  |                             |
| DRB1*04:05:01+DRB1*11:01:10  | DRB1*04:05:04+DRB1*11:01:03  | DRB1*04:05:08+DRB1*11:01:02  |                             |
| DRB1*04:05:01+DRB1*11:02:01  | DRB1*04:09+DRB1*11:98        | DRB1*04:10:01+DRB1*11:14:01  | DRB1*04:28+DRB1*11:48       |
|                              | DRB1*04:61+DRB1*13:04        | DRB1*04:106+DRB1*11:34       | DRB1*04:107+DRB1*11:36      |
| DRB1*04:05:01+DRB1*11:03     | DRB1*04:10:01+DRB1*11:11:01G | DRB1*04:28+DRB1*11:41        | DRB1*04:61+DRB1*13:75       |
|                              | DRB1*04:80+DRB1*11:36        |                              |                             |
| DRB1*04:05:01+DRB1*11:04:01  | DRB1*04:10:01+DRB1*11:01:01G | DRB1*04:28+DRB1*11:56        | DRB1*04:80+DRB1*11:42       |
| DRB1*04:05:01+DRB1*11:04:02  | DRB1*04:05:04+DRB1*11:04:01  | DRB1*04:10:01+DRB1*11:01:02  |                             |
| DRB1*04:05:01+DRB1*11:04:03  | DRB1*04:05:12+DRB1*11:04:05  | DRB1*04:05:14+DRB1*11:04:01  | DRB1*04:10:01+DRB1*11:01:05 |
| DRB1*04:05:01+DRB1*11:04:04  | DRB1*04:10:01+DRB1*11:01:12  |                              |                             |
| DRB1*04:05:01+DRB1*11:04:05  | DRB1*04:10:01+DRB1*11:01:04  |                              |                             |
| DRB1*04:05:01+DRB1*11:04:07  | DRB1*04:05:08+DRB1*11:04:01  | DRB1*04:10:01+DRB1*11:01:03  |                             |
| DRB1*04:05:01+DRB1*11:06:01G | DRB1*04:80+DRB1*11:57        |                              |                             |
| DRB1*04:05:01+DRB1*11:06:02  | DRB1*04:05:12+DRB1*11:06:03  | DRB1*04:05:14+DRB1*11:06:01G |                             |
| DRB1*04:05:01+DRB1*11:07     | DRB1*04:10:01+DRB1*11:103    |                              |                             |
| DRB1*04:05:01+DRB1*11:08:02  | DRB1*04:05:04+DRB1*11:08:01  |                              |                             |
| DRB1*04:05:01+DRB1*11:10:01  | DRB1*04:05:04+DRB1*11:10:02  |                              |                             |
| DRB1*04:05:01+DRB1*11:11:01G | DRB1*04:80+DRB1*11:68        |                              |                             |
| DRB1*04:05:01+DRB1*11:13:01G | DRB1*04:61+DRB1*14:65        |                              |                             |
| DRB1*04:05:01+DRB1*11:14:01  | DRB1*04:106+DRB1*11:26       | DRB1*04:107+DRB1*11:68       |                             |
| DRB1*04:05:01+DRB1*11:14:02  | DRB1*04:05:04+DRB1*11:14:01  |                              |                             |
| DRB1*04:05:01+DRB1*11:16     | DRB1*04:10:01+DRB1*11:20     | DRB1*04:61+DRB1*13:93        | DRB1*04:77+DRB1*11:118      |
| DRB1*04:05:01+DRB1*11:18     | DRB1*04:10:01+DRB1*11:19:01  | DRB1*04:107+DRB1*11:42       |                             |
| DRB1*04:05:01+DRB1*11:19:01  | DRB1*04:61+DRB1*13:30        | DRB1*04:107+DRB1*11:08:01    |                             |
| DRB1*04:05:01+DRB1*11:19:02  | DRB1*04:05:08+DRB1*11:19:01  |                              |                             |
| DRB1*04:05:01+DRB1*11:19:03  | DRB1*04:05:04+DRB1*11:19:01  | DRB1*04:107+DRB1*11:08:02    |                             |
| DRB1*04:05:01+DRB1*11:20     | DRB1*04:61+DRB1*13:139       |                              |                             |
| DRB1*04:05:01+DRB1*11:23     | DRB1*04:103+DRB1*11:01:02    |                              |                             |
| DRB1*04:05:01+DRB1*11:25     | DRB1*04:103+DRB1*11:04:01    |                              |                             |
| DRB1*04:05:01+DRB1*11:27:03  | DRB1*04:05:04+DRB1*11:27:02  |                              |                             |
| DRB1*04:05:01+DRB1*11:28:01  | DRB1*04:77+DRB1*11:01:01G    |                              |                             |
| DRB1*04:05:01+DRB1*11:28:02  | DRB1*04:77+DRB1*11:01:12     |                              |                             |
| DRB1*04:05:01+DRB1*11:29     | DRB1*04:84+DRB1*11:01:01G    |                              |                             |
| DRB1*04:05:01+DRB1*11:34     | DRB1*04:10:01+DRB1*11:26     |                              |                             |
| DRB1*04:05:01+DRB1*11:35     | DRB1*04:10:01+DRB1*11:33     |                              |                             |
| DRB1*04:05:01+DRB1*11:36     | DRB1*04:10:01+DRB1*11:68     |                              |                             |
| DRB1*04:05:01+DRB1*11:37:01  | DRB1*04:61+DRB1*13:49        |                              |                             |
| DRB1*04:05:01+DRB1*11:37:02  | DRB1*04:05:04+DRB1*11:37:01  |                              |                             |
| DRB1*04:05:01+DRB1*11:40     | DRB1*04:10:01+DRB1*11:122    |                              |                             |
| DRB1*04:05:01+DRB1*11:42     | DRB1*04:10:01+DRB1*11:08:01  |                              |                             |
| DRB1*04:05:01+DRB1*11:43     | DRB1*04:10:01+DRB1*11:39     |                              |                             |
| DRB1*04:05:01+DRB1*11:44     | DRB1*04:10:01+DRB1*11:49:01  |                              |                             |
| DRB1*04:05:01+DRB1*11:45     | DRB1*04:86+DRB1*11:26        | DRB1*04:103+DRB1*11:19:01    | DRB1*04:107+DRB1*11:64      |
| DRB1*04:05:01+DRB1*11:46:02  | DRB1*04:10:01+DRB1*11:62     |                              |                             |
| DRB1*04:05:01+DRB1*11:47     | DRB1*04:84+DRB1*11:06:01G    |                              |                             |
| DRB1*04:05:01+DRB1*11:48     | DRB1*04:61+DRB1*13:48        |                              |                             |
| DRB1*04:05:01+DRB1*11:49:02  | DRB1*04:05:04+DRB1*11:49:01  |                              |                             |
| DRB1*04:05:01+DRB1*11:54:01  | DRB1*04:05:14+DRB1*11:54:02  | DRB1*04:11:01+DRB1*11:01:05  | DRB1*04:17:02+DRB1*11:04:03 |
| DRB1*04:05:01+DRB1*11:54:02  | DRB1*04:11:01+DRB1*11:01:01G | DRB1*04:17:02+DRB1*11:04:01  |                             |
| DRB1*04:05:01+DRB1*11:55     | DRB1*04:103+DRB1*11:03       |                              |                             |
| DRB1*04:05:01+DRB1*11:56     | DRB1*04:10:01+DRB1*11:37:01  | DRB1*04:61+DRB1*13:108       |                             |
| DRB1*04:05:01+DRB1*11:58:01  | DRB1*04:10:01+DRB1*11:28:02  | DRB1*04:77+DRB1*11:04:04     |                             |
| DRB1*04:05:01+DRB1*11:58:02  | DRB1*04:10:01+DRB1*11:28:01  | DRB1*04:77+DRB1*11:04:01     |                             |
| DRB1*04:05:01+DRB1*11:60     | DRB1*04:10:01+DRB1*11:109    |                              |                             |
| DRB1*04:05:01+DRB1*11:63     | DRB1*04:84+DRB1*11:03        |                              |                             |
| DRB1*04:05:01+DRB1*11:64     | DRB1*04:103+DRB1*11:08:01    |                              |                             |
| DRB1*04:05:01+DRB1*11:66     | DRB1*04:29+DRB1*11:01:01G    |                              |                             |
| DRB1*04:05:01+DRB1*11:73     | DRB1*04:09+DRB1*11:19:03     | DRB1*04:61+DRB1*13:66:02     |                             |

|                              |                              |                             |                             |
|------------------------------|------------------------------|-----------------------------|-----------------------------|
| DRB1*04:05:01+DRB1*11:74:02  | DRB1*04:05:04+DRB1*11:74:01  |                             |                             |
| DRB1*04:05:01+DRB1*11:79     | DRB1*04:09+DRB1*11:26        |                             |                             |
| DRB1*04:05:01+DRB1*11:84:01  | DRB1*04:10:01+DRB1*11:27:01  |                             |                             |
| DRB1*04:05:01+DRB1*11:84:02  | DRB1*04:10:01+DRB1*11:27:02  |                             |                             |
| DRB1*04:05:01+DRB1*11:93     | DRB1*04:09+DRB1*11:01:02     |                             |                             |
| DRB1*04:05:01+DRB1*11:103    | DRB1*04:28+DRB1*11:107       |                             |                             |
| DRB1*04:05:01+DRB1*11:108    | DRB1*04:87+DRB1*11:01:01G    |                             |                             |
| DRB1*04:05:01+DRB1*11:113    | DRB1*04:10:01+DRB1*11:09     | DRB1*04:77+DRB1*11:46:01    |                             |
| DRB1*04:05:01+DRB1*11:116    | DRB1*04:10:01+DRB1*11:120    |                             |                             |
| DRB1*04:05:01+DRB1*11:119    | DRB1*04:10:01+DRB1*11:45     | DRB1*04:12+DRB1*11:26       | DRB1*04:86+DRB1*11:34       |
|                              | DRB1*04:103+DRB1*11:18       |                             |                             |
| DRB1*04:05:01+DRB1*11:125    | DRB1*04:80+DRB1*11:103       |                             |                             |
| DRB1*04:05:01+DRB1*11:126    | DRB1*04:116+DRB1*11:01:01G   |                             |                             |
| DRB1*04:05:01+DRB1*12:01:01G | DRB1*04:05:14+DRB1*12:01:03  | DRB1*04:107+DRB1*12:12      |                             |
| DRB1*04:05:01+DRB1*12:01:03  | DRB1*04:05:08+DRB1*12:01:02  |                             |                             |
| DRB1*04:05:01+DRB1*12:02:01  | DRB1*04:05:08+DRB1*12:02:04  | DRB1*04:05:14+DRB1*12:02:02 | DRB1*04:28+DRB1*12:21       |
|                              | DRB1*04:80+DRB1*12:12        |                             |                             |
| DRB1*04:05:01+DRB1*12:02:05  | DRB1*04:05:10+DRB1*12:02:01  |                             |                             |
| DRB1*04:05:01+DRB1*12:03:03  | DRB1*04:05:14+DRB1*12:03:02  |                             |                             |
| DRB1*04:05:01+DRB1*13:01:03  | DRB1*04:05:14+DRB1*13:01:01G |                             |                             |
| DRB1*04:05:01+DRB1*13:01:08  | DRB1*04:05:04+DRB1*13:01:01G |                             |                             |
| DRB1*04:05:01+DRB1*13:01:12  | DRB1*04:05:10+DRB1*13:01:01G |                             |                             |
| DRB1*04:05:01+DRB1*13:02:01  | DRB1*04:08:01+DRB1*13:139    | DRB1*04:28+DRB1*13:36       | DRB1*04:43+DRB1*13:65       |
|                              | DRB1*04:77+DRB1*13:97:01     | DRB1*04:106+DRB1*14:30      | DRB1*04:107+DRB1*13:29      |
| DRB1*04:05:01+DRB1*13:02:02  | DRB1*04:05:08+DRB1*13:02:01  |                             |                             |
| DRB1*04:05:01+DRB1*13:02:03  | DRB1*04:08:02+DRB1*13:139    |                             |                             |
| DRB1*04:05:01+DRB1*13:03:01  | DRB1*04:05:04+DRB1*13:03:02  | DRB1*04:09+DRB1*13:12:02    | DRB1*04:107+DRB1*13:88      |
| DRB1*04:05:01+DRB1*13:03:02  | DRB1*04:09+DRB1*13:12:01     |                             |                             |
| DRB1*04:05:01+DRB1*13:03:05  | DRB1*04:05:10+DRB1*13:03:01  |                             |                             |
| DRB1*04:05:01+DRB1*13:04     | DRB1*04:28+DRB1*13:48        |                             |                             |
| DRB1*04:05:01+DRB1*13:05:01  | DRB1*04:77+DRB1*13:132       | DRB1*04:80+DRB1*13:56       |                             |
| DRB1*04:05:01+DRB1*13:05:02  | DRB1*04:05:04+DRB1*13:05:01  |                             |                             |
| DRB1*04:05:01+DRB1*13:07:01  | DRB1*04:08:01+DRB1*13:49     |                             |                             |
| DRB1*04:05:01+DRB1*13:07:02  | DRB1*04:08:02+DRB1*13:49     |                             |                             |
| DRB1*04:05:01+DRB1*13:10     | DRB1*04:09+DRB1*13:06        |                             |                             |
| DRB1*04:05:01+DRB1*13:12:01  | DRB1*04:107+DRB1*13:134      |                             |                             |
| DRB1*04:05:01+DRB1*13:12:02  | DRB1*04:05:04+DRB1*13:12:01  |                             |                             |
| DRB1*04:05:01+DRB1*13:13     | DRB1*04:103+DRB1*13:12:01    |                             |                             |
| DRB1*04:05:01+DRB1*13:14:01  | DRB1*04:08:01+DRB1*13:21:01  | DRB1*04:28+DRB1*13:07:01    | DRB1*04:43+DRB1*13:49       |
|                              | DRB1*04:80+DRB1*13:25        |                             |                             |
| DRB1*04:05:01+DRB1*13:14:02  | DRB1*04:08:02+DRB1*13:21:01  | DRB1*04:28+DRB1*13:07:02    |                             |
| DRB1*04:05:01+DRB1*13:14:03  | DRB1*04:05:04+DRB1*13:14:01  | DRB1*04:08:01+DRB1*13:21:02 |                             |
| DRB1*04:05:01+DRB1*13:15     | DRB1*04:10:01+DRB1*13:104    | DRB1*04:28+DRB1*13:53       |                             |
| DRB1*04:05:01+DRB1*13:17     | DRB1*04:28+DRB1*13:116       |                             |                             |
| DRB1*04:05:01+DRB1*13:18     | DRB1*04:103+DRB1*13:42       |                             |                             |
| DRB1*04:05:01+DRB1*13:19     | DRB1*04:106+DRB1*14:20       |                             |                             |
| DRB1*04:05:01+DRB1*13:20     | DRB1*04:10:01+DRB1*13:29     |                             |                             |
| DRB1*04:05:01+DRB1*13:21:01  | DRB1*04:28+DRB1*13:49        |                             |                             |
| DRB1*04:05:01+DRB1*13:21:02  | DRB1*04:05:04+DRB1*13:21:01  |                             |                             |
| DRB1*04:05:01+DRB1*13:22     | DRB1*04:08:01+DRB1*13:04     | DRB1*04:10:01+DRB1*13:23:02 | DRB1*04:28+DRB1*13:70       |
|                              | DRB1*04:43+DRB1*13:48        | DRB1*04:106+DRB1*13:44      |                             |
| DRB1*04:05:01+DRB1*13:23:01  | DRB1*04:05:04+DRB1*13:23:02  | DRB1*04:43+DRB1*13:38       |                             |
| DRB1*04:05:01+DRB1*13:24     | DRB1*04:08:01+DRB1*13:75     |                             |                             |
| DRB1*04:05:01+DRB1*13:25     | DRB1*04:43+DRB1*13:134       |                             |                             |
| DRB1*04:05:01+DRB1*13:27     | DRB1*04:10:01+DRB1*13:41     | DRB1*04:107+DRB1*13:71      |                             |
| DRB1*04:05:01+DRB1*13:30     | DRB1*04:28+DRB1*13:12:01     |                             |                             |
| DRB1*04:05:01+DRB1*13:32     | DRB1*04:10:01+DRB1*13:65     |                             |                             |
| DRB1*04:05:01+DRB1*13:33:03  | DRB1*04:05:04+DRB1*13:33:02  |                             |                             |
| DRB1*04:05:01+DRB1*13:36     | DRB1*04:08:01+DRB1*13:65     | DRB1*04:106+DRB1*14:09      |                             |
| DRB1*04:05:01+DRB1*13:42     | DRB1*04:10:01+DRB1*13:05:01  |                             |                             |
| DRB1*04:05:01+DRB1*13:47     | DRB1*04:08:01+DRB1*13:55     |                             |                             |
| DRB1*04:05:01+DRB1*13:49     | DRB1*04:80+DRB1*13:134       |                             |                             |
| DRB1*04:05:01+DRB1*13:50:01  | DRB1*04:77+DRB1*13:14:01     |                             |                             |
| DRB1*04:05:01+DRB1*13:52     | DRB1*04:10:01+DRB1*13:97:01  |                             |                             |
| DRB1*04:05:01+DRB1*13:57     | DRB1*04:28+DRB1*13:19        |                             |                             |
| DRB1*04:05:01+DRB1*13:61:01  | DRB1*04:10:01+DRB1*13:96:02  | DRB1*04:44+DRB1*13:139      |                             |
| DRB1*04:05:01+DRB1*13:61:02  | DRB1*04:10:01+DRB1*13:96:01  |                             |                             |
| DRB1*04:05:01+DRB1*13:63     | DRB1*04:80+DRB1*13:29        |                             |                             |
| DRB1*04:05:01+DRB1*13:66:01  | DRB1*04:09+DRB1*13:30        | DRB1*04:28+DRB1*13:03:02    |                             |
| DRB1*04:05:01+DRB1*13:66:02  | DRB1*04:05:04+DRB1*13:66:01  | DRB1*04:28+DRB1*13:03:01    |                             |
| DRB1*04:05:01+DRB1*13:70     | DRB1*04:08:01+DRB1*13:48     |                             |                             |
| DRB1*04:05:01+DRB1*13:79     | DRB1*04:10:01+DRB1*13:39     | DRB1*04:107+DRB1*13:78      |                             |
| DRB1*04:05:01+DRB1*13:81     | DRB1*04:09+DRB1*13:58        |                             |                             |
| DRB1*04:05:01+DRB1*13:82     | DRB1*04:08:01+DRB1*13:30     | DRB1*04:43+DRB1*13:12:01    | DRB1*04:107+DRB1*13:25      |
| DRB1*04:05:01+DRB1*13:83     | DRB1*04:10:01+DRB1*13:107    | DRB1*04:28+DRB1*13:08       |                             |
| DRB1*04:05:01+DRB1*13:87     | DRB1*04:77+DRB1*13:83        |                             |                             |
| DRB1*04:05:01+DRB1*13:89     | DRB1*04:10:01+DRB1*13:03:01  | DRB1*04:67+DRB1*13:12:02    |                             |
| DRB1*04:05:01+DRB1*13:93     | DRB1*04:10:01+DRB1*13:139    | DRB1*04:28+DRB1*13:32       |                             |
| DRB1*04:05:01+DRB1*13:108    | DRB1*04:10:01+DRB1*13:49     |                             |                             |
| DRB1*04:05:01+DRB1*13:111    | DRB1*04:10:01+DRB1*13:63     | DRB1*04:80+DRB1*13:20       |                             |
| DRB1*04:05:01+DRB1*13:112    | DRB1*04:10:01+DRB1*13:128    |                             |                             |
| DRB1*04:05:01+DRB1*13:115    | DRB1*04:77+DRB1*13:03:01     |                             |                             |
| DRB1*04:05:01+DRB1*13:119    | DRB1*04:103+DRB1*13:56       |                             |                             |
| DRB1*04:05:01+DRB1*13:139    | DRB1*04:28+DRB1*13:65        |                             |                             |
| DRB1*04:05:01+DRB1*14:01:01G | DRB1*04:05:14+DRB1*14:01:02  | DRB1*04:10:01+DRB1*14:07:01 | DRB1*04:17:02+DRB1*14:32:02 |
| DRB1*04:05:01+DRB1*14:01:02  | DRB1*04:17:02+DRB1*14:32:01  |                             |                             |
| DRB1*04:05:01+DRB1*14:02     | DRB1*04:08:01+DRB1*14:13     |                             |                             |
| DRB1*04:05:01+DRB1*14:03:01  | DRB1*04:08:01+DRB1*14:85     |                             |                             |
| DRB1*04:05:01+DRB1*14:04     | DRB1*04:10:01+DRB1*14:68     | DRB1*04:17:02+DRB1*14:31    |                             |
| DRB1*04:05:01+DRB1*14:05:01  | DRB1*04:05:14+DRB1*14:05:03  | DRB1*04:10:01+DRB1*14:44:01 | DRB1*04:17:02+DRB1*14:100   |
| DRB1*04:05:01+DRB1*14:05:03  | DRB1*04:10:01+DRB1*14:44:02  |                             |                             |
| DRB1*04:05:01+DRB1*14:06:02  | DRB1*04:05:04+DRB1*14:06:01  |                             |                             |
| DRB1*04:05:01+DRB1*14:07:02  | DRB1*04:05:04+DRB1*14:07:01  |                             |                             |
| DRB1*04:05:01+DRB1*14:08     | DRB1*04:17:02+DRB1*14:34     |                             |                             |
| DRB1*04:05:01+DRB1*14:17     | DRB1*04:10:01+DRB1*14:30     | DRB1*04:28+DRB1*14:80       |                             |
| DRB1*04:05:01+DRB1*14:21     | DRB1*04:09+DRB1*14:17        | DRB1*04:67+DRB1*14:30       |                             |
| DRB1*04:05:01+DRB1*14:23:01  | DRB1*04:10:01+DRB1*14:14     | DRB1*04:17:02+DRB1*14:123   |                             |
| DRB1*04:05:01+DRB1*14:24     | DRB1*04:105:02+DRB1*14:13    |                             |                             |
| DRB1*04:05:01+DRB1*14:25     | DRB1*04:80+DRB1*14:69        |                             |                             |
| DRB1*04:05:01+DRB1*14:27     | DRB1*04:80+DRB1*14:03:01     | DRB1*04:103+DRB1*13:26:02   |                             |
| DRB1*04:05:01+DRB1*14:30     | DRB1*04:28+DRB1*14:09        |                             |                             |
| DRB1*04:05:01+DRB1*14:32:02  | DRB1*04:05:14+DRB1*14:32:01  |                             |                             |
| DRB1*04:05:01+DRB1*14:33     | DRB1*04:11:01+DRB1*14:30     | DRB1*04:17:02+DRB1*14:17    |                             |
| DRB1*04:05:01+DRB1*14:35     | DRB1*04:28+DRB1*14:01:01G    |                             |                             |
| DRB1*04:05:01+DRB1*14:44:01  | DRB1*04:05:14+DRB1*14:44:02  |                             |                             |

|                              |                              |                              |                             |
|------------------------------|------------------------------|------------------------------|-----------------------------|
| DRB1*04:05:01+DRB1*14:44:03  | DRB1*04:05:04+DRB1*14:44:01  |                              |                             |
| DRB1*04:05:01+DRB1*14:45     | DRB1*04:107+DRB1*14:05:01    |                              |                             |
| DRB1*04:05:01+DRB1*14:51     | DRB1*04:07:01G+DRB1*14:13    | DRB1*04:17:02+DRB1*14:02     |                             |
| DRB1*04:05:01+DRB1*14:53     | DRB1*04:28+DRB1*14:25        |                              |                             |
| DRB1*04:05:01+DRB1*14:55     | DRB1*04:103+DRB1*14:32:02    |                              |                             |
| DRB1*04:05:01+DRB1*14:56     | DRB1*04:48+DRB1*14:05:01     |                              |                             |
| DRB1*04:05:01+DRB1*14:63     | DRB1*04:86+DRB1*14:13        | DRB1*04:107+DRB1*14:85       |                             |
| DRB1*04:05:01+DRB1*14:67     | DRB1*04:08:01+DRB1*14:63     | DRB1*04:86+DRB1*14:02        | DRB1*04:107+DRB1*14:03:01   |
| DRB1*04:05:01+DRB1*14:75     | DRB1*04:87+DRB1*14:01:02     |                              |                             |
| DRB1*04:05:01+DRB1*14:78     | DRB1*04:10:01+DRB1*14:63     | DRB1*04:12+DRB1*14:13        |                             |
| DRB1*04:05:01+DRB1*14:80     | DRB1*04:10:01+DRB1*14:09     |                              |                             |
| DRB1*04:05:01+DRB1*14:81     | DRB1*04:24+DRB1*14:06:01     |                              |                             |
| DRB1*04:05:01+DRB1*14:89     | DRB1*04:31+DRB1*14:13        | DRB1*04:103+DRB1*14:02       |                             |
| DRB1*04:05:01+DRB1*14:103    | DRB1*04:87+DRB1*14:05:03     |                              |                             |
| DRB1*04:05:01+DRB1*14:108    | DRB1*04:80+DRB1*14:06:01     |                              |                             |
| DRB1*04:05:01+DRB1*14:112    | DRB1*04:104+DRB1*14:01:01G   |                              |                             |
| DRB1*04:05:01+DRB1*14:116    | DRB1*04:31+DRB1*13:134       |                              |                             |
| DRB1*04:05:01+DRB1*14:120    | DRB1*04:107+DRB1*14:04       |                              |                             |
| DRB1*04:05:01+DRB1*14:122    | DRB1*04:107+DRB1*14:01:01G   |                              |                             |
| DRB1*04:05:01+DRB1*15:01:01G | DRB1*04:08:02+DRB1*15:12     | DRB1*04:10:01+DRB1*15:02:01  | DRB1*04:28+DRB1*15:07:01    |
|                              | DRB1*04:107+DRB1*15:05       |                              |                             |
| DRB1*04:05:01+DRB1*15:01:03  | DRB1*04:05:12+DRB1*15:01:19  | DRB1*04:05:14+DRB1*15:01:01G | DRB1*04:10:01+DRB1*15:02:06 |
| DRB1*04:05:01+DRB1*15:01:04  | DRB1*04:08:01+DRB1*15:12     | DRB1*04:10:01+DRB1*15:02:02  | DRB1*04:28+DRB1*15:07:02    |
| DRB1*04:05:01+DRB1*15:01:09  | DRB1*04:10:01+DRB1*15:02:04  | DRB1*04:10:02+DRB1*15:02:01  |                             |
| DRB1*04:05:01+DRB1*15:01:10  | DRB1*04:10:01+DRB1*15:02:08  |                              |                             |
| DRB1*04:05:01+DRB1*15:01:20  | DRB1*04:05:10+DRB1*15:01:01G |                              |                             |
| DRB1*04:05:01+DRB1*15:02:01  | DRB1*04:28+DRB1*15:11        | DRB1*04:107+DRB1*15:31       |                             |
| DRB1*04:05:01+DRB1*15:02:05  | DRB1*04:05:04+DRB1*15:02:02  |                              |                             |
| DRB1*04:05:01+DRB1*15:02:06  | DRB1*04:05:14+DRB1*15:02:01  |                              |                             |
| DRB1*04:05:01+DRB1*15:02:07  | DRB1*04:05:07+DRB1*15:02:01  |                              |                             |
| DRB1*04:05:01+DRB1*15:02:09  | DRB1*04:05:04+DRB1*15:02:01  |                              |                             |
| DRB1*04:05:01+DRB1*15:03:01G | DRB1*04:107+DRB1*15:23       |                              |                             |
| DRB1*04:05:01+DRB1*15:04     | DRB1*04:10:01+DRB1*15:15     | DRB1*04:80+DRB1*15:05        |                             |
| DRB1*04:05:01+DRB1*15:05     | DRB1*04:10:01+DRB1*15:31     |                              |                             |
| DRB1*04:05:01+DRB1*15:06:01  | DRB1*04:107+DRB1*15:73       |                              |                             |
| DRB1*04:05:01+DRB1*15:07:01  | DRB1*04:10:01+DRB1*15:11     |                              |                             |
| DRB1*04:05:01+DRB1*15:09     | DRB1*04:28+DRB1*15:48        |                              |                             |
| DRB1*04:05:01+DRB1*15:10     | DRB1*04:106+DRB1*15:66       |                              |                             |
| DRB1*04:05:01+DRB1*15:15     | DRB1*04:80+DRB1*15:31        |                              |                             |
| DRB1*04:05:01+DRB1*15:21     | DRB1*04:12+DRB1*15:27        | DRB1*04:86+DRB1*15:66        |                             |
| DRB1*04:05:01+DRB1*15:27     | DRB1*04:28+DRB1*15:34        |                              |                             |
| DRB1*04:05:01+DRB1*15:32     | DRB1*04:77+DRB1*15:01:01G    |                              |                             |
| DRB1*04:05:01+DRB1*15:38     | DRB1*04:107+DRB1*15:63       |                              |                             |
| DRB1*04:05:01+DRB1*15:60     | DRB1*04:87+DRB1*15:02:01     |                              |                             |
| DRB1*04:05:01+DRB1*15:64     | DRB1*04:116+DRB1*15:01:01G   |                              |                             |
| DRB1*04:05:01+DRB1*15:65     | DRB1*04:10:01+DRB1*15:47     |                              |                             |
| DRB1*04:05:01+DRB1*15:66     | DRB1*04:10:01+DRB1*15:27     |                              |                             |
| DRB1*04:05:01+DRB1*15:76     | DRB1*04:45+DRB1*15:01:01G    |                              |                             |
| DRB1*04:05:01+DRB1*16:01:01  | DRB1*04:05:08+DRB1*16:01:02  | DRB1*04:80+DRB1*16:02:01     |                             |
| DRB1*04:05:01+DRB1*16:01:02  | DRB1*04:80+DRB1*16:02:02     |                              |                             |
| DRB1*04:05:01+DRB1*16:02:01  | DRB1*04:05:08+DRB1*16:02:02  |                              |                             |
| DRB1*04:05:01+DRB1*16:05:01  | DRB1*04:107+DRB1*16:02:01    |                              |                             |
| DRB1*04:05:01+DRB1*16:09     | DRB1*04:28+DRB1*16:01:01     | DRB1*04:80+DRB1*16:10        |                             |
| DRB1*04:05:01+DRB1*16:10     | DRB1*04:28+DRB1*16:02:01     |                              |                             |
| DRB1*04:05:01+DRB1*16:15     | DRB1*04:10:01+DRB1*16:01:01  |                              |                             |
| DRB1*04:05:01+DRB1*16:18     | DRB1*04:103+DRB1*16:02:02    |                              |                             |
| DRB1*04:05:03+DRB1*11:01:02  | DRB1*04:05:04+DRB1*11:01:06  |                              |                             |
| DRB1*04:05:03+DRB1*11:01:03  | DRB1*04:05:08+DRB1*11:01:06  |                              |                             |
| DRB1*04:05:03+DRB1*11:01:05  | DRB1*04:05:14+DRB1*11:01:06  |                              |                             |
| DRB1*04:05:03+DRB1*11:04:01  | DRB1*04:10:01+DRB1*11:01:06  |                              |                             |
| DRB1*04:05:03+DRB1*11:28:01  | DRB1*04:77+DRB1*11:01:06     |                              |                             |
| DRB1*04:05:03+DRB1*11:29     | DRB1*04:84+DRB1*11:01:06     |                              |                             |
| DRB1*04:05:03+DRB1*11:54:02  | DRB1*04:11:01+DRB1*11:01:06  |                              |                             |
| DRB1*04:05:03+DRB1*11:66     | DRB1*04:29+DRB1*11:01:06     |                              |                             |
| DRB1*04:05:03+DRB1*11:108    | DRB1*04:87+DRB1*11:01:06     |                              |                             |
| DRB1*04:05:03+DRB1*11:126    | DRB1*04:116+DRB1*11:01:06    |                              |                             |
| DRB1*04:05:04+DRB1*04:06:01G | DRB1*04:17:01+DRB1*04:68     |                              |                             |
| DRB1*04:05:04+DRB1*04:11:01  | DRB1*04:10:01+DRB1*04:17:01  |                              |                             |
| DRB1*04:05:04+DRB1*04:20     | DRB1*04:07:03+DRB1*04:84     | DRB1*04:17:01+DRB1*04:19     |                             |
| DRB1*04:05:04+DRB1*04:25     | DRB1*04:10:01+DRB1*04:54     |                              |                             |
| DRB1*04:05:04+DRB1*04:51     | DRB1*04:17:01+DRB1*04:70     |                              |                             |
| DRB1*04:05:04+DRB1*04:52     | DRB1*04:17:01+DRB1*04:23     |                              |                             |
| DRB1*04:05:04+DRB1*04:59     | DRB1*04:17:01+DRB1*04:42     |                              |                             |
| DRB1*04:05:04+DRB1*04:88     | DRB1*04:17:01+DRB1*04:56     |                              |                             |
| DRB1*04:05:04+DRB1*04:95     | DRB1*04:17:01+DRB1*04:44     |                              |                             |
| DRB1*04:05:04+DRB1*04:102    | DRB1*04:07:03+DRB1*04:77     |                              |                             |
| DRB1*04:05:04+DRB1*08:06     | DRB1*04:10:01+DRB1*08:01:01G |                              |                             |
| DRB1*04:05:04+DRB1*08:10     | DRB1*04:10:01+DRB1*08:03:03  |                              |                             |
| DRB1*04:05:04+DRB1*08:24     | DRB1*04:08:01+DRB1*08:05     |                              |                             |
| DRB1*04:05:04+DRB1*08:29     | DRB1*04:17:01+DRB1*08:18     |                              |                             |
| DRB1*04:05:04+DRB1*08:37     | DRB1*04:28+DRB1*08:03:03     |                              |                             |
| DRB1*04:05:04+DRB1*08:41     | DRB1*04:61+DRB1*08:05        |                              |                             |
| DRB1*04:05:04+DRB1*11:01:05  | DRB1*04:05:14+DRB1*11:01:02  |                              |                             |
| DRB1*04:05:04+DRB1*11:01:10  | DRB1*04:05:14+DRB1*11:01:11  |                              |                             |
| DRB1*04:05:04+DRB1*11:02:01  | DRB1*04:10:01+DRB1*11:14:02  |                              |                             |
| DRB1*04:05:04+DRB1*11:04:03  | DRB1*04:05:14+DRB1*11:04:02  |                              |                             |
| DRB1*04:05:04+DRB1*11:04:07  | DRB1*04:05:08+DRB1*11:04:02  | DRB1*04:10:01+DRB1*11:01:11  |                             |
| DRB1*04:05:04+DRB1*11:18     | DRB1*04:10:01+DRB1*11:19:03  |                              |                             |
| DRB1*04:05:04+DRB1*11:19:02  | DRB1*04:05:08+DRB1*11:19:03  |                              |                             |
| DRB1*04:05:04+DRB1*11:25     | DRB1*04:10:01+DRB1*11:23     | DRB1*04:103+DRB1*11:04:02    |                             |
| DRB1*04:05:04+DRB1*11:28:01  | DRB1*04:77+DRB1*11:01:02     |                              |                             |
| DRB1*04:05:04+DRB1*11:29     | DRB1*04:84+DRB1*11:01:02     |                              |                             |
| DRB1*04:05:04+DRB1*11:42     | DRB1*04:10:01+DRB1*11:08:02  |                              |                             |
| DRB1*04:05:04+DRB1*11:44     | DRB1*04:10:01+DRB1*11:49:02  |                              |                             |
| DRB1*04:05:04+DRB1*11:45     | DRB1*04:103+DRB1*11:19:03    |                              |                             |
| DRB1*04:05:04+DRB1*11:54:01  | DRB1*04:17:01+DRB1*11:04:03  |                              |                             |
| DRB1*04:05:04+DRB1*11:54:02  | DRB1*04:11:01+DRB1*11:01:02  | DRB1*04:17:01+DRB1*11:04:01  | DRB1*04:17:02+DRB1*11:04:02 |
| DRB1*04:05:04+DRB1*11:56     | DRB1*04:10:01+DRB1*11:37:02  |                              |                             |
| DRB1*04:05:04+DRB1*11:58:02  | DRB1*04:77+DRB1*11:04:02     |                              |                             |
| DRB1*04:05:04+DRB1*11:64     | DRB1*04:103+DRB1*11:08:02    |                              |                             |
| DRB1*04:05:04+DRB1*11:66     | DRB1*04:29+DRB1*11:01:02     |                              |                             |
| DRB1*04:05:04+DRB1*11:84:02  | DRB1*04:10:01+DRB1*11:27:03  |                              |                             |
| DRB1*04:05:04+DRB1*11:92     | DRB1*04:10:01+DRB1*11:72     |                              |                             |
| DRB1*04:05:04+DRB1*11:108    | DRB1*04:87+DRB1*11:01:02     |                              |                             |
| DRB1*04:05:04+DRB1*11:126    | DRB1*04:116+DRB1*11:01:02    |                              |                             |

|                              |                              |                             |
|------------------------------|------------------------------|-----------------------------|
| DRB1*04:05:04+DRB1*13:01:03  | DRB1*04:05:14+DRB1*13:01:08  |                             |
| DRB1*04:05:04+DRB1*13:01:12  | DRB1*04:05:10+DRB1*13:01:08  |                             |
| DRB1*04:05:04+DRB1*13:10     | DRB1*04:42+DRB1*13:120       |                             |
| DRB1*04:05:04+DRB1*13:13     | DRB1*04:103+DRB1*13:12:02    |                             |
| DRB1*04:05:04+DRB1*13:14:02  | DRB1*04:08:02+DRB1*13:21:02  |                             |
| DRB1*04:05:04+DRB1*13:22     | DRB1*04:10:01+DRB1*13:23:01  | DRB1*04:42+DRB1*13:38       |
| DRB1*04:05:04+DRB1*13:30     | DRB1*04:28+DRB1*13:12:02     |                             |
| DRB1*04:05:04+DRB1*13:42     | DRB1*04:10:01+DRB1*13:05:02  |                             |
| DRB1*04:05:04+DRB1*13:48     | DRB1*04:10:01+DRB1*13:38     |                             |
| DRB1*04:05:04+DRB1*13:50:01  | DRB1*04:77+DRB1*13:14:03     |                             |
| DRB1*04:05:04+DRB1*13:53     | DRB1*04:106+DRB1*14:06:02    |                             |
| DRB1*04:05:04+DRB1*13:82     | DRB1*04:43+DRB1*13:12:02     |                             |
| DRB1*04:05:04+DRB1*13:94     | DRB1*04:10:01+DRB1*13:33:01  |                             |
| DRB1*04:05:04+DRB1*14:01:01G | DRB1*04:10:01+DRB1*14:07:02  | DRB1*04:17:01+DRB1*14:32:02 |
| DRB1*04:05:04+DRB1*14:01:02  | DRB1*04:17:01+DRB1*14:32:01  |                             |
| DRB1*04:05:04+DRB1*14:04     | DRB1*04:17:01+DRB1*14:31     |                             |
| DRB1*04:05:04+DRB1*14:05:01  | DRB1*04:10:01+DRB1*14:44:03  | DRB1*04:17:01+DRB1*14:100   |
| DRB1*04:05:04+DRB1*14:08     | DRB1*04:17:01+DRB1*14:34     |                             |
| DRB1*04:05:04+DRB1*14:15     | DRB1*04:10:01+DRB1*08:09     |                             |
| DRB1*04:05:04+DRB1*14:23:01  | DRB1*04:17:01+DRB1*14:123    |                             |
| DRB1*04:05:04+DRB1*14:27     | DRB1*04:54+DRB1*14:13        |                             |
| DRB1*04:05:04+DRB1*14:33     | DRB1*04:17:01+DRB1*14:17     |                             |
| DRB1*04:05:04+DRB1*14:51     | DRB1*04:07:03+DRB1*14:13     | DRB1*04:17:01+DRB1*14:02    |
| DRB1*04:05:04+DRB1*14:81     | DRB1*04:24+DRB1*14:06:02     |                             |
| DRB1*04:05:04+DRB1*14:106    | DRB1*04:17:01+DRB1*14:06:01  | DRB1*04:17:02+DRB1*14:06:02 |
| DRB1*04:05:04+DRB1*14:108    | DRB1*04:80+DRB1*14:06:02     |                             |
| DRB1*04:05:04+DRB1*15:01:01G | DRB1*04:10:01+DRB1*15:02:09  |                             |
| DRB1*04:05:04+DRB1*15:01:04  | DRB1*04:10:01+DRB1*15:02:05  |                             |
| DRB1*04:05:04+DRB1*15:01:09  | DRB1*04:10:02+DRB1*15:02:09  |                             |
| DRB1*04:05:04+DRB1*15:02:06  | DRB1*04:05:14+DRB1*15:02:09  |                             |
| DRB1*04:05:04+DRB1*15:02:07  | DRB1*04:05:07+DRB1*15:02:09  |                             |
| DRB1*04:05:04+DRB1*15:60     | DRB1*04:87+DRB1*15:02:09     |                             |
| DRB1*04:05:07+DRB1*15:01:01G | DRB1*04:10:01+DRB1*15:02:07  |                             |
| DRB1*04:05:07+DRB1*15:01:09  | DRB1*04:10:02+DRB1*15:02:07  |                             |
| DRB1*04:05:07+DRB1*15:02:06  | DRB1*04:05:14+DRB1*15:02:07  |                             |
| DRB1*04:05:07+DRB1*15:60     | DRB1*04:87+DRB1*15:02:07     |                             |
| DRB1*04:05:08+DRB1*04:36     | DRB1*04:10:01+DRB1*04:47     |                             |
| DRB1*04:05:08+DRB1*08:34     | DRB1*04:103+DRB1*08:25       |                             |
| DRB1*04:05:08+DRB1*11:04:03  | DRB1*04:05:14+DRB1*11:04:07  | DRB1*04:10:01+DRB1*11:01:10 |
| DRB1*04:05:08+DRB1*11:18     | DRB1*04:10:01+DRB1*11:19:02  |                             |
| DRB1*04:05:08+DRB1*11:23     | DRB1*04:103+DRB1*11:01:11    |                             |
| DRB1*04:05:08+DRB1*11:25     | DRB1*04:103+DRB1*11:04:07    |                             |
| DRB1*04:05:08+DRB1*11:28:01  | DRB1*04:77+DRB1*11:01:03     |                             |
| DRB1*04:05:08+DRB1*11:29     | DRB1*04:84+DRB1*11:01:03     |                             |
| DRB1*04:05:08+DRB1*11:45     | DRB1*04:103+DRB1*11:19:02    |                             |
| DRB1*04:05:08+DRB1*11:54:01  | DRB1*04:11:01+DRB1*11:01:10  |                             |
| DRB1*04:05:08+DRB1*11:54:02  | DRB1*04:11:01+DRB1*11:01:03  | DRB1*04:17:02+DRB1*11:04:07 |
| DRB1*04:05:08+DRB1*11:58:02  | DRB1*04:77+DRB1*11:04:07     |                             |
| DRB1*04:05:08+DRB1*11:66     | DRB1*04:29+DRB1*11:01:03     |                             |
| DRB1*04:05:08+DRB1*11:93     | DRB1*04:09+DRB1*11:01:11     |                             |
| DRB1*04:05:08+DRB1*11:108    | DRB1*04:87+DRB1*11:01:03     |                             |
| DRB1*04:05:08+DRB1*11:126    | DRB1*04:116+DRB1*11:01:03    |                             |
| DRB1*04:05:08+DRB1*13:26:02  | DRB1*04:47+DRB1*14:13        |                             |
| DRB1*04:05:08+DRB1*16:18     | DRB1*04:103+DRB1*16:02:01    |                             |
| DRB1*04:05:10+DRB1*13:01:03  | DRB1*04:05:14+DRB1*13:01:12  |                             |
| DRB1*04:05:10+DRB1*13:37     | DRB1*04:08:01+DRB1*13:03:05  |                             |
| DRB1*04:05:10+DRB1*13:66:02  | DRB1*04:28+DRB1*13:03:05     |                             |
| DRB1*04:05:10+DRB1*13:89     | DRB1*04:10:01+DRB1*13:03:05  |                             |
| DRB1*04:05:10+DRB1*13:115    | DRB1*04:77+DRB1*13:03:05     |                             |
| DRB1*04:05:10+DRB1*15:01:03  | DRB1*04:05:14+DRB1*15:01:20  |                             |
| DRB1*04:05:10+DRB1*15:32     | DRB1*04:77+DRB1*15:01:20     |                             |
| DRB1*04:05:10+DRB1*15:64     | DRB1*04:116+DRB1*15:01:20    |                             |
| DRB1*04:05:10+DRB1*15:76     | DRB1*04:45+DRB1*15:01:20     |                             |
| DRB1*04:05:12+DRB1*08:01:04  | DRB1*04:05:14+DRB1*08:01:01G |                             |
| DRB1*04:05:12+DRB1*11:102:02 | DRB1*04:05:14+DRB1*11:102:01 |                             |
| DRB1*04:05:14+DRB1*04:78     | DRB1*04:06:05+DRB1*04:24     |                             |
| DRB1*04:05:14+DRB1*04:114    | DRB1*04:06:05+DRB1*04:09     |                             |
| DRB1*04:05:14+DRB1*08:04:04  | DRB1*04:10:01+DRB1*08:02:04  |                             |
| DRB1*04:05:14+DRB1*08:42     | DRB1*04:84+DRB1*08:02:04     |                             |
| DRB1*04:05:14+DRB1*08:44     | DRB1*04:29+DRB1*08:02:04     |                             |
| DRB1*04:05:14+DRB1*11:25     | DRB1*04:103+DRB1*11:04:03    |                             |
| DRB1*04:05:14+DRB1*11:28:01  | DRB1*04:77+DRB1*11:01:05     |                             |
| DRB1*04:05:14+DRB1*11:29     | DRB1*04:84+DRB1*11:01:05     |                             |
| DRB1*04:05:14+DRB1*11:47     | DRB1*04:84+DRB1*11:06:02     |                             |
| DRB1*04:05:14+DRB1*11:58:02  | DRB1*04:77+DRB1*11:04:03     |                             |
| DRB1*04:05:14+DRB1*11:66     | DRB1*04:29+DRB1*11:01:05     |                             |
| DRB1*04:05:14+DRB1*11:108    | DRB1*04:87+DRB1*11:01:05     |                             |
| DRB1*04:05:14+DRB1*11:126    | DRB1*04:116+DRB1*11:01:05    |                             |
| DRB1*04:05:14+DRB1*14:75     | DRB1*04:87+DRB1*14:01:01G    |                             |
| DRB1*04:05:14+DRB1*14:103    | DRB1*04:87+DRB1*14:05:01     |                             |
| DRB1*04:05:14+DRB1*15:01:09  | DRB1*04:10:02+DRB1*15:02:06  |                             |
| DRB1*04:05:14+DRB1*15:32     | DRB1*04:77+DRB1*15:01:03     |                             |
| DRB1*04:05:14+DRB1*15:60     | DRB1*04:87+DRB1*15:02:06     |                             |
| DRB1*04:05:14+DRB1*15:64     | DRB1*04:116+DRB1*15:01:03    |                             |
| DRB1*04:05:14+DRB1*15:76     | DRB1*04:45+DRB1*15:01:03     |                             |
| DRB1*04:06:01G+DRB1*04:12    | DRB1*04:18+DRB1*04:91        |                             |
| DRB1*04:06:01G+DRB1*04:17:01 | DRB1*04:07:03+DRB1*04:91     |                             |
| DRB1*04:06:01G+DRB1*04:17:02 | DRB1*04:07:01G+DRB1*04:91    | DRB1*04:11:01+DRB1*04:20    |
| DRB1*04:06:01G+DRB1*04:19    | DRB1*04:20+DRB1*04:68        |                             |
| DRB1*04:06:01G+DRB1*04:21    | DRB1*04:19+DRB1*04:114       |                             |
| DRB1*04:06:01G+DRB1*04:23    | DRB1*04:52+DRB1*04:68        |                             |
| DRB1*04:06:01G+DRB1*04:28    | DRB1*04:43+DRB1*04:91        | DRB1*04:59+DRB1*04:84       |
| DRB1*04:06:01G+DRB1*04:31    | DRB1*04:20+DRB1*04:55        |                             |
| DRB1*04:06:01G+DRB1*04:35    | DRB1*04:21+DRB1*04:59        | DRB1*04:43+DRB1*04:114      |
| DRB1*04:06:01G+DRB1*04:38    | DRB1*04:19+DRB1*04:100       | DRB1*04:21+DRB1*04:88       |
| DRB1*04:06:01G+DRB1*04:42    | DRB1*04:59+DRB1*04:68        |                             |
| DRB1*04:06:01G+DRB1*04:43    | DRB1*04:19+DRB1*04:59        | DRB1*04:20+DRB1*04:42       |
| DRB1*04:06:01G+DRB1*04:44    | DRB1*04:68+DRB1*04:95        |                             |
| DRB1*04:06:01G+DRB1*04:56    | DRB1*04:68+DRB1*04:88        |                             |
| DRB1*04:06:01G+DRB1*04:63    | DRB1*04:21+DRB1*04:110       |                             |
| DRB1*04:06:01G+DRB1*04:67    | DRB1*04:10:01+DRB1*04:114    | DRB1*04:13+DRB1*04:91       |
| DRB1*04:06:01G+DRB1*04:70    | DRB1*04:51+DRB1*04:68        |                             |
| DRB1*04:06:01G+DRB1*04:72:02 | DRB1*04:21+DRB1*04:95        |                             |
| DRB1*04:06:01G+DRB1*04:74    | DRB1*04:20+DRB1*04:95        |                             |
| DRB1*04:06:01G+DRB1*04:77    | DRB1*04:41+DRB1*04:84        |                             |

|                               |                              |                          |                           |
|-------------------------------|------------------------------|--------------------------|---------------------------|
| DRB1*04:06:01G+DRB1*04:84     | DRB1*04:19+DRB1*04:91        |                          |                           |
| DRB1*04:06:01G+DRB1*04:86     | DRB1*04:12+DRB1*04:20        |                          |                           |
| DRB1*04:06:01G+DRB1*04:87     | DRB1*04:51+DRB1*04:84        |                          |                           |
| DRB1*04:06:01G+DRB1*04:100    | DRB1*04:88+DRB1*04:114       |                          |                           |
| DRB1*04:06:01G+DRB1*04:102    | DRB1*04:20+DRB1*04:41        |                          |                           |
| DRB1*04:06:01G+DRB1*04:103    | DRB1*04:31+DRB1*04:91        |                          |                           |
| DRB1*04:06:01G+DRB1*04:105:01 | DRB1*04:06:04+DRB1*04:105:02 | DRB1*04:20+DRB1*04:73    |                           |
| DRB1*04:06:01G+DRB1*04:106    | DRB1*04:14+DRB1*04:91        |                          |                           |
| DRB1*04:06:01G+DRB1*04:107    | DRB1*04:84+DRB1*04:88        |                          |                           |
| DRB1*04:06:01G+DRB1*04:113    | DRB1*04:21+DRB1*04:41        |                          |                           |
| DRB1*04:06:01G+DRB1*08:01:01G | DRB1*04:11:01+DRB1*08:42     | DRB1*04:91+DRB1*08:02:01 |                           |
| DRB1*04:06:01G+DRB1*08:01:05  | DRB1*04:20+DRB1*08:06        | DRB1*04:91+DRB1*08:02:02 |                           |
| DRB1*04:06:01G+DRB1*08:02:02  | DRB1*04:20+DRB1*08:04:01     |                          |                           |
| DRB1*04:06:01G+DRB1*08:02:04  | DRB1*04:06:05+DRB1*08:02:01  |                          |                           |
| DRB1*04:06:01G+DRB1*08:03:02  | DRB1*04:20+DRB1*08:10        | DRB1*04:91+DRB1*08:30:01 |                           |
| DRB1*04:06:01G+DRB1*08:03:03  | DRB1*04:91+DRB1*08:30:03     |                          |                           |
| DRB1*04:06:01G+DRB1*08:04:06  | DRB1*04:06:04+DRB1*08:04:01  |                          |                           |
| DRB1*04:06:01G+DRB1*08:06     | DRB1*04:91+DRB1*08:04:01     |                          |                           |
| DRB1*04:06:01G+DRB1*08:18     | DRB1*04:68+DRB1*08:29        |                          |                           |
| DRB1*04:06:01G+DRB1*08:30:02  | DRB1*04:06:03+DRB1*08:30:01  |                          |                           |
| DRB1*04:06:01G+DRB1*08:41     | DRB1*04:20+DRB1*08:31        |                          |                           |
| DRB1*04:06:01G+DRB1*08:48     | DRB1*04:91+DRB1*08:13        |                          |                           |
| DRB1*04:06:01G+DRB1*09:01:02  | DRB1*04:20+DRB1*09:06        |                          |                           |
| DRB1*04:06:01G+DRB1*09:01:08  | DRB1*04:06:03+DRB1*09:01:02  |                          |                           |
| DRB1*04:06:01G+DRB1*09:02:01  | DRB1*04:06:04+DRB1*09:02:02  |                          |                           |
| DRB1*04:06:01G+DRB1*10:01:01  | DRB1*04:20+DRB1*10:02        |                          |                           |
| DRB1*04:06:01G+DRB1*10:01:03  | DRB1*04:78+DRB1*10:04        |                          |                           |
| DRB1*04:06:01G+DRB1*11:01:02  | DRB1*04:20+DRB1*11:04:02     |                          |                           |
| DRB1*04:06:01G+DRB1*11:01:03  | DRB1*04:20+DRB1*11:04:07     |                          |                           |
| DRB1*04:06:01G+DRB1*11:01:04  | DRB1*04:20+DRB1*11:04:05     |                          |                           |
| DRB1*04:06:01G+DRB1*11:01:05  | DRB1*04:06:05+DRB1*11:01:01G | DRB1*04:19+DRB1*11:54:01 | DRB1*04:20+DRB1*11:04:03  |
| DRB1*04:06:01G+DRB1*11:01:10  | DRB1*04:06:05+DRB1*11:01:03  |                          |                           |
| DRB1*04:06:01G+DRB1*11:01:12  | DRB1*04:20+DRB1*11:04:04     |                          |                           |
| DRB1*04:06:01G+DRB1*11:02:01  | DRB1*04:114+DRB1*11:98       |                          |                           |
| DRB1*04:06:01G+DRB1*11:04:01  | DRB1*04:68+DRB1*11:54:02     |                          |                           |
| DRB1*04:06:01G+DRB1*11:04:03  | DRB1*04:06:05+DRB1*11:04:01  | DRB1*04:68+DRB1*11:54:01 |                           |
| DRB1*04:06:01G+DRB1*11:06:02  | DRB1*04:06:05+DRB1*11:06:01G |                          |                           |
| DRB1*04:06:01G+DRB1*11:08:01  | DRB1*04:20+DRB1*11:42        |                          |                           |
| DRB1*04:06:01G+DRB1*11:09     | DRB1*04:20+DRB1*11:113       |                          |                           |
| DRB1*04:06:01G+DRB1*11:11:01G | DRB1*04:07:01G+DRB1*11:63    | DRB1*04:20+DRB1*11:03    |                           |
| DRB1*04:06:01G+DRB1*11:14:01  | DRB1*04:20+DRB1*11:02:01     |                          |                           |
| DRB1*04:06:01G+DRB1*11:19:01  | DRB1*04:20+DRB1*11:18        |                          |                           |
| DRB1*04:06:01G+DRB1*11:20     | DRB1*04:20+DRB1*11:16        |                          |                           |
| DRB1*04:06:01G+DRB1*11:26     | DRB1*04:20+DRB1*11:34        |                          |                           |
| DRB1*04:06:01G+DRB1*11:27:01  | DRB1*04:20+DRB1*11:84:01     | DRB1*04:95+DRB1*11:29    |                           |
| DRB1*04:06:01G+DRB1*11:27:02  | DRB1*04:20+DRB1*11:84:02     |                          |                           |
| DRB1*04:06:01G+DRB1*11:28:01  | DRB1*04:20+DRB1*11:58:02     | DRB1*04:41+DRB1*11:29    |                           |
| DRB1*04:06:01G+DRB1*11:28:02  | DRB1*04:20+DRB1*11:58:01     |                          |                           |
| DRB1*04:06:01G+DRB1*11:33     | DRB1*04:20+DRB1*11:35        |                          |                           |
| DRB1*04:06:01G+DRB1*11:37:01  | DRB1*04:20+DRB1*11:56        |                          |                           |
| DRB1*04:06:01G+DRB1*11:39     | DRB1*04:20+DRB1*11:43        |                          |                           |
| DRB1*04:06:01G+DRB1*11:45     | DRB1*04:20+DRB1*11:119       |                          |                           |
| DRB1*04:06:01G+DRB1*11:49:01  | DRB1*04:20+DRB1*11:44        |                          |                           |
| DRB1*04:06:01G+DRB1*11:54:01  | DRB1*04:06:05+DRB1*11:54:02  |                          |                           |
| DRB1*04:06:01G+DRB1*11:61     | DRB1*04:96+DRB1*11:29        |                          |                           |
| DRB1*04:06:01G+DRB1*11:62     | DRB1*04:20+DRB1*11:46:02     |                          |                           |
| DRB1*04:06:01G+DRB1*11:68     | DRB1*04:20+DRB1*11:36        |                          |                           |
| DRB1*04:06:01G+DRB1*11:73     | DRB1*04:114+DRB1*11:19:03    |                          |                           |
| DRB1*04:06:01G+DRB1*11:79     | DRB1*04:114+DRB1*11:26       |                          |                           |
| DRB1*04:06:01G+DRB1*11:93     | DRB1*04:114+DRB1*11:01:02    |                          |                           |
| DRB1*04:06:01G+DRB1*11:103    | DRB1*04:20+DRB1*11:07        |                          |                           |
| DRB1*04:06:01G+DRB1*11:106    | DRB1*04:109+DRB1*11:29       |                          |                           |
| DRB1*04:06:01G+DRB1*11:108    | DRB1*04:51+DRB1*11:29        |                          |                           |
| DRB1*04:06:01G+DRB1*11:109    | DRB1*04:20+DRB1*11:60        |                          |                           |
| DRB1*04:06:01G+DRB1*11:120    | DRB1*04:20+DRB1*11:116       |                          |                           |
| DRB1*04:06:01G+DRB1*11:122    | DRB1*04:20+DRB1*11:40        |                          |                           |
| DRB1*04:06:01G+DRB1*12:01:01G | DRB1*04:06:05+DRB1*12:01:03  |                          |                           |
| DRB1*04:06:01G+DRB1*12:02:01  | DRB1*04:06:05+DRB1*12:02:02  |                          |                           |
| DRB1*04:06:01G+DRB1*12:03:03  | DRB1*04:06:05+DRB1*12:03:02  |                          |                           |
| DRB1*04:06:01G+DRB1*13:01:03  | DRB1*04:06:05+DRB1*13:01:01G |                          |                           |
| DRB1*04:06:01G+DRB1*13:01:05  | DRB1*04:06:04+DRB1*13:01:01G |                          |                           |
| DRB1*04:06:01G+DRB1*13:01:06  | DRB1*04:06:03+DRB1*13:01:01G |                          |                           |
| DRB1*04:06:01G+DRB1*13:02:01  | DRB1*04:20+DRB1*13:01:01G    |                          |                           |
| DRB1*04:06:01G+DRB1*13:02:03  | DRB1*04:06:04+DRB1*13:02:01  | DRB1*04:20+DRB1*13:01:05 |                           |
| DRB1*04:06:01G+DRB1*13:03:01  | DRB1*04:20+DRB1*13:89        | DRB1*04:91+DRB1*13:37    | DRB1*04:114+DRB1*13:12:02 |
| DRB1*04:06:01G+DRB1*13:03:02  | DRB1*04:114+DRB1*13:12:01    |                          |                           |
| DRB1*04:06:01G+DRB1*13:04     | DRB1*04:91+DRB1*13:22        |                          |                           |
| DRB1*04:06:01G+DRB1*13:05:01  | DRB1*04:20+DRB1*13:42        |                          |                           |
| DRB1*04:06:01G+DRB1*13:07:02  | DRB1*04:06:04+DRB1*13:07:01  |                          |                           |
| DRB1*04:06:01G+DRB1*13:10     | DRB1*04:114+DRB1*13:06       |                          |                           |
| DRB1*04:06:01G+DRB1*13:11:02  | DRB1*04:06:04+DRB1*13:11:01  |                          |                           |
| DRB1*04:06:01G+DRB1*13:14:01  | DRB1*04:20+DRB1*13:11:01     |                          |                           |
| DRB1*04:06:01G+DRB1*13:14:02  | DRB1*04:06:04+DRB1*13:14:01  | DRB1*04:20+DRB1*13:11:02 |                           |
| DRB1*04:06:01G+DRB1*13:21:01  | DRB1*04:91+DRB1*13:14:01     |                          |                           |
| DRB1*04:06:01G+DRB1*13:21:02  | DRB1*04:91+DRB1*13:14:03     |                          |                           |
| DRB1*04:06:01G+DRB1*13:23:02  | DRB1*04:20+DRB1*13:22        |                          |                           |
| DRB1*04:06:01G+DRB1*13:29     | DRB1*04:20+DRB1*13:20        |                          |                           |
| DRB1*04:06:01G+DRB1*13:30     | DRB1*04:91+DRB1*13:82        |                          |                           |
| DRB1*04:06:01G+DRB1*13:32     | DRB1*04:91+DRB1*13:40        |                          |                           |
| DRB1*04:06:01G+DRB1*13:36     | DRB1*04:20+DRB1*13:40        | DRB1*04:102+DRB1*13:84   |                           |
| DRB1*04:06:01G+DRB1*13:39     | DRB1*04:20+DRB1*13:79        |                          |                           |
| DRB1*04:06:01G+DRB1*13:40     | DRB1*04:41+DRB1*13:84        |                          |                           |
| DRB1*04:06:01G+DRB1*13:41     | DRB1*04:20+DRB1*13:27        |                          |                           |
| DRB1*04:06:01G+DRB1*13:48     | DRB1*04:91+DRB1*13:70        |                          |                           |
| DRB1*04:06:01G+DRB1*13:49     | DRB1*04:20+DRB1*13:108       | DRB1*04:91+DRB1*13:07:01 |                           |
| DRB1*04:06:01G+DRB1*13:52     | DRB1*04:59+DRB1*13:84        |                          |                           |
| DRB1*04:06:01G+DRB1*13:55     | DRB1*04:91+DRB1*13:47        |                          |                           |
| DRB1*04:06:01G+DRB1*13:63     | DRB1*04:20+DRB1*13:111       |                          |                           |
| DRB1*04:06:01G+DRB1*13:65     | DRB1*04:20+DRB1*13:32        | DRB1*04:91+DRB1*13:36    |                           |
| DRB1*04:06:01G+DRB1*13:66:01  | DRB1*04:114+DRB1*13:30       |                          |                           |
| DRB1*04:06:01G+DRB1*13:75     | DRB1*04:91+DRB1*13:24        |                          |                           |
| DRB1*04:06:01G+DRB1*13:81     | DRB1*04:114+DRB1*13:58       |                          |                           |
| DRB1*04:06:01G+DRB1*13:93     | DRB1*04:91+DRB1*13:01:01G    |                          |                           |
| DRB1*04:06:01G+DRB1*13:96:01  | DRB1*04:20+DRB1*13:61:02     |                          |                           |
| DRB1*04:06:01G+DRB1*13:96:02  | DRB1*04:20+DRB1*13:61:01     |                          |                           |

|                               |                              |                             |                             |
|-------------------------------|------------------------------|-----------------------------|-----------------------------|
| DRB1*04:06:01G+DRB1*13:97:01  | DRB1*04:20+DRB1*13:52        |                             |                             |
| DRB1*04:06:01G+DRB1*13:104    | DRB1*04:20+DRB1*13:15        |                             |                             |
| DRB1*04:06:01G+DRB1*13:107    | DRB1*04:20+DRB1*13:83        |                             |                             |
| DRB1*04:06:01G+DRB1*13:128    | DRB1*04:20+DRB1*13:112       |                             |                             |
| DRB1*04:06:01G+DRB1*13:137N   | DRB1*04:65+DRB1*13:10        |                             |                             |
| DRB1*04:06:01G+DRB1*13:139    | DRB1*04:20+DRB1*13:93        | DRB1*04:91+DRB1*13:02:01    |                             |
| DRB1*04:06:01G+DRB1*14:01:01G | DRB1*04:06:05+DRB1*14:01:02  |                             |                             |
| DRB1*04:06:01G+DRB1*14:02     | DRB1*04:19+DRB1*14:106       | DRB1*04:20+DRB1*14:06:01    | DRB1*04:41+DRB1*14:94       |
|                               | DRB1*04:68+DRB1*14:51        |                             |                             |
| DRB1*04:06:01G+DRB1*14:03:01  | DRB1*04:20+DRB1*14:12:01     |                             |                             |
| DRB1*04:06:01G+DRB1*14:05:01  | DRB1*04:06:03+DRB1*14:05:02  | DRB1*04:06:05+DRB1*14:05:03 |                             |
| DRB1*04:06:01G+DRB1*14:06:01  | DRB1*04:68+DRB1*14:106       |                             |                             |
| DRB1*04:06:01G+DRB1*14:07:01  | DRB1*04:20+DRB1*14:01:01G    |                             |                             |
| DRB1*04:06:01G+DRB1*14:09     | DRB1*04:20+DRB1*14:80        |                             |                             |
| DRB1*04:06:01G+DRB1*14:13     | DRB1*04:84+DRB1*14:106       | DRB1*04:91+DRB1*14:02       |                             |
| DRB1*04:06:01G+DRB1*14:14     | DRB1*04:20+DRB1*14:23:01     |                             |                             |
| DRB1*04:06:01G+DRB1*14:17     | DRB1*04:68+DRB1*14:33        |                             |                             |
| DRB1*04:06:01G+DRB1*14:19     | DRB1*04:21+DRB1*14:106       | DRB1*04:114+DRB1*14:02      |                             |
| DRB1*04:06:01G+DRB1*14:21     | DRB1*04:114+DRB1*14:17       |                             |                             |
| DRB1*04:06:01G+DRB1*14:23:03  | DRB1*04:06:03+DRB1*14:23:01  |                             |                             |
| DRB1*04:06:01G+DRB1*14:30     | DRB1*04:19+DRB1*14:33        | DRB1*04:20+DRB1*14:17       |                             |
| DRB1*04:06:01G+DRB1*14:31     | DRB1*04:68+DRB1*14:04        |                             |                             |
| DRB1*04:06:01G+DRB1*14:32:01  | DRB1*04:68+DRB1*14:01:02     |                             |                             |
| DRB1*04:06:01G+DRB1*14:32:02  | DRB1*04:06:05+DRB1*14:32:01  | DRB1*04:68+DRB1*14:01:01G   |                             |
| DRB1*04:06:01G+DRB1*14:34     | DRB1*04:68+DRB1*14:08        |                             |                             |
| DRB1*04:06:01G+DRB1*14:44:01  | DRB1*04:06:05+DRB1*14:44:02  | DRB1*04:20+DRB1*14:05:01    |                             |
| DRB1*04:06:01G+DRB1*14:44:02  | DRB1*04:20+DRB1*14:05:03     |                             |                             |
| DRB1*04:06:01G+DRB1*14:51     | DRB1*04:20+DRB1*14:106       |                             |                             |
| DRB1*04:06:01G+DRB1*14:63     | DRB1*04:20+DRB1*14:78        | DRB1*04:91+DRB1*14:67       |                             |
| DRB1*04:06:01G+DRB1*14:68     | DRB1*04:20+DRB1*14:04        |                             |                             |
| DRB1*04:06:01G+DRB1*14:81     | DRB1*04:78+DRB1*14:06:01     |                             |                             |
| DRB1*04:06:01G+DRB1*14:85     | DRB1*04:91+DRB1*14:03:01     |                             |                             |
| DRB1*04:06:01G+DRB1*14:100    | DRB1*04:68+DRB1*14:05:01     |                             |                             |
| DRB1*04:06:01G+DRB1*14:123    | DRB1*04:68+DRB1*14:23:01     |                             |                             |
| DRB1*04:06:01G+DRB1*15:01:01G | DRB1*04:06:04+DRB1*15:01:04  |                             |                             |
| DRB1*04:06:01G+DRB1*15:01:03  | DRB1*04:06:05+DRB1*15:01:01G |                             |                             |
| DRB1*04:06:01G+DRB1*15:02:01  | DRB1*04:06:04+DRB1*15:02:02  | DRB1*04:20+DRB1*15:01:01G   |                             |
| DRB1*04:06:01G+DRB1*15:02:02  | DRB1*04:20+DRB1*15:01:04     |                             |                             |
| DRB1*04:06:01G+DRB1*15:02:04  | DRB1*04:20+DRB1*15:01:09     |                             |                             |
| DRB1*04:06:01G+DRB1*15:02:06  | DRB1*04:06:05+DRB1*15:02:01  | DRB1*04:20+DRB1*15:01:03    |                             |
| DRB1*04:06:01G+DRB1*15:02:08  | DRB1*04:20+DRB1*15:01:10     |                             |                             |
| DRB1*04:06:01G+DRB1*15:02:09  | DRB1*04:06:04+DRB1*15:02:05  |                             |                             |
| DRB1*04:06:01G+DRB1*15:07:01  | DRB1*04:06:04+DRB1*15:07:02  |                             |                             |
| DRB1*04:06:01G+DRB1*15:11     | DRB1*04:20+DRB1*15:07:01     |                             |                             |
| DRB1*04:06:01G+DRB1*15:12     | DRB1*04:91+DRB1*15:01:04     |                             |                             |
| DRB1*04:06:01G+DRB1*15:15     | DRB1*04:20+DRB1*15:04        |                             |                             |
| DRB1*04:06:01G+DRB1*15:27     | DRB1*04:20+DRB1*15:66        |                             |                             |
| DRB1*04:06:01G+DRB1*15:31     | DRB1*04:20+DRB1*15:05        |                             |                             |
| DRB1*04:06:01G+DRB1*15:47     | DRB1*04:20+DRB1*15:65        |                             |                             |
| DRB1*04:06:01G+DRB1*16:01:01  | DRB1*04:20+DRB1*16:15        |                             |                             |
| DRB1*04:06:01G+DRB1*16:08     | DRB1*04:41+DRB1*16:01:01     | DRB1*04:102+DRB1*16:15      |                             |
| DRB1*04:06:03+DRB1*08:03:02   | DRB1*04:91+DRB1*08:30:02     |                             |                             |
| DRB1*04:06:03+DRB1*13:01:03   | DRB1*04:06:05+DRB1*13:01:06  |                             |                             |
| DRB1*04:06:03+DRB1*13:01:05   | DRB1*04:06:04+DRB1*13:01:06  |                             |                             |
| DRB1*04:06:03+DRB1*13:02:01   | DRB1*04:20+DRB1*13:01:06     |                             |                             |
| DRB1*04:06:03+DRB1*13:93      | DRB1*04:91+DRB1*13:01:06     |                             |                             |
| DRB1*04:06:03+DRB1*14:14      | DRB1*04:20+DRB1*14:23:03     |                             |                             |
| DRB1*04:06:03+DRB1*14:54:02   | DRB1*04:06:04+DRB1*14:01:01G |                             |                             |
| DRB1*04:06:03+DRB1*14:123     | DRB1*04:68+DRB1*14:23:03     |                             |                             |
| DRB1*04:06:04+DRB1*08:02:02   | DRB1*04:20+DRB1*08:04:06     |                             |                             |
| DRB1*04:06:04+DRB1*08:06      | DRB1*04:91+DRB1*08:04:06     |                             |                             |
| DRB1*04:06:04+DRB1*13:01:03   | DRB1*04:06:05+DRB1*13:01:05  |                             |                             |
| DRB1*04:06:04+DRB1*13:21:01   | DRB1*04:91+DRB1*13:14:02     |                             |                             |
| DRB1*04:06:04+DRB1*13:49      | DRB1*04:91+DRB1*13:07:02     |                             |                             |
| DRB1*04:06:04+DRB1*13:93      | DRB1*04:91+DRB1*13:01:05     |                             |                             |
| DRB1*04:06:04+DRB1*13:139     | DRB1*04:91+DRB1*13:02:03     |                             |                             |
| DRB1*04:06:04+DRB1*15:12      | DRB1*04:91+DRB1*15:01:01G    |                             |                             |
| DRB1*04:06:04+DRB1*15:38      | DRB1*04:20+DRB1*15:71        |                             |                             |
| DRB1*04:06:05+DRB1*04:82      | DRB1*04:07:01G+DRB1*04:99    |                             |                             |
| DRB1*04:06:05+DRB1*08:01:01G  | DRB1*04:91+DRB1*08:02:04     |                             |                             |
| DRB1*04:06:05+DRB1*13:02:01   | DRB1*04:20+DRB1*13:01:03     |                             |                             |
| DRB1*04:06:05+DRB1*13:08      | DRB1*04:68+DRB1*13:76        |                             |                             |
| DRB1*04:06:05+DRB1*13:77      | DRB1*04:99+DRB1*14:33        |                             |                             |
| DRB1*04:06:05+DRB1*13:93      | DRB1*04:91+DRB1*13:01:03     |                             |                             |
| DRB1*04:06:05+DRB1*14:22      | DRB1*04:20+DRB1*14:105       |                             |                             |
| DRB1*04:07:01G+DRB1*04:17:01  | DRB1*04:07:03+DRB1*04:17:02  |                             |                             |
| DRB1*04:07:01G+DRB1*04:19     | DRB1*04:08:01+DRB1*04:20     |                             |                             |
| DRB1*04:07:01G+DRB1*04:23     | DRB1*04:08:01+DRB1*04:52     |                             |                             |
| DRB1*04:07:01G+DRB1*04:28     | DRB1*04:17:02+DRB1*04:43     |                             |                             |
| DRB1*04:07:01G+DRB1*04:56     | DRB1*04:08:01+DRB1*04:88     |                             |                             |
| DRB1*04:07:01G+DRB1*04:70     | DRB1*04:08:01+DRB1*04:51     |                             |                             |
| DRB1*04:07:01G+DRB1*04:78     | DRB1*04:20+DRB1*04:101       |                             |                             |
| DRB1*04:07:01G+DRB1*04:103    | DRB1*04:17:02+DRB1*04:31     |                             |                             |
| DRB1*04:07:01G+DRB1*04:106    | DRB1*04:14+DRB1*04:17:02     |                             |                             |
| DRB1*04:07:01G+DRB1*07:01:04  | DRB1*04:07:04+DRB1*07:01:01G |                             |                             |
| DRB1*04:07:01G+DRB1*07:04     | DRB1*04:74+DRB1*07:11        |                             |                             |
| DRB1*04:07:01G+DRB1*08:01:01G | DRB1*04:07:03+DRB1*08:01:05  | DRB1*04:17:01+DRB1*08:02:02 | DRB1*04:17:02+DRB1*08:02:01 |
| DRB1*04:07:01G+DRB1*08:01:05  | DRB1*04:17:02+DRB1*08:02:02  |                             |                             |
| DRB1*04:07:01G+DRB1*08:02:01  | DRB1*04:07:03+DRB1*08:02:02  |                             |                             |
| DRB1*04:07:01G+DRB1*08:03:02  | DRB1*04:17:02+DRB1*08:30:01  | DRB1*04:31+DRB1*08:29       |                             |
| DRB1*04:07:01G+DRB1*08:03:03  | DRB1*04:07:03+DRB1*08:03:02  | DRB1*04:17:01+DRB1*08:30:01 | DRB1*04:17:02+DRB1*08:30:03 |
| DRB1*04:07:01G+DRB1*08:04:03  | DRB1*04:07:03+DRB1*08:04:02  |                             |                             |
| DRB1*04:07:01G+DRB1*08:05     | DRB1*04:17:01+DRB1*08:24     |                             |                             |
| DRB1*04:07:01G+DRB1*08:12     | DRB1*04:27+DRB1*08:03:02     |                             |                             |
| DRB1*04:07:01G+DRB1*08:18     | DRB1*04:08:01+DRB1*08:29     |                             |                             |
| DRB1*04:07:01G+DRB1*08:22     | DRB1*04:27+DRB1*08:01:01G    |                             |                             |
| DRB1*04:07:01G+DRB1*08:28     | DRB1*04:59+DRB1*08:02:02     |                             |                             |
| DRB1*04:07:01G+DRB1*08:30:03  | DRB1*04:07:03+DRB1*08:30:01  |                             |                             |
| DRB1*04:07:01G+DRB1*08:42     | DRB1*04:20+DRB1*08:02:01     |                             |                             |
| DRB1*04:07:01G+DRB1*08:48     | DRB1*04:17:02+DRB1*08:13     |                             |                             |
| DRB1*04:07:01G+DRB1*11:01:02  | DRB1*04:07:03+DRB1*11:01:01G |                             |                             |
| DRB1*04:07:01G+DRB1*11:01:11  | DRB1*04:07:03+DRB1*11:01:03  |                             |                             |
| DRB1*04:07:01G+DRB1*11:06:01G | DRB1*04:27+DRB1*11:01:01G    |                             |                             |
| DRB1*04:07:01G+DRB1*11:06:02  | DRB1*04:27+DRB1*11:01:05     |                             |                             |
| DRB1*04:07:01G+DRB1*11:06:03  | DRB1*04:27+DRB1*11:01:04     |                             |                             |

|                               |                              |                             |                             |
|-------------------------------|------------------------------|-----------------------------|-----------------------------|
| DRB1*04:07:01G+DRB1*11:08:02  | DRB1*04:07:03+DRB1*11:08:01  |                             |                             |
| DRB1*04:07:01G+DRB1*11:10:01  | DRB1*04:07:03+DRB1*11:10:02  |                             |                             |
| DRB1*04:07:01G+DRB1*11:13:01G | DRB1*04:43+DRB1*11:17        |                             |                             |
| DRB1*04:07:01G+DRB1*11:14:02  | DRB1*04:07:03+DRB1*11:14:01  |                             |                             |
| DRB1*04:07:01G+DRB1*11:19:03  | DRB1*04:07:03+DRB1*11:19:01  |                             |                             |
| DRB1*04:07:01G+DRB1*11:21     | DRB1*04:27+DRB1*11:14:01     |                             |                             |
| DRB1*04:07:01G+DRB1*11:25     | DRB1*04:31+DRB1*11:54:02     |                             |                             |
| DRB1*04:07:01G+DRB1*11:27:01  | DRB1*04:74+DRB1*11:01:01G    |                             |                             |
| DRB1*04:07:01G+DRB1*11:27:03  | DRB1*04:07:03+DRB1*11:27:02  |                             |                             |
| DRB1*04:07:01G+DRB1*11:28:01  | DRB1*04:102+DRB1*11:01:01G   |                             |                             |
| DRB1*04:07:01G+DRB1*11:28:02  | DRB1*04:102+DRB1*11:01:12    |                             |                             |
| DRB1*04:07:01G+DRB1*11:29     | DRB1*04:20+DRB1*11:01:01G    |                             |                             |
| DRB1*04:07:01G+DRB1*11:37:02  | DRB1*04:07:03+DRB1*11:37:01  |                             |                             |
| DRB1*04:07:01G+DRB1*11:47     | DRB1*04:20+DRB1*11:06:01G    | DRB1*04:27+DRB1*11:29       |                             |
| DRB1*04:07:01G+DRB1*11:49:02  | DRB1*04:07:03+DRB1*11:49:01  |                             |                             |
| DRB1*04:07:01G+DRB1*11:57     | DRB1*04:27+DRB1*11:08:01     |                             |                             |
| DRB1*04:07:01G+DRB1*11:74:02  | DRB1*04:07:03+DRB1*11:74:01  |                             |                             |
| DRB1*04:07:01G+DRB1*11:124    | DRB1*04:74+DRB1*11:02:01     | DRB1*04:95+DRB1*11:14:01    |                             |
| DRB1*04:07:01G+DRB1*12:02:03  | DRB1*04:07:04+DRB1*12:02:01  |                             |                             |
| DRB1*04:07:01G+DRB1*13:01:08  | DRB1*04:07:03+DRB1*13:01:01G |                             |                             |
| DRB1*04:07:01G+DRB1*13:02:01  | DRB1*04:102+DRB1*13:97:01    |                             |                             |
| DRB1*04:07:01G+DRB1*13:02:06  | DRB1*04:07:04+DRB1*13:02:01  |                             |                             |
| DRB1*04:07:01G+DRB1*13:03:01  | DRB1*04:07:03+DRB1*13:03:02  | DRB1*04:17:02+DRB1*13:37    |                             |
| DRB1*04:07:01G+DRB1*13:04     | DRB1*04:11:01+DRB1*13:23:02  | DRB1*04:17:02+DRB1*13:22    |                             |
| DRB1*04:07:01G+DRB1*13:05:01  | DRB1*04:102+DRB1*13:132      |                             |                             |
| DRB1*04:07:01G+DRB1*13:05:02  | DRB1*04:07:03+DRB1*13:05:01  |                             |                             |
| DRB1*04:07:01G+DRB1*13:06     | DRB1*04:88+DRB1*13:56        |                             |                             |
| DRB1*04:07:01G+DRB1*13:09     | DRB1*04:105:02+DRB1*14:33    |                             |                             |
| DRB1*04:07:01G+DRB1*13:10     | DRB1*04:100+DRB1*13:56       |                             |                             |
| DRB1*04:07:01G+DRB1*13:12:02  | DRB1*04:07:03+DRB1*13:12:01  |                             |                             |
| DRB1*04:07:01G+DRB1*13:14:03  | DRB1*04:07:03+DRB1*13:14:01  |                             |                             |
| DRB1*04:07:01G+DRB1*13:21:01  | DRB1*04:17:02+DRB1*13:14:01  |                             |                             |
| DRB1*04:07:01G+DRB1*13:21:02  | DRB1*04:07:03+DRB1*13:21:01  | DRB1*04:17:01+DRB1*13:14:01 | DRB1*04:17:02+DRB1*13:14:03 |
| DRB1*04:07:01G+DRB1*13:23:01  | DRB1*04:07:03+DRB1*13:23:02  |                             |                             |
| DRB1*04:07:01G+DRB1*13:30     | DRB1*04:17:02+DRB1*13:82     |                             |                             |
| DRB1*04:07:01G+DRB1*13:33:02  | DRB1*04:74+DRB1*13:03:02     |                             |                             |
| DRB1*04:07:01G+DRB1*13:33:03  | DRB1*04:07:03+DRB1*13:33:02  | DRB1*04:74+DRB1*13:03:01    |                             |
| DRB1*04:07:01G+DRB1*13:48     | DRB1*04:17:02+DRB1*13:70     |                             |                             |
| DRB1*04:07:01G+DRB1*13:49     | DRB1*04:17:02+DRB1*13:07:01  |                             |                             |
| DRB1*04:07:01G+DRB1*13:50:01  | DRB1*04:102+DRB1*13:14:01    |                             |                             |
| DRB1*04:07:01G+DRB1*13:55     | DRB1*04:17:02+DRB1*13:47     |                             |                             |
| DRB1*04:07:01G+DRB1*13:58     | DRB1*04:27+DRB1*13:12:01     |                             |                             |
| DRB1*04:07:01G+DRB1*13:65     | DRB1*04:17:02+DRB1*13:36     |                             |                             |
| DRB1*04:07:01G+DRB1*13:66:02  | DRB1*04:07:03+DRB1*13:66:01  |                             |                             |
| DRB1*04:07:01G+DRB1*13:75     | DRB1*04:17:02+DRB1*13:24     |                             |                             |
| DRB1*04:07:01G+DRB1*13:77     | DRB1*04:82+DRB1*14:33        |                             |                             |
| DRB1*04:07:01G+DRB1*13:81     | DRB1*04:27+DRB1*13:03:02     |                             |                             |
| DRB1*04:07:01G+DRB1*13:87     | DRB1*04:41+DRB1*13:107       | DRB1*04:102+DRB1*13:83      |                             |
| DRB1*04:07:01G+DRB1*13:96:02  | DRB1*04:74+DRB1*13:02:01     |                             |                             |
| DRB1*04:07:01G+DRB1*13:110    | DRB1*04:97+DRB1*13:02:01     |                             |                             |
| DRB1*04:07:01G+DRB1*13:114    | DRB1*04:93+DRB1*13:29        |                             |                             |
| DRB1*04:07:01G+DRB1*13:115    | DRB1*04:102+DRB1*13:03:01    |                             |                             |
| DRB1*04:07:01G+DRB1*13:139    | DRB1*04:17:02+DRB1*13:02:01  |                             |                             |
| DRB1*04:07:01G+DRB1*14:02     | DRB1*04:08:01+DRB1*14:51     |                             |                             |
| DRB1*04:07:01G+DRB1*14:06:02  | DRB1*04:07:03+DRB1*14:06:01  |                             |                             |
| DRB1*04:07:01G+DRB1*14:07:02  | DRB1*04:07:03+DRB1*14:07:01  |                             |                             |
| DRB1*04:07:01G+DRB1*14:24     | DRB1*04:105:02+DRB1*14:51    |                             |                             |
| DRB1*04:07:01G+DRB1*14:28     | DRB1*04:27+DRB1*14:68        |                             |                             |
| DRB1*04:07:01G+DRB1*14:29     | DRB1*04:27+DRB1*14:02        |                             |                             |
| DRB1*04:07:01G+DRB1*14:32:01  | DRB1*04:08:01+DRB1*14:01:02  | DRB1*04:101+DRB1*14:119     |                             |
| DRB1*04:07:01G+DRB1*14:34     | DRB1*04:08:01+DRB1*14:08     |                             |                             |
| DRB1*04:07:01G+DRB1*14:35     | DRB1*04:59+DRB1*14:07:01     |                             |                             |
| DRB1*04:07:01G+DRB1*14:38     | DRB1*04:74+DRB1*14:01:02     |                             |                             |
| DRB1*04:07:01G+DRB1*14:44:03  | DRB1*04:07:03+DRB1*14:44:01  |                             |                             |
| DRB1*04:07:01G+DRB1*14:45     | DRB1*04:88+DRB1*14:44:01     |                             |                             |
| DRB1*04:07:01G+DRB1*14:47     | DRB1*04:74+DRB1*14:02        |                             |                             |
| DRB1*04:07:01G+DRB1*14:55     | DRB1*04:31+DRB1*14:01:01G    | DRB1*04:55+DRB1*14:07:01    |                             |
| DRB1*04:07:01G+DRB1*14:63     | DRB1*04:17:02+DRB1*14:67     | DRB1*04:86+DRB1*14:51       |                             |
| DRB1*04:07:01G+DRB1*14:65     | DRB1*04:28+DRB1*14:23:01     |                             |                             |
| DRB1*04:07:01G+DRB1*14:81     | DRB1*04:101+DRB1*14:02       |                             |                             |
| DRB1*04:07:01G+DRB1*14:85     | DRB1*04:17:02+DRB1*14:03:01  |                             |                             |
| DRB1*04:07:01G+DRB1*14:89     | DRB1*04:31+DRB1*14:51        |                             |                             |
| DRB1*04:07:01G+DRB1*14:98     | DRB1*04:74+DRB1*14:03:01     |                             |                             |
| DRB1*04:07:01G+DRB1*14:99     | DRB1*04:27+DRB1*14:07:01     |                             |                             |
| DRB1*04:07:01G+DRB1*14:103    | DRB1*04:51+DRB1*14:44:02     |                             |                             |
| DRB1*04:07:01G+DRB1*14:120    | DRB1*04:88+DRB1*14:68        |                             |                             |
| DRB1*04:07:01G+DRB1*14:122    | DRB1*04:88+DRB1*14:07:01     |                             |                             |
| DRB1*04:07:01G+DRB1*14:127    | DRB1*04:74+DRB1*14:05:03     | DRB1*04:95+DRB1*14:44:02    |                             |
| DRB1*04:07:01G+DRB1*15:02:04  | DRB1*04:07:04+DRB1*15:02:01  |                             |                             |
| DRB1*04:07:01G+DRB1*15:02:05  | DRB1*04:07:03+DRB1*15:02:02  |                             |                             |
| DRB1*04:07:01G+DRB1*15:02:09  | DRB1*04:07:03+DRB1*15:02:01  |                             |                             |
| DRB1*04:07:01G+DRB1*15:12     | DRB1*04:11:01+DRB1*15:02:02  | DRB1*04:17:02+DRB1*15:01:04 |                             |
| DRB1*04:07:01G+DRB1*15:32     | DRB1*04:41+DRB1*15:02:01     | DRB1*04:102+DRB1*15:01:01G  |                             |
| DRB1*04:07:01G+DRB1*15:35     | DRB1*04:27+DRB1*15:02:01     |                             |                             |
| DRB1*04:07:01G+DRB1*15:42     | DRB1*04:109+DRB1*15:02:01    |                             |                             |
| DRB1*04:07:01G+DRB1*15:57     | DRB1*04:74+DRB1*15:03:01G    |                             |                             |
| DRB1*04:07:03+DRB1*04:12      | DRB1*04:17:01+DRB1*04:18     |                             |                             |
| DRB1*04:07:03+DRB1*04:28      | DRB1*04:17:01+DRB1*04:43     |                             |                             |
| DRB1*04:07:03+DRB1*04:103     | DRB1*04:17:01+DRB1*04:31     |                             |                             |
| DRB1*04:07:03+DRB1*04:106     | DRB1*04:14+DRB1*04:17:01     |                             |                             |
| DRB1*04:07:03+DRB1*08:01:01G  | DRB1*04:17:01+DRB1*08:02:01  |                             |                             |
| DRB1*04:07:03+DRB1*08:03:03   | DRB1*04:17:01+DRB1*08:30:03  |                             |                             |
| DRB1*04:07:03+DRB1*08:12      | DRB1*04:27+DRB1*08:03:03     |                             |                             |
| DRB1*04:07:03+DRB1*08:28      | DRB1*04:59+DRB1*08:02:01     |                             |                             |
| DRB1*04:07:03+DRB1*08:37      | DRB1*04:17:02+DRB1*08:45     |                             |                             |
| DRB1*04:07:03+DRB1*08:48      | DRB1*04:17:01+DRB1*08:13     |                             |                             |
| DRB1*04:07:03+DRB1*11:06:01G  | DRB1*04:27+DRB1*11:01:02     |                             |                             |
| DRB1*04:07:03+DRB1*11:21      | DRB1*04:27+DRB1*11:14:02     |                             |                             |
| DRB1*04:07:03+DRB1*11:27:01   | DRB1*04:74+DRB1*11:01:02     |                             |                             |
| DRB1*04:07:03+DRB1*11:28:01   | DRB1*04:102+DRB1*11:01:02    |                             |                             |
| DRB1*04:07:03+DRB1*11:29      | DRB1*04:20+DRB1*11:01:02     |                             |                             |
| DRB1*04:07:03+DRB1*11:57      | DRB1*04:27+DRB1*11:08:02     |                             |                             |
| DRB1*04:07:03+DRB1*11:58:02   | DRB1*04:41+DRB1*11:01:02     | DRB1*04:102+DRB1*11:04:02   |                             |
| DRB1*04:07:03+DRB1*11:84:01   | DRB1*04:74+DRB1*11:04:02     | DRB1*04:95+DRB1*11:01:02    |                             |
| DRB1*04:07:03+DRB1*11:124     | DRB1*04:95+DRB1*11:14:02     |                             |                             |

|                              |                              |                             |                           |
|------------------------------|------------------------------|-----------------------------|---------------------------|
| DRB1*04:07:03+DRB1*13:03:01  | DRB1*04:17:01+DRB1*13:37     |                             |                           |
| DRB1*04:07:03+DRB1*13:04     | DRB1*04:11:01+DRB1*13:23:01  | DRB1*04:17:01+DRB1*13:22    | DRB1*04:59+DRB1*13:38     |
| DRB1*04:07:03+DRB1*13:18     | DRB1*04:54+DRB1*14:33        |                             |                           |
| DRB1*04:07:03+DRB1*13:21:02  | DRB1*04:17:01+DRB1*13:14:03  |                             |                           |
| DRB1*04:07:03+DRB1*13:30     | DRB1*04:17:01+DRB1*13:82     |                             |                           |
| DRB1*04:07:03+DRB1*13:32     | DRB1*04:17:01+DRB1*13:40     |                             |                           |
| DRB1*04:07:03+DRB1*13:49     | DRB1*04:17:01+DRB1*13:07:01  |                             |                           |
| DRB1*04:07:03+DRB1*13:50:01  | DRB1*04:102+DRB1*13:14:03    |                             |                           |
| DRB1*04:07:03+DRB1*13:55     | DRB1*04:17:01+DRB1*13:47     |                             |                           |
| DRB1*04:07:03+DRB1*13:58     | DRB1*04:27+DRB1*13:12:02     |                             |                           |
| DRB1*04:07:03+DRB1*13:61:01  | DRB1*04:74+DRB1*13:01:08     |                             |                           |
| DRB1*04:07:03+DRB1*13:65     | DRB1*04:17:01+DRB1*13:36     |                             |                           |
| DRB1*04:07:03+DRB1*13:75     | DRB1*04:17:01+DRB1*13:24     |                             |                           |
| DRB1*04:07:03+DRB1*13:81     | DRB1*04:27+DRB1*13:03:01     |                             |                           |
| DRB1*04:07:03+DRB1*13:93     | DRB1*04:17:01+DRB1*13:01:01G | DRB1*04:17:02+DRB1*13:01:08 |                           |
| DRB1*04:07:03+DRB1*13:139    | DRB1*04:17:01+DRB1*13:02:01  |                             |                           |
| DRB1*04:07:03+DRB1*14:27     | DRB1*04:54+DRB1*14:51        |                             |                           |
| DRB1*04:07:03+DRB1*14:35     | DRB1*04:59+DRB1*14:07:02     |                             |                           |
| DRB1*04:07:03+DRB1*14:45     | DRB1*04:88+DRB1*14:44:03     |                             |                           |
| DRB1*04:07:03+DRB1*14:55     | DRB1*04:55+DRB1*14:07:02     |                             |                           |
| DRB1*04:07:03+DRB1*14:63     | DRB1*04:17:01+DRB1*14:67     |                             |                           |
| DRB1*04:07:03+DRB1*14:85     | DRB1*04:17:01+DRB1*14:03:01  |                             |                           |
| DRB1*04:07:03+DRB1*14:99     | DRB1*04:27+DRB1*14:07:02     |                             |                           |
| DRB1*04:07:03+DRB1*14:122    | DRB1*04:88+DRB1*14:07:02     |                             |                           |
| DRB1*04:07:03+DRB1*15:02:04  | DRB1*04:07:04+DRB1*15:02:09  |                             |                           |
| DRB1*04:07:03+DRB1*15:12     | DRB1*04:11:01+DRB1*15:02:05  | DRB1*04:17:01+DRB1*15:01:04 |                           |
| DRB1*04:07:03+DRB1*15:32     | DRB1*04:41+DRB1*15:02:09     |                             |                           |
| DRB1*04:07:03+DRB1*15:35     | DRB1*04:27+DRB1*15:02:09     |                             |                           |
| DRB1*04:07:03+DRB1*15:42     | DRB1*04:109+DRB1*15:02:09    |                             |                           |
| DRB1*04:07:04+DRB1*13:96:02  | DRB1*04:74+DRB1*13:02:06     |                             |                           |
| DRB1*04:07:04+DRB1*13:110    | DRB1*04:97+DRB1*13:02:06     |                             |                           |
| DRB1*04:07:04+DRB1*13:139    | DRB1*04:17:02+DRB1*13:02:06  |                             |                           |
| DRB1*04:07:04+DRB1*15:32     | DRB1*04:41+DRB1*15:02:04     | DRB1*04:102+DRB1*15:01:09   |                           |
| DRB1*04:07:04+DRB1*15:35     | DRB1*04:27+DRB1*15:02:04     |                             |                           |
| DRB1*04:07:04+DRB1*15:42     | DRB1*04:109+DRB1*15:02:04    |                             |                           |
| DRB1*04:08:01+DRB1*04:15     | DRB1*04:36+DRB1*04:61        |                             |                           |
| DRB1*04:08:01+DRB1*04:25     | DRB1*04:31+DRB1*04:36        |                             |                           |
| DRB1*04:08:01+DRB1*04:78     | DRB1*04:19+DRB1*04:101       |                             |                           |
| DRB1*04:08:01+DRB1*04:105:01 | DRB1*04:08:02+DRB1*04:105:02 |                             |                           |
| DRB1*04:08:01+DRB1*08:02:02  | DRB1*04:31+DRB1*08:24        |                             |                           |
| DRB1*04:08:01+DRB1*08:17     | DRB1*04:28+DRB1*08:02:01     | DRB1*04:43+DRB1*08:01:01G   |                           |
| DRB1*04:08:01+DRB1*08:20     | DRB1*04:55+DRB1*13:07:01     |                             |                           |
| DRB1*04:08:01+DRB1*08:28     | DRB1*04:42+DRB1*08:02:02     | DRB1*04:43+DRB1*08:04:01    |                           |
| DRB1*04:08:01+DRB1*08:37     | DRB1*04:28+DRB1*08:30:01     | DRB1*04:43+DRB1*08:03:02    |                           |
| DRB1*04:08:01+DRB1*08:41     | DRB1*04:61+DRB1*08:24        |                             |                           |
| DRB1*04:08:01+DRB1*08:42     | DRB1*04:19+DRB1*08:02:01     |                             |                           |
| DRB1*04:08:01+DRB1*08:45     | DRB1*04:43+DRB1*08:30:03     |                             |                           |
| DRB1*04:08:01+DRB1*09:02:01  | DRB1*04:08:02+DRB1*09:02:02  |                             |                           |
| DRB1*04:08:01+DRB1*11:01:01G | DRB1*04:43+DRB1*11:37:01     | DRB1*04:61+DRB1*13:14:01    |                           |
| DRB1*04:08:01+DRB1*11:01:02  | DRB1*04:43+DRB1*11:37:02     | DRB1*04:61+DRB1*13:14:03    |                           |
| DRB1*04:08:01+DRB1*11:01:03  | DRB1*04:47+DRB1*11:26        |                             |                           |
| DRB1*04:08:01+DRB1*11:08:01  | DRB1*04:61+DRB1*13:25        |                             |                           |
| DRB1*04:08:01+DRB1*11:09     | DRB1*04:61+DRB1*13:05:01     |                             |                           |
| DRB1*04:08:01+DRB1*11:14:01  | DRB1*04:14+DRB1*11:26        | DRB1*04:61+DRB1*13:23:02    |                           |
| DRB1*04:08:01+DRB1*11:14:02  | DRB1*04:61+DRB1*13:23:01     |                             |                           |
| DRB1*04:08:01+DRB1*11:15     | DRB1*04:61+DRB1*13:62        |                             |                           |
| DRB1*04:08:01+DRB1*11:17     | DRB1*04:61+DRB1*14:23:01     |                             |                           |
| DRB1*04:08:01+DRB1*11:19:01  | DRB1*04:61+DRB1*13:82        |                             |                           |
| DRB1*04:08:01+DRB1*11:20     | DRB1*04:61+DRB1*13:02:01     |                             |                           |
| DRB1*04:08:01+DRB1*11:23     | DRB1*04:31+DRB1*11:01:02     | DRB1*04:54+DRB1*11:26       |                           |
| DRB1*04:08:01+DRB1*11:25     | DRB1*04:25+DRB1*11:26        | DRB1*04:31+DRB1*11:04:01    | DRB1*04:55+DRB1*11:01:01G |
| DRB1*04:08:01+DRB1*11:28:01  | DRB1*04:61+DRB1*13:50:01     |                             |                           |
| DRB1*04:08:01+DRB1*11:28:02  | DRB1*04:61+DRB1*13:50:02     |                             |                           |
| DRB1*04:08:01+DRB1*11:29     | DRB1*04:19+DRB1*11:01:01G    |                             |                           |
| DRB1*04:08:01+DRB1*11:37:01  | DRB1*04:61+DRB1*13:07:01     |                             |                           |
| DRB1*04:08:01+DRB1*11:45     | DRB1*04:31+DRB1*11:19:01     |                             |                           |
| DRB1*04:08:01+DRB1*11:47     | DRB1*04:19+DRB1*11:06:01G    |                             |                           |
| DRB1*04:08:01+DRB1*11:48     | DRB1*04:61+DRB1*13:70        |                             |                           |
| DRB1*04:08:01+DRB1*11:55     | DRB1*04:31+DRB1*11:03        | DRB1*04:55+DRB1*11:11:01G   |                           |
| DRB1*04:08:01+DRB1*11:63     | DRB1*04:19+DRB1*11:03        | DRB1*04:68+DRB1*11:11:01G   |                           |
| DRB1*04:08:01+DRB1*11:64     | DRB1*04:31+DRB1*11:08:01     |                             |                           |
| DRB1*04:08:01+DRB1*11:67     | DRB1*04:61+DRB1*08:28        |                             |                           |
| DRB1*04:08:01+DRB1*11:82     | DRB1*04:105:02+DRB1*11:26    |                             |                           |
| DRB1*04:08:01+DRB1*11:105    | DRB1*04:98:02+DRB1*11:26     |                             |                           |
| DRB1*04:08:01+DRB1*11:118    | DRB1*04:61+DRB1*13:52        |                             |                           |
| DRB1*04:08:01+DRB1*11:122    | DRB1*04:61+DRB1*13:63        |                             |                           |
| DRB1*04:08:01+DRB1*11:124    | DRB1*04:44+DRB1*11:14:01     | DRB1*04:72:02+DRB1*11:98    |                           |
| DRB1*04:08:01+DRB1*12:02:01  | DRB1*04:43+DRB1*12:21        |                             |                           |
| DRB1*04:08:01+DRB1*12:04     | DRB1*04:61+DRB1*12:09        |                             |                           |
| DRB1*04:08:01+DRB1*13:02:01  | DRB1*04:14+DRB1*14:30        | DRB1*04:43+DRB1*13:36       |                           |
| DRB1*04:08:01+DRB1*13:02:03  | DRB1*04:08:02+DRB1*13:02:01  |                             |                           |
| DRB1*04:08:01+DRB1*13:06     | DRB1*04:56+DRB1*13:56        |                             |                           |
| DRB1*04:08:01+DRB1*13:07:02  | DRB1*04:08:02+DRB1*13:07:01  |                             |                           |
| DRB1*04:08:01+DRB1*13:09     | DRB1*04:105:02+DRB1*14:17    |                             |                           |
| DRB1*04:08:01+DRB1*13:13     | DRB1*04:31+DRB1*13:12:01     | DRB1*04:107+DRB1*14:116     |                           |
| DRB1*04:08:01+DRB1*13:14:01  | DRB1*04:43+DRB1*13:07:01     |                             |                           |
| DRB1*04:08:01+DRB1*13:14:02  | DRB1*04:08:02+DRB1*13:14:01  | DRB1*04:43+DRB1*13:07:02    |                           |
| DRB1*04:08:01+DRB1*13:17     | DRB1*04:43+DRB1*13:116       |                             |                           |
| DRB1*04:08:01+DRB1*13:18     | DRB1*04:25+DRB1*14:30        | DRB1*04:31+DRB1*13:42       | DRB1*04:55+DRB1*13:05:01  |
| DRB1*04:08:01+DRB1*13:19     | DRB1*04:14+DRB1*14:20        |                             |                           |
| DRB1*04:08:01+DRB1*13:33:01  | DRB1*04:72:01+DRB1*13:12:02  |                             |                           |
| DRB1*04:08:01+DRB1*13:33:02  | DRB1*04:72:02+DRB1*13:12:01  |                             |                           |
| DRB1*04:08:01+DRB1*13:33:03  | DRB1*04:72:02+DRB1*13:12:02  |                             |                           |
| DRB1*04:08:01+DRB1*13:36     | DRB1*04:14+DRB1*14:09        |                             |                           |
| DRB1*04:08:01+DRB1*13:57     | DRB1*04:43+DRB1*13:19        |                             |                           |
| DRB1*04:08:01+DRB1*13:77     | DRB1*04:82+DRB1*14:17        |                             |                           |
| DRB1*04:08:01+DRB1*13:115    | DRB1*04:77+DRB1*13:37        | DRB1*04:113+DRB1*13:12:02   |                           |
| DRB1*04:08:01+DRB1*13:119    | DRB1*04:31+DRB1*13:56        |                             |                           |
| DRB1*04:08:01+DRB1*14:11     | DRB1*04:61+DRB1*14:126       |                             |                           |
| DRB1*04:08:01+DRB1*14:24     | DRB1*04:105:02+DRB1*14:02    |                             |                           |
| DRB1*04:08:01+DRB1*14:27     | DRB1*04:31+DRB1*13:26:02     |                             |                           |
| DRB1*04:08:01+DRB1*14:30     | DRB1*04:43+DRB1*14:09        |                             |                           |
| DRB1*04:08:01+DRB1*14:35     | DRB1*04:42+DRB1*14:07:01     | DRB1*04:43+DRB1*14:01:01G   |                           |
| DRB1*04:08:01+DRB1*14:38     | DRB1*04:74+DRB1*14:32:01     |                             |                           |
| DRB1*04:08:01+DRB1*14:45     | DRB1*04:56+DRB1*14:44:01     |                             |                           |



|                              |                             |                           |                           |
|------------------------------|-----------------------------|---------------------------|---------------------------|
| DRB1*04:08:01+DRB1*14:53     | DRB1*04:43+DRB1*14:25       |                           |                           |
| DRB1*04:08:01+DRB1*14:55     | DRB1*04:31+DRB1*14:32:02    |                           |                           |
| DRB1*04:08:01+DRB1*14:65     | DRB1*04:28+DRB1*14:123      |                           |                           |
| DRB1*04:08:01+DRB1*14:89     | DRB1*04:31+DRB1*14:02       |                           |                           |
| DRB1*04:08:01+DRB1*14:103    | DRB1*04:70+DRB1*14:44:02    |                           |                           |
| DRB1*04:08:01+DRB1*14:120    | DRB1*04:56+DRB1*14:68       |                           |                           |
| DRB1*04:08:01+DRB1*14:122    | DRB1*04:56+DRB1*14:07:01    |                           |                           |
| DRB1*04:08:01+DRB1*14:127    | DRB1*04:44+DRB1*14:44:02    |                           |                           |
| DRB1*04:08:01+DRB1*15:02:01  | DRB1*04:08:02+DRB1*15:02:02 | DRB1*04:43+DRB1*15:11     | DRB1*04:105:02+DRB1*15:27 |
| DRB1*04:08:01+DRB1*15:02:09  | DRB1*04:08:02+DRB1*15:02:05 |                           |                           |
| DRB1*04:08:01+DRB1*15:03:01G | DRB1*04:105:02+DRB1*15:54   |                           |                           |
| DRB1*04:08:01+DRB1*15:09     | DRB1*04:43+DRB1*15:48       |                           |                           |
| DRB1*04:08:01+DRB1*15:11     | DRB1*04:105:02+DRB1*15:34   |                           |                           |
| DRB1*04:08:01+DRB1*15:21     | DRB1*04:18+DRB1*15:27       |                           |                           |
| DRB1*04:08:01+DRB1*15:25     | DRB1*04:22+DRB1*15:27       |                           |                           |
| DRB1*04:08:01+DRB1*15:27     | DRB1*04:43+DRB1*15:34       |                           |                           |
| DRB1*04:08:01+DRB1*16:01:01  | DRB1*04:47+DRB1*15:34       |                           |                           |
| DRB1*04:08:01+DRB1*16:04     | DRB1*04:54+DRB1*15:34       |                           |                           |
| DRB1*04:08:01+DRB1*16:09     | DRB1*04:43+DRB1*16:01:01    | DRB1*04:47+DRB1*15:27     |                           |
| DRB1*04:08:01+DRB1*16:10     | DRB1*04:43+DRB1*16:02:01    |                           |                           |
| DRB1*04:08:01+DRB1*16:18     | DRB1*04:31+DRB1*16:02:02    |                           |                           |
| DRB1*04:08:02+DRB1*08:20     | DRB1*04:55+DRB1*13:07:02    |                           |                           |
| DRB1*04:08:02+DRB1*08:28     | DRB1*04:43+DRB1*08:04:06    |                           |                           |
| DRB1*04:08:02+DRB1*11:01:01G | DRB1*04:61+DRB1*13:14:02    |                           |                           |
| DRB1*04:08:02+DRB1*11:20     | DRB1*04:61+DRB1*13:02:03    |                           |                           |
| DRB1*04:08:02+DRB1*11:37:01  | DRB1*04:61+DRB1*13:07:02    |                           |                           |
| DRB1*04:08:02+DRB1*11:82     | DRB1*04:105:01+DRB1*11:26   |                           |                           |
| DRB1*04:08:02+DRB1*13:09     | DRB1*04:04:73+DRB1*14:30    | DRB1*04:105:01+DRB1*14:17 |                           |
| DRB1*04:08:02+DRB1*14:24     | DRB1*04:105:01+DRB1*14:02   |                           |                           |
| DRB1*04:08:02+DRB1*15:02:01  | DRB1*04:105:01+DRB1*15:27   |                           |                           |
| DRB1*04:08:02+DRB1*15:03:01G | DRB1*04:105:01+DRB1*15:54   |                           |                           |
| DRB1*04:08:02+DRB1*15:11     | DRB1*04:105:01+DRB1*15:34   |                           |                           |
| DRB1*04:08:02+DRB1*16:16     | DRB1*04:61+DRB1*16:02:01    |                           |                           |
| DRB1*04:09+DRB1*04:11:01     | DRB1*04:17:02+DRB1*04:67    |                           |                           |
| DRB1*04:09+DRB1*04:12        | DRB1*04:67+DRB1*04:86       |                           |                           |
| DRB1*04:09+DRB1*04:20        | DRB1*04:17:02+DRB1*04:21    |                           |                           |
| DRB1*04:09+DRB1*04:41        | DRB1*04:11:01+DRB1*04:113   | DRB1*04:67+DRB1*04:102    |                           |
| DRB1*04:09+DRB1*04:42        | DRB1*04:10:01+DRB1*04:35    | DRB1*04:13+DRB1*04:28     | DRB1*04:43+DRB1*04:67     |
| DRB1*04:09+DRB1*04:44        | DRB1*04:10:01+DRB1*04:72:02 |                           |                           |
| DRB1*04:09+DRB1*04:55        | DRB1*04:13+DRB1*04:103      | DRB1*04:31+DRB1*04:67     |                           |
| DRB1*04:09+DRB1*04:56        | DRB1*04:10:01+DRB1*04:38    | DRB1*04:13+DRB1*04:107    |                           |
| DRB1*04:09+DRB1*04:59        | DRB1*04:11:01+DRB1*04:35    |                           |                           |
| DRB1*04:09+DRB1*04:68        | DRB1*04:10:01+DRB1*04:21    | DRB1*04:13+DRB1*04:84     | DRB1*04:19+DRB1*04:67     |
| DRB1*04:09+DRB1*04:70        | DRB1*04:13+DRB1*04:87       |                           |                           |
| DRB1*04:09+DRB1*04:73        | DRB1*04:67+DRB1*04:105:01   |                           |                           |
| DRB1*04:09+DRB1*04:74        | DRB1*04:17:02+DRB1*04:72:02 |                           |                           |
| DRB1*04:09+DRB1*04:78        | DRB1*04:24+DRB1*04:114      |                           |                           |
| DRB1*04:09+DRB1*04:95        | DRB1*04:11:01+DRB1*04:72:02 | DRB1*04:67+DRB1*04:74     |                           |
| DRB1*04:09+DRB1*04:102       | DRB1*04:17:02+DRB1*04:113   |                           |                           |
| DRB1*04:09+DRB1*04:110       | DRB1*04:11:01+DRB1*04:63    |                           |                           |
| DRB1*04:09+DRB1*08:03:03     | DRB1*04:103+DRB1*08:40      |                           |                           |
| DRB1*04:09+DRB1*08:06        | DRB1*04:67+DRB1*08:01:05    |                           |                           |
| DRB1*04:09+DRB1*08:08        | DRB1*04:62+DRB1*08:01:01G   |                           |                           |
| DRB1*04:09+DRB1*08:10        | DRB1*04:67+DRB1*08:03:02    |                           |                           |
| DRB1*04:09+DRB1*08:28        | DRB1*04:35+DRB1*08:06       |                           |                           |
| DRB1*04:09+DRB1*08:31        | DRB1*04:67+DRB1*08:41       |                           |                           |
| DRB1*04:09+DRB1*08:42        | DRB1*04:21+DRB1*08:01:01G   |                           |                           |
| DRB1*04:09+DRB1*09:06        | DRB1*04:67+DRB1*09:01:02    |                           |                           |
| DRB1*04:09+DRB1*10:02        | DRB1*04:67+DRB1*10:01:01    |                           |                           |
| DRB1*04:09+DRB1*11:02:01     | DRB1*04:67+DRB1*11:14:01    |                           |                           |
| DRB1*04:09+DRB1*11:03        | DRB1*04:67+DRB1*11:11:01G   |                           |                           |
| DRB1*04:09+DRB1*11:04:01     | DRB1*04:67+DRB1*11:01:01G   |                           |                           |
| DRB1*04:09+DRB1*11:04:02     | DRB1*04:10:01+DRB1*11:93    | DRB1*04:67+DRB1*11:01:02  |                           |
| DRB1*04:09+DRB1*11:04:03     | DRB1*04:67+DRB1*11:01:05    |                           |                           |
| DRB1*04:09+DRB1*11:04:04     | DRB1*04:67+DRB1*11:01:12    |                           |                           |
| DRB1*04:09+DRB1*11:04:05     | DRB1*04:67+DRB1*11:01:04    |                           |                           |
| DRB1*04:09+DRB1*11:04:07     | DRB1*04:67+DRB1*11:01:03    |                           |                           |
| DRB1*04:09+DRB1*11:07        | DRB1*04:67+DRB1*11:1:103    |                           |                           |
| DRB1*04:09+DRB1*11:14:01     | DRB1*04:106+DRB1*11:79      |                           |                           |
| DRB1*04:09+DRB1*11:16        | DRB1*04:67+DRB1*11:20       |                           |                           |
| DRB1*04:09+DRB1*11:18        | DRB1*04:67+DRB1*11:19:01    |                           |                           |
| DRB1*04:09+DRB1*11:19:01     | DRB1*04:61+DRB1*13:66:01    |                           |                           |
| DRB1*04:09+DRB1*11:23        | DRB1*04:103+DRB1*11:93      |                           |                           |
| DRB1*04:09+DRB1*11:34        | DRB1*04:10:01+DRB1*11:79    | DRB1*04:67+DRB1*11:26     |                           |
| DRB1*04:09+DRB1*11:35        | DRB1*04:67+DRB1*11:33       |                           |                           |
| DRB1*04:09+DRB1*11:36        | DRB1*04:67+DRB1*11:68       |                           |                           |
| DRB1*04:09+DRB1*11:40        | DRB1*04:67+DRB1*11:122      |                           |                           |
| DRB1*04:09+DRB1*11:42        | DRB1*04:67+DRB1*11:08:01    |                           |                           |
| DRB1*04:09+DRB1*11:43        | DRB1*04:67+DRB1*11:39       |                           |                           |
| DRB1*04:09+DRB1*11:44        | DRB1*04:67+DRB1*11:49:01    |                           |                           |
| DRB1*04:09+DRB1*11:45        | DRB1*04:86+DRB1*11:79       |                           |                           |
| DRB1*04:09+DRB1*11:46:02     | DRB1*04:67+DRB1*11:62       |                           |                           |
| DRB1*04:09+DRB1*11:56        | DRB1*04:67+DRB1*11:37:01    |                           |                           |
| DRB1*04:09+DRB1*11:58:01     | DRB1*04:67+DRB1*11:28:02    |                           |                           |
| DRB1*04:09+DRB1*11:58:02     | DRB1*04:67+DRB1*11:28:01    |                           |                           |
| DRB1*04:09+DRB1*11:60        | DRB1*04:67+DRB1*11:109      |                           |                           |
| DRB1*04:09+DRB1*11:84:01     | DRB1*04:67+DRB1*11:27:01    |                           |                           |
| DRB1*04:09+DRB1*11:84:02     | DRB1*04:67+DRB1*11:27:02    |                           |                           |
| DRB1*04:09+DRB1*11:113       | DRB1*04:67+DRB1*11:09       |                           |                           |
| DRB1*04:09+DRB1*11:116       | DRB1*04:67+DRB1*11:120      |                           |                           |
| DRB1*04:09+DRB1*11:119       | DRB1*04:12+DRB1*11:79       | DRB1*04:67+DRB1*11:45     |                           |
| DRB1*04:09+DRB1*13:01:05     | DRB1*04:67+DRB1*13:02:03    |                           |                           |
| DRB1*04:09+DRB1*13:11:01     | DRB1*04:13+DRB1*13:21:01    | DRB1*04:35+DRB1*13:108    | DRB1*04:67+DRB1*13:14:01  |
| DRB1*04:09+DRB1*13:11:02     | DRB1*04:67+DRB1*13:14:02    |                           |                           |
| DRB1*04:09+DRB1*13:13        | DRB1*04:103+DRB1*13:03:02   |                           |                           |
| DRB1*04:09+DRB1*13:15        | DRB1*04:67+DRB1*13:104      |                           |                           |
| DRB1*04:09+DRB1*13:20        | DRB1*04:67+DRB1*13:29       |                           |                           |
| DRB1*04:09+DRB1*13:23:01     | DRB1*04:35+DRB1*13:38       |                           |                           |
| DRB1*04:09+DRB1*13:25        | DRB1*04:35+DRB1*13:134      |                           |                           |
| DRB1*04:09+DRB1*13:27        | DRB1*04:67+DRB1*13:41       |                           |                           |
| DRB1*04:09+DRB1*13:32        | DRB1*04:67+DRB1*13:65       |                           |                           |
| DRB1*04:09+DRB1*13:42        | DRB1*04:67+DRB1*13:05:01    |                           |                           |
| DRB1*04:09+DRB1*13:50:01     | DRB1*04:113+DRB1*13:21:01   |                           |                           |
| DRB1*04:09+DRB1*13:52        | DRB1*04:67+DRB1*13:97:01    |                           |                           |
| DRB1*04:09+DRB1*13:61:01     | DRB1*04:67+DRB1*13:96:02    | DRB1*04:72:02+DRB1*13:93  |                           |

|                              |                              |                           |
|------------------------------|------------------------------|---------------------------|
| DRB1*04:09+DRB1*13:61:02     | DRB1*04:67+DRB1*13:96:01     | DRB1*04:72:01+DRB1*13:93  |
| DRB1*04:09+DRB1*13:79        | DRB1*04:67+DRB1*13:39        |                           |
| DRB1*04:09+DRB1*13:83        | DRB1*04:67+DRB1*13:107       |                           |
| DRB1*04:09+DRB1*13:89        | DRB1*04:67+DRB1*13:03:01     |                           |
| DRB1*04:09+DRB1*13:93        | DRB1*04:67+DRB1*13:139       |                           |
| DRB1*04:09+DRB1*13:96:01     | DRB1*04:72:01+DRB1*13:139    |                           |
| DRB1*04:09+DRB1*13:96:02     | DRB1*04:72:02+DRB1*13:139    |                           |
| DRB1*04:09+DRB1*13:108       | DRB1*04:67+DRB1*13:49        |                           |
| DRB1*04:09+DRB1*13:111       | DRB1*04:67+DRB1*13:63        |                           |
| DRB1*04:09+DRB1*13:112       | DRB1*04:67+DRB1*13:128       |                           |
| DRB1*04:09+DRB1*13:127       | DRB1*04:26+DRB1*13:93        |                           |
| DRB1*04:09+DRB1*14:01:01G    | DRB1*04:67+DRB1*14:07:01     |                           |
| DRB1*04:09+DRB1*14:04        | DRB1*04:67+DRB1*14:68        |                           |
| DRB1*04:09+DRB1*14:05:01     | DRB1*04:67+DRB1*14:44:01     |                           |
| DRB1*04:09+DRB1*14:05:03     | DRB1*04:67+DRB1*14:44:02     |                           |
| DRB1*04:09+DRB1*14:06:01     | DRB1*04:10:01+DRB1*14:19     | DRB1*04:13+DRB1*14:13     |
| DRB1*04:09+DRB1*14:12:01     | DRB1*04:13+DRB1*14:85        | DRB1*04:67+DRB1*14:03:01  |
| DRB1*04:09+DRB1*14:23:01     | DRB1*04:67+DRB1*14:14        |                           |
| DRB1*04:09+DRB1*14:25        | DRB1*04:62+DRB1*13:49        |                           |
| DRB1*04:09+DRB1*14:33        | DRB1*04:17:02+DRB1*14:21     |                           |
| DRB1*04:09+DRB1*14:47        | DRB1*04:72:02+DRB1*14:13     |                           |
| DRB1*04:09+DRB1*14:51        | DRB1*04:17:02+DRB1*14:19     |                           |
| DRB1*04:09+DRB1*14:53        | DRB1*04:62+DRB1*13:21:01     |                           |
| DRB1*04:09+DRB1*14:69        | DRB1*04:62+DRB1*13:134       |                           |
| DRB1*04:09+DRB1*14:78        | DRB1*04:67+DRB1*14:63        |                           |
| DRB1*04:09+DRB1*14:80        | DRB1*04:67+DRB1*14:09        |                           |
| DRB1*04:09+DRB1*14:89        | DRB1*04:103+DRB1*14:19       |                           |
| DRB1*04:09+DRB1*14:98        | DRB1*04:72:02+DRB1*14:85     |                           |
| DRB1*04:09+DRB1*14:104       | DRB1*04:24+DRB1*14:111       |                           |
| DRB1*04:09+DRB1*14:106       | DRB1*04:11:01+DRB1*14:19     | DRB1*04:67+DRB1*14:51     |
| DRB1*04:09+DRB1*15:01:01G    | DRB1*04:67+DRB1*15:02:01     |                           |
| DRB1*04:09+DRB1*15:01:03     | DRB1*04:67+DRB1*15:02:06     |                           |
| DRB1*04:09+DRB1*15:01:09     | DRB1*04:67+DRB1*15:02:04     |                           |
| DRB1*04:09+DRB1*15:01:10     | DRB1*04:67+DRB1*15:02:08     |                           |
| DRB1*04:09+DRB1*15:04        | DRB1*04:67+DRB1*15:15        |                           |
| DRB1*04:09+DRB1*15:05        | DRB1*04:67+DRB1*15:31        |                           |
| DRB1*04:09+DRB1*15:07:01     | DRB1*04:67+DRB1*15:11        |                           |
| DRB1*04:09+DRB1*15:65        | DRB1*04:67+DRB1*15:47        |                           |
| DRB1*04:09+DRB1*15:66        | DRB1*04:67+DRB1*15:27        |                           |
| DRB1*04:09+DRB1*16:15        | DRB1*04:67+DRB1*16:01:01     |                           |
| DRB1*04:10:01+DRB1*04:51     | DRB1*04:11:01+DRB1*04:70     |                           |
| DRB1*04:10:01+DRB1*04:52     | DRB1*04:11:01+DRB1*04:23     |                           |
| DRB1*04:10:01+DRB1*04:59     | DRB1*04:11:01+DRB1*04:42     |                           |
| DRB1*04:10:01+DRB1*04:88     | DRB1*04:11:01+DRB1*04:56     |                           |
| DRB1*04:10:01+DRB1*04:95     | DRB1*04:11:01+DRB1*04:44     |                           |
| DRB1*04:10:01+DRB1*04:100    | DRB1*04:67+DRB1*04:88        |                           |
| DRB1*04:10:01+DRB1*04:105:02 | DRB1*04:107+DRB1*04:122      |                           |
| DRB1*04:10:01+DRB1*04:113    | DRB1*04:13+DRB1*04:77        |                           |
| DRB1*04:10:01+DRB1*07:01:04  | DRB1*04:10:02+DRB1*07:01:01G |                           |
| DRB1*04:10:01+DRB1*08:20     | DRB1*04:55+DRB1*13:108       |                           |
| DRB1*04:10:01+DRB1*08:28     | DRB1*04:42+DRB1*08:06        |                           |
| DRB1*04:10:01+DRB1*08:29     | DRB1*04:11:01+DRB1*08:18     |                           |
| DRB1*04:10:01+DRB1*08:37     | DRB1*04:28+DRB1*08:10        |                           |
| DRB1*04:10:01+DRB1*08:42     | DRB1*04:68+DRB1*08:01:01G    | DRB1*04:84+DRB1*08:04:04  |
| DRB1*04:10:01+DRB1*08:44     | DRB1*04:29+DRB1*08:04:04     |                           |
| DRB1*04:10:01+DRB1*08:45     | DRB1*04:42+DRB1*08:03:03     |                           |
| DRB1*04:10:01+DRB1*11:02:01  | DRB1*04:67+DRB1*11:98        |                           |
| DRB1*04:10:01+DRB1*11:29     | DRB1*04:84+DRB1*11:04:01     |                           |
| DRB1*04:10:01+DRB1*11:54:01  | DRB1*04:11:01+DRB1*11:04:03  |                           |
| DRB1*04:10:01+DRB1*11:54:02  | DRB1*04:11:01+DRB1*11:04:01  |                           |
| DRB1*04:10:01+DRB1*11:64     | DRB1*04:103+DRB1*11:42       |                           |
| DRB1*04:10:01+DRB1*11:66     | DRB1*04:29+DRB1*11:04:01     |                           |
| DRB1*04:10:01+DRB1*11:73     | DRB1*04:67+DRB1*11:19:03     |                           |
| DRB1*04:10:01+DRB1*11:87     | DRB1*04:28+DRB1*11:83        |                           |
| DRB1*04:10:01+DRB1*11:108    | DRB1*04:87+DRB1*11:04:01     |                           |
| DRB1*04:10:01+DRB1*11:119    | DRB1*04:12+DRB1*11:34        |                           |
| DRB1*04:10:01+DRB1*11:125    | DRB1*04:80+DRB1*11:07        |                           |
| DRB1*04:10:01+DRB1*11:126    | DRB1*04:116+DRB1*11:04:01    |                           |
| DRB1*04:10:01+DRB1*12:02:03  | DRB1*04:10:02+DRB1*12:02:01  |                           |
| DRB1*04:10:01+DRB1*13:03:02  | DRB1*04:67+DRB1*13:12:01     |                           |
| DRB1*04:10:01+DRB1*13:10     | DRB1*04:67+DRB1*13:06        |                           |
| DRB1*04:10:01+DRB1*13:11:01  | DRB1*04:42+DRB1*13:108       |                           |
| DRB1*04:10:01+DRB1*13:21:01  | DRB1*04:28+DRB1*13:108       |                           |
| DRB1*04:10:01+DRB1*13:25     | DRB1*04:42+DRB1*13:134       |                           |
| DRB1*04:10:01+DRB1*13:26:02  | DRB1*04:36+DRB1*14:13        |                           |
| DRB1*04:10:01+DRB1*13:50:01  | DRB1*04:77+DRB1*13:11:01     |                           |
| DRB1*04:10:01+DRB1*13:61:01  | DRB1*04:44+DRB1*13:93        |                           |
| DRB1*04:10:01+DRB1*13:66:01  | DRB1*04:67+DRB1*13:30        |                           |
| DRB1*04:10:01+DRB1*13:66:02  | DRB1*04:28+DRB1*13:89        |                           |
| DRB1*04:10:01+DRB1*13:81     | DRB1*04:67+DRB1*13:58        |                           |
| DRB1*04:10:01+DRB1*13:115    | DRB1*04:77+DRB1*13:89        |                           |
| DRB1*04:10:01+DRB1*14:01:01G | DRB1*04:11:01+DRB1*14:32:02  |                           |
| DRB1*04:10:01+DRB1*14:01:02  | DRB1*04:11:01+DRB1*14:32:01  |                           |
| DRB1*04:10:01+DRB1*14:04     | DRB1*04:11:01+DRB1*14:31     |                           |
| DRB1*04:10:01+DRB1*14:05:01  | DRB1*04:11:01+DRB1*14:100    |                           |
| DRB1*04:10:01+DRB1*14:08     | DRB1*04:11:01+DRB1*14:34     |                           |
| DRB1*04:10:01+DRB1*14:21     | DRB1*04:67+DRB1*14:17        |                           |
| DRB1*04:10:01+DRB1*14:22     | DRB1*04:80+DRB1*14:74        |                           |
| DRB1*04:10:01+DRB1*14:23:01  | DRB1*04:11:01+DRB1*14:123    |                           |
| DRB1*04:10:01+DRB1*14:27     | DRB1*04:25+DRB1*14:13        | DRB1*04:80+DRB1*14:12:01  |
| DRB1*04:10:01+DRB1*14:33     | DRB1*04:11:01+DRB1*14:17     |                           |
| DRB1*04:10:01+DRB1*14:47     | DRB1*04:44+DRB1*14:13        |                           |
| DRB1*04:10:01+DRB1*14:89     | DRB1*04:55+DRB1*14:13        | DRB1*04:103+DRB1*14:06:01 |
| DRB1*04:10:01+DRB1*14:98     | DRB1*04:44+DRB1*14:85        |                           |
| DRB1*04:10:01+DRB1*14:106    | DRB1*04:11:01+DRB1*14:06:01  |                           |
| DRB1*04:10:01+DRB1*14:116    | DRB1*04:55+DRB1*13:134       |                           |
| DRB1*04:10:01+DRB1*15:01:09  | DRB1*04:10:02+DRB1*15:01:01G |                           |
| DRB1*04:10:01+DRB1*15:21     | DRB1*04:12+DRB1*15:66        |                           |
| DRB1*04:10:01+DRB1*15:60     | DRB1*04:87+DRB1*15:01:01G    |                           |
| DRB1*04:10:01+DRB1*16:09     | DRB1*04:28+DRB1*16:15        |                           |
| DRB1*04:10:02+DRB1*15:60     | DRB1*04:87+DRB1*15:01:09     |                           |
| DRB1*04:11:01+DRB1*04:54     | DRB1*04:17:01+DRB1*04:25     |                           |
| DRB1*04:11:01+DRB1*04:74     | DRB1*04:17:02+DRB1*04:95     |                           |
| DRB1*04:11:01+DRB1*04:78     | DRB1*04:91+DRB1*04:101       |                           |
| DRB1*04:11:01+DRB1*04:86     | DRB1*04:12+DRB1*04:17:02     |                           |

|                              |                              |                           |                        |
|------------------------------|------------------------------|---------------------------|------------------------|
| DRB1*04:11:01+DRB1*04:102    | DRB1*04:17:02+DRB1*04:41     |                           |                        |
| DRB1*04:11:01+DRB1*04:105:01 | DRB1*04:17:02+DRB1*04:73     |                           |                        |
| DRB1*04:11:01+DRB1*08:01:01G | DRB1*04:17:01+DRB1*08:06     |                           |                        |
| DRB1*04:11:01+DRB1*08:01:05  | DRB1*04:17:02+DRB1*08:06     |                           |                        |
| DRB1*04:11:01+DRB1*08:03:02  | DRB1*04:17:02+DRB1*08:10     |                           |                        |
| DRB1*04:11:01+DRB1*08:03:03  | DRB1*04:17:01+DRB1*08:10     |                           |                        |
| DRB1*04:11:01+DRB1*08:09     | DRB1*04:17:01+DRB1*14:15     |                           |                        |
| DRB1*04:11:01+DRB1*08:28     | DRB1*04:59+DRB1*08:06        |                           |                        |
| DRB1*04:11:01+DRB1*08:41     | DRB1*04:17:02+DRB1*08:31     |                           |                        |
| DRB1*04:11:01+DRB1*08:45     | DRB1*04:59+DRB1*08:03:03     |                           |                        |
| DRB1*04:11:01+DRB1*09:01:02  | DRB1*04:17:02+DRB1*09:06     |                           |                        |
| DRB1*04:11:01+DRB1*10:01:01  | DRB1*04:17:02+DRB1*10:02     |                           |                        |
| DRB1*04:11:01+DRB1*11:01:04  | DRB1*04:17:02+DRB1*11:04:05  |                           |                        |
| DRB1*04:11:01+DRB1*11:01:11  | DRB1*04:17:01+DRB1*11:04:07  |                           |                        |
| DRB1*04:11:01+DRB1*11:01:12  | DRB1*04:17:02+DRB1*11:04:04  |                           |                        |
| DRB1*04:11:01+DRB1*11:08:01  | DRB1*04:17:02+DRB1*11:42     |                           |                        |
| DRB1*04:11:01+DRB1*11:08:02  | DRB1*04:17:01+DRB1*11:42     |                           |                        |
| DRB1*04:11:01+DRB1*11:09     | DRB1*04:17:02+DRB1*11:113    |                           |                        |
| DRB1*04:11:01+DRB1*11:11:01G | DRB1*04:17:02+DRB1*11:03     |                           |                        |
| DRB1*04:11:01+DRB1*11:14:01  | DRB1*04:17:02+DRB1*11:02:01  |                           |                        |
| DRB1*04:11:01+DRB1*11:14:02  | DRB1*04:17:01+DRB1*11:02:01  |                           |                        |
| DRB1*04:11:01+DRB1*11:19:01  | DRB1*04:17:02+DRB1*11:18     |                           |                        |
| DRB1*04:11:01+DRB1*11:19:03  | DRB1*04:17:01+DRB1*11:18     |                           |                        |
| DRB1*04:11:01+DRB1*11:20     | DRB1*04:17:02+DRB1*11:16     |                           |                        |
| DRB1*04:11:01+DRB1*11:23     | DRB1*04:17:01+DRB1*11:25     |                           |                        |
| DRB1*04:11:01+DRB1*11:26     | DRB1*04:17:02+DRB1*11:34     |                           |                        |
| DRB1*04:11:01+DRB1*11:27:01  | DRB1*04:17:02+DRB1*11:84:01  |                           |                        |
| DRB1*04:11:01+DRB1*11:27:02  | DRB1*04:17:02+DRB1*11:84:02  |                           |                        |
| DRB1*04:11:01+DRB1*11:27:03  | DRB1*04:17:01+DRB1*11:84:02  |                           |                        |
| DRB1*04:11:01+DRB1*11:28:01  | DRB1*04:17:02+DRB1*11:58:02  | DRB1*04:77+DRB1*11:54:02  |                        |
| DRB1*04:11:01+DRB1*11:28:02  | DRB1*04:17:02+DRB1*11:58:01  |                           |                        |
| DRB1*04:11:01+DRB1*11:29     | DRB1*04:84+DRB1*11:54:02     | DRB1*04:91+DRB1*11:01:01G |                        |
| DRB1*04:11:01+DRB1*11:33     | DRB1*04:17:02+DRB1*11:35     |                           |                        |
| DRB1*04:11:01+DRB1*11:37:01  | DRB1*04:17:02+DRB1*11:56     |                           |                        |
| DRB1*04:11:01+DRB1*11:37:02  | DRB1*04:17:01+DRB1*11:56     |                           |                        |
| DRB1*04:11:01+DRB1*11:39     | DRB1*04:17:02+DRB1*11:43     |                           |                        |
| DRB1*04:11:01+DRB1*11:45     | DRB1*04:17:02+DRB1*11:119    |                           |                        |
| DRB1*04:11:01+DRB1*11:47     | DRB1*04:91+DRB1*11:06:01G    |                           |                        |
| DRB1*04:11:01+DRB1*11:49:01  | DRB1*04:17:02+DRB1*11:44     |                           |                        |
| DRB1*04:11:01+DRB1*11:49:02  | DRB1*04:17:01+DRB1*11:44     |                           |                        |
| DRB1*04:11:01+DRB1*11:62     | DRB1*04:17:02+DRB1*11:46:02  |                           |                        |
| DRB1*04:11:01+DRB1*11:63     | DRB1*04:91+DRB1*11:03        |                           |                        |
| DRB1*04:11:01+DRB1*11:66     | DRB1*04:29+DRB1*11:54:02     |                           |                        |
| DRB1*04:11:01+DRB1*11:68     | DRB1*04:17:02+DRB1*11:36     |                           |                        |
| DRB1*04:11:01+DRB1*11:72     | DRB1*04:17:01+DRB1*11:92     |                           |                        |
| DRB1*04:11:01+DRB1*11:103    | DRB1*04:17:02+DRB1*11:07     |                           |                        |
| DRB1*04:11:01+DRB1*11:108    | DRB1*04:87+DRB1*11:54:02     |                           |                        |
| DRB1*04:11:01+DRB1*11:109    | DRB1*04:17:02+DRB1*11:60     |                           |                        |
| DRB1*04:11:01+DRB1*11:120    | DRB1*04:17:02+DRB1*11:116    |                           |                        |
| DRB1*04:11:01+DRB1*11:122    | DRB1*04:17:02+DRB1*11:40     |                           |                        |
| DRB1*04:11:01+DRB1*11:126    | DRB1*04:116+DRB1*11:54:02    |                           |                        |
| DRB1*04:11:01+DRB1*13:03:01  | DRB1*04:17:02+DRB1*13:89     |                           |                        |
| DRB1*04:11:01+DRB1*13:05:01  | DRB1*04:17:02+DRB1*13:42     |                           |                        |
| DRB1*04:11:01+DRB1*13:05:02  | DRB1*04:17:01+DRB1*13:42     |                           |                        |
| DRB1*04:11:01+DRB1*13:11:01  | DRB1*04:59+DRB1*13:108       |                           |                        |
| DRB1*04:11:01+DRB1*13:25     | DRB1*04:59+DRB1*13:134       |                           |                        |
| DRB1*04:11:01+DRB1*13:29     | DRB1*04:17:02+DRB1*13:20     |                           |                        |
| DRB1*04:11:01+DRB1*13:33:01  | DRB1*04:17:01+DRB1*13:94     |                           |                        |
| DRB1*04:11:01+DRB1*13:38     | DRB1*04:17:01+DRB1*13:48     |                           |                        |
| DRB1*04:11:01+DRB1*13:39     | DRB1*04:17:02+DRB1*13:79     |                           |                        |
| DRB1*04:11:01+DRB1*13:41     | DRB1*04:17:02+DRB1*13:27     |                           |                        |
| DRB1*04:11:01+DRB1*13:49     | DRB1*04:17:02+DRB1*13:108    |                           |                        |
| DRB1*04:11:01+DRB1*13:50:01  | DRB1*04:41+DRB1*13:21:01     |                           |                        |
| DRB1*04:11:01+DRB1*13:61:01  | DRB1*04:95+DRB1*13:93        |                           |                        |
| DRB1*04:11:01+DRB1*13:63     | DRB1*04:17:02+DRB1*13:111    |                           |                        |
| DRB1*04:11:01+DRB1*13:65     | DRB1*04:17:02+DRB1*13:32     |                           |                        |
| DRB1*04:11:01+DRB1*13:96:01  | DRB1*04:17:02+DRB1*13:61:02  |                           |                        |
| DRB1*04:11:01+DRB1*13:96:02  | DRB1*04:17:02+DRB1*13:61:01  | DRB1*04:74+DRB1*13:93     | DRB1*04:95+DRB1*13:139 |
| DRB1*04:11:01+DRB1*13:97:01  | DRB1*04:17:02+DRB1*13:52     |                           |                        |
| DRB1*04:11:01+DRB1*13:104    | DRB1*04:17:02+DRB1*13:15     |                           |                        |
| DRB1*04:11:01+DRB1*13:107    | DRB1*04:17:02+DRB1*13:83     |                           |                        |
| DRB1*04:11:01+DRB1*13:110    | DRB1*04:97+DRB1*13:93        |                           |                        |
| DRB1*04:11:01+DRB1*13:128    | DRB1*04:17:02+DRB1*13:112    |                           |                        |
| DRB1*04:11:01+DRB1*13:139    | DRB1*04:17:02+DRB1*13:93     |                           |                        |
| DRB1*04:11:01+DRB1*14:07:01  | DRB1*04:17:02+DRB1*14:01:01G |                           |                        |
| DRB1*04:11:01+DRB1*14:07:02  | DRB1*04:17:01+DRB1*14:01:01G |                           |                        |
| DRB1*04:11:01+DRB1*14:09     | DRB1*04:17:02+DRB1*14:80     |                           |                        |
| DRB1*04:11:01+DRB1*14:14     | DRB1*04:17:02+DRB1*14:23:01  |                           |                        |
| DRB1*04:11:01+DRB1*14:21     | DRB1*04:67+DRB1*14:33        |                           |                        |
| DRB1*04:11:01+DRB1*14:44:01  | DRB1*04:17:02+DRB1*14:05:01  |                           |                        |
| DRB1*04:11:01+DRB1*14:44:02  | DRB1*04:17:02+DRB1*14:05:03  |                           |                        |
| DRB1*04:11:01+DRB1*14:44:03  | DRB1*04:17:01+DRB1*14:05:01  |                           |                        |
| DRB1*04:11:01+DRB1*14:47     | DRB1*04:95+DRB1*14:13        |                           |                        |
| DRB1*04:11:01+DRB1*14:51     | DRB1*04:17:02+DRB1*14:106    |                           |                        |
| DRB1*04:11:01+DRB1*14:63     | DRB1*04:17:02+DRB1*14:78     |                           |                        |
| DRB1*04:11:01+DRB1*14:68     | DRB1*04:17:02+DRB1*14:04     |                           |                        |
| DRB1*04:11:01+DRB1*14:89     | DRB1*04:103+DRB1*14:106      |                           |                        |
| DRB1*04:11:01+DRB1*14:98     | DRB1*04:95+DRB1*14:85        |                           |                        |
| DRB1*04:11:01+DRB1*15:02:01  | DRB1*04:17:02+DRB1*15:01:01G |                           |                        |
| DRB1*04:11:01+DRB1*15:02:04  | DRB1*04:17:02+DRB1*15:01:09  |                           |                        |
| DRB1*04:11:01+DRB1*15:02:06  | DRB1*04:17:02+DRB1*15:01:03  |                           |                        |
| DRB1*04:11:01+DRB1*15:02:08  | DRB1*04:17:02+DRB1*15:01:10  |                           |                        |
| DRB1*04:11:01+DRB1*15:02:09  | DRB1*04:17:01+DRB1*15:01:01G |                           |                        |
| DRB1*04:11:01+DRB1*15:11     | DRB1*04:17:02+DRB1*15:07:01  |                           |                        |
| DRB1*04:11:01+DRB1*15:15     | DRB1*04:17:02+DRB1*15:04     |                           |                        |
| DRB1*04:11:01+DRB1*15:27     | DRB1*04:17:02+DRB1*15:66     |                           |                        |
| DRB1*04:11:01+DRB1*15:31     | DRB1*04:17:02+DRB1*15:05     |                           |                        |
| DRB1*04:11:01+DRB1*15:47     | DRB1*04:17:02+DRB1*15:65     |                           |                        |
| DRB1*04:11:01+DRB1*16:01:01  | DRB1*04:17:02+DRB1*16:15     |                           |                        |
| DRB1*04:12+DRB1*04:13        | DRB1*04:18+DRB1*04:67        |                           |                        |
| DRB1*04:12+DRB1*04:19        | DRB1*04:18+DRB1*04:84        | DRB1*04:68+DRB1*04:86     |                        |
| DRB1*04:12+DRB1*04:31        | DRB1*04:18+DRB1*04:103       | DRB1*04:55+DRB1*04:86     |                        |
| DRB1*04:12+DRB1*04:43        | DRB1*04:18+DRB1*04:28        | DRB1*04:42+DRB1*04:86     |                        |
| DRB1*04:12+DRB1*04:74        | DRB1*04:86+DRB1*04:95        |                           |                        |
| DRB1*04:12+DRB1*04:102       | DRB1*04:41+DRB1*04:86        |                           |                        |

|                           |                           |                           |                          |
|---------------------------|---------------------------|---------------------------|--------------------------|
| DRB1*04:12+DRB1*04:105:01 | DRB1*04:73+DRB1*04:86     |                           |                          |
| DRB1*04:12+DRB1*08:01:05  | DRB1*04:86+DRB1*08:06     |                           |                          |
| DRB1*04:12+DRB1*08:02:01  | DRB1*04:18+DRB1*08:01:01G | DRB1*04:25+DRB1*08:03:03  | DRB1*04:54+DRB1*08:10    |
|                           | DRB1*04:86+DRB1*08:04:04  |                           |                          |
| DRB1*04:12+DRB1*08:02:02  | DRB1*04:18+DRB1*08:01:05  | DRB1*04:25+DRB1*08:03:02  | DRB1*04:86+DRB1*08:04:01 |
| DRB1*04:12+DRB1*08:03:02  | DRB1*04:86+DRB1*08:10     |                           |                          |
| DRB1*04:12+DRB1*08:04:01  | DRB1*04:18+DRB1*08:06     | DRB1*04:25+DRB1*08:10     |                          |
| DRB1*04:12+DRB1*08:13     | DRB1*04:18+DRB1*08:48     | DRB1*04:58+DRB1*08:03:03  |                          |
| DRB1*04:12+DRB1*08:24     | DRB1*04:25+DRB1*08:18     | DRB1*04:36+DRB1*08:03:02  |                          |
| DRB1*04:12+DRB1*08:25     | DRB1*04:82+DRB1*08:10     |                           |                          |
| DRB1*04:12+DRB1*08:30:01  | DRB1*04:18+DRB1*08:03:02  |                           |                          |
| DRB1*04:12+DRB1*08:30:03  | DRB1*04:18+DRB1*08:03:03  |                           |                          |
| DRB1*04:12+DRB1*08:31     | DRB1*04:15+DRB1*08:10     |                           |                          |
| DRB1*04:12+DRB1*08:41     | DRB1*04:15+DRB1*08:03:02  | DRB1*04:86+DRB1*08:31     |                          |
| DRB1*04:12+DRB1*09:01:02  | DRB1*04:86+DRB1*09:06     |                           |                          |
| DRB1*04:12+DRB1*10:01:01  | DRB1*04:86+DRB1*10:02     |                           |                          |
| DRB1*04:12+DRB1*11:01:01G | DRB1*04:86+DRB1*11:04:01  |                           |                          |
| DRB1*04:12+DRB1*11:01:02  | DRB1*04:86+DRB1*11:04:02  |                           |                          |
| DRB1*04:12+DRB1*11:01:03  | DRB1*04:86+DRB1*11:04:07  |                           |                          |
| DRB1*04:12+DRB1*11:01:04  | DRB1*04:86+DRB1*11:04:05  |                           |                          |
| DRB1*04:12+DRB1*11:01:05  | DRB1*04:86+DRB1*11:04:03  |                           |                          |
| DRB1*04:12+DRB1*11:01:12  | DRB1*04:86+DRB1*11:04:04  |                           |                          |
| DRB1*04:12+DRB1*11:08:01  | DRB1*04:86+DRB1*11:42     |                           |                          |
| DRB1*04:12+DRB1*11:09     | DRB1*04:86+DRB1*11:113    |                           |                          |
| DRB1*04:12+DRB1*11:11:01G | DRB1*04:86+DRB1*11:03     | DRB1*04:106+DRB1*11:25    |                          |
| DRB1*04:12+DRB1*11:14:01  | DRB1*04:86+DRB1*11:02:01  | DRB1*04:106+DRB1*11:119   |                          |
| DRB1*04:12+DRB1*11:19:01  | DRB1*04:86+DRB1*11:18     |                           |                          |
| DRB1*04:12+DRB1*11:20     | DRB1*04:86+DRB1*11:16     |                           |                          |
| DRB1*04:12+DRB1*11:27:01  | DRB1*04:86+DRB1*11:84:01  |                           |                          |
| DRB1*04:12+DRB1*11:27:02  | DRB1*04:86+DRB1*11:84:02  |                           |                          |
| DRB1*04:12+DRB1*11:28:01  | DRB1*04:86+DRB1*11:58:02  |                           |                          |
| DRB1*04:12+DRB1*11:28:02  | DRB1*04:86+DRB1*11:58:01  |                           |                          |
| DRB1*04:12+DRB1*11:33     | DRB1*04:86+DRB1*11:35     |                           |                          |
| DRB1*04:12+DRB1*11:37:01  | DRB1*04:15+DRB1*13:13     | DRB1*04:86+DRB1*11:56     |                          |
| DRB1*04:12+DRB1*11:39     | DRB1*04:86+DRB1*11:43     |                           |                          |
| DRB1*04:12+DRB1*11:45     | DRB1*04:86+DRB1*11:119    |                           |                          |
| DRB1*04:12+DRB1*11:49:01  | DRB1*04:86+DRB1*11:44     |                           |                          |
| DRB1*04:12+DRB1*11:62     | DRB1*04:86+DRB1*11:46:02  |                           |                          |
| DRB1*04:12+DRB1*11:68     | DRB1*04:86+DRB1*11:36     |                           |                          |
| DRB1*04:12+DRB1*11:103    | DRB1*04:86+DRB1*11:07     |                           |                          |
| DRB1*04:12+DRB1*11:109    | DRB1*04:86+DRB1*11:60     |                           |                          |
| DRB1*04:12+DRB1*11:120    | DRB1*04:86+DRB1*11:116    |                           |                          |
| DRB1*04:12+DRB1*11:122    | DRB1*04:86+DRB1*11:40     |                           |                          |
| DRB1*04:12+DRB1*13:01:01G | DRB1*04:18+DRB1*13:93     |                           |                          |
| DRB1*04:12+DRB1*13:02:01  | DRB1*04:18+DRB1*13:139    | DRB1*04:86+DRB1*13:01:01G |                          |
| DRB1*04:12+DRB1*13:02:03  | DRB1*04:86+DRB1*13:01:05  |                           |                          |
| DRB1*04:12+DRB1*13:03:01  | DRB1*04:86+DRB1*13:89     |                           |                          |
| DRB1*04:12+DRB1*13:05:01  | DRB1*04:86+DRB1*13:42     |                           |                          |
| DRB1*04:12+DRB1*13:07:01  | DRB1*04:18+DRB1*13:49     | DRB1*04:25+DRB1*13:12:01  | DRB1*04:36+DRB1*13:13    |
| DRB1*04:12+DRB1*13:14:01  | DRB1*04:18+DRB1*13:21:01  | DRB1*04:25+DRB1*13:30     | DRB1*04:86+DRB1*13:11:01 |
| DRB1*04:12+DRB1*13:14:02  | DRB1*04:86+DRB1*13:11:02  |                           |                          |
| DRB1*04:12+DRB1*13:14:03  | DRB1*04:18+DRB1*13:21:02  |                           |                          |
| DRB1*04:12+DRB1*13:20     | DRB1*04:58+DRB1*13:93     |                           |                          |
| DRB1*04:12+DRB1*13:22     | DRB1*04:18+DRB1*13:04     |                           |                          |
| DRB1*04:12+DRB1*13:23:02  | DRB1*04:86+DRB1*13:22     |                           |                          |
| DRB1*04:12+DRB1*13:24     | DRB1*04:18+DRB1*13:75     | DRB1*04:25+DRB1*13:04     |                          |
| DRB1*04:12+DRB1*13:25     | DRB1*04:58+DRB1*13:30     |                           |                          |
| DRB1*04:12+DRB1*13:26:02  | DRB1*04:36+DRB1*14:63     |                           |                          |
| DRB1*04:12+DRB1*13:29     | DRB1*04:58+DRB1*13:139    | DRB1*04:86+DRB1*13:20     |                          |
| DRB1*04:12+DRB1*13:36     | DRB1*04:18+DRB1*13:65     | DRB1*04:86+DRB1*13:40     |                          |
| DRB1*04:12+DRB1*13:37     | DRB1*04:18+DRB1*13:03:01  |                           |                          |
| DRB1*04:12+DRB1*13:39     | DRB1*04:86+DRB1*13:79     |                           |                          |
| DRB1*04:12+DRB1*13:40     | DRB1*04:18+DRB1*13:32     |                           |                          |
| DRB1*04:12+DRB1*13:41     | DRB1*04:86+DRB1*13:27     |                           |                          |
| DRB1*04:12+DRB1*13:47     | DRB1*04:18+DRB1*13:55     |                           |                          |
| DRB1*04:12+DRB1*13:49     | DRB1*04:86+DRB1*13:108    |                           |                          |
| DRB1*04:12+DRB1*13:63     | DRB1*04:25+DRB1*13:139    | DRB1*04:86+DRB1*13:111    | DRB1*04:106+DRB1*13:18   |
| DRB1*04:12+DRB1*13:65     | DRB1*04:86+DRB1*13:32     |                           |                          |
| DRB1*04:12+DRB1*13:70     | DRB1*04:18+DRB1*13:48     |                           |                          |
| DRB1*04:12+DRB1*13:82     | DRB1*04:18+DRB1*13:30     |                           |                          |
| DRB1*04:12+DRB1*13:96:01  | DRB1*04:86+DRB1*13:61:02  |                           |                          |
| DRB1*04:12+DRB1*13:96:02  | DRB1*04:86+DRB1*13:61:01  |                           |                          |
| DRB1*04:12+DRB1*13:97:01  | DRB1*04:86+DRB1*13:52     |                           |                          |
| DRB1*04:12+DRB1*13:104    | DRB1*04:86+DRB1*13:15     |                           |                          |
| DRB1*04:12+DRB1*13:107    | DRB1*04:86+DRB1*13:83     |                           |                          |
| DRB1*04:12+DRB1*13:111    | DRB1*04:25+DRB1*13:93     |                           |                          |
| DRB1*04:12+DRB1*13:128    | DRB1*04:86+DRB1*13:112    |                           |                          |
| DRB1*04:12+DRB1*13:139    | DRB1*04:86+DRB1*13:93     |                           |                          |
| DRB1*04:12+DRB1*14:03:01  | DRB1*04:18+DRB1*14:85     | DRB1*04:58+DRB1*14:63     | DRB1*04:86+DRB1*14:12:01 |
| DRB1*04:12+DRB1*14:07:01  | DRB1*04:86+DRB1*14:01:01G |                           |                          |
| DRB1*04:12+DRB1*14:09     | DRB1*04:86+DRB1*14:80     |                           |                          |
| DRB1*04:12+DRB1*14:12:01  | DRB1*04:58+DRB1*14:78     |                           |                          |
| DRB1*04:12+DRB1*14:14     | DRB1*04:86+DRB1*14:23:01  |                           |                          |
| DRB1*04:12+DRB1*14:24     | DRB1*04:105:02+DRB1*14:78 |                           |                          |
| DRB1*04:12+DRB1*14:27     | DRB1*04:25+DRB1*14:63     |                           |                          |
| DRB1*04:12+DRB1*14:30     | DRB1*04:86+DRB1*14:17     | DRB1*04:103+DRB1*13:06    |                          |
| DRB1*04:12+DRB1*14:44:01  | DRB1*04:86+DRB1*14:05:01  |                           |                          |
| DRB1*04:12+DRB1*14:44:02  | DRB1*04:86+DRB1*14:05:03  |                           |                          |
| DRB1*04:12+DRB1*14:47     | DRB1*04:44+DRB1*14:63     |                           |                          |
| DRB1*04:12+DRB1*14:63     | DRB1*04:86+DRB1*14:78     |                           |                          |
| DRB1*04:12+DRB1*14:67     | DRB1*04:18+DRB1*14:63     |                           |                          |
| DRB1*04:12+DRB1*14:68     | DRB1*04:86+DRB1*14:04     |                           |                          |
| DRB1*04:12+DRB1*14:89     | DRB1*04:31+DRB1*14:78     | DRB1*04:55+DRB1*14:63     |                          |
| DRB1*04:12+DRB1*14:116    | DRB1*04:58+DRB1*13:13     |                           |                          |
| DRB1*04:12+DRB1*15:01:04  | DRB1*04:18+DRB1*15:12     |                           |                          |
| DRB1*04:12+DRB1*15:02:01  | DRB1*04:86+DRB1*15:01:01G |                           |                          |
| DRB1*04:12+DRB1*15:02:02  | DRB1*04:86+DRB1*15:01:04  |                           |                          |
| DRB1*04:12+DRB1*15:02:04  | DRB1*04:86+DRB1*15:01:09  |                           |                          |
| DRB1*04:12+DRB1*15:02:06  | DRB1*04:86+DRB1*15:01:03  |                           |                          |
| DRB1*04:12+DRB1*15:02:08  | DRB1*04:86+DRB1*15:01:10  |                           |                          |
| DRB1*04:12+DRB1*15:11     | DRB1*04:86+DRB1*15:07:01  |                           |                          |
| DRB1*04:12+DRB1*15:15     | DRB1*04:86+DRB1*15:04     |                           |                          |
| DRB1*04:12+DRB1*15:31     | DRB1*04:86+DRB1*15:05     |                           |                          |
| DRB1*04:12+DRB1*15:47     | DRB1*04:86+DRB1*15:65     |                           |                          |
| DRB1*04:12+DRB1*16:01:01  | DRB1*04:86+DRB1*16:15     |                           |                          |

|                           |                               |                             |                       |
|---------------------------|-------------------------------|-----------------------------|-----------------------|
| DRB1*04:13+DRB1*04:69     | DRB1*04:62+DRB1*04:101        |                             |                       |
| DRB1*04:13+DRB1*04:105:02 | DRB1*04:38+DRB1*04:122        |                             |                       |
| DRB1*04:13+DRB1*08:06     | DRB1*04:67+DRB1*08:04:01      |                             |                       |
| DRB1*04:13+DRB1*08:08     | DRB1*04:62+DRB1*08:04:04      |                             |                       |
| DRB1*04:13+DRB1*08:37     | DRB1*04:35+DRB1*08:10         |                             |                       |
| DRB1*04:13+DRB1*08:42     | DRB1*04:21+DRB1*08:04:04      |                             |                       |
| DRB1*04:13+DRB1*08:48     | DRB1*04:67+DRB1*08:13         |                             |                       |
| DRB1*04:13+DRB1*11:19:02  | DRB1*04:53+DRB1*11:79         |                             |                       |
| DRB1*04:13+DRB1*11:29     | DRB1*04:21+DRB1*11:04:01      |                             |                       |
| DRB1*04:13+DRB1*11:64     | DRB1*04:58+DRB1*11:79         |                             |                       |
| DRB1*04:13+DRB1*11:87     | DRB1*04:35+DRB1*11:83         |                             |                       |
| DRB1*04:13+DRB1*11:113    | DRB1*04:15+DRB1*14:21         |                             |                       |
| DRB1*04:13+DRB1*12:22     | DRB1*04:72:02+DRB1*12:03:02   |                             |                       |
| DRB1*04:13+DRB1*13:04     | DRB1*04:67+DRB1*13:22         |                             |                       |
| DRB1*04:13+DRB1*13:13     | DRB1*04:55+DRB1*13:03:02      |                             |                       |
| DRB1*04:13+DRB1*13:18     | DRB1*04:25+DRB1*14:21         |                             |                       |
| DRB1*04:13+DRB1*13:20     | DRB1*04:37+DRB1*14:21         |                             |                       |
| DRB1*04:13+DRB1*13:21:02  | DRB1*04:67+DRB1*13:14:03      |                             |                       |
| DRB1*04:13+DRB1*13:26:02  | DRB1*04:36+DRB1*14:19         |                             |                       |
| DRB1*04:13+DRB1*13:32     | DRB1*04:67+DRB1*13:40         |                             |                       |
| DRB1*04:13+DRB1*13:33:03  | DRB1*04:72:02+DRB1*13:89      |                             |                       |
| DRB1*04:13+DRB1*13:42     | DRB1*04:36+DRB1*14:21         |                             |                       |
| DRB1*04:13+DRB1*13:48     | DRB1*04:67+DRB1*13:70         |                             |                       |
| DRB1*04:13+DRB1*13:50:01  | DRB1*04:113+DRB1*13:11:01     |                             |                       |
| DRB1*04:13+DRB1*13:55     | DRB1*04:67+DRB1*13:47         |                             |                       |
| DRB1*04:13+DRB1*13:66:02  | DRB1*04:35+DRB1*13:89         |                             |                       |
| DRB1*04:13+DRB1*13:75     | DRB1*04:67+DRB1*13:24         |                             |                       |
| DRB1*04:13+DRB1*13:93     | DRB1*04:67+DRB1*13:01:01G     |                             |                       |
| DRB1*04:13+DRB1*13:115    | DRB1*04:113+DRB1*13:89        |                             |                       |
| DRB1*04:13+DRB1*14:27     | DRB1*04:25+DRB1*14:19         |                             |                       |
| DRB1*04:13+DRB1*14:45     | DRB1*04:100+DRB1*14:100       |                             |                       |
| DRB1*04:13+DRB1*14:47     | DRB1*04:44+DRB1*14:19         | DRB1*04:72:02+DRB1*14:06:01 |                       |
| DRB1*04:13+DRB1*14:49     | DRB1*04:62+DRB1*14:20         |                             |                       |
| DRB1*04:13+DRB1*14:53     | DRB1*04:62+DRB1*13:11:01      |                             |                       |
| DRB1*04:13+DRB1*14:67     | DRB1*04:18+DRB1*14:19         | DRB1*04:38+DRB1*14:12:01    | DRB1*04:55+DRB1*13:85 |
| DRB1*04:13+DRB1*14:89     | DRB1*04:55+DRB1*14:19         |                             |                       |
| DRB1*04:13+DRB1*14:98     | DRB1*04:72:02+DRB1*14:12:01   |                             |                       |
| DRB1*04:13+DRB1*14:115    | DRB1*04:58+DRB1*14:109        |                             |                       |
| DRB1*04:13+DRB1*14:120    | DRB1*04:100+DRB1*14:31        |                             |                       |
| DRB1*04:13+DRB1*14:122    | DRB1*04:100+DRB1*14:32:02     |                             |                       |
| DRB1*04:13+DRB1*15:12     | DRB1*04:67+DRB1*15:01:04      |                             |                       |
| DRB1*04:13+DRB1*15:39     | DRB1*04:26+DRB1*15:01:01G     |                             |                       |
| DRB1*04:13+DRB1*16:09     | DRB1*04:35+DRB1*16:15         |                             |                       |
| DRB1*04:14+DRB1*04:28     | DRB1*04:43+DRB1*04:106        |                             |                       |
| DRB1*04:14+DRB1*04:84     | DRB1*04:19+DRB1*04:106        |                             |                       |
| DRB1*04:14+DRB1*04:103    | DRB1*04:31+DRB1*04:106        |                             |                       |
| DRB1*04:14+DRB1*04:122    | DRB1*04:37+DRB1*04:105:02     |                             |                       |
| DRB1*04:14+DRB1*08:01:01G | DRB1*04:106+DRB1*08:02:01     |                             |                       |
| DRB1*04:14+DRB1*08:01:05  | DRB1*04:106+DRB1*08:02:02     |                             |                       |
| DRB1*04:14+DRB1*08:03:02  | DRB1*04:106+DRB1*08:30:01     |                             |                       |
| DRB1*04:14+DRB1*08:03:03  | DRB1*04:106+DRB1*08:30:03     |                             |                       |
| DRB1*04:14+DRB1*08:48     | DRB1*04:106+DRB1*08:13        |                             |                       |
| DRB1*04:14+DRB1*11:01:03  | DRB1*04:47+DRB1*11:14:01      |                             |                       |
| DRB1*04:14+DRB1*11:01:11  | DRB1*04:47+DRB1*11:14:02      |                             |                       |
| DRB1*04:14+DRB1*11:23     | DRB1*04:54+DRB1*11:14:01      |                             |                       |
| DRB1*04:14+DRB1*11:25     | DRB1*04:18+DRB1*11:11:01G     | DRB1*04:25+DRB1*11:14:01    |                       |
| DRB1*04:14+DRB1*11:46:01  | DRB1*04:15+DRB1*13:97:01      |                             |                       |
| DRB1*04:14+DRB1*11:69     | DRB1*04:105:02+DRB1*11:11:01G |                             |                       |
| DRB1*04:14+DRB1*11:82     | DRB1*04:105:02+DRB1*11:14:01  |                             |                       |
| DRB1*04:14+DRB1*11:105    | DRB1*04:98:02+DRB1*11:14:01   |                             |                       |
| DRB1*04:14+DRB1*13:03:01  | DRB1*04:106+DRB1*13:37        |                             |                       |
| DRB1*04:14+DRB1*13:04     | DRB1*04:106+DRB1*13:22        |                             |                       |
| DRB1*04:14+DRB1*13:09     | DRB1*04:105:02+DRB1*13:01:01G |                             |                       |
| DRB1*04:14+DRB1*13:18     | DRB1*04:18+DRB1*13:63         | DRB1*04:25+DRB1*13:02:01    |                       |
| DRB1*04:14+DRB1*13:21:01  | DRB1*04:106+DRB1*13:14:01     |                             |                       |
| DRB1*04:14+DRB1*13:21:02  | DRB1*04:106+DRB1*13:14:03     |                             |                       |
| DRB1*04:14+DRB1*13:30     | DRB1*04:106+DRB1*13:82        |                             |                       |
| DRB1*04:14+DRB1*13:48     | DRB1*04:106+DRB1*13:70        |                             |                       |
| DRB1*04:14+DRB1*13:49     | DRB1*04:106+DRB1*13:07:01     |                             |                       |
| DRB1*04:14+DRB1*13:55     | DRB1*04:106+DRB1*13:47        |                             |                       |
| DRB1*04:14+DRB1*13:65     | DRB1*04:106+DRB1*13:36        |                             |                       |
| DRB1*04:14+DRB1*13:71     | DRB1*04:37+DRB1*13:41         |                             |                       |
| DRB1*04:14+DRB1*13:75     | DRB1*04:106+DRB1*13:24        |                             |                       |
| DRB1*04:14+DRB1*13:77     | DRB1*04:82+DRB1*13:01:01G     |                             |                       |
| DRB1*04:14+DRB1*13:78     | DRB1*04:37+DRB1*13:39         |                             |                       |
| DRB1*04:14+DRB1*13:129    | DRB1*04:105:02+DRB1*13:27     |                             |                       |
| DRB1*04:14+DRB1*13:139    | DRB1*04:106+DRB1*13:02:01     |                             |                       |
| DRB1*04:14+DRB1*14:01:02  | DRB1*04:69+DRB1*13:08         |                             |                       |
| DRB1*04:14+DRB1*14:13     | DRB1*04:106+DRB1*14:02        |                             |                       |
| DRB1*04:14+DRB1*14:37     | DRB1*04:105:02+DRB1*13:72     |                             |                       |
| DRB1*04:14+DRB1*14:63     | DRB1*04:106+DRB1*14:67        |                             |                       |
| DRB1*04:14+DRB1*14:85     | DRB1*04:106+DRB1*14:03:01     |                             |                       |
| DRB1*04:14+DRB1*15:12     | DRB1*04:106+DRB1*15:01:04     |                             |                       |
| DRB1*04:15+DRB1*04:31     | DRB1*04:25+DRB1*04:61         |                             |                       |
| DRB1*04:15+DRB1*08:02:01  | DRB1*04:54+DRB1*08:31         |                             |                       |
| DRB1*04:15+DRB1*08:02:02  | DRB1*04:25+DRB1*08:41         |                             |                       |
| DRB1*04:15+DRB1*08:04:01  | DRB1*04:25+DRB1*08:31         |                             |                       |
| DRB1*04:15+DRB1*08:20     | DRB1*04:25+DRB1*11:56         |                             |                       |
| DRB1*04:15+DRB1*08:24     | DRB1*04:36+DRB1*08:41         |                             |                       |
| DRB1*04:15+DRB1*08:25     | DRB1*04:82+DRB1*08:31         |                             |                       |
| DRB1*04:15+DRB1*08:28     | DRB1*04:36+DRB1*11:67         |                             |                       |
| DRB1*04:15+DRB1*08:30:01  | DRB1*04:18+DRB1*08:41         |                             |                       |
| DRB1*04:15+DRB1*11:26     | DRB1*04:61+DRB1*11:04:01      |                             |                       |
| DRB1*04:15+DRB1*12:09     | DRB1*04:36+DRB1*12:04         |                             |                       |
| DRB1*04:15+DRB1*13:02:02  | DRB1*04:47+DRB1*11:16         | DRB1*04:53+DRB1*11:122      |                       |
| DRB1*04:15+DRB1*13:05:01  | DRB1*04:36+DRB1*11:09         |                             |                       |
| DRB1*04:15+DRB1*13:07:01  | DRB1*04:36+DRB1*11:37:01      |                             |                       |
| DRB1*04:15+DRB1*13:11:01  | DRB1*04:36+DRB1*11:04:01      |                             |                       |
| DRB1*04:15+DRB1*13:14:01  | DRB1*04:36+DRB1*11:01:01G     |                             |                       |
| DRB1*04:15+DRB1*13:14:03  | DRB1*04:36+DRB1*11:01:02      |                             |                       |
| DRB1*04:15+DRB1*13:18     | DRB1*04:25+DRB1*11:113        |                             |                       |
| DRB1*04:15+DRB1*13:20     | DRB1*04:37+DRB1*11:113        |                             |                       |
| DRB1*04:15+DRB1*13:24     | DRB1*04:36+DRB1*11:03         |                             |                       |
| DRB1*04:15+DRB1*13:25     | DRB1*04:36+DRB1*11:08:01      |                             |                       |
| DRB1*04:15+DRB1*13:29     | DRB1*04:37+DRB1*11:09         |                             |                       |

|                              |                              |                           |
|------------------------------|------------------------------|---------------------------|
| DRB1*04:15+DRB1*13:42        | DRB1*04:36+DRB1*11:113       | DRB1*04:54+DRB1*11:56     |
| DRB1*04:15+DRB1*13:47        | DRB1*04:25+DRB1*11:37:02     |                           |
| DRB1*04:15+DRB1*13:50:01     | DRB1*04:36+DRB1*11:28:01     |                           |
| DRB1*04:15+DRB1*13:50:02     | DRB1*04:36+DRB1*11:28:02     |                           |
| DRB1*04:15+DRB1*13:62        | DRB1*04:36+DRB1*11:15        |                           |
| DRB1*04:15+DRB1*13:63        | DRB1*04:36+DRB1*11:122       |                           |
| DRB1*04:15+DRB1*13:82        | DRB1*04:36+DRB1*11:19:01     |                           |
| DRB1*04:15+DRB1*13:111       | DRB1*04:36+DRB1*11:40        |                           |
| DRB1*04:15+DRB1*13:119       | DRB1*04:58+DRB1*11:09        |                           |
| DRB1*04:15+DRB1*13:139       | DRB1*04:106+DRB1*11:113      |                           |
| DRB1*04:15+DRB1*14:23:01     | DRB1*04:36+DRB1*11:17        |                           |
| DRB1*04:15+DRB1*14:35        | DRB1*11:102:02+DRB1*14:10    |                           |
| DRB1*04:15+DRB1*14:42        | DRB1*04:101+DRB1*11:01:05    |                           |
| DRB1*04:15+DRB1*14:116       | DRB1*04:58+DRB1*11:37:01     |                           |
| DRB1*04:15+DRB1*14:126       | DRB1*04:36+DRB1*14:11        |                           |
| DRB1*04:17:01+DRB1*08:01:05  | DRB1*04:17:02+DRB1*08:01:01G |                           |
| DRB1*04:17:01+DRB1*08:03:02  | DRB1*04:17:02+DRB1*08:03:03  |                           |
| DRB1*04:17:01+DRB1*08:04:02  | DRB1*04:17:02+DRB1*08:04:03  |                           |
| DRB1*04:17:01+DRB1*11:01:01G | DRB1*04:17:02+DRB1*11:01:02  |                           |
| DRB1*04:17:01+DRB1*11:01:03  | DRB1*04:17:02+DRB1*11:01:11  |                           |
| DRB1*04:17:01+DRB1*11:08:01  | DRB1*04:17:02+DRB1*11:08:02  |                           |
| DRB1*04:17:01+DRB1*11:10:02  | DRB1*04:17:02+DRB1*11:10:01  |                           |
| DRB1*04:17:01+DRB1*11:14:01  | DRB1*04:17:02+DRB1*11:14:02  |                           |
| DRB1*04:17:01+DRB1*11:19:01  | DRB1*04:17:02+DRB1*11:19:03  |                           |
| DRB1*04:17:01+DRB1*11:27:02  | DRB1*04:17:02+DRB1*11:27:03  |                           |
| DRB1*04:17:01+DRB1*11:37:01  | DRB1*04:17:02+DRB1*11:37:02  |                           |
| DRB1*04:17:01+DRB1*11:49:01  | DRB1*04:17:02+DRB1*11:49:02  |                           |
| DRB1*04:17:01+DRB1*11:74:01  | DRB1*04:17:02+DRB1*11:74:02  |                           |
| DRB1*04:17:01+DRB1*13:03:02  | DRB1*04:17:02+DRB1*13:03:01  |                           |
| DRB1*04:17:01+DRB1*13:05:01  | DRB1*04:17:02+DRB1*13:05:02  |                           |
| DRB1*04:17:01+DRB1*13:10     | DRB1*04:59+DRB1*13:120       |                           |
| DRB1*04:17:01+DRB1*13:12:01  | DRB1*04:17:02+DRB1*13:12:02  |                           |
| DRB1*04:17:01+DRB1*13:21:01  | DRB1*04:17:02+DRB1*13:21:02  |                           |
| DRB1*04:17:01+DRB1*13:23:02  | DRB1*04:17:02+DRB1*13:23:01  |                           |
| DRB1*04:17:01+DRB1*13:33:02  | DRB1*04:17:02+DRB1*13:33:03  |                           |
| DRB1*04:17:01+DRB1*13:50:01  | DRB1*04:102+DRB1*13:21:02    |                           |
| DRB1*04:17:01+DRB1*13:66:01  | DRB1*04:17:02+DRB1*13:66:02  |                           |
| DRB1*04:17:01+DRB1*14:07:01  | DRB1*04:17:02+DRB1*14:07:02  |                           |
| DRB1*04:17:01+DRB1*14:44:01  | DRB1*04:17:02+DRB1*14:44:03  |                           |
| DRB1*04:17:01+DRB1*15:02:01  | DRB1*04:17:02+DRB1*15:02:09  |                           |
| DRB1*04:17:01+DRB1*15:02:02  | DRB1*04:17:02+DRB1*15:02:05  |                           |
| DRB1*04:17:02+DRB1*08:03:02  | DRB1*04:103+DRB1*08:29       |                           |
| DRB1*04:17:02+DRB1*08:28     | DRB1*04:59+DRB1*08:01:05     |                           |
| DRB1*04:17:02+DRB1*08:42     | DRB1*04:20+DRB1*08:01:01G    |                           |
| DRB1*04:17:02+DRB1*11:13:01G | DRB1*04:28+DRB1*11:17        |                           |
| DRB1*04:17:02+DRB1*11:25     | DRB1*04:103+DRB1*11:54:02    |                           |
| DRB1*04:17:02+DRB1*11:63     | DRB1*04:91+DRB1*11:11:01G    |                           |
| DRB1*04:17:02+DRB1*13:50:01  | DRB1*04:102+DRB1*13:21:01    |                           |
| DRB1*04:17:02+DRB1*13:53     | DRB1*04:106+DRB1*14:106      |                           |
| DRB1*04:17:02+DRB1*13:96:02  | DRB1*04:74+DRB1*13:139       |                           |
| DRB1*04:17:02+DRB1*13:110    | DRB1*04:97+DRB1*13:139       |                           |
| DRB1*04:17:02+DRB1*14:29     | DRB1*04:27+DRB1*14:13        |                           |
| DRB1*04:17:02+DRB1*14:47     | DRB1*04:74+DRB1*14:13        |                           |
| DRB1*04:17:02+DRB1*14:55     | DRB1*04:103+DRB1*14:01:01G   |                           |
| DRB1*04:17:02+DRB1*14:81     | DRB1*04:24+DRB1*14:106       | DRB1*04:101+DRB1*14:13    |
| DRB1*04:17:02+DRB1*14:89     | DRB1*04:103+DRB1*14:51       |                           |
| DRB1*04:17:02+DRB1*14:98     | DRB1*04:74+DRB1*14:85        |                           |
| DRB1*04:17:02+DRB1*14:108    | DRB1*04:80+DRB1*14:106       |                           |
| DRB1*04:18+DRB1*04:80        | DRB1*04:25+DRB1*04:107       |                           |
| DRB1*04:18+DRB1*04:87        | DRB1*04:70+DRB1*04:86        |                           |
| DRB1*04:18+DRB1*04:107       | DRB1*04:56+DRB1*04:86        |                           |
| DRB1*04:18+DRB1*08:02:01     | DRB1*04:25+DRB1*08:30:03     |                           |
| DRB1*04:18+DRB1*08:02:02     | DRB1*04:25+DRB1*08:30:01     |                           |
| DRB1*04:18+DRB1*08:05        | DRB1*04:36+DRB1*08:03:03     |                           |
| DRB1*04:18+DRB1*08:13        | DRB1*04:58+DRB1*08:30:03     |                           |
| DRB1*04:18+DRB1*08:24        | DRB1*04:36+DRB1*08:30:01     |                           |
| DRB1*04:18+DRB1*08:25        | DRB1*04:53+DRB1*08:34        |                           |
| DRB1*04:18+DRB1*11:01:01G    | DRB1*04:25+DRB1*11:19:01     | DRB1*04:36+DRB1*11:45     |
| DRB1*04:18+DRB1*11:01:02     | DRB1*04:25+DRB1*11:19:03     |                           |
| DRB1*04:18+DRB1*11:01:03     | DRB1*04:25+DRB1*11:19:02     | DRB1*04:54+DRB1*11:18     |
| DRB1*04:18+DRB1*11:01:11     | DRB1*04:53+DRB1*11:23        |                           |
| DRB1*04:18+DRB1*11:04:01     | DRB1*04:25+DRB1*11:18        | DRB1*04:47+DRB1*11:119    |
| DRB1*04:18+DRB1*11:04:07     | DRB1*04:53+DRB1*11:25        |                           |
| DRB1*04:18+DRB1*11:07        | DRB1*04:22+DRB1*11:119       |                           |
| DRB1*04:18+DRB1*11:08:01     | DRB1*04:58+DRB1*11:19:01     |                           |
| DRB1*04:18+DRB1*11:08:02     | DRB1*04:58+DRB1*11:19:03     |                           |
| DRB1*04:18+DRB1*11:19:02     | DRB1*04:53+DRB1*11:45        |                           |
| DRB1*04:18+DRB1*11:23        | DRB1*04:54+DRB1*11:119       |                           |
| DRB1*04:18+DRB1*11:25        | DRB1*04:25+DRB1*11:119       | DRB1*04:58+DRB1*11:02:01  |
| DRB1*04:18+DRB1*11:36        | DRB1*04:37+DRB1*11:119       |                           |
| DRB1*04:18+DRB1*11:40        | DRB1*04:25+DRB1*11:16        |                           |
| DRB1*04:18+DRB1*11:41        | DRB1*04:25+DRB1*11:48        |                           |
| DRB1*04:18+DRB1*11:42        | DRB1*04:58+DRB1*11:18        |                           |
| DRB1*04:18+DRB1*11:64        | DRB1*04:58+DRB1*11:45        | DRB1*04:105:02+DRB1*11:25 |
| DRB1*04:18+DRB1*11:69        | DRB1*04:25+DRB1*11:82        |                           |
| DRB1*04:18+DRB1*11:82        | DRB1*04:105:02+DRB1*11:119   |                           |
| DRB1*04:18+DRB1*11:85        | DRB1*04:25+DRB1*11:127       |                           |
| DRB1*04:18+DRB1*11:93        | DRB1*04:25+DRB1*11:73        |                           |
| DRB1*04:18+DRB1*11:96        | DRB1*04:25+DRB1*11:31        |                           |
| DRB1*04:18+DRB1*11:103       | DRB1*04:22+DRB1*11:45        |                           |
| DRB1*04:18+DRB1*11:105       | DRB1*04:98:02+DRB1*11:119    |                           |
| DRB1*04:18+DRB1*11:122       | DRB1*04:25+DRB1*11:20        |                           |
| DRB1*04:18+DRB1*12:02:01     | DRB1*04:25+DRB1*12:01:01G    |                           |
| DRB1*04:18+DRB1*12:02:02     | DRB1*04:25+DRB1*12:01:03     |                           |
| DRB1*04:18+DRB1*12:12        | DRB1*04:58+DRB1*12:01:01G    |                           |
| DRB1*04:18+DRB1*12:15        | DRB1*04:25+DRB1*12:05        |                           |
| DRB1*04:18+DRB1*12:19        | DRB1*04:25+DRB1*12:03:03     |                           |
| DRB1*04:18+DRB1*13:05:02     | DRB1*04:54+DRB1*13:06        |                           |
| DRB1*04:18+DRB1*13:14:01     | DRB1*04:25+DRB1*13:82        |                           |
| DRB1*04:18+DRB1*13:20        | DRB1*04:58+DRB1*13:01:01G    |                           |
| DRB1*04:18+DRB1*13:24        | DRB1*04:25+DRB1*13:22        |                           |
| DRB1*04:18+DRB1*13:25        | DRB1*04:58+DRB1*13:82        |                           |
| DRB1*04:18+DRB1*13:26:02     | DRB1*04:36+DRB1*14:67        |                           |
| DRB1*04:18+DRB1*13:42        | DRB1*04:25+DRB1*13:06        |                           |
| DRB1*04:18+DRB1*13:71        | DRB1*04:58+DRB1*13:27        |                           |

|                           |                           |                          |                       |
|---------------------------|---------------------------|--------------------------|-----------------------|
| DRB1*04:18+DRB1*13:78     | DRB1*04:58+DRB1*13:79     |                          |                       |
| DRB1*04:18+DRB1*13:88     | DRB1*04:58+DRB1*13:03:01  |                          |                       |
| DRB1*04:18+DRB1*13:134    | DRB1*04:58+DRB1*13:12:01  |                          |                       |
| DRB1*04:18+DRB1*14:01:01G | DRB1*04:58+DRB1*14:122    |                          |                       |
| DRB1*04:18+DRB1*14:03:01  | DRB1*04:58+DRB1*14:67     |                          |                       |
| DRB1*04:18+DRB1*14:04     | DRB1*04:58+DRB1*14:120    |                          |                       |
| DRB1*04:18+DRB1*14:05:01  | DRB1*04:58+DRB1*14:45     |                          |                       |
| DRB1*04:18+DRB1*14:06:01  | DRB1*04:56+DRB1*14:12:01  |                          |                       |
| DRB1*04:18+DRB1*14:17     | DRB1*04:55+DRB1*13:06     |                          |                       |
| DRB1*04:18+DRB1*14:21     | DRB1*04:55+DRB1*13:10     |                          |                       |
| DRB1*04:18+DRB1*14:27     | DRB1*04:25+DRB1*14:67     |                          |                       |
| DRB1*04:18+DRB1*14:30     | DRB1*04:31+DRB1*13:06     | DRB1*04:56+DRB1*13:119   |                       |
| DRB1*04:18+DRB1*14:41     | DRB1*04:56+DRB1*14:77     |                          |                       |
| DRB1*04:18+DRB1*14:47     | DRB1*04:44+DRB1*14:67     | DRB1*04:56+DRB1*14:98    |                       |
| DRB1*04:18+DRB1*14:89     | DRB1*04:55+DRB1*14:67     |                          |                       |
| DRB1*04:18+DRB1*14:106    | DRB1*04:88+DRB1*14:12:01  |                          |                       |
| DRB1*04:18+DRB1*15:02:01  | DRB1*04:105:02+DRB1*15:21 |                          |                       |
| DRB1*04:18+DRB1*15:04     | DRB1*04:25+DRB1*15:01:01G |                          |                       |
| DRB1*04:18+DRB1*15:05     | DRB1*04:58+DRB1*15:01:01G | DRB1*04:122+DRB1*15:21   |                       |
| DRB1*04:18+DRB1*15:15     | DRB1*04:25+DRB1*15:02:01  |                          |                       |
| DRB1*04:18+DRB1*15:23     | DRB1*04:58+DRB1*15:03:01G |                          |                       |
| DRB1*04:18+DRB1*15:25     | DRB1*04:22+DRB1*15:21     |                          |                       |
| DRB1*04:18+DRB1*15:31     | DRB1*04:58+DRB1*15:02:01  |                          |                       |
| DRB1*04:18+DRB1*15:34     | DRB1*04:56+DRB1*16:18     |                          |                       |
| DRB1*04:18+DRB1*15:63     | DRB1*04:58+DRB1*15:38     |                          |                       |
| DRB1*04:18+DRB1*15:73     | DRB1*04:58+DRB1*15:06:01  |                          |                       |
| DRB1*04:18+DRB1*16:01:01  | DRB1*04:25+DRB1*16:05:01  |                          |                       |
| DRB1*04:18+DRB1*16:02:01  | DRB1*04:53+DRB1*16:18     | DRB1*04:58+DRB1*16:05:01 |                       |
| DRB1*04:18+DRB1*16:09     | DRB1*04:47+DRB1*15:21     |                          |                       |
| DRB1*04:19+DRB1*04:28     | DRB1*04:43+DRB1*04:84     |                          |                       |
| DRB1*04:19+DRB1*04:35     | DRB1*04:21+DRB1*04:43     |                          |                       |
| DRB1*04:19+DRB1*04:41     | DRB1*04:68+DRB1*04:102    |                          |                       |
| DRB1*04:19+DRB1*04:42     | DRB1*04:43+DRB1*04:68     |                          |                       |
| DRB1*04:19+DRB1*04:51     | DRB1*04:20+DRB1*04:70     |                          |                       |
| DRB1*04:19+DRB1*04:52     | DRB1*04:20+DRB1*04:23     |                          |                       |
| DRB1*04:19+DRB1*04:55     | DRB1*04:31+DRB1*04:68     |                          |                       |
| DRB1*04:19+DRB1*04:73     | DRB1*04:68+DRB1*04:105:01 |                          |                       |
| DRB1*04:19+DRB1*04:88     | DRB1*04:20+DRB1*04:56     |                          |                       |
| DRB1*04:19+DRB1*04:95     | DRB1*04:20+DRB1*04:44     | DRB1*04:68+DRB1*04:74    |                       |
| DRB1*04:19+DRB1*04:103    | DRB1*04:31+DRB1*04:84     |                          |                       |
| DRB1*04:19+DRB1*08:01:05  | DRB1*04:84+DRB1*08:02:02  |                          |                       |
| DRB1*04:19+DRB1*08:03:02  | DRB1*04:84+DRB1*08:30:01  |                          |                       |
| DRB1*04:19+DRB1*08:03:03  | DRB1*04:84+DRB1*08:30:03  |                          |                       |
| DRB1*04:19+DRB1*08:04:01  | DRB1*04:68+DRB1*08:02:02  |                          |                       |
| DRB1*04:19+DRB1*08:06     | DRB1*04:68+DRB1*08:01:05  | DRB1*04:84+DRB1*08:04:01 |                       |
| DRB1*04:19+DRB1*08:10     | DRB1*04:68+DRB1*08:03:02  |                          |                       |
| DRB1*04:19+DRB1*08:17     | DRB1*04:28+DRB1*08:42     |                          |                       |
| DRB1*04:19+DRB1*08:29     | DRB1*04:20+DRB1*08:18     |                          |                       |
| DRB1*04:19+DRB1*08:31     | DRB1*04:68+DRB1*08:41     |                          |                       |
| DRB1*04:19+DRB1*08:48     | DRB1*04:84+DRB1*08:13     |                          |                       |
| DRB1*04:19+DRB1*09:06     | DRB1*04:68+DRB1*09:01:02  |                          |                       |
| DRB1*04:19+DRB1*10:02     | DRB1*04:68+DRB1*10:01:01  |                          |                       |
| DRB1*04:19+DRB1*11:02:01  | DRB1*04:21+DRB1*11:98     | DRB1*04:68+DRB1*11:14:01 |                       |
| DRB1*04:19+DRB1*11:04:02  | DRB1*04:68+DRB1*11:01:02  |                          |                       |
| DRB1*04:19+DRB1*11:04:03  | DRB1*04:68+DRB1*11:01:05  |                          |                       |
| DRB1*04:19+DRB1*11:04:04  | DRB1*04:68+DRB1*11:01:12  |                          |                       |
| DRB1*04:19+DRB1*11:04:05  | DRB1*04:68+DRB1*11:01:04  |                          |                       |
| DRB1*04:19+DRB1*11:07     | DRB1*04:68+DRB1*11:103    |                          |                       |
| DRB1*04:19+DRB1*11:16     | DRB1*04:68+DRB1*11:20     |                          |                       |
| DRB1*04:19+DRB1*11:18     | DRB1*04:68+DRB1*11:19:01  |                          |                       |
| DRB1*04:19+DRB1*11:25     | DRB1*04:55+DRB1*11:29     |                          |                       |
| DRB1*04:19+DRB1*11:34     | DRB1*04:68+DRB1*11:26     |                          |                       |
| DRB1*04:19+DRB1*11:35     | DRB1*04:68+DRB1*11:33     |                          |                       |
| DRB1*04:19+DRB1*11:36     | DRB1*04:68+DRB1*11:68     |                          |                       |
| DRB1*04:19+DRB1*11:40     | DRB1*04:68+DRB1*11:122    |                          |                       |
| DRB1*04:19+DRB1*11:42     | DRB1*04:68+DRB1*11:08:01  |                          |                       |
| DRB1*04:19+DRB1*11:43     | DRB1*04:68+DRB1*11:39     |                          |                       |
| DRB1*04:19+DRB1*11:44     | DRB1*04:68+DRB1*11:49:01  |                          |                       |
| DRB1*04:19+DRB1*11:46:02  | DRB1*04:68+DRB1*11:62     |                          |                       |
| DRB1*04:19+DRB1*11:55     | DRB1*04:31+DRB1*11:63     |                          |                       |
| DRB1*04:19+DRB1*11:56     | DRB1*04:68+DRB1*11:37:01  |                          |                       |
| DRB1*04:19+DRB1*11:58:01  | DRB1*04:68+DRB1*11:28:02  |                          |                       |
| DRB1*04:19+DRB1*11:58:02  | DRB1*04:68+DRB1*11:28:01  |                          |                       |
| DRB1*04:19+DRB1*11:60     | DRB1*04:68+DRB1*11:109    |                          |                       |
| DRB1*04:19+DRB1*11:73     | DRB1*04:21+DRB1*11:19:03  |                          |                       |
| DRB1*04:19+DRB1*11:79     | DRB1*04:21+DRB1*11:26     |                          |                       |
| DRB1*04:19+DRB1*11:84:01  | DRB1*04:44+DRB1*11:29     | DRB1*04:68+DRB1*11:27:01 |                       |
| DRB1*04:19+DRB1*11:84:02  | DRB1*04:68+DRB1*11:27:02  |                          |                       |
| DRB1*04:19+DRB1*11:113    | DRB1*04:68+DRB1*11:09     |                          |                       |
| DRB1*04:19+DRB1*11:116    | DRB1*04:68+DRB1*11:120    |                          |                       |
| DRB1*04:19+DRB1*11:119    | DRB1*04:68+DRB1*11:45     |                          |                       |
| DRB1*04:19+DRB1*13:01:01G | DRB1*04:68+DRB1*13:02:01  |                          |                       |
| DRB1*04:19+DRB1*13:01:05  | DRB1*04:68+DRB1*13:02:03  |                          |                       |
| DRB1*04:19+DRB1*13:03:01  | DRB1*04:21+DRB1*13:12:02  | DRB1*04:84+DRB1*13:37    |                       |
| DRB1*04:19+DRB1*13:03:02  | DRB1*04:21+DRB1*13:12:01  |                          |                       |
| DRB1*04:19+DRB1*13:04     | DRB1*04:84+DRB1*13:22     |                          |                       |
| DRB1*04:19+DRB1*13:10     | DRB1*04:21+DRB1*13:06     |                          |                       |
| DRB1*04:19+DRB1*13:11:01  | DRB1*04:68+DRB1*13:14:01  |                          |                       |
| DRB1*04:19+DRB1*13:11:02  | DRB1*04:68+DRB1*13:14:02  |                          |                       |
| DRB1*04:19+DRB1*13:15     | DRB1*04:68+DRB1*13:104    |                          |                       |
| DRB1*04:19+DRB1*13:20     | DRB1*04:68+DRB1*13:29     |                          |                       |
| DRB1*04:19+DRB1*13:21:01  | DRB1*04:84+DRB1*13:14:01  |                          |                       |
| DRB1*04:19+DRB1*13:21:02  | DRB1*04:84+DRB1*13:14:03  |                          |                       |
| DRB1*04:19+DRB1*13:22     | DRB1*04:68+DRB1*13:23:02  |                          |                       |
| DRB1*04:19+DRB1*13:27     | DRB1*04:68+DRB1*13:41     |                          |                       |
| DRB1*04:19+DRB1*13:30     | DRB1*04:84+DRB1*13:82     |                          |                       |
| DRB1*04:19+DRB1*13:32     | DRB1*04:68+DRB1*13:65     | DRB1*04:77+DRB1*13:84    | DRB1*04:84+DRB1*13:40 |
| DRB1*04:19+DRB1*13:40     | DRB1*04:68+DRB1*13:36     |                          |                       |
| DRB1*04:19+DRB1*13:42     | DRB1*04:68+DRB1*13:05:01  |                          |                       |
| DRB1*04:19+DRB1*13:48     | DRB1*04:84+DRB1*13:70     |                          |                       |
| DRB1*04:19+DRB1*13:49     | DRB1*04:84+DRB1*13:07:01  |                          |                       |
| DRB1*04:19+DRB1*13:52     | DRB1*04:43+DRB1*13:84     | DRB1*04:68+DRB1*13:97:01 |                       |
| DRB1*04:19+DRB1*13:55     | DRB1*04:84+DRB1*13:47     |                          |                       |
| DRB1*04:19+DRB1*13:61:01  | DRB1*04:68+DRB1*13:96:02  |                          |                       |
| DRB1*04:19+DRB1*13:61:02  | DRB1*04:68+DRB1*13:96:01  |                          |                       |

|                           |                            |                           |
|---------------------------|----------------------------|---------------------------|
| DRB1*04:19+DRB1*13:65     | DRB1*04:84+DRB1*13:36      |                           |
| DRB1*04:19+DRB1*13:66:01  | DRB1*04:21+DRB1*13:30      |                           |
| DRB1*04:19+DRB1*13:75     | DRB1*04:84+DRB1*13:24      |                           |
| DRB1*04:19+DRB1*13:79     | DRB1*04:68+DRB1*13:39      |                           |
| DRB1*04:19+DRB1*13:81     | DRB1*04:21+DRB1*13:58      |                           |
| DRB1*04:19+DRB1*13:83     | DRB1*04:68+DRB1*13:107     |                           |
| DRB1*04:19+DRB1*13:89     | DRB1*04:68+DRB1*13:03:01   |                           |
| DRB1*04:19+DRB1*13:93     | DRB1*04:68+DRB1*13:139     | DRB1*04:84+DRB1*13:01:01G |
| DRB1*04:19+DRB1*13:108    | DRB1*04:68+DRB1*13:49      |                           |
| DRB1*04:19+DRB1*13:111    | DRB1*04:68+DRB1*13:63      |                           |
| DRB1*04:19+DRB1*13:112    | DRB1*04:68+DRB1*13:128     |                           |
| DRB1*04:19+DRB1*13:139    | DRB1*04:84+DRB1*13:02:01   |                           |
| DRB1*04:19+DRB1*14:01:01G | DRB1*04:20+DRB1*14:32:02   | DRB1*04:68+DRB1*14:07:01  |
| DRB1*04:19+DRB1*14:01:02  | DRB1*04:20+DRB1*14:32:01   | DRB1*04:78+DRB1*14:119    |
| DRB1*04:19+DRB1*14:04     | DRB1*04:20+DRB1*14:31      | DRB1*04:68+DRB1*14:68     |
| DRB1*04:19+DRB1*14:05:01  | DRB1*04:20+DRB1*14:100     | DRB1*04:68+DRB1*14:44:01  |
| DRB1*04:19+DRB1*14:05:03  | DRB1*04:68+DRB1*14:44:02   |                           |
| DRB1*04:19+DRB1*14:06:01  | DRB1*04:68+DRB1*14:02      |                           |
| DRB1*04:19+DRB1*14:08     | DRB1*04:20+DRB1*14:34      |                           |
| DRB1*04:19+DRB1*14:12:01  | DRB1*04:68+DRB1*14:03:01   |                           |
| DRB1*04:19+DRB1*14:13     | DRB1*04:77+DRB1*14:94      | DRB1*04:84+DRB1*14:02     |
| DRB1*04:19+DRB1*14:17     | DRB1*04:68+DRB1*14:30      |                           |
| DRB1*04:19+DRB1*14:19     | DRB1*04:21+DRB1*14:02      | DRB1*04:113+DRB1*14:94    |
| DRB1*04:19+DRB1*14:21     | DRB1*04:21+DRB1*14:17      |                           |
| DRB1*04:19+DRB1*14:23:01  | DRB1*04:20+DRB1*14:123     | DRB1*04:68+DRB1*14:14     |
| DRB1*04:19+DRB1*14:51     | DRB1*04:20+DRB1*14:02      | DRB1*04:102+DRB1*14:94    |
| DRB1*04:19+DRB1*14:63     | DRB1*04:84+DRB1*14:67      |                           |
| DRB1*04:19+DRB1*14:78     | DRB1*04:68+DRB1*14:63      |                           |
| DRB1*04:19+DRB1*14:80     | DRB1*04:68+DRB1*14:09      |                           |
| DRB1*04:19+DRB1*14:85     | DRB1*04:84+DRB1*14:03:01   |                           |
| DRB1*04:19+DRB1*15:01:01G | DRB1*04:68+DRB1*15:02:01   |                           |
| DRB1*04:19+DRB1*15:01:03  | DRB1*04:68+DRB1*15:02:06   |                           |
| DRB1*04:19+DRB1*15:01:04  | DRB1*04:68+DRB1*15:02:02   |                           |
| DRB1*04:19+DRB1*15:01:09  | DRB1*04:68+DRB1*15:02:04   |                           |
| DRB1*04:19+DRB1*15:01:10  | DRB1*04:68+DRB1*15:02:08   |                           |
| DRB1*04:19+DRB1*15:04     | DRB1*04:68+DRB1*15:15      |                           |
| DRB1*04:19+DRB1*15:05     | DRB1*04:68+DRB1*15:31      |                           |
| DRB1*04:19+DRB1*15:07:01  | DRB1*04:68+DRB1*15:11      |                           |
| DRB1*04:19+DRB1*15:12     | DRB1*04:84+DRB1*15:01:04   |                           |
| DRB1*04:19+DRB1*15:65     | DRB1*04:68+DRB1*15:47      |                           |
| DRB1*04:19+DRB1*15:66     | DRB1*04:68+DRB1*15:27      |                           |
| DRB1*04:19+DRB1*16:15     | DRB1*04:68+DRB1*16:01:01   |                           |
| DRB1*04:20+DRB1*04:72:02  | DRB1*04:21+DRB1*04:74      |                           |
| DRB1*04:20+DRB1*04:77     | DRB1*04:84+DRB1*04:102     |                           |
| DRB1*04:20+DRB1*04:113    | DRB1*04:21+DRB1*04:102     |                           |
| DRB1*04:20+DRB1*11:27:01  | DRB1*04:74+DRB1*11:29      |                           |
| DRB1*04:20+DRB1*11:28:01  | DRB1*04:102+DRB1*11:29     |                           |
| DRB1*04:20+DRB1*13:04     | DRB1*04:91+DRB1*13:23:02   |                           |
| DRB1*04:20+DRB1*14:13     | DRB1*04:84+DRB1*14:51      |                           |
| DRB1*04:20+DRB1*14:19     | DRB1*04:21+DRB1*14:51      |                           |
| DRB1*04:20+DRB1*14:21     | DRB1*04:21+DRB1*14:33      | DRB1*04:114+DRB1*14:30    |
| DRB1*04:20+DRB1*14:81     | DRB1*04:78+DRB1*14:02      |                           |
| DRB1*04:20+DRB1*15:12     | DRB1*04:91+DRB1*15:02:02   |                           |
| DRB1*04:20+DRB1*16:08     | DRB1*04:102+DRB1*16:01:01  |                           |
| DRB1*04:21+DRB1*04:28     | DRB1*04:35+DRB1*04:84      |                           |
| DRB1*04:21+DRB1*04:42     | DRB1*04:35+DRB1*04:68      |                           |
| DRB1*04:21+DRB1*04:44     | DRB1*04:68+DRB1*04:72:02   |                           |
| DRB1*04:21+DRB1*04:56     | DRB1*04:38+DRB1*04:68      |                           |
| DRB1*04:21+DRB1*04:77     | DRB1*04:84+DRB1*04:113     |                           |
| DRB1*04:21+DRB1*04:91     | DRB1*04:84+DRB1*04:114     |                           |
| DRB1*04:21+DRB1*04:100    | DRB1*04:38+DRB1*04:114     |                           |
| DRB1*04:21+DRB1*04:107    | DRB1*04:38+DRB1*04:84      |                           |
| DRB1*04:21+DRB1*08:08     | DRB1*04:62+DRB1*08:42      |                           |
| DRB1*04:21+DRB1*11:04:02  | DRB1*04:68+DRB1*11:93      |                           |
| DRB1*04:21+DRB1*11:27:01  | DRB1*04:72:02+DRB1*11:29   |                           |
| DRB1*04:21+DRB1*11:27:02  | DRB1*04:72:01+DRB1*11:29   |                           |
| DRB1*04:21+DRB1*11:28:01  | DRB1*04:113+DRB1*11:29     |                           |
| DRB1*04:21+DRB1*11:34     | DRB1*04:68+DRB1*11:79      |                           |
| DRB1*04:21+DRB1*11:54:01  | DRB1*04:114+DRB1*11:01:05  |                           |
| DRB1*04:21+DRB1*11:54:02  | DRB1*04:114+DRB1*11:01:01G |                           |
| DRB1*04:21+DRB1*13:40     | DRB1*04:113+DRB1*13:84     |                           |
| DRB1*04:21+DRB1*13:52     | DRB1*04:35+DRB1*13:84      |                           |
| DRB1*04:21+DRB1*14:06:01  | DRB1*04:68+DRB1*14:19      |                           |
| DRB1*04:21+DRB1*14:13     | DRB1*04:84+DRB1*14:19      |                           |
| DRB1*04:21+DRB1*16:08     | DRB1*04:113+DRB1*16:01:01  |                           |
| DRB1*04:22+DRB1*11:01:03  | DRB1*04:47+DRB1*11:07      |                           |
| DRB1*04:22+DRB1*11:04:01  | DRB1*04:36+DRB1*11:07      |                           |
| DRB1*04:22+DRB1*11:11:01G | DRB1*04:37+DRB1*11:125     |                           |
| DRB1*04:22+DRB1*11:19:02  | DRB1*04:53+DRB1*11:103     |                           |
| DRB1*04:22+DRB1*11:23     | DRB1*04:54+DRB1*11:07      |                           |
| DRB1*04:22+DRB1*11:25     | DRB1*04:25+DRB1*11:07      |                           |
| DRB1*04:22+DRB1*11:36     | DRB1*04:37+DRB1*11:07      |                           |
| DRB1*04:22+DRB1*11:64     | DRB1*04:58+DRB1*11:103     |                           |
| DRB1*04:22+DRB1*11:68     | DRB1*04:37+DRB1*11:103     |                           |
| DRB1*04:22+DRB1*11:69     | DRB1*04:122+DRB1*11:125    |                           |
| DRB1*04:22+DRB1*11:82     | DRB1*04:105:02+DRB1*11:07  |                           |
| DRB1*04:22+DRB1*11:105    | DRB1*04:98:02+DRB1*11:07   |                           |
| DRB1*04:22+DRB1*13:03:02  | DRB1*04:98:02+DRB1*13:94   |                           |
| DRB1*04:22+DRB1*15:02:01  | DRB1*04:98:02+DRB1*15:37   | DRB1*04:105:02+DRB1*15:25 |
| DRB1*04:22+DRB1*15:05     | DRB1*04:122+DRB1*15:25     |                           |
| DRB1*04:22+DRB1*16:09     | DRB1*04:47+DRB1*15:25      |                           |
| DRB1*04:23+DRB1*04:51     | DRB1*04:52+DRB1*04:70      |                           |
| DRB1*04:23+DRB1*04:59     | DRB1*04:42+DRB1*04:52      |                           |
| DRB1*04:23+DRB1*04:88     | DRB1*04:52+DRB1*04:56      |                           |
| DRB1*04:23+DRB1*04:95     | DRB1*04:44+DRB1*04:52      |                           |
| DRB1*04:23+DRB1*08:29     | DRB1*04:52+DRB1*08:18      |                           |
| DRB1*04:23+DRB1*11:54:01  | DRB1*04:52+DRB1*11:04:03   |                           |
| DRB1*04:23+DRB1*11:54:02  | DRB1*04:52+DRB1*11:04:01   |                           |
| DRB1*04:23+DRB1*14:01:01G | DRB1*04:52+DRB1*14:32:02   |                           |
| DRB1*04:23+DRB1*14:01:02  | DRB1*04:52+DRB1*14:32:01   |                           |
| DRB1*04:23+DRB1*14:04     | DRB1*04:52+DRB1*14:31      |                           |
| DRB1*04:23+DRB1*14:05:01  | DRB1*04:52+DRB1*14:100     |                           |
| DRB1*04:23+DRB1*14:08     | DRB1*04:52+DRB1*14:34      |                           |
| DRB1*04:23+DRB1*14:23:01  | DRB1*04:52+DRB1*14:123     |                           |
| DRB1*04:23+DRB1*14:33     | DRB1*04:52+DRB1*14:17      |                           |



|                           |                            |                           |
|---------------------------|----------------------------|---------------------------|
| DRB1*04:23+DRB1*14:51     | DRB1*04:52+DRB1*14:02      |                           |
| DRB1*04:23+DRB1*14:106    | DRB1*04:52+DRB1*14:06:01   |                           |
| DRB1*04:24+DRB1*04:41     | DRB1*04:77+DRB1*04:101     |                           |
| DRB1*04:24+DRB1*04:51     | DRB1*04:87+DRB1*04:101     |                           |
| DRB1*04:24+DRB1*04:59     | DRB1*04:28+DRB1*04:101     |                           |
| DRB1*04:24+DRB1*04:88     | DRB1*04:101+DRB1*04:107    |                           |
| DRB1*04:24+DRB1*13:53     | DRB1*04:106+DRB1*14:81     |                           |
| DRB1*04:24+DRB1*13:76     | DRB1*04:106+DRB1*14:23:01  |                           |
| DRB1*04:24+DRB1*14:16     | DRB1*04:106+DRB1*14:32:01  |                           |
| DRB1*04:24+DRB1*14:35     | DRB1*04:69+DRB1*14:65      |                           |
| DRB1*04:24+DRB1*14:108    | DRB1*04:80+DRB1*14:81      |                           |
| DRB1*04:25+DRB1*08:01:01G | DRB1*04:54+DRB1*08:06      |                           |
| DRB1*04:25+DRB1*08:02:01  | DRB1*04:54+DRB1*08:04:01   |                           |
| DRB1*04:25+DRB1*08:05     | DRB1*04:36+DRB1*08:01:01G  |                           |
| DRB1*04:25+DRB1*08:09     | DRB1*04:54+DRB1*14:15      |                           |
| DRB1*04:25+DRB1*08:13     | DRB1*04:58+DRB1*08:02:01   |                           |
| DRB1*04:25+DRB1*08:24     | DRB1*04:36+DRB1*08:02:02   |                           |
| DRB1*04:25+DRB1*08:25     | DRB1*04:82+DRB1*08:04:01   |                           |
| DRB1*04:25+DRB1*08:35     | DRB1*04:86+DRB1*14:15      |                           |
| DRB1*04:25+DRB1*08:37     | DRB1*04:86+DRB1*08:28      |                           |
| DRB1*04:25+DRB1*08:48     | DRB1*04:58+DRB1*08:01:01G  |                           |
| DRB1*04:25+DRB1*09:04     | DRB1*04:58+DRB1*09:01:02   |                           |
| DRB1*04:25+DRB1*11:01:02  | DRB1*04:36+DRB1*11:23      | DRB1*04:54+DRB1*11:04:01  |
| DRB1*04:25+DRB1*11:01:03  | DRB1*04:47+DRB1*11:25      |                           |
| DRB1*04:25+DRB1*11:01:11  | DRB1*04:54+DRB1*11:04:07   |                           |
| DRB1*04:25+DRB1*11:03     | DRB1*04:36+DRB1*11:55      |                           |
| DRB1*04:25+DRB1*11:04:01  | DRB1*04:36+DRB1*11:25      |                           |
| DRB1*04:25+DRB1*11:08:01  | DRB1*04:36+DRB1*11:64      | DRB1*04:58+DRB1*11:01:01G |
| DRB1*04:25+DRB1*11:08:02  | DRB1*04:54+DRB1*11:42      | DRB1*04:58+DRB1*11:01:02  |
| DRB1*04:25+DRB1*11:23     | DRB1*04:54+DRB1*11:25      |                           |
| DRB1*04:25+DRB1*11:27:03  | DRB1*04:54+DRB1*11:84:02   |                           |
| DRB1*04:25+DRB1*11:36     | DRB1*04:37+DRB1*11:25      | DRB1*04:58+DRB1*11:03     |
| DRB1*04:25+DRB1*11:42     | DRB1*04:58+DRB1*11:04:01   |                           |
| DRB1*04:25+DRB1*11:49:02  | DRB1*04:54+DRB1*11:44      |                           |
| DRB1*04:25+DRB1*11:57     | DRB1*04:58+DRB1*11:06:01G  |                           |
| DRB1*04:25+DRB1*11:68     | DRB1*04:58+DRB1*11:11:01G  |                           |
| DRB1*04:25+DRB1*11:72     | DRB1*04:54+DRB1*11:92      |                           |
| DRB1*04:25+DRB1*11:103    | DRB1*04:58+DRB1*11:125     |                           |
| DRB1*04:25+DRB1*11:105    | DRB1*04:98:02+DRB1*11:25   |                           |
| DRB1*04:25+DRB1*12:12     | DRB1*04:58+DRB1*12:02:01   |                           |
| DRB1*04:25+DRB1*13:05:02  | DRB1*04:54+DRB1*13:42      |                           |
| DRB1*04:25+DRB1*13:13     | DRB1*04:86+DRB1*08:20      |                           |
| DRB1*04:25+DRB1*13:14:03  | DRB1*04:54+DRB1*13:11:01   |                           |
| DRB1*04:25+DRB1*13:20     | DRB1*04:37+DRB1*13:18      | DRB1*04:58+DRB1*13:111    |
| DRB1*04:25+DRB1*13:23:01  | DRB1*04:54+DRB1*13:22      |                           |
| DRB1*04:25+DRB1*13:25     | DRB1*04:58+DRB1*13:14:01   |                           |
| DRB1*04:25+DRB1*13:26:02  | DRB1*04:36+DRB1*14:27      |                           |
| DRB1*04:25+DRB1*13:29     | DRB1*04:58+DRB1*13:63      |                           |
| DRB1*04:25+DRB1*13:33:01  | DRB1*04:54+DRB1*13:94      |                           |
| DRB1*04:25+DRB1*13:42     | DRB1*04:36+DRB1*13:18      |                           |
| DRB1*04:25+DRB1*13:44     | DRB1*04:42+DRB1*08:20      | DRB1*04:55+DRB1*13:11:01  |
| DRB1*04:25+DRB1*13:47     | DRB1*04:54+DRB1*08:20      |                           |
| DRB1*04:25+DRB1*13:56     | DRB1*04:36+DRB1*13:119     | DRB1*04:58+DRB1*13:05:01  |
| DRB1*04:25+DRB1*13:134    | DRB1*04:58+DRB1*13:49      |                           |
| DRB1*04:25+DRB1*14:03:01  | DRB1*04:58+DRB1*14:27      |                           |
| DRB1*04:25+DRB1*14:06:01  | DRB1*04:58+DRB1*14:108     |                           |
| DRB1*04:25+DRB1*14:07:02  | DRB1*04:54+DRB1*14:01:01G  |                           |
| DRB1*04:25+DRB1*14:32:02  | DRB1*04:36+DRB1*14:55      |                           |
| DRB1*04:25+DRB1*14:44:03  | DRB1*04:54+DRB1*14:05:01   |                           |
| DRB1*04:25+DRB1*14:47     | DRB1*04:44+DRB1*14:27      |                           |
| DRB1*04:25+DRB1*14:69     | DRB1*04:58+DRB1*14:25      |                           |
| DRB1*04:25+DRB1*14:89     | DRB1*04:55+DRB1*14:27      |                           |
| DRB1*04:25+DRB1*14:119    | DRB1*04:55+DRB1*14:22      |                           |
| DRB1*04:25+DRB1*15:02:05  | DRB1*04:54+DRB1*15:01:04   |                           |
| DRB1*04:25+DRB1*15:02:09  | DRB1*04:54+DRB1*15:01:01G  |                           |
| DRB1*04:25+DRB1*15:05     | DRB1*04:58+DRB1*15:04      |                           |
| DRB1*04:25+DRB1*15:31     | DRB1*04:58+DRB1*15:15      |                           |
| DRB1*04:25+DRB1*15:34     | DRB1*04:55+DRB1*16:01:02   |                           |
| DRB1*04:25+DRB1*16:02:01  | DRB1*04:58+DRB1*16:01:01   |                           |
| DRB1*04:25+DRB1*16:02:02  | DRB1*04:36+DRB1*16:18      | DRB1*04:58+DRB1*16:01:02  |
| DRB1*04:25+DRB1*16:10     | DRB1*04:58+DRB1*16:09      |                           |
| DRB1*04:26+DRB1*13:61:01  | DRB1*04:72:02+DRB1*13:127  |                           |
| DRB1*04:26+DRB1*13:61:02  | DRB1*04:72:01+DRB1*13:127  |                           |
| DRB1*04:27+DRB1*11:18     | DRB1*04:88+DRB1*11:57      |                           |
| DRB1*04:27+DRB1*11:27:01  | DRB1*04:74+DRB1*11:06:01G  |                           |
| DRB1*04:27+DRB1*11:28:01  | DRB1*04:102+DRB1*11:06:01G |                           |
| DRB1*04:27+DRB1*11:58:02  | DRB1*04:41+DRB1*11:06:01G  |                           |
| DRB1*04:27+DRB1*11:84:01  | DRB1*04:95+DRB1*11:06:01G  |                           |
| DRB1*04:27+DRB1*11:124    | DRB1*04:95+DRB1*11:21      |                           |
| DRB1*04:27+DRB1*12:22     | DRB1*04:74+DRB1*12:01:03   |                           |
| DRB1*04:27+DRB1*13:33:02  | DRB1*04:74+DRB1*13:81      |                           |
| DRB1*04:27+DRB1*14:35     | DRB1*04:59+DRB1*14:99      |                           |
| DRB1*04:27+DRB1*14:47     | DRB1*04:74+DRB1*14:29      |                           |
| DRB1*04:27+DRB1*14:55     | DRB1*04:55+DRB1*14:99      |                           |
| DRB1*04:27+DRB1*14:81     | DRB1*04:101+DRB1*14:29     |                           |
| DRB1*04:27+DRB1*14:120    | DRB1*04:88+DRB1*14:28      |                           |
| DRB1*04:27+DRB1*14:122    | DRB1*04:88+DRB1*14:99      |                           |
| DRB1*04:27+DRB1*15:32     | DRB1*04:41+DRB1*15:35      |                           |
| DRB1*04:27+DRB1*15:42     | DRB1*04:109+DRB1*15:35     |                           |
| DRB1*04:28+DRB1*04:31     | DRB1*04:43+DRB1*04:103     |                           |
| DRB1*04:28+DRB1*04:38     | DRB1*04:35+DRB1*04:107     |                           |
| DRB1*04:28+DRB1*04:41     | DRB1*04:59+DRB1*04:77      |                           |
| DRB1*04:28+DRB1*04:51     | DRB1*04:59+DRB1*04:87      |                           |
| DRB1*04:28+DRB1*04:55     | DRB1*04:42+DRB1*04:103     |                           |
| DRB1*04:28+DRB1*04:56     | DRB1*04:42+DRB1*04:107     |                           |
| DRB1*04:28+DRB1*04:68     | DRB1*04:42+DRB1*04:84      |                           |
| DRB1*04:28+DRB1*04:70     | DRB1*04:42+DRB1*04:87      |                           |
| DRB1*04:28+DRB1*04:88     | DRB1*04:59+DRB1*04:107     |                           |
| DRB1*04:28+DRB1*04:113    | DRB1*04:35+DRB1*04:77      |                           |
| DRB1*04:28+DRB1*04:114    | DRB1*04:35+DRB1*04:91      |                           |
| DRB1*04:28+DRB1*08:02:02  | DRB1*04:43+DRB1*08:01:05   |                           |
| DRB1*04:28+DRB1*08:13     | DRB1*04:43+DRB1*08:48      |                           |
| DRB1*04:28+DRB1*08:20     | DRB1*04:55+DRB1*13:21:01   | DRB1*04:103+DRB1*13:11:01 |
| DRB1*04:28+DRB1*13:01:01G | DRB1*04:42+DRB1*13:139     | DRB1*04:43+DRB1*13:93     |
| DRB1*04:28+DRB1*13:02:01  | DRB1*04:43+DRB1*13:139     |                           |

|                           |                           |                            |                           |
|---------------------------|---------------------------|----------------------------|---------------------------|
| DRB1*04:28+DRB1*13:11:01  | DRB1*04:42+DRB1*13:21:01  |                            |                           |
| DRB1*04:28+DRB1*13:13     | DRB1*04:103+DRB1*13:30    |                            |                           |
| DRB1*04:28+DRB1*13:14:01  | DRB1*04:43+DRB1*13:21:01  |                            |                           |
| DRB1*04:28+DRB1*13:14:03  | DRB1*04:43+DRB1*13:21:02  |                            |                           |
| DRB1*04:28+DRB1*13:22     | DRB1*04:43+DRB1*13:04     |                            |                           |
| DRB1*04:28+DRB1*13:24     | DRB1*04:43+DRB1*13:75     |                            |                           |
| DRB1*04:28+DRB1*13:47     | DRB1*04:31+DRB1*13:21:02  | DRB1*04:43+DRB1*13:55      | DRB1*04:103+DRB1*13:14:03 |
| DRB1*04:28+DRB1*13:55     | DRB1*04:103+DRB1*13:21:02 |                            |                           |
| DRB1*04:28+DRB1*13:82     | DRB1*04:43+DRB1*13:30     |                            |                           |
| DRB1*04:28+DRB1*13:84     | DRB1*04:84+DRB1*13:52     |                            |                           |
| DRB1*04:28+DRB1*13:115    | DRB1*04:77+DRB1*13:66:02  |                            |                           |
| DRB1*04:28+DRB1*14:02     | DRB1*04:43+DRB1*14:13     |                            |                           |
| DRB1*04:28+DRB1*14:03:01  | DRB1*04:43+DRB1*14:85     |                            |                           |
| DRB1*04:28+DRB1*14:06:01  | DRB1*04:42+DRB1*14:13     |                            |                           |
| DRB1*04:28+DRB1*14:12:01  | DRB1*04:42+DRB1*14:85     |                            |                           |
| DRB1*04:28+DRB1*14:19     | DRB1*04:35+DRB1*14:13     |                            |                           |
| DRB1*04:28+DRB1*14:67     | DRB1*04:43+DRB1*14:63     |                            |                           |
| DRB1*04:28+DRB1*14:106    | DRB1*04:59+DRB1*14:13     |                            |                           |
| DRB1*04:28+DRB1*14:112    | DRB1*04:104+DRB1*14:35    |                            |                           |
| DRB1*04:28+DRB1*14:116    | DRB1*04:103+DRB1*13:25    |                            |                           |
| DRB1*04:28+DRB1*14:122    | DRB1*04:107+DRB1*14:35    |                            |                           |
| DRB1*04:28+DRB1*15:01:04  | DRB1*04:43+DRB1*15:12     |                            |                           |
| DRB1*04:28+DRB1*16:05:01  | DRB1*04:107+DRB1*16:10    |                            |                           |
| DRB1*04:29+DRB1*08:42     | DRB1*04:84+DRB1*08:44     |                            |                           |
| DRB1*04:29+DRB1*11:28:01  | DRB1*04:77+DRB1*11:66     |                            |                           |
| DRB1*04:29+DRB1*11:29     | DRB1*04:84+DRB1*11:66     |                            |                           |
| DRB1*04:29+DRB1*11:108    | DRB1*04:87+DRB1*11:66     |                            |                           |
| DRB1*04:29+DRB1*11:126    | DRB1*04:116+DRB1*11:66    |                            |                           |
| DRB1*04:31+DRB1*04:41     | DRB1*04:55+DRB1*04:102    |                            |                           |
| DRB1*04:31+DRB1*04:42     | DRB1*04:43+DRB1*04:55     |                            |                           |
| DRB1*04:31+DRB1*04:73     | DRB1*04:55+DRB1*04:105:01 |                            |                           |
| DRB1*04:31+DRB1*04:95     | DRB1*04:55+DRB1*04:74     |                            |                           |
| DRB1*04:31+DRB1*08:01:01G | DRB1*04:103+DRB1*08:02:01 |                            |                           |
| DRB1*04:31+DRB1*08:01:05  | DRB1*04:103+DRB1*08:02:02 |                            |                           |
| DRB1*04:31+DRB1*08:03:02  | DRB1*04:103+DRB1*08:30:01 |                            |                           |
| DRB1*04:31+DRB1*08:03:03  | DRB1*04:103+DRB1*08:30:03 |                            |                           |
| DRB1*04:31+DRB1*08:04:01  | DRB1*04:55+DRB1*08:02:02  |                            |                           |
| DRB1*04:31+DRB1*08:04:04  | DRB1*04:55+DRB1*08:02:01  |                            |                           |
| DRB1*04:31+DRB1*08:06     | DRB1*04:55+DRB1*08:01:05  | DRB1*04:103+DRB1*08:04:01  |                           |
| DRB1*04:31+DRB1*08:10     | DRB1*04:55+DRB1*08:03:02  |                            |                           |
| DRB1*04:31+DRB1*08:31     | DRB1*04:55+DRB1*08:41     | DRB1*04:61+DRB1*08:04:01   |                           |
| DRB1*04:31+DRB1*08:41     | DRB1*04:61+DRB1*08:02:02  |                            |                           |
| DRB1*04:31+DRB1*08:48     | DRB1*04:103+DRB1*08:13    |                            |                           |
| DRB1*04:31+DRB1*09:06     | DRB1*04:55+DRB1*09:01:02  |                            |                           |
| DRB1*04:31+DRB1*10:02     | DRB1*04:55+DRB1*10:01:01  |                            |                           |
| DRB1*04:31+DRB1*11:02:01  | DRB1*04:55+DRB1*11:14:01  |                            |                           |
| DRB1*04:31+DRB1*11:04:03  | DRB1*04:55+DRB1*11:01:05  |                            |                           |
| DRB1*04:31+DRB1*11:04:04  | DRB1*04:55+DRB1*11:01:12  |                            |                           |
| DRB1*04:31+DRB1*11:04:05  | DRB1*04:55+DRB1*11:01:04  |                            |                           |
| DRB1*04:31+DRB1*11:04:07  | DRB1*04:55+DRB1*11:01:03  |                            |                           |
| DRB1*04:31+DRB1*11:07     | DRB1*04:55+DRB1*11:103    |                            |                           |
| DRB1*04:31+DRB1*11:16     | DRB1*04:55+DRB1*11:20     |                            |                           |
| DRB1*04:31+DRB1*11:34     | DRB1*04:55+DRB1*11:26     |                            |                           |
| DRB1*04:31+DRB1*11:35     | DRB1*04:55+DRB1*11:33     |                            |                           |
| DRB1*04:31+DRB1*11:36     | DRB1*04:55+DRB1*11:68     |                            |                           |
| DRB1*04:31+DRB1*11:37:02  | DRB1*04:61+DRB1*13:47     |                            |                           |
| DRB1*04:31+DRB1*11:40     | DRB1*04:55+DRB1*11:122    |                            |                           |
| DRB1*04:31+DRB1*11:43     | DRB1*04:55+DRB1*11:39     |                            |                           |
| DRB1*04:31+DRB1*11:44     | DRB1*04:55+DRB1*11:49:01  |                            |                           |
| DRB1*04:31+DRB1*11:46:02  | DRB1*04:55+DRB1*11:62     |                            |                           |
| DRB1*04:31+DRB1*11:56     | DRB1*04:55+DRB1*11:37:01  | DRB1*04:61+DRB1*08:20      |                           |
| DRB1*04:31+DRB1*11:58:01  | DRB1*04:55+DRB1*11:28:02  |                            |                           |
| DRB1*04:31+DRB1*11:58:02  | DRB1*04:55+DRB1*11:28:01  |                            |                           |
| DRB1*04:31+DRB1*11:60     | DRB1*04:55+DRB1*11:109    |                            |                           |
| DRB1*04:31+DRB1*11:84:01  | DRB1*04:55+DRB1*11:27:01  |                            |                           |
| DRB1*04:31+DRB1*11:84:02  | DRB1*04:55+DRB1*11:27:02  |                            |                           |
| DRB1*04:31+DRB1*11:113    | DRB1*04:55+DRB1*11:09     | DRB1*04:61+DRB1*13:18      |                           |
| DRB1*04:31+DRB1*11:116    | DRB1*04:55+DRB1*11:120    |                            |                           |
| DRB1*04:31+DRB1*11:119    | DRB1*04:55+DRB1*11:45     |                            |                           |
| DRB1*04:31+DRB1*13:01:01G | DRB1*04:55+DRB1*13:02:01  |                            |                           |
| DRB1*04:31+DRB1*13:01:05  | DRB1*04:55+DRB1*13:02:03  |                            |                           |
| DRB1*04:31+DRB1*13:04     | DRB1*04:103+DRB1*13:22    |                            |                           |
| DRB1*04:31+DRB1*13:05:02  | DRB1*04:54+DRB1*14:30     |                            |                           |
| DRB1*04:31+DRB1*13:11:01  | DRB1*04:43+DRB1*08:20     | DRB1*04:55+DRB1*13:14:01   |                           |
| DRB1*04:31+DRB1*13:11:02  | DRB1*04:55+DRB1*13:14:02  |                            |                           |
| DRB1*04:31+DRB1*13:14:03  | DRB1*04:43+DRB1*13:47     |                            |                           |
| DRB1*04:31+DRB1*13:15     | DRB1*04:55+DRB1*13:104    |                            |                           |
| DRB1*04:31+DRB1*13:20     | DRB1*04:55+DRB1*13:29     |                            |                           |
| DRB1*04:31+DRB1*13:21:01  | DRB1*04:103+DRB1*13:14:01 |                            |                           |
| DRB1*04:31+DRB1*13:22     | DRB1*04:55+DRB1*13:23:02  |                            |                           |
| DRB1*04:31+DRB1*13:25     | DRB1*04:43+DRB1*14:116    |                            |                           |
| DRB1*04:31+DRB1*13:27     | DRB1*04:55+DRB1*13:41     |                            |                           |
| DRB1*04:31+DRB1*13:30     | DRB1*04:43+DRB1*13:13     | DRB1*04:103+DRB1*13:82     |                           |
| DRB1*04:31+DRB1*13:32     | DRB1*04:55+DRB1*13:65     | DRB1*04:103+DRB1*13:40     |                           |
| DRB1*04:31+DRB1*13:33:02  | DRB1*04:72:02+DRB1*13:13  |                            |                           |
| DRB1*04:31+DRB1*13:40     | DRB1*04:55+DRB1*13:36     |                            |                           |
| DRB1*04:31+DRB1*13:48     | DRB1*04:103+DRB1*13:70    |                            |                           |
| DRB1*04:31+DRB1*13:49     | DRB1*04:80+DRB1*14:116    | DRB1*04:103+DRB1*13:07:01  |                           |
| DRB1*04:31+DRB1*13:52     | DRB1*04:55+DRB1*13:97:01  |                            |                           |
| DRB1*04:31+DRB1*13:55     | DRB1*04:103+DRB1*13:47    |                            |                           |
| DRB1*04:31+DRB1*13:61:01  | DRB1*04:55+DRB1*13:96:02  |                            |                           |
| DRB1*04:31+DRB1*13:61:02  | DRB1*04:55+DRB1*13:96:01  |                            |                           |
| DRB1*04:31+DRB1*13:65     | DRB1*04:103+DRB1*13:36    |                            |                           |
| DRB1*04:31+DRB1*13:66:01  | DRB1*04:35+DRB1*13:13     |                            |                           |
| DRB1*04:31+DRB1*13:75     | DRB1*04:103+DRB1*13:24    |                            |                           |
| DRB1*04:31+DRB1*13:79     | DRB1*04:55+DRB1*13:39     |                            |                           |
| DRB1*04:31+DRB1*13:83     | DRB1*04:55+DRB1*13:107    |                            |                           |
| DRB1*04:31+DRB1*13:89     | DRB1*04:55+DRB1*13:03:01  |                            |                           |
| DRB1*04:31+DRB1*13:93     | DRB1*04:55+DRB1*13:139    | DRB1*04:103+DRB1*13:01:01G |                           |
| DRB1*04:31+DRB1*13:111    | DRB1*04:55+DRB1*13:63     |                            |                           |
| DRB1*04:31+DRB1*13:112    | DRB1*04:55+DRB1*13:128    |                            |                           |
| DRB1*04:31+DRB1*13:139    | DRB1*04:103+DRB1*13:02:01 |                            |                           |
| DRB1*04:31+DRB1*14:04     | DRB1*04:55+DRB1*14:68     |                            |                           |
| DRB1*04:31+DRB1*14:05:01  | DRB1*04:55+DRB1*14:44:01  |                            |                           |
| DRB1*04:31+DRB1*14:05:03  | DRB1*04:55+DRB1*14:44:02  |                            |                           |

|                           |                              |                           |
|---------------------------|------------------------------|---------------------------|
| DRB1*04:31+DRB1*14:12:01  | DRB1*04:55+DRB1*14:03:01     | DRB1*04:58+DRB1*14:89     |
| DRB1*04:31+DRB1*14:17     | DRB1*04:55+DRB1*14:30        |                           |
| DRB1*04:31+DRB1*14:23:01  | DRB1*04:55+DRB1*14:14        |                           |
| DRB1*04:31+DRB1*14:24     | DRB1*04:105:02+DRB1*14:89    |                           |
| DRB1*04:31+DRB1*14:63     | DRB1*04:86+DRB1*14:89        | DRB1*04:103+DRB1*14:67    |
| DRB1*04:31+DRB1*14:74     | DRB1*04:58+DRB1*14:119       |                           |
| DRB1*04:31+DRB1*14:80     | DRB1*04:55+DRB1*14:09        |                           |
| DRB1*04:31+DRB1*14:85     | DRB1*04:103+DRB1*14:03:01    |                           |
| DRB1*04:31+DRB1*15:01:01G | DRB1*04:55+DRB1*15:02:01     |                           |
| DRB1*04:31+DRB1*15:01:03  | DRB1*04:55+DRB1*15:02:06     |                           |
| DRB1*04:31+DRB1*15:01:04  | DRB1*04:55+DRB1*15:02:02     |                           |
| DRB1*04:31+DRB1*15:01:09  | DRB1*04:55+DRB1*15:02:04     |                           |
| DRB1*04:31+DRB1*15:01:10  | DRB1*04:55+DRB1*15:02:08     |                           |
| DRB1*04:31+DRB1*15:04     | DRB1*04:55+DRB1*15:15        |                           |
| DRB1*04:31+DRB1*15:05     | DRB1*04:55+DRB1*15:31        |                           |
| DRB1*04:31+DRB1*15:07:01  | DRB1*04:55+DRB1*15:11        |                           |
| DRB1*04:31+DRB1*15:12     | DRB1*04:103+DRB1*15:01:04    |                           |
| DRB1*04:31+DRB1*15:65     | DRB1*04:55+DRB1*15:47        |                           |
| DRB1*04:31+DRB1*15:66     | DRB1*04:55+DRB1*15:27        |                           |
| DRB1*04:31+DRB1*16:15     | DRB1*04:55+DRB1*16:01:01     |                           |
| DRB1*04:32+DRB1*11:27:01  | DRB1*04:44+DRB1*11:51        |                           |
| DRB1*04:32+DRB1*11:29     | DRB1*04:68+DRB1*11:51        |                           |
| DRB1*04:32+DRB1*11:108    | DRB1*04:70+DRB1*11:51        |                           |
| DRB1*04:33+DRB1*16:05:01  | DRB1*04:38+DRB1*16:19        |                           |
| DRB1*04:33+DRB1*16:10     | DRB1*04:35+DRB1*16:19        |                           |
| DRB1*04:35+DRB1*04:41     | DRB1*04:59+DRB1*04:113       |                           |
| DRB1*04:35+DRB1*04:44     | DRB1*04:42+DRB1*04:72:02     |                           |
| DRB1*04:35+DRB1*04:56     | DRB1*04:38+DRB1*04:42        |                           |
| DRB1*04:35+DRB1*04:88     | DRB1*04:38+DRB1*04:59        | DRB1*04:43+DRB1*04:100    |
| DRB1*04:35+DRB1*04:95     | DRB1*04:59+DRB1*04:72:02     |                           |
| DRB1*04:35+DRB1*04:110    | DRB1*04:59+DRB1*04:63        |                           |
| DRB1*04:35+DRB1*11:01:02  | DRB1*04:43+DRB1*11:93        |                           |
| DRB1*04:35+DRB1*11:04:02  | DRB1*04:42+DRB1*11:93        |                           |
| DRB1*04:35+DRB1*11:19:03  | DRB1*04:43+DRB1*11:73        |                           |
| DRB1*04:35+DRB1*11:26     | DRB1*04:43+DRB1*11:79        |                           |
| DRB1*04:35+DRB1*11:34     | DRB1*04:42+DRB1*11:79        |                           |
| DRB1*04:35+DRB1*11:98     | DRB1*04:42+DRB1*11:14:01     | DRB1*04:43+DRB1*11:02:01  |
| DRB1*04:35+DRB1*13:06     | DRB1*04:43+DRB1*13:10        |                           |
| DRB1*04:35+DRB1*13:30     | DRB1*04:43+DRB1*13:66:01     |                           |
| DRB1*04:35+DRB1*13:33:01  | DRB1*04:72:01+DRB1*13:66:02  |                           |
| DRB1*04:35+DRB1*13:33:02  | DRB1*04:72:02+DRB1*13:66:01  |                           |
| DRB1*04:35+DRB1*13:33:03  | DRB1*04:72:02+DRB1*13:66:02  |                           |
| DRB1*04:35+DRB1*13:58     | DRB1*04:43+DRB1*13:81        |                           |
| DRB1*04:35+DRB1*13:115    | DRB1*04:113+DRB1*13:66:02    |                           |
| DRB1*04:35+DRB1*14:02     | DRB1*04:43+DRB1*14:19        |                           |
| DRB1*04:35+DRB1*14:06:01  | DRB1*04:42+DRB1*14:19        |                           |
| DRB1*04:35+DRB1*14:16     | DRB1*04:62+DRB1*13:83        |                           |
| DRB1*04:35+DRB1*14:17     | DRB1*04:43+DRB1*14:21        |                           |
| DRB1*04:35+DRB1*14:69     | DRB1*04:62+DRB1*13:25        |                           |
| DRB1*04:35+DRB1*14:106    | DRB1*04:59+DRB1*14:19        |                           |
| DRB1*04:35+DRB1*14:122    | DRB1*04:38+DRB1*14:35        |                           |
| DRB1*04:35+DRB1*16:05:01  | DRB1*04:38+DRB1*16:10        |                           |
| DRB1*04:36+DRB1*08:48     | DRB1*04:58+DRB1*08:05        |                           |
| DRB1*04:36+DRB1*11:01:03  | DRB1*04:47+DRB1*11:04:01     |                           |
| DRB1*04:36+DRB1*11:01:10  | DRB1*04:47+DRB1*11:04:03     |                           |
| DRB1*04:36+DRB1*11:01:11  | DRB1*04:47+DRB1*11:04:02     |                           |
| DRB1*04:36+DRB1*11:19:02  | DRB1*04:47+DRB1*11:18        | DRB1*04:53+DRB1*11:01:01G |
| DRB1*04:36+DRB1*11:36     | DRB1*04:37+DRB1*11:04:01     |                           |
| DRB1*04:36+DRB1*11:68     | DRB1*04:37+DRB1*11:01:01G    |                           |
| DRB1*04:36+DRB1*11:82     | DRB1*04:105:02+DRB1*11:04:01 |                           |
| DRB1*04:36+DRB1*11:105    | DRB1*04:98:02+DRB1*11:04:01  |                           |
| DRB1*04:36+DRB1*12:01:01G | DRB1*04:53+DRB1*12:02:04     |                           |
| DRB1*04:36+DRB1*13:02:02  | DRB1*04:47+DRB1*13:01:01G    | DRB1*04:53+DRB1*13:63     |
| DRB1*04:36+DRB1*13:20     | DRB1*04:37+DRB1*13:42        |                           |
| DRB1*04:36+DRB1*13:29     | DRB1*04:37+DRB1*13:05:01     |                           |
| DRB1*04:36+DRB1*13:55     | DRB1*04:54+DRB1*13:108       |                           |
| DRB1*04:36+DRB1*13:139    | DRB1*04:106+DRB1*13:42       |                           |
| DRB1*04:36+DRB1*14:01:01G | DRB1*04:101+DRB1*14:105      |                           |
| DRB1*04:36+DRB1*14:03:01  | DRB1*04:58+DRB1*13:26:02     |                           |
| DRB1*04:36+DRB1*14:47     | DRB1*04:44+DRB1*13:26:02     |                           |
| DRB1*04:36+DRB1*14:116    | DRB1*04:58+DRB1*13:07:01     |                           |
| DRB1*04:36+DRB1*15:27     | DRB1*04:42+DRB1*16:01:02     |                           |
| DRB1*04:36+DRB1*16:05:01  | DRB1*04:53+DRB1*16:01:02     |                           |
| DRB1*04:37+DRB1*04:86     | DRB1*04:58+DRB1*04:106       |                           |
| DRB1*04:37+DRB1*11:01:03  | DRB1*04:47+DRB1*11:36        |                           |
| DRB1*04:37+DRB1*11:19:02  | DRB1*04:53+DRB1*11:68        |                           |
| DRB1*04:37+DRB1*11:23     | DRB1*04:54+DRB1*11:36        |                           |
| DRB1*04:37+DRB1*11:64     | DRB1*04:58+DRB1*11:68        |                           |
| DRB1*04:37+DRB1*11:69     | DRB1*04:122+DRB1*11:11:01G   |                           |
| DRB1*04:37+DRB1*11:82     | DRB1*04:105:02+DRB1*11:36    | DRB1*04:122+DRB1*11:14:01 |
| DRB1*04:37+DRB1*11:89     | DRB1*04:101+DRB1*11:03       |                           |
| DRB1*04:37+DRB1*11:105    | DRB1*04:98:02+DRB1*11:36     |                           |
| DRB1*04:37+DRB1*13:09     | DRB1*04:122+DRB1*13:01:01G   |                           |
| DRB1*04:37+DRB1*13:119    | DRB1*04:58+DRB1*13:29        |                           |
| DRB1*04:37+DRB1*13:129    | DRB1*04:122+DRB1*13:27       |                           |
| DRB1*04:37+DRB1*13:139    | DRB1*04:106+DRB1*13:20       |                           |
| DRB1*04:37+DRB1*14:37     | DRB1*04:122+DRB1*13:72       |                           |
| DRB1*04:37+DRB1*15:21     | DRB1*04:58+DRB1*15:10        |                           |
| DRB1*04:38+DRB1*04:41     | DRB1*04:88+DRB1*04:113       |                           |
| DRB1*04:38+DRB1*04:44     | DRB1*04:56+DRB1*04:72:02     |                           |
| DRB1*04:38+DRB1*04:77     | DRB1*04:107+DRB1*04:113      |                           |
| DRB1*04:38+DRB1*04:91     | DRB1*04:84+DRB1*04:100       | DRB1*04:107+DRB1*04:114   |
| DRB1*04:38+DRB1*04:95     | DRB1*04:72:02+DRB1*04:88     |                           |
| DRB1*04:38+DRB1*04:110    | DRB1*04:63+DRB1*04:88        |                           |
| DRB1*04:38+DRB1*11:04:02  | DRB1*04:56+DRB1*11:93        |                           |
| DRB1*04:38+DRB1*11:34     | DRB1*04:56+DRB1*11:79        |                           |
| DRB1*04:38+DRB1*11:54:01  | DRB1*04:100+DRB1*11:01:05    |                           |
| DRB1*04:38+DRB1*11:54:02  | DRB1*04:100+DRB1*11:01:01G   |                           |
| DRB1*04:38+DRB1*11:98     | DRB1*04:56+DRB1*11:14:01     |                           |
| DRB1*04:38+DRB1*13:12:02  | DRB1*04:107+DRB1*13:37       |                           |
| DRB1*04:38+DRB1*13:43     | DRB1*04:62+DRB1*13:01:01G    |                           |
| DRB1*04:38+DRB1*14:06:01  | DRB1*04:56+DRB1*14:19        |                           |
| DRB1*04:38+DRB1*14:13     | DRB1*04:107+DRB1*14:19       |                           |
| DRB1*04:38+DRB1*14:33     | DRB1*04:100+DRB1*14:30       |                           |
| DRB1*04:38+DRB1*14:98     | DRB1*04:72:02+DRB1*14:67     |                           |

|                           |                            |                          |                           |
|---------------------------|----------------------------|--------------------------|---------------------------|
| DRB1*04:38+DRB1*14:106    | DRB1*04:88+DRB1*14:19      | DRB1*04:100+DRB1*14:02   |                           |
| DRB1*04:41+DRB1*04:43     | DRB1*04:42+DRB1*04:102     |                          |                           |
| DRB1*04:41+DRB1*04:63     | DRB1*04:110+DRB1*04:113    |                          |                           |
| DRB1*04:41+DRB1*04:72:02  | DRB1*04:95+DRB1*04:113     |                          |                           |
| DRB1*04:41+DRB1*04:74     | DRB1*04:95+DRB1*04:102     |                          |                           |
| DRB1*04:41+DRB1*04:87     | DRB1*04:51+DRB1*04:77      |                          |                           |
| DRB1*04:41+DRB1*04:105:01 | DRB1*04:73+DRB1*04:102     |                          |                           |
| DRB1*04:41+DRB1*04:107    | DRB1*04:77+DRB1*04:88      |                          |                           |
| DRB1*04:41+DRB1*08:01:05  | DRB1*04:102+DRB1*08:06     |                          |                           |
| DRB1*04:41+DRB1*08:02:01  | DRB1*04:102+DRB1*08:04:04  |                          |                           |
| DRB1*04:41+DRB1*08:02:02  | DRB1*04:102+DRB1*08:04:01  |                          |                           |
| DRB1*04:41+DRB1*08:03:02  | DRB1*04:102+DRB1*08:10     |                          |                           |
| DRB1*04:41+DRB1*08:41     | DRB1*04:102+DRB1*08:31     |                          |                           |
| DRB1*04:41+DRB1*09:01:02  | DRB1*04:102+DRB1*09:06     |                          |                           |
| DRB1*04:41+DRB1*10:01:01  | DRB1*04:102+DRB1*10:02     |                          |                           |
| DRB1*04:41+DRB1*11:01:03  | DRB1*04:102+DRB1*11:04:07  |                          |                           |
| DRB1*04:41+DRB1*11:01:04  | DRB1*04:102+DRB1*11:04:05  |                          |                           |
| DRB1*04:41+DRB1*11:01:05  | DRB1*04:102+DRB1*11:04:03  |                          |                           |
| DRB1*04:41+DRB1*11:08:01  | DRB1*04:102+DRB1*11:42     |                          |                           |
| DRB1*04:41+DRB1*11:09     | DRB1*04:102+DRB1*11:113    |                          |                           |
| DRB1*04:41+DRB1*11:11:01G | DRB1*04:102+DRB1*11:03     |                          |                           |
| DRB1*04:41+DRB1*11:14:01  | DRB1*04:102+DRB1*11:02:01  |                          |                           |
| DRB1*04:41+DRB1*11:19:01  | DRB1*04:102+DRB1*11:18     |                          |                           |
| DRB1*04:41+DRB1*11:20     | DRB1*04:102+DRB1*11:16     |                          |                           |
| DRB1*04:41+DRB1*11:26     | DRB1*04:102+DRB1*11:34     |                          |                           |
| DRB1*04:41+DRB1*11:27:01  | DRB1*04:74+DRB1*11:58:02   | DRB1*04:95+DRB1*11:28:01 | DRB1*04:102+DRB1*11:84:01 |
| DRB1*04:41+DRB1*11:27:02  | DRB1*04:102+DRB1*11:84:02  |                          |                           |
| DRB1*04:41+DRB1*11:28:01  | DRB1*04:102+DRB1*11:58:02  |                          |                           |
| DRB1*04:41+DRB1*11:28:02  | DRB1*04:102+DRB1*11:58:01  |                          |                           |
| DRB1*04:41+DRB1*11:33     | DRB1*04:102+DRB1*11:35     |                          |                           |
| DRB1*04:41+DRB1*11:37:01  | DRB1*04:102+DRB1*11:56     |                          |                           |
| DRB1*04:41+DRB1*11:39     | DRB1*04:102+DRB1*11:43     |                          |                           |
| DRB1*04:41+DRB1*11:45     | DRB1*04:102+DRB1*11:119    |                          |                           |
| DRB1*04:41+DRB1*11:49:01  | DRB1*04:102+DRB1*11:44     |                          |                           |
| DRB1*04:41+DRB1*11:61     | DRB1*04:96+DRB1*11:28:01   |                          |                           |
| DRB1*04:41+DRB1*11:62     | DRB1*04:102+DRB1*11:46:02  |                          |                           |
| DRB1*04:41+DRB1*11:68     | DRB1*04:102+DRB1*11:36     |                          |                           |
| DRB1*04:41+DRB1*11:84:01  | DRB1*04:95+DRB1*11:58:02   |                          |                           |
| DRB1*04:41+DRB1*11:103    | DRB1*04:102+DRB1*11:07     |                          |                           |
| DRB1*04:41+DRB1*11:106    | DRB1*04:109+DRB1*11:28:01  |                          |                           |
| DRB1*04:41+DRB1*11:108    | DRB1*04:51+DRB1*11:28:01   |                          |                           |
| DRB1*04:41+DRB1*11:109    | DRB1*04:102+DRB1*11:60     |                          |                           |
| DRB1*04:41+DRB1*11:120    | DRB1*04:102+DRB1*11:116    |                          |                           |
| DRB1*04:41+DRB1*11:122    | DRB1*04:102+DRB1*11:40     |                          |                           |
| DRB1*04:41+DRB1*13:02:01  | DRB1*04:102+DRB1*13:01:01G |                          |                           |
| DRB1*04:41+DRB1*13:02:03  | DRB1*04:102+DRB1*13:01:05  |                          |                           |
| DRB1*04:41+DRB1*13:05:01  | DRB1*04:102+DRB1*13:42     |                          |                           |
| DRB1*04:41+DRB1*13:23:02  | DRB1*04:102+DRB1*13:22     |                          |                           |
| DRB1*04:41+DRB1*13:29     | DRB1*04:102+DRB1*13:20     |                          |                           |
| DRB1*04:41+DRB1*13:33:03  | DRB1*04:95+DRB1*13:115     |                          |                           |
| DRB1*04:41+DRB1*13:36     | DRB1*04:102+DRB1*13:40     |                          |                           |
| DRB1*04:41+DRB1*13:39     | DRB1*04:102+DRB1*13:79     |                          |                           |
| DRB1*04:41+DRB1*13:41     | DRB1*04:102+DRB1*13:27     |                          |                           |
| DRB1*04:41+DRB1*13:49     | DRB1*04:102+DRB1*13:108    |                          |                           |
| DRB1*04:41+DRB1*13:63     | DRB1*04:102+DRB1*13:111    |                          |                           |
| DRB1*04:41+DRB1*13:65     | DRB1*04:102+DRB1*13:32     |                          |                           |
| DRB1*04:41+DRB1*13:66:02  | DRB1*04:59+DRB1*13:115     |                          |                           |
| DRB1*04:41+DRB1*13:96:01  | DRB1*04:102+DRB1*13:61:02  |                          |                           |
| DRB1*04:41+DRB1*13:96:02  | DRB1*04:102+DRB1*13:61:01  |                          |                           |
| DRB1*04:41+DRB1*13:104    | DRB1*04:102+DRB1*13:15     |                          |                           |
| DRB1*04:41+DRB1*13:128    | DRB1*04:102+DRB1*13:112    |                          |                           |
| DRB1*04:41+DRB1*13:139    | DRB1*04:102+DRB1*13:93     |                          |                           |
| DRB1*04:41+DRB1*14:02     | DRB1*04:102+DRB1*14:06:01  |                          |                           |
| DRB1*04:41+DRB1*14:03:01  | DRB1*04:102+DRB1*14:12:01  |                          |                           |
| DRB1*04:41+DRB1*14:07:01  | DRB1*04:102+DRB1*14:01:01G |                          |                           |
| DRB1*04:41+DRB1*14:09     | DRB1*04:102+DRB1*14:80     |                          |                           |
| DRB1*04:41+DRB1*14:13     | DRB1*04:77+DRB1*14:106     |                          |                           |
| DRB1*04:41+DRB1*14:14     | DRB1*04:102+DRB1*14:23:01  |                          |                           |
| DRB1*04:41+DRB1*14:19     | DRB1*04:113+DRB1*14:106    |                          |                           |
| DRB1*04:41+DRB1*14:30     | DRB1*04:102+DRB1*14:17     |                          |                           |
| DRB1*04:41+DRB1*14:44:01  | DRB1*04:102+DRB1*14:05:01  |                          |                           |
| DRB1*04:41+DRB1*14:44:02  | DRB1*04:102+DRB1*14:05:03  |                          |                           |
| DRB1*04:41+DRB1*14:51     | DRB1*04:102+DRB1*14:106    |                          |                           |
| DRB1*04:41+DRB1*14:63     | DRB1*04:102+DRB1*14:78     |                          |                           |
| DRB1*04:41+DRB1*14:68     | DRB1*04:102+DRB1*14:04     |                          |                           |
| DRB1*04:41+DRB1*15:02:02  | DRB1*04:102+DRB1*15:01:04  |                          |                           |
| DRB1*04:41+DRB1*15:02:06  | DRB1*04:102+DRB1*15:01:03  |                          |                           |
| DRB1*04:41+DRB1*15:02:08  | DRB1*04:102+DRB1*15:01:10  |                          |                           |
| DRB1*04:41+DRB1*15:11     | DRB1*04:102+DRB1*15:07:01  |                          |                           |
| DRB1*04:41+DRB1*15:15     | DRB1*04:102+DRB1*15:04     |                          |                           |
| DRB1*04:41+DRB1*15:27     | DRB1*04:102+DRB1*15:66     |                          |                           |
| DRB1*04:41+DRB1*15:31     | DRB1*04:102+DRB1*15:05     |                          |                           |
| DRB1*04:41+DRB1*15:42     | DRB1*04:109+DRB1*15:32     |                          |                           |
| DRB1*04:41+DRB1*15:47     | DRB1*04:102+DRB1*15:65     |                          |                           |
| DRB1*04:42+DRB1*04:51     | DRB1*04:59+DRB1*04:70      |                          |                           |
| DRB1*04:42+DRB1*04:74     | DRB1*04:43+DRB1*04:95      |                          |                           |
| DRB1*04:42+DRB1*04:88     | DRB1*04:56+DRB1*04:59      |                          |                           |
| DRB1*04:42+DRB1*04:95     | DRB1*04:44+DRB1*04:59      |                          |                           |
| DRB1*04:42+DRB1*04:105:01 | DRB1*04:43+DRB1*04:73      |                          |                           |
| DRB1*04:42+DRB1*08:02:01  | DRB1*04:43+DRB1*08:04:04   |                          |                           |
| DRB1*04:42+DRB1*08:29     | DRB1*04:59+DRB1*08:18      |                          |                           |
| DRB1*04:42+DRB1*08:41     | DRB1*04:43+DRB1*08:31      |                          |                           |
| DRB1*04:42+DRB1*09:01:02  | DRB1*04:43+DRB1*09:06      |                          |                           |
| DRB1*04:42+DRB1*10:01:01  | DRB1*04:43+DRB1*10:02      |                          |                           |
| DRB1*04:42+DRB1*11:01:01G | DRB1*04:43+DRB1*11:04:01   |                          |                           |
| DRB1*04:42+DRB1*11:01:02  | DRB1*04:43+DRB1*11:04:02   |                          |                           |
| DRB1*04:42+DRB1*11:01:03  | DRB1*04:43+DRB1*11:04:07   |                          |                           |
| DRB1*04:42+DRB1*11:01:04  | DRB1*04:43+DRB1*11:04:05   |                          |                           |
| DRB1*04:42+DRB1*11:01:05  | DRB1*04:43+DRB1*11:04:03   |                          |                           |
| DRB1*04:42+DRB1*11:01:12  | DRB1*04:43+DRB1*11:04:04   |                          |                           |
| DRB1*04:42+DRB1*11:08:01  | DRB1*04:43+DRB1*11:42      |                          |                           |
| DRB1*04:42+DRB1*11:09     | DRB1*04:43+DRB1*11:113     |                          |                           |
| DRB1*04:42+DRB1*11:11:01G | DRB1*04:43+DRB1*11:03      |                          |                           |
| DRB1*04:42+DRB1*11:19:01  | DRB1*04:43+DRB1*11:18      |                          |                           |
| DRB1*04:42+DRB1*11:20     | DRB1*04:43+DRB1*11:16      |                          |                           |

|                           |                              |                          |
|---------------------------|------------------------------|--------------------------|
| DRB1*04:42+DRB1*11:26     | DRB1*04:43+DRB1*11:34        |                          |
| DRB1*04:42+DRB1*11:27:01  | DRB1*04:43+DRB1*11:84:01     |                          |
| DRB1*04:42+DRB1*11:27:02  | DRB1*04:43+DRB1*11:84:02     |                          |
| DRB1*04:42+DRB1*11:28:01  | DRB1*04:43+DRB1*11:58:02     |                          |
| DRB1*04:42+DRB1*11:28:02  | DRB1*04:43+DRB1*11:58:01     |                          |
| DRB1*04:42+DRB1*11:33     | DRB1*04:43+DRB1*11:35        |                          |
| DRB1*04:42+DRB1*11:39     | DRB1*04:43+DRB1*11:43        |                          |
| DRB1*04:42+DRB1*11:45     | DRB1*04:43+DRB1*11:119       |                          |
| DRB1*04:42+DRB1*11:49:01  | DRB1*04:43+DRB1*11:44        |                          |
| DRB1*04:42+DRB1*11:54:01  | DRB1*04:59+DRB1*11:04:03     |                          |
| DRB1*04:42+DRB1*11:54:02  | DRB1*04:59+DRB1*11:04:01     |                          |
| DRB1*04:42+DRB1*11:62     | DRB1*04:43+DRB1*11:46:02     |                          |
| DRB1*04:42+DRB1*11:68     | DRB1*04:43+DRB1*11:36        |                          |
| DRB1*04:42+DRB1*11:103    | DRB1*04:43+DRB1*11:07        |                          |
| DRB1*04:42+DRB1*11:109    | DRB1*04:43+DRB1*11:60        |                          |
| DRB1*04:42+DRB1*11:120    | DRB1*04:43+DRB1*11:116       |                          |
| DRB1*04:42+DRB1*11:122    | DRB1*04:43+DRB1*11:40        |                          |
| DRB1*04:42+DRB1*13:02:01  | DRB1*04:43+DRB1*13:01:01G    |                          |
| DRB1*04:42+DRB1*13:02:03  | DRB1*04:43+DRB1*13:01:05     |                          |
| DRB1*04:42+DRB1*13:05:01  | DRB1*04:43+DRB1*13:42        |                          |
| DRB1*04:42+DRB1*13:13     | DRB1*04:55+DRB1*13:30        | DRB1*04:86+DRB1*13:44    |
| DRB1*04:42+DRB1*13:14:01  | DRB1*04:43+DRB1*13:11:01     |                          |
| DRB1*04:42+DRB1*13:14:02  | DRB1*04:43+DRB1*13:11:02     |                          |
| DRB1*04:42+DRB1*13:23:02  | DRB1*04:43+DRB1*13:22        |                          |
| DRB1*04:42+DRB1*13:29     | DRB1*04:43+DRB1*13:20        |                          |
| DRB1*04:42+DRB1*13:33:02  | DRB1*04:44+DRB1*13:66:01     |                          |
| DRB1*04:42+DRB1*13:33:03  | DRB1*04:44+DRB1*13:66:02     |                          |
| DRB1*04:42+DRB1*13:39     | DRB1*04:43+DRB1*13:79        |                          |
| DRB1*04:42+DRB1*13:41     | DRB1*04:43+DRB1*13:27        |                          |
| DRB1*04:42+DRB1*13:47     | DRB1*04:54+DRB1*13:44        | DRB1*04:55+DRB1*13:14:03 |
| DRB1*04:42+DRB1*13:55     | DRB1*04:55+DRB1*13:21:02     |                          |
| DRB1*04:42+DRB1*13:63     | DRB1*04:43+DRB1*13:111       |                          |
| DRB1*04:42+DRB1*13:84     | DRB1*04:68+DRB1*13:52        |                          |
| DRB1*04:42+DRB1*13:96:01  | DRB1*04:43+DRB1*13:61:02     |                          |
| DRB1*04:42+DRB1*13:96:02  | DRB1*04:43+DRB1*13:61:01     |                          |
| DRB1*04:42+DRB1*13:97:01  | DRB1*04:43+DRB1*13:52        |                          |
| DRB1*04:42+DRB1*13:104    | DRB1*04:43+DRB1*13:15        |                          |
| DRB1*04:42+DRB1*13:107    | DRB1*04:43+DRB1*13:83        |                          |
| DRB1*04:42+DRB1*13:128    | DRB1*04:43+DRB1*13:112       |                          |
| DRB1*04:42+DRB1*14:01:02  | DRB1*04:59+DRB1*14:32:01     |                          |
| DRB1*04:42+DRB1*14:02     | DRB1*04:43+DRB1*14:06:01     |                          |
| DRB1*04:42+DRB1*14:03:01  | DRB1*04:43+DRB1*14:12:01     |                          |
| DRB1*04:42+DRB1*14:04     | DRB1*04:59+DRB1*14:31        |                          |
| DRB1*04:42+DRB1*14:05:01  | DRB1*04:59+DRB1*14:100       |                          |
| DRB1*04:42+DRB1*14:14     | DRB1*04:43+DRB1*14:23:01     |                          |
| DRB1*04:42+DRB1*14:23:01  | DRB1*04:59+DRB1*14:123       |                          |
| DRB1*04:42+DRB1*14:30     | DRB1*04:43+DRB1*14:17        |                          |
| DRB1*04:42+DRB1*14:33     | DRB1*04:59+DRB1*14:17        |                          |
| DRB1*04:42+DRB1*14:44:01  | DRB1*04:43+DRB1*14:05:01     |                          |
| DRB1*04:42+DRB1*14:44:02  | DRB1*04:43+DRB1*14:05:03     |                          |
| DRB1*04:42+DRB1*14:51     | DRB1*04:43+DRB1*14:106       | DRB1*04:59+DRB1*14:02    |
| DRB1*04:42+DRB1*14:63     | DRB1*04:43+DRB1*14:78        |                          |
| DRB1*04:42+DRB1*14:68     | DRB1*04:43+DRB1*14:04        |                          |
| DRB1*04:42+DRB1*14:102    | DRB1*04:58+DRB1*13:86        |                          |
| DRB1*04:42+DRB1*14:106    | DRB1*04:59+DRB1*14:06:01     |                          |
| DRB1*04:42+DRB1*14:116    | DRB1*04:55+DRB1*13:25        |                          |
| DRB1*04:42+DRB1*14:122    | DRB1*04:56+DRB1*14:35        |                          |
| DRB1*04:42+DRB1*15:02:01  | DRB1*04:43+DRB1*15:01:01G    |                          |
| DRB1*04:42+DRB1*15:02:02  | DRB1*04:43+DRB1*15:01:04     |                          |
| DRB1*04:42+DRB1*15:02:04  | DRB1*04:43+DRB1*15:01:09     |                          |
| DRB1*04:42+DRB1*15:02:06  | DRB1*04:43+DRB1*15:01:03     |                          |
| DRB1*04:42+DRB1*15:02:08  | DRB1*04:43+DRB1*15:01:10     |                          |
| DRB1*04:42+DRB1*15:15     | DRB1*04:43+DRB1*15:04        |                          |
| DRB1*04:42+DRB1*15:27     | DRB1*04:43+DRB1*15:66        |                          |
| DRB1*04:42+DRB1*15:31     | DRB1*04:43+DRB1*15:05        |                          |
| DRB1*04:42+DRB1*15:47     | DRB1*04:43+DRB1*15:65        |                          |
| DRB1*04:42+DRB1*16:04     | DRB1*04:54+DRB1*15:66        |                          |
| DRB1*04:42+DRB1*16:05:01  | DRB1*04:53+DRB1*15:27        | DRB1*04:56+DRB1*16:10    |
| DRB1*04:42+DRB1*16:18     | DRB1*04:58+DRB1*15:27        |                          |
| DRB1*04:43+DRB1*11:52     | DRB1*04:61+DRB1*14:72        |                          |
| DRB1*04:43+DRB1*11:54:01  | DRB1*04:59+DRB1*11:01:05     |                          |
| DRB1*04:43+DRB1*11:54:02  | DRB1*04:59+DRB1*11:01:01G    |                          |
| DRB1*04:43+DRB1*13:33:02  | DRB1*04:72:02+DRB1*13:30     |                          |
| DRB1*04:43+DRB1*14:33     | DRB1*04:59+DRB1*14:30        |                          |
| DRB1*04:43+DRB1*16:04     | DRB1*04:54+DRB1*15:27        |                          |
| DRB1*04:44+DRB1*04:51     | DRB1*04:70+DRB1*04:95        |                          |
| DRB1*04:44+DRB1*04:88     | DRB1*04:56+DRB1*04:95        |                          |
| DRB1*04:44+DRB1*08:29     | DRB1*04:95+DRB1*08:18        |                          |
| DRB1*04:44+DRB1*11:20     | DRB1*04:61+DRB1*13:61:01     |                          |
| DRB1*04:44+DRB1*11:25     | DRB1*04:55+DRB1*11:84:01     |                          |
| DRB1*04:44+DRB1*11:54:01  | DRB1*04:95+DRB1*11:04:03     |                          |
| DRB1*04:44+DRB1*11:79     | DRB1*04:72:02+DRB1*11:34     |                          |
| DRB1*04:44+DRB1*11:108    | DRB1*04:70+DRB1*11:27:01     |                          |
| DRB1*04:44+DRB1*14:01:01G | DRB1*04:95+DRB1*14:32:02     |                          |
| DRB1*04:44+DRB1*14:04     | DRB1*04:95+DRB1*14:31        |                          |
| DRB1*04:44+DRB1*14:05:01  | DRB1*04:95+DRB1*14:100       |                          |
| DRB1*04:44+DRB1*14:07:01  | DRB1*04:74+DRB1*14:32:02     |                          |
| DRB1*04:44+DRB1*14:08     | DRB1*04:95+DRB1*14:34        |                          |
| DRB1*04:44+DRB1*14:14     | DRB1*04:74+DRB1*14:123       |                          |
| DRB1*04:44+DRB1*14:23:01  | DRB1*04:95+DRB1*14:123       |                          |
| DRB1*04:44+DRB1*14:33     | DRB1*04:95+DRB1*14:17        |                          |
| DRB1*04:44+DRB1*14:44:01  | DRB1*04:74+DRB1*14:100       |                          |
| DRB1*04:44+DRB1*14:68     | DRB1*04:74+DRB1*14:31        |                          |
| DRB1*04:44+DRB1*14:75     | DRB1*04:70+DRB1*14:38        |                          |
| DRB1*04:44+DRB1*14:89     | DRB1*04:55+DRB1*14:47        |                          |
| DRB1*04:44+DRB1*14:103    | DRB1*04:70+DRB1*14:127       |                          |
| DRB1*04:44+DRB1*14:106    | DRB1*04:95+DRB1*14:06:01     |                          |
| DRB1*04:45+DRB1*15:32     | DRB1*04:77+DRB1*15:76        |                          |
| DRB1*04:45+DRB1*15:64     | DRB1*04:116+DRB1*15:76       |                          |
| DRB1*04:47+DRB1*08:10     | DRB1*04:53+DRB1*08:01:05     |                          |
| DRB1*04:47+DRB1*08:34     | DRB1*04:82+DRB1*08:02:02     |                          |
| DRB1*04:47+DRB1*11:23     | DRB1*04:54+DRB1*11:01:03     |                          |
| DRB1*04:47+DRB1*11:82     | DRB1*04:105:02+DRB1*11:01:03 |                          |
| DRB1*04:47+DRB1*11:105    | DRB1*04:98:02+DRB1*11:01:03  |                          |
| DRB1*04:47+DRB1*13:06     | DRB1*04:53+DRB1*13:05:01     |                          |

|                             |                              |
|-----------------------------|------------------------------|
| DRB1*04:47+DRB1*15:01:01G   | DRB1*04:53+DRB1*15:15        |
| DRB1*04:47+DRB1*15:02:01    | DRB1*04:105:02+DRB1*16:09    |
| DRB1*04:47+DRB1*15:05       | DRB1*04:122+DRB1*16:09       |
| DRB1*04:47+DRB1*15:07:01    | DRB1*04:105:02+DRB1*16:15    |
| DRB1*04:47+DRB1*15:11       | DRB1*04:105:02+DRB1*16:01:01 |
| DRB1*04:47+DRB1*16:04       | DRB1*04:54+DRB1*16:01:01     |
| DRB1*04:48+DRB1*14:45       | DRB1*04:107+DRB1*14:56       |
| DRB1*04:51+DRB1*04:56       | DRB1*04:70+DRB1*04:88        |
| DRB1*04:51+DRB1*04:107      | DRB1*04:87+DRB1*04:88        |
| DRB1*04:51+DRB1*08:18       | DRB1*04:70+DRB1*08:29        |
| DRB1*04:51+DRB1*11:04:01    | DRB1*04:70+DRB1*11:54:02     |
| DRB1*04:51+DRB1*11:04:03    | DRB1*04:70+DRB1*11:54:01     |
| DRB1*04:51+DRB1*11:27:01    | DRB1*04:95+DRB1*11:108       |
| DRB1*04:51+DRB1*11:61       | DRB1*04:96+DRB1*11:108       |
| DRB1*04:51+DRB1*11:106      | DRB1*04:109+DRB1*11:108      |
| DRB1*04:51+DRB1*14:02       | DRB1*04:70+DRB1*14:51        |
| DRB1*04:51+DRB1*14:06:01    | DRB1*04:70+DRB1*14:106       |
| DRB1*04:51+DRB1*14:13       | DRB1*04:87+DRB1*14:106       |
| DRB1*04:51+DRB1*14:17       | DRB1*04:70+DRB1*14:33        |
| DRB1*04:51+DRB1*14:31       | DRB1*04:70+DRB1*14:04        |
| DRB1*04:51+DRB1*14:32:02    | DRB1*04:70+DRB1*14:01:01G    |
| DRB1*04:51+DRB1*14:34       | DRB1*04:70+DRB1*14:08        |
| DRB1*04:51+DRB1*14:38       | DRB1*04:95+DRB1*14:75        |
| DRB1*04:51+DRB1*14:100      | DRB1*04:70+DRB1*14:05:01     |
| DRB1*04:51+DRB1*14:123      | DRB1*04:70+DRB1*14:23:01     |
| DRB1*04:51+DRB1*14:127      | DRB1*04:95+DRB1*14:103       |
| DRB1*04:53+DRB1*11:64       | DRB1*04:58+DRB1*11:19:02     |
| DRB1*04:53+DRB1*11:69       | DRB1*04:105:02+DRB1*11:04:07 |
| DRB1*04:53+DRB1*13:100      | DRB1*04:82+DRB1*13:11:01     |
| DRB1*04:53+DRB1*14:48       | DRB1*04:82+DRB1*14:06:01     |
| DRB1*04:54+DRB1*08:03:02    | DRB1*04:86+DRB1*08:02:01     |
| DRB1*04:54+DRB1*08:25       | DRB1*04:82+DRB1*08:02:01     |
| DRB1*04:54+DRB1*08:35       | DRB1*04:86+DRB1*08:09        |
| DRB1*04:54+DRB1*11:82       | DRB1*04:105:02+DRB1*11:23    |
| DRB1*04:54+DRB1*11:105      | DRB1*04:98:02+DRB1*11:23     |
| DRB1*04:54+DRB1*13:13       | DRB1*04:86+DRB1*13:47        |
| DRB1*04:54+DRB1*13:30       | DRB1*04:86+DRB1*13:14:03     |
| DRB1*04:54+DRB1*14:17       | DRB1*04:55+DRB1*13:05:02     |
| DRB1*04:54+DRB1*15:11       | DRB1*04:105:02+DRB1*16:04    |
| DRB1*04:55+DRB1*04:84       | DRB1*04:68+DRB1*04:103       |
| DRB1*04:55+DRB1*04:87       | DRB1*04:70+DRB1*04:103       |
| DRB1*04:55+DRB1*04:107      | DRB1*04:56+DRB1*04:103       |
| DRB1*04:55+DRB1*08:01:01G   | DRB1*04:103+DRB1*08:04:04    |
| DRB1*04:55+DRB1*11:42       | DRB1*04:58+DRB1*11:34        |
| DRB1*04:55+DRB1*11:63       | DRB1*04:68+DRB1*11:55        |
| DRB1*04:55+DRB1*14:35       | DRB1*04:59+DRB1*14:55        |
| DRB1*04:55+DRB1*14:85       | DRB1*04:103+DRB1*14:12:01    |
| DRB1*04:55+DRB1*14:122      | DRB1*04:88+DRB1*14:55        |
| DRB1*04:56+DRB1*04:84       | DRB1*04:68+DRB1*04:107       |
| DRB1*04:56+DRB1*04:87       | DRB1*04:70+DRB1*04:107       |
| DRB1*04:56+DRB1*04:114      | DRB1*04:68+DRB1*04:100       |
| DRB1*04:56+DRB1*08:01:01G   | DRB1*04:107+DRB1*08:04:04    |
| DRB1*04:56+DRB1*08:01:05    | DRB1*04:107+DRB1*08:04:01    |
| DRB1*04:56+DRB1*08:29       | DRB1*04:88+DRB1*08:18        |
| DRB1*04:56+DRB1*11:54:01    | DRB1*04:88+DRB1*11:04:03     |
| DRB1*04:56+DRB1*11:54:02    | DRB1*04:88+DRB1*11:04:01     |
| DRB1*04:56+DRB1*13:21:01    | DRB1*04:107+DRB1*13:11:01    |
| DRB1*04:56+DRB1*13:65       | DRB1*04:107+DRB1*13:40       |
| DRB1*04:56+DRB1*13:139      | DRB1*04:107+DRB1*13:01:01G   |
| DRB1*04:56+DRB1*14:01:02    | DRB1*04:88+DRB1*14:32:01     |
| DRB1*04:56+DRB1*14:08       | DRB1*04:88+DRB1*14:34        |
| DRB1*04:56+DRB1*14:13       | DRB1*04:107+DRB1*14:06:01    |
| DRB1*04:56+DRB1*14:23:01    | DRB1*04:88+DRB1*14:123       |
| DRB1*04:56+DRB1*14:33       | DRB1*04:88+DRB1*14:17        |
| DRB1*04:56+DRB1*14:51       | DRB1*04:88+DRB1*14:02        |
| DRB1*04:56+DRB1*14:106      | DRB1*04:88+DRB1*14:06:01     |
| DRB1*04:58+DRB1*11:82       | DRB1*04:122+DRB1*11:45       |
| DRB1*04:58+DRB1*11:89       | DRB1*04:101+DRB1*11:25       |
| DRB1*04:58+DRB1*14:24       | DRB1*04:105:02+DRB1*14:12:01 |
| DRB1*04:59+DRB1*13:33:02    | DRB1*04:95+DRB1*13:66:01     |
| DRB1*04:59+DRB1*13:33:03    | DRB1*04:95+DRB1*13:66:02     |
| DRB1*04:59+DRB1*14:122      | DRB1*04:88+DRB1*14:35        |
| DRB1*04:59+DRB1*16:05:01    | DRB1*04:88+DRB1*16:10        |
| DRB1*04:61+DRB1*08:01:05    | DRB1*04:103+DRB1*08:41       |
| DRB1*04:61+DRB1*08:06       | DRB1*04:103+DRB1*08:31       |
| DRB1*04:61+DRB1*13:55       | DRB1*04:103+DRB1*11:37:02    |
| DRB1*04:62+DRB1*13:50:01    | DRB1*04:113+DRB1*14:53       |
| DRB1*04:62+DRB1*13:108      | DRB1*04:67+DRB1*14:25        |
| DRB1*04:63+DRB1*04:95       | DRB1*04:72:02+DRB1*04:110    |
| DRB1*04:63+DRB1*14:106      | DRB1*04:110+DRB1*14:19       |
| DRB1*04:68+DRB1*04:87       | DRB1*04:70+DRB1*04:84        |
| DRB1*04:68+DRB1*11:108      | DRB1*04:70+DRB1*11:29        |
| DRB1*04:68+DRB1*13:21:01    | DRB1*04:84+DRB1*13:11:01     |
| DRB1*04:68+DRB1*14:13       | DRB1*04:84+DRB1*14:06:01     |
| DRB1*04:68+DRB1*14:85       | DRB1*04:84+DRB1*14:12:01     |
| DRB1*04:69+DRB1*08:04:04    | DRB1*04:101+DRB1*08:08       |
| DRB1*04:69+DRB1*13:11:01    | DRB1*04:101+DRB1*14:53       |
| DRB1*04:69+DRB1*14:20       | DRB1*04:101+DRB1*14:49       |
| DRB1*04:69+DRB1*14:23:01    | DRB1*04:101+DRB1*14:07:01    |
| DRB1*04:69+DRB1*14:126      | DRB1*04:101+DRB1*14:68       |
| DRB1*04:70+DRB1*08:01:01G   | DRB1*04:87+DRB1*08:04:04     |
| DRB1*04:70+DRB1*08:01:05    | DRB1*04:87+DRB1*08:04:01     |
| DRB1*04:70+DRB1*13:21:01    | DRB1*04:87+DRB1*13:11:01     |
| DRB1*04:70+DRB1*13:65       | DRB1*04:87+DRB1*13:40        |
| DRB1*04:70+DRB1*13:139      | DRB1*04:87+DRB1*13:01:01G    |
| DRB1*04:70+DRB1*14:13       | DRB1*04:87+DRB1*14:06:01     |
| DRB1*04:70+DRB1*14:85       | DRB1*04:87+DRB1*14:12:01     |
| DRB1*04:71+DRB1*07:17       | DRB1*04:97+DRB1*07:21        |
| DRB1*04:72:01+DRB1*11:27:01 | DRB1*04:72:02+DRB1*11:27:02  |
| DRB1*04:72:01+DRB1*11:28:01 | DRB1*04:113+DRB1*11:27:02    |
| DRB1*04:72:01+DRB1*11:58:02 | DRB1*04:113+DRB1*11:84:02    |
| DRB1*04:72:01+DRB1*11:84:01 | DRB1*04:72:02+DRB1*11:84:02  |
| DRB1*04:72:01+DRB1*13:33:03 | DRB1*04:72:02+DRB1*13:33:01  |
| DRB1*04:72:01+DRB1*13:61:01 | DRB1*04:72:02+DRB1*13:61:02  |
| DRB1*04:72:01+DRB1*13:96:02 | DRB1*04:72:02+DRB1*13:96:01  |

|                             |                               |                               |
|-----------------------------|-------------------------------|-------------------------------|
| DRB1*04:72:01+DRB1*13:115   | DRB1*04:113+DRB1*13:33:01     |                               |
| DRB1*04:72:01+DRB1*15:32    | DRB1*04:113+DRB1*15:37        |                               |
| DRB1*04:72:02+DRB1*04:102   | DRB1*04:74+DRB1*04:113        |                               |
| DRB1*04:72:02+DRB1*11:28:01 | DRB1*04:113+DRB1*11:27:01     |                               |
| DRB1*04:72:02+DRB1*11:58:02 | DRB1*04:113+DRB1*11:84:01     |                               |
| DRB1*04:72:02+DRB1*13:115   | DRB1*04:113+DRB1*13:33:03     |                               |
| DRB1*04:72:02+DRB1*14:33    | DRB1*04:74+DRB1*14:21         |                               |
| DRB1*04:72:02+DRB1*14:51    | DRB1*04:74+DRB1*14:19         |                               |
| DRB1*04:72:02+DRB1*14:106   | DRB1*04:95+DRB1*14:19         |                               |
| DRB1*04:73+DRB1*04:74       | DRB1*04:95+DRB1*04:105:01     |                               |
| DRB1*04:73+DRB1*08:01:05    | DRB1*04:105:01+DRB1*08:06     |                               |
| DRB1*04:73+DRB1*08:02:01    | DRB1*04:105:01+DRB1*08:04:04  |                               |
| DRB1*04:73+DRB1*08:02:02    | DRB1*04:105:01+DRB1*08:04:01  | DRB1*04:105:02+DRB1*08:04:06  |
| DRB1*04:73+DRB1*08:03:02    | DRB1*04:105:01+DRB1*08:10     |                               |
| DRB1*04:73+DRB1*08:41       | DRB1*04:105:01+DRB1*08:31     |                               |
| DRB1*04:73+DRB1*09:01:02    | DRB1*04:105:01+DRB1*09:06     |                               |
| DRB1*04:73+DRB1*10:01:01    | DRB1*04:105:01+DRB1*10:02     |                               |
| DRB1*04:73+DRB1*11:01:01G   | DRB1*04:105:01+DRB1*11:04:01  |                               |
| DRB1*04:73+DRB1*11:01:02    | DRB1*04:105:01+DRB1*11:04:02  |                               |
| DRB1*04:73+DRB1*11:01:03    | DRB1*04:105:01+DRB1*11:04:07  |                               |
| DRB1*04:73+DRB1*11:01:04    | DRB1*04:105:01+DRB1*11:04:05  |                               |
| DRB1*04:73+DRB1*11:01:05    | DRB1*04:105:01+DRB1*11:04:03  |                               |
| DRB1*04:73+DRB1*11:01:12    | DRB1*04:105:01+DRB1*11:04:04  |                               |
| DRB1*04:73+DRB1*11:08:01    | DRB1*04:105:01+DRB1*11:42     |                               |
| DRB1*04:73+DRB1*11:09       | DRB1*04:105:01+DRB1*11:113    |                               |
| DRB1*04:73+DRB1*11:11:01G   | DRB1*04:105:01+DRB1*11:03     |                               |
| DRB1*04:73+DRB1*11:14:01    | DRB1*04:105:01+DRB1*11:02:01  |                               |
| DRB1*04:73+DRB1*11:19:01    | DRB1*04:105:01+DRB1*11:18     |                               |
| DRB1*04:73+DRB1*11:20       | DRB1*04:105:01+DRB1*11:16     |                               |
| DRB1*04:73+DRB1*11:27:01    | DRB1*04:105:01+DRB1*11:84:01  |                               |
| DRB1*04:73+DRB1*11:27:02    | DRB1*04:105:01+DRB1*11:84:02  |                               |
| DRB1*04:73+DRB1*11:28:01    | DRB1*04:105:01+DRB1*11:58:02  |                               |
| DRB1*04:73+DRB1*11:28:02    | DRB1*04:105:01+DRB1*11:58:01  |                               |
| DRB1*04:73+DRB1*11:33       | DRB1*04:105:01+DRB1*11:35     |                               |
| DRB1*04:73+DRB1*11:37:01    | DRB1*04:105:01+DRB1*11:56     |                               |
| DRB1*04:73+DRB1*11:39       | DRB1*04:105:01+DRB1*11:43     |                               |
| DRB1*04:73+DRB1*11:45       | DRB1*04:105:01+DRB1*11:119    |                               |
| DRB1*04:73+DRB1*11:49:01    | DRB1*04:105:01+DRB1*11:44     |                               |
| DRB1*04:73+DRB1*11:62       | DRB1*04:105:01+DRB1*11:46:02  |                               |
| DRB1*04:73+DRB1*11:68       | DRB1*04:105:01+DRB1*11:36     |                               |
| DRB1*04:73+DRB1*11:103      | DRB1*04:105:01+DRB1*11:07     |                               |
| DRB1*04:73+DRB1*11:109      | DRB1*04:105:01+DRB1*11:60     |                               |
| DRB1*04:73+DRB1*11:120      | DRB1*04:105:01+DRB1*11:116    |                               |
| DRB1*04:73+DRB1*11:122      | DRB1*04:105:01+DRB1*11:40     |                               |
| DRB1*04:73+DRB1*13:02:01    | DRB1*04:105:01+DRB1*13:01:01G | DRB1*04:105:02+DRB1*13:01:05  |
| DRB1*04:73+DRB1*13:02:03    | DRB1*04:105:01+DRB1*13:01:05  |                               |
| DRB1*04:73+DRB1*13:03:01    | DRB1*04:105:01+DRB1*13:89     |                               |
| DRB1*04:73+DRB1*13:05:01    | DRB1*04:105:01+DRB1*13:42     |                               |
| DRB1*04:73+DRB1*13:14:01    | DRB1*04:105:01+DRB1*13:11:01  | DRB1*04:105:02+DRB1*13:11:02  |
| DRB1*04:73+DRB1*13:14:02    | DRB1*04:105:01+DRB1*13:11:02  |                               |
| DRB1*04:73+DRB1*13:20       | DRB1*04:122+DRB1*13:01:05     |                               |
| DRB1*04:73+DRB1*13:23:02    | DRB1*04:105:01+DRB1*13:22     |                               |
| DRB1*04:73+DRB1*13:29       | DRB1*04:105:01+DRB1*13:20     | DRB1*04:122+DRB1*13:02:03     |
| DRB1*04:73+DRB1*13:36       | DRB1*04:105:01+DRB1*13:40     |                               |
| DRB1*04:73+DRB1*13:39       | DRB1*04:105:01+DRB1*13:79     |                               |
| DRB1*04:73+DRB1*13:41       | DRB1*04:105:01+DRB1*13:27     |                               |
| DRB1*04:73+DRB1*13:49       | DRB1*04:105:01+DRB1*13:108    |                               |
| DRB1*04:73+DRB1*13:63       | DRB1*04:105:01+DRB1*13:111    |                               |
| DRB1*04:73+DRB1*13:65       | DRB1*04:105:01+DRB1*13:32     |                               |
| DRB1*04:73+DRB1*13:96:01    | DRB1*04:105:01+DRB1*13:61:02  |                               |
| DRB1*04:73+DRB1*13:96:02    | DRB1*04:105:01+DRB1*13:61:01  |                               |
| DRB1*04:73+DRB1*13:97:01    | DRB1*04:105:01+DRB1*13:52     |                               |
| DRB1*04:73+DRB1*13:104      | DRB1*04:105:01+DRB1*13:15     |                               |
| DRB1*04:73+DRB1*13:107      | DRB1*04:105:01+DRB1*13:83     |                               |
| DRB1*04:73+DRB1*13:128      | DRB1*04:105:01+DRB1*13:112    |                               |
| DRB1*04:73+DRB1*13:139      | DRB1*04:105:01+DRB1*13:93     |                               |
| DRB1*04:73+DRB1*14:03:01    | DRB1*04:105:01+DRB1*14:12:01  |                               |
| DRB1*04:73+DRB1*14:07:01    | DRB1*04:105:01+DRB1*14:01:01G |                               |
| DRB1*04:73+DRB1*14:09       | DRB1*04:105:01+DRB1*14:80     |                               |
| DRB1*04:73+DRB1*14:14       | DRB1*04:105:01+DRB1*14:23:01  |                               |
| DRB1*04:73+DRB1*14:44:01    | DRB1*04:105:01+DRB1*14:05:01  |                               |
| DRB1*04:73+DRB1*14:44:02    | DRB1*04:105:01+DRB1*14:05:03  |                               |
| DRB1*04:73+DRB1*14:63       | DRB1*04:105:01+DRB1*14:78     |                               |
| DRB1*04:73+DRB1*14:68       | DRB1*04:105:01+DRB1*14:04     |                               |
| DRB1*04:73+DRB1*15:02:01    | DRB1*04:105:01+DRB1*15:01:01G |                               |
| DRB1*04:73+DRB1*15:02:02    | DRB1*04:105:01+DRB1*15:01:04  | DRB1*04:105:02+DRB1*15:01:01G |
| DRB1*04:73+DRB1*15:02:04    | DRB1*04:105:01+DRB1*15:01:09  |                               |
| DRB1*04:73+DRB1*15:02:06    | DRB1*04:105:01+DRB1*15:01:03  |                               |
| DRB1*04:73+DRB1*15:02:08    | DRB1*04:105:01+DRB1*15:01:10  |                               |
| DRB1*04:73+DRB1*15:11       | DRB1*04:105:01+DRB1*15:07:01  |                               |
| DRB1*04:73+DRB1*15:15       | DRB1*04:105:01+DRB1*15:04     |                               |
| DRB1*04:73+DRB1*15:31       | DRB1*04:105:01+DRB1*15:05     |                               |
| DRB1*04:73+DRB1*15:38       | DRB1*04:105:02+DRB1*15:71     |                               |
| DRB1*04:73+DRB1*15:47       | DRB1*04:105:01+DRB1*15:65     |                               |
| DRB1*04:73+DRB1*16:01:01    | DRB1*04:105:01+DRB1*16:15     |                               |
| DRB1*04:74+DRB1*08:04:01    | DRB1*04:95+DRB1*08:02:02      |                               |
| DRB1*04:74+DRB1*08:04:04    | DRB1*04:95+DRB1*08:02:01      |                               |
| DRB1*04:74+DRB1*08:06       | DRB1*04:95+DRB1*08:01:05      |                               |
| DRB1*04:74+DRB1*08:10       | DRB1*04:95+DRB1*08:03:02      |                               |
| DRB1*04:74+DRB1*08:31       | DRB1*04:95+DRB1*08:41         |                               |
| DRB1*04:74+DRB1*09:06       | DRB1*04:95+DRB1*09:01:02      |                               |
| DRB1*04:74+DRB1*10:02       | DRB1*04:95+DRB1*10:01:01      |                               |
| DRB1*04:74+DRB1*11:03       | DRB1*04:95+DRB1*11:11:01G     |                               |
| DRB1*04:74+DRB1*11:04:03    | DRB1*04:95+DRB1*11:01:05      |                               |
| DRB1*04:74+DRB1*11:04:04    | DRB1*04:95+DRB1*11:01:12      |                               |
| DRB1*04:74+DRB1*11:04:05    | DRB1*04:95+DRB1*11:01:04      |                               |
| DRB1*04:74+DRB1*11:04:07    | DRB1*04:95+DRB1*11:01:03      |                               |
| DRB1*04:74+DRB1*11:07       | DRB1*04:95+DRB1*11:103        |                               |
| DRB1*04:74+DRB1*11:16       | DRB1*04:95+DRB1*11:20         |                               |
| DRB1*04:74+DRB1*11:18       | DRB1*04:95+DRB1*11:19:01      |                               |
| DRB1*04:74+DRB1*11:28:01    | DRB1*04:102+DRB1*11:27:01     |                               |
| DRB1*04:74+DRB1*11:34       | DRB1*04:95+DRB1*11:26         |                               |
| DRB1*04:74+DRB1*11:35       | DRB1*04:95+DRB1*11:33         |                               |
| DRB1*04:74+DRB1*11:36       | DRB1*04:95+DRB1*11:68         |                               |
| DRB1*04:74+DRB1*11:40       | DRB1*04:95+DRB1*11:122        |                               |

|                           |                            |                           |
|---------------------------|----------------------------|---------------------------|
| DRB1*04:74+DRB1*11:42     | DRB1*04:95+DRB1*11:08:01   |                           |
| DRB1*04:74+DRB1*11:43     | DRB1*04:95+DRB1*11:39      |                           |
| DRB1*04:74+DRB1*11:44     | DRB1*04:95+DRB1*11:49:01   |                           |
| DRB1*04:74+DRB1*11:46:02  | DRB1*04:95+DRB1*11:62      |                           |
| DRB1*04:74+DRB1*11:56     | DRB1*04:95+DRB1*11:37:01   |                           |
| DRB1*04:74+DRB1*11:58:01  | DRB1*04:95+DRB1*11:28:02   |                           |
| DRB1*04:74+DRB1*11:60     | DRB1*04:95+DRB1*11:109     |                           |
| DRB1*04:74+DRB1*11:84:01  | DRB1*04:95+DRB1*11:27:01   |                           |
| DRB1*04:74+DRB1*11:84:02  | DRB1*04:95+DRB1*11:27:02   |                           |
| DRB1*04:74+DRB1*11:113    | DRB1*04:95+DRB1*11:09      |                           |
| DRB1*04:74+DRB1*11:116    | DRB1*04:95+DRB1*11:120     |                           |
| DRB1*04:74+DRB1*11:119    | DRB1*04:95+DRB1*11:45      |                           |
| DRB1*04:74+DRB1*13:11:01  | DRB1*04:95+DRB1*13:14:01   |                           |
| DRB1*04:74+DRB1*13:11:02  | DRB1*04:95+DRB1*13:14:02   |                           |
| DRB1*04:74+DRB1*13:15     | DRB1*04:95+DRB1*13:104     |                           |
| DRB1*04:74+DRB1*13:20     | DRB1*04:95+DRB1*13:29      |                           |
| DRB1*04:74+DRB1*13:22     | DRB1*04:95+DRB1*13:23:02   |                           |
| DRB1*04:74+DRB1*13:27     | DRB1*04:95+DRB1*13:41      |                           |
| DRB1*04:74+DRB1*13:32     | DRB1*04:95+DRB1*13:65      |                           |
| DRB1*04:74+DRB1*13:40     | DRB1*04:95+DRB1*13:36      |                           |
| DRB1*04:74+DRB1*13:42     | DRB1*04:95+DRB1*13:05:01   |                           |
| DRB1*04:74+DRB1*13:52     | DRB1*04:95+DRB1*13:97:01   |                           |
| DRB1*04:74+DRB1*13:61:01  | DRB1*04:95+DRB1*13:96:02   |                           |
| DRB1*04:74+DRB1*13:61:02  | DRB1*04:95+DRB1*13:96:01   |                           |
| DRB1*04:74+DRB1*13:79     | DRB1*04:95+DRB1*13:39      |                           |
| DRB1*04:74+DRB1*13:83     | DRB1*04:95+DRB1*13:107     |                           |
| DRB1*04:74+DRB1*13:108    | DRB1*04:95+DRB1*13:49      |                           |
| DRB1*04:74+DRB1*13:110    | DRB1*04:97+DRB1*13:96:02   |                           |
| DRB1*04:74+DRB1*13:111    | DRB1*04:95+DRB1*13:63      |                           |
| DRB1*04:74+DRB1*13:112    | DRB1*04:95+DRB1*13:128     |                           |
| DRB1*04:74+DRB1*13:115    | DRB1*04:102+DRB1*13:33:03  |                           |
| DRB1*04:74+DRB1*14:01:01G | DRB1*04:95+DRB1*14:07:01   |                           |
| DRB1*04:74+DRB1*14:04     | DRB1*04:95+DRB1*14:68      |                           |
| DRB1*04:74+DRB1*14:05:01  | DRB1*04:95+DRB1*14:44:01   |                           |
| DRB1*04:74+DRB1*14:17     | DRB1*04:95+DRB1*14:30      |                           |
| DRB1*04:74+DRB1*14:23:01  | DRB1*04:95+DRB1*14:14      |                           |
| DRB1*04:74+DRB1*14:78     | DRB1*04:95+DRB1*14:63      |                           |
| DRB1*04:74+DRB1*14:80     | DRB1*04:95+DRB1*14:09      |                           |
| DRB1*04:74+DRB1*14:81     | DRB1*04:101+DRB1*14:47     |                           |
| DRB1*04:74+DRB1*14:106    | DRB1*04:95+DRB1*14:51      |                           |
| DRB1*04:74+DRB1*15:01:01G | DRB1*04:95+DRB1*15:02:01   |                           |
| DRB1*04:74+DRB1*15:01:03  | DRB1*04:95+DRB1*15:02:06   |                           |
| DRB1*04:74+DRB1*15:01:04  | DRB1*04:95+DRB1*15:02:02   |                           |
| DRB1*04:74+DRB1*15:01:09  | DRB1*04:95+DRB1*15:02:04   |                           |
| DRB1*04:74+DRB1*15:01:10  | DRB1*04:95+DRB1*15:02:08   |                           |
| DRB1*04:74+DRB1*15:04     | DRB1*04:95+DRB1*15:15      |                           |
| DRB1*04:74+DRB1*15:05     | DRB1*04:95+DRB1*15:31      |                           |
| DRB1*04:74+DRB1*15:07:01  | DRB1*04:95+DRB1*15:11      |                           |
| DRB1*04:74+DRB1*15:65     | DRB1*04:95+DRB1*15:47      |                           |
| DRB1*04:74+DRB1*15:66     | DRB1*04:95+DRB1*15:27      |                           |
| DRB1*04:74+DRB1*16:15     | DRB1*04:95+DRB1*16:01:01   |                           |
| DRB1*04:75+DRB1*11:98     | DRB1*04:105:02+DRB1*11:42  | DRB1*04:122+DRB1*11:19:01 |
| DRB1*04:75+DRB1*13:04     | DRB1*04:122+DRB1*13:66:01  |                           |
| DRB1*04:75+DRB1*13:38     | DRB1*04:105:02+DRB1*13:88  |                           |
| DRB1*04:75+DRB1*13:48     | DRB1*04:122+DRB1*13:03:02  |                           |
| DRB1*04:75+DRB1*13:53     | DRB1*04:122+DRB1*13:85     |                           |
| DRB1*04:77+DRB1*04:114    | DRB1*04:91+DRB1*04:113     |                           |
| DRB1*04:77+DRB1*11:25     | DRB1*04:103+DRB1*11:58:02  |                           |
| DRB1*04:77+DRB1*11:29     | DRB1*04:84+DRB1*11:28:01   |                           |
| DRB1*04:77+DRB1*11:108    | DRB1*04:87+DRB1*11:28:01   |                           |
| DRB1*04:77+DRB1*11:126    | DRB1*04:116+DRB1*11:28:01  |                           |
| DRB1*04:77+DRB1*14:19     | DRB1*04:113+DRB1*14:13     |                           |
| DRB1*04:77+DRB1*14:51     | DRB1*04:102+DRB1*14:13     |                           |
| DRB1*04:77+DRB1*15:64     | DRB1*04:116+DRB1*15:32     |                           |
| DRB1*04:77+DRB1*16:01:01  | DRB1*04:84+DRB1*16:08      |                           |
| DRB1*04:78+DRB1*08:02:01  | DRB1*04:101+DRB1*08:42     |                           |
| DRB1*04:78+DRB1*11:01:01G | DRB1*04:101+DRB1*11:29     |                           |
| DRB1*04:78+DRB1*11:03     | DRB1*04:101+DRB1*11:63     |                           |
| DRB1*04:78+DRB1*11:06:01G | DRB1*04:101+DRB1*11:47     |                           |
| DRB1*04:78+DRB1*14:111    | DRB1*04:114+DRB1*14:104    |                           |
| DRB1*04:80+DRB1*08:03:02  | DRB1*04:107+DRB1*08:01:05  |                           |
| DRB1*04:80+DRB1*08:03:03  | DRB1*04:107+DRB1*08:01:01G |                           |
| DRB1*04:80+DRB1*08:10     | DRB1*04:107+DRB1*08:06     |                           |
| DRB1*04:80+DRB1*08:30:01  | DRB1*04:107+DRB1*08:02:02  |                           |
| DRB1*04:80+DRB1*08:30:03  | DRB1*04:107+DRB1*08:02:01  |                           |
| DRB1*04:80+DRB1*11:02:01  | DRB1*04:107+DRB1*11:03     |                           |
| DRB1*04:80+DRB1*11:14:01  | DRB1*04:107+DRB1*11:11:01G |                           |
| DRB1*04:80+DRB1*11:16     | DRB1*04:107+DRB1*11:40     |                           |
| DRB1*04:80+DRB1*11:18     | DRB1*04:107+DRB1*11:04:01  |                           |
| DRB1*04:80+DRB1*11:19:01  | DRB1*04:107+DRB1*11:01:01G |                           |
| DRB1*04:80+DRB1*11:19:02  | DRB1*04:107+DRB1*11:01:03  |                           |
| DRB1*04:80+DRB1*11:19:03  | DRB1*04:107+DRB1*11:01:02  |                           |
| DRB1*04:80+DRB1*11:20     | DRB1*04:107+DRB1*11:122    |                           |
| DRB1*04:80+DRB1*11:31     | DRB1*04:107+DRB1*11:96     |                           |
| DRB1*04:80+DRB1*11:48     | DRB1*04:107+DRB1*11:41     |                           |
| DRB1*04:80+DRB1*11:64     | DRB1*04:103+DRB1*11:01:01G |                           |
| DRB1*04:80+DRB1*11:73     | DRB1*04:107+DRB1*11:93     |                           |
| DRB1*04:80+DRB1*11:82     | DRB1*04:107+DRB1*11:69     |                           |
| DRB1*04:80+DRB1*11:119    | DRB1*04:107+DRB1*11:25     |                           |
| DRB1*04:80+DRB1*11:127    | DRB1*04:107+DRB1*11:85     |                           |
| DRB1*04:80+DRB1*12:01:01G | DRB1*04:107+DRB1*12:02:01  |                           |
| DRB1*04:80+DRB1*12:01:03  | DRB1*04:107+DRB1*12:02:02  |                           |
| DRB1*04:80+DRB1*12:03:03  | DRB1*04:107+DRB1*12:19     |                           |
| DRB1*04:80+DRB1*12:05     | DRB1*04:107+DRB1*12:15     |                           |
| DRB1*04:80+DRB1*13:01:01G | DRB1*04:107+DRB1*13:111    |                           |
| DRB1*04:80+DRB1*13:02:01  | DRB1*04:107+DRB1*13:63     |                           |
| DRB1*04:80+DRB1*13:04     | DRB1*04:107+DRB1*13:75     |                           |
| DRB1*04:80+DRB1*13:06     | DRB1*04:107+DRB1*13:42     |                           |
| DRB1*04:80+DRB1*13:12:01  | DRB1*04:107+DRB1*13:49     |                           |
| DRB1*04:80+DRB1*13:22     | DRB1*04:107+DRB1*13:24     |                           |
| DRB1*04:80+DRB1*13:30     | DRB1*04:107+DRB1*13:21:01  |                           |
| DRB1*04:80+DRB1*13:53     | DRB1*04:106+DRB1*14:108    |                           |
| DRB1*04:80+DRB1*13:82     | DRB1*04:107+DRB1*13:14:01  |                           |
| DRB1*04:80+DRB1*13:119    | DRB1*04:103+DRB1*13:05:01  |                           |
| DRB1*04:80+DRB1*14:67     | DRB1*04:107+DRB1*14:27     |                           |



|                               |                              |
|-------------------------------|------------------------------|
| DRB1*04:80+DRB1*15:01:01G     | DRB1*04:107+DRB1*15:04       |
| DRB1*04:80+DRB1*15:02:01      | DRB1*04:107+DRB1*15:15       |
| DRB1*04:80+DRB1*16:05:01      | DRB1*04:107+DRB1*16:01:01    |
| DRB1*04:80+DRB1*16:18         | DRB1*04:103+DRB1*16:01:02    |
| DRB1*04:82+DRB1*08:03:02      | DRB1*04:86+DRB1*08:25        |
| DRB1*04:82+DRB1*13:09         | DRB1*04:105:02+DRB1*13:77    |
| DRB1*04:82+DRB1*13:93         | DRB1*04:106+DRB1*13:77       |
| DRB1*04:84+DRB1*11:54:01      | DRB1*04:91+DRB1*11:01:05     |
| DRB1*04:84+DRB1*11:55         | DRB1*04:103+DRB1*11:63       |
| DRB1*04:84+DRB1*11:108        | DRB1*04:87+DRB1*11:29        |
| DRB1*04:84+DRB1*11:126        | DRB1*04:116+DRB1*11:29       |
| DRB1*04:84+DRB1*14:33         | DRB1*04:91+DRB1*14:30        |
| DRB1*04:86+DRB1*11:14:01      | DRB1*04:106+DRB1*11:45       |
| DRB1*04:86+DRB1*11:68         | DRB1*04:106+DRB1*11:64       |
| DRB1*04:86+DRB1*13:29         | DRB1*04:106+DRB1*13:119      |
| DRB1*04:86+DRB1*14:21         | DRB1*04:103+DRB1*13:10       |
| DRB1*04:86+DRB1*14:24         | DRB1*04:105:02+DRB1*14:63    |
| DRB1*04:86+DRB1*14:30         | DRB1*04:107+DRB1*13:119      |
| DRB1*04:86+DRB1*14:41         | DRB1*04:107+DRB1*14:77       |
| DRB1*04:86+DRB1*14:47         | DRB1*04:107+DRB1*14:98       |
| DRB1*04:86+DRB1*15:10         | DRB1*04:106+DRB1*15:21       |
| DRB1*04:86+DRB1*15:34         | DRB1*04:107+DRB1*16:18       |
| DRB1*04:87+DRB1*11:126        | DRB1*04:116+DRB1*11:108      |
| DRB1*04:88+DRB1*11:02:01      | DRB1*04:100+DRB1*11:98       |
| DRB1*04:88+DRB1*11:73         | DRB1*04:100+DRB1*11:19:03    |
| DRB1*04:88+DRB1*11:79         | DRB1*04:100+DRB1*11:26       |
| DRB1*04:88+DRB1*11:93         | DRB1*04:100+DRB1*11:01:02    |
| DRB1*04:88+DRB1*13:03:01      | DRB1*04:100+DRB1*13:12:02    |
| DRB1*04:88+DRB1*13:03:02      | DRB1*04:100+DRB1*13:12:01    |
| DRB1*04:88+DRB1*13:10         | DRB1*04:100+DRB1*13:06       |
| DRB1*04:88+DRB1*13:66:01      | DRB1*04:100+DRB1*13:30       |
| DRB1*04:88+DRB1*13:81         | DRB1*04:100+DRB1*13:58       |
| DRB1*04:88+DRB1*13:114        | DRB1*04:93+DRB1*13:01:01G    |
| DRB1*04:88+DRB1*14:13         | DRB1*04:107+DRB1*14:106      |
| DRB1*04:88+DRB1*14:21         | DRB1*04:100+DRB1*14:17       |
| DRB1*04:88+DRB1*14:98         | DRB1*04:95+DRB1*14:67        |
| DRB1*04:91+DRB1*14:19         | DRB1*04:114+DRB1*14:13       |
| DRB1*04:95+DRB1*11:61         | DRB1*04:96+DRB1*11:27:01     |
| DRB1*04:95+DRB1*11:106        | DRB1*04:109+DRB1*11:27:01    |
| DRB1*04:95+DRB1*13:110        | DRB1*04:97+DRB1*13:61:01     |
| DRB1*04:96+DRB1*11:106        | DRB1*04:109+DRB1*11:61       |
| DRB1*04:98:02+DRB1*11:82      | DRB1*04:105:02+DRB1*11:105   |
| DRB1*04:102+DRB1*14:19        | DRB1*04:113+DRB1*14:51       |
| DRB1*04:102+DRB1*14:21        | DRB1*04:113+DRB1*14:33       |
| DRB1*04:104+DRB1*14:122       | DRB1*04:107+DRB1*14:112      |
| DRB1*04:105:01+DRB1*09:02:02  | DRB1*04:105:02+DRB1*09:02:01 |
| DRB1*04:105:01+DRB1*13:02:01  | DRB1*04:105:02+DRB1*13:02:03 |
| DRB1*04:105:01+DRB1*13:07:01  | DRB1*04:105:02+DRB1*13:07:02 |
| DRB1*04:105:01+DRB1*13:14:01  | DRB1*04:105:02+DRB1*13:14:02 |
| DRB1*04:105:01+DRB1*15:02:02  | DRB1*04:105:02+DRB1*15:02:01 |
| DRB1*04:105:01+DRB1*15:02:05  | DRB1*04:105:02+DRB1*15:02:09 |
| DRB1*04:105:01+DRB1*15:07:02  | DRB1*04:105:02+DRB1*15:07:01 |
| DRB1*04:105:02+DRB1*13:20     | DRB1*04:122+DRB1*13:02:01    |
| DRB1*04:105:02+DRB1*13:71     | DRB1*04:122+DRB1*13:41       |
| DRB1*04:105:02+DRB1*13:78     | DRB1*04:122+DRB1*13:39       |
| DRB1*04:105:02+DRB1*13:93     | DRB1*04:106+DRB1*13:09       |
| DRB1*04:105:02+DRB1*15:05     | DRB1*04:122+DRB1*15:02:01    |
| DRB1*07:01:01G+DRB1*08:16     | DRB1*07:08+DRB1*08:01:01G    |
| DRB1*07:01:01G+DRB1*09:05     | DRB1*07:11+DRB1*09:01:02     |
| DRB1*07:01:01G+DRB1*11:24     | DRB1*07:08+DRB1*11:01:01G    |
| DRB1*07:01:01G+DRB1*11:86     | DRB1*07:20+DRB1*11:14:01     |
| DRB1*07:01:01G+DRB1*11:110    | DRB1*07:12+DRB1*11:01:01G    |
| DRB1*07:01:01G+DRB1*12:02:03  | DRB1*07:01:04+DRB1*12:02:01  |
| DRB1*07:01:01G+DRB1*13:02:06  | DRB1*07:01:04+DRB1*13:02:01  |
| DRB1*07:01:01G+DRB1*13:16     | DRB1*07:20+DRB1*13:02:01     |
| DRB1*07:01:01G+DRB1*13:51     | DRB1*07:19+DRB1*13:01:01G    |
| DRB1*07:01:01G+DRB1*13:68     | DRB1*07:08+DRB1*13:52        |
| DRB1*07:01:01G+DRB1*13:110    | DRB1*07:17+DRB1*13:01:01G    |
| DRB1*07:01:01G+DRB1*14:01:01G | DRB1*07:09+DRB1*14:70        |
| DRB1*07:01:01G+DRB1*14:06:01  | DRB1*07:09+DRB1*14:121       |
| DRB1*07:01:01G+DRB1*14:62     | DRB1*07:12+DRB1*14:01:01G    |
| DRB1*07:01:01G+DRB1*14:112    | DRB1*07:16+DRB1*14:01:01G    |
| DRB1*07:01:01G+DRB1*15:01:01G | DRB1*07:09+DRB1*15:03:01G    |
| DRB1*07:01:01G+DRB1*15:01:09  | DRB1*07:01:04+DRB1*15:01:01G |
| DRB1*07:01:01G+DRB1*15:01:13  | DRB1*07:01:03+DRB1*15:01:01G |
| DRB1*07:01:01G+DRB1*15:02:04  | DRB1*07:01:04+DRB1*15:02:01  |
| DRB1*07:01:01G+DRB1*15:03:02  | DRB1*07:01:03+DRB1*15:03:01G |
| DRB1*07:01:01G+DRB1*15:05     | DRB1*07:09+DRB1*15:23        |
| DRB1*07:01:01G+DRB1*15:22     | DRB1*07:13+DRB1*15:01:01G    |
| DRB1*07:01:01G+DRB1*15:66     | DRB1*07:09+DRB1*15:54        |
| DRB1*07:01:01G+DRB1*16:02:01  | DRB1*07:22+DRB1*16:12        |
| DRB1*07:01:03+DRB1*15:01:09   | DRB1*07:01:04+DRB1*15:01:13  |
| DRB1*07:01:03+DRB1*15:22      | DRB1*07:13+DRB1*15:01:13     |
| DRB1*07:01:04+DRB1*13:16      | DRB1*07:20+DRB1*13:02:06     |
| DRB1*07:01:04+DRB1*15:22      | DRB1*07:13+DRB1*15:01:09     |
| DRB1*07:04+DRB1*11:01:01G     | DRB1*07:11+DRB1*11:27:01     |
| DRB1*07:04+DRB1*11:02:01      | DRB1*07:11+DRB1*11:124       |
| DRB1*07:04+DRB1*11:04:01      | DRB1*07:11+DRB1*11:84:01     |
| DRB1*07:04+DRB1*13:01:01G     | DRB1*07:11+DRB1*13:61:01     |
| DRB1*07:04+DRB1*13:02:01      | DRB1*07:11+DRB1*13:96:02     |
| DRB1*07:04+DRB1*13:03:01      | DRB1*07:11+DRB1*13:33:03     |
| DRB1*07:04+DRB1*13:03:02      | DRB1*07:11+DRB1*13:33:02     |
| DRB1*07:04+DRB1*14:01:02      | DRB1*07:11+DRB1*14:38        |
| DRB1*07:04+DRB1*14:02         | DRB1*07:11+DRB1*14:47        |
| DRB1*07:04+DRB1*14:03:01      | DRB1*07:11+DRB1*14:98        |
| DRB1*07:04+DRB1*14:05:03      | DRB1*07:11+DRB1*14:127       |
| DRB1*07:04+DRB1*15:03:01G     | DRB1*07:11+DRB1*15:57        |
| DRB1*07:08+DRB1*11:110        | DRB1*07:12+DRB1*11:24        |
| DRB1*07:12+DRB1*14:112        | DRB1*07:16+DRB1*14:62        |
| DRB1*07:17+DRB1*13:51         | DRB1*07:19+DRB1*13:110       |
| DRB1*08:01:01G+DRB1*08:02:02  | DRB1*08:01:05+DRB1*08:02:01  |
| DRB1*08:01:01G+DRB1*08:03:02  | DRB1*08:01:05+DRB1*08:03:03  |
| DRB1*08:01:01G+DRB1*08:04:01  | DRB1*08:01:05+DRB1*08:04:04  |
| DRB1*08:01:01G+DRB1*08:04:02  | DRB1*08:01:05+DRB1*08:04:03  |
| DRB1*08:01:01G+DRB1*08:10     | DRB1*08:03:03+DRB1*08:06     |

DRB1\*07:22+DRB1\*15:28

DRB1\*07:09+DRB1\*15:03:02

DRB1\*08:02:01+DRB1\*08:06

|                               |                              |                              |                              |
|-------------------------------|------------------------------|------------------------------|------------------------------|
| DRB1*08:01:01G+DRB1*08:12     | DRB1*08:03:02+DRB1*08:22     |                              |                              |
| DRB1*08:01:01G+DRB1*08:13     | DRB1*08:02:01+DRB1*08:48     |                              |                              |
| DRB1*08:01:01G+DRB1*08:18     | DRB1*08:03:02+DRB1*08:05     |                              |                              |
| DRB1*08:01:01G+DRB1*08:20     | DRB1*08:04:01+DRB1*13:55     | DRB1*08:06+DRB1*13:47        |                              |
| DRB1*08:01:01G+DRB1*08:24     | DRB1*08:02:02+DRB1*08:05     |                              |                              |
| DRB1*08:01:01G+DRB1*08:28     | DRB1*08:04:01+DRB1*08:17     |                              |                              |
| DRB1*08:01:01G+DRB1*08:30:01  | DRB1*08:01:05+DRB1*08:30:03  | DRB1*08:02:01+DRB1*08:03:02  | DRB1*08:02:02+DRB1*08:03:03  |
| DRB1*08:01:01G+DRB1*08:30:03  | DRB1*08:02:01+DRB1*08:03:03  |                              |                              |
| DRB1*08:01:01G+DRB1*08:37     | DRB1*08:03:02+DRB1*08:17     |                              |                              |
| DRB1*08:01:01G+DRB1*08:45     | DRB1*08:17+DRB1*08:30:03     |                              |                              |
| DRB1*08:01:01G+DRB1*09:04     | DRB1*08:48+DRB1*09:01:02     |                              |                              |
| DRB1*08:01:01G+DRB1*11:01:01G | DRB1*08:01:05+DRB1*11:01:02  | DRB1*08:17+DRB1*11:37:01     |                              |
| DRB1*08:01:01G+DRB1*11:01:02  | DRB1*08:05+DRB1*11:23        | DRB1*08:17+DRB1*11:37:02     |                              |
| DRB1*08:01:01G+DRB1*11:01:03  | DRB1*08:01:05+DRB1*11:01:11  |                              |                              |
| DRB1*08:01:01G+DRB1*11:01:04  | DRB1*08:01:04+DRB1*11:01:01G |                              |                              |
| DRB1*08:01:01G+DRB1*11:02:01  | DRB1*08:03:03+DRB1*11:03     | DRB1*08:06+DRB1*11:14:02     | DRB1*08:17+DRB1*11:48        |
|                               | DRB1*11:67+DRB1*13:38        |                              |                              |
| DRB1*08:01:01G+DRB1*11:03     | DRB1*08:05+DRB1*11:55        | DRB1*08:17+DRB1*11:41        |                              |
| DRB1*08:01:01G+DRB1*11:04:01  | DRB1*08:01:05+DRB1*11:04:02  | DRB1*08:05+DRB1*11:25        | DRB1*08:06+DRB1*11:01:02     |
|                               | DRB1*08:17+DRB1*11:56        |                              |                              |
| DRB1*08:01:01G+DRB1*11:04:05  | DRB1*08:01:04+DRB1*11:04:01  |                              |                              |
| DRB1*08:01:01G+DRB1*11:04:07  | DRB1*08:06+DRB1*11:01:11     |                              |                              |
| DRB1*08:01:01G+DRB1*11:06:01G | DRB1*08:22+DRB1*11:01:01G    |                              |                              |
| DRB1*08:01:01G+DRB1*11:06:02  | DRB1*08:22+DRB1*11:01:05     |                              |                              |
| DRB1*08:01:01G+DRB1*11:06:03  | DRB1*08:01:04+DRB1*11:06:01G | DRB1*08:22+DRB1*11:01:04     |                              |
| DRB1*08:01:01G+DRB1*11:08:01  | DRB1*08:01:05+DRB1*11:08:02  | DRB1*08:05+DRB1*11:64        | DRB1*08:48+DRB1*11:01:01G    |
| DRB1*08:01:01G+DRB1*11:08:02  | DRB1*08:48+DRB1*11:01:02     |                              |                              |
| DRB1*08:01:01G+DRB1*11:10:02  | DRB1*08:01:05+DRB1*11:10:01  |                              |                              |
| DRB1*08:01:01G+DRB1*11:14:01  | DRB1*08:01:05+DRB1*11:14:02  | DRB1*08:03:03+DRB1*11:11:01G |                              |
| DRB1*08:01:01G+DRB1*11:16     | DRB1*08:03:03+DRB1*11:40     |                              |                              |
| DRB1*08:01:01G+DRB1*11:17     | DRB1*13:55+DRB1*14:11        |                              |                              |
| DRB1*08:01:01G+DRB1*11:18     | DRB1*08:03:02+DRB1*11:04:02  | DRB1*08:03:03+DRB1*11:04:01  | DRB1*08:05+DRB1*11:119       |
|                               | DRB1*08:06+DRB1*11:19:03     | DRB1*08:10+DRB1*11:01:02     | DRB1*11:67+DRB1*13:12:02     |
| DRB1*08:01:01G+DRB1*11:19:01  | DRB1*08:01:05+DRB1*11:19:03  | DRB1*08:03:02+DRB1*11:01:02  | DRB1*08:03:03+DRB1*11:01:01G |
|                               | DRB1*08:05+DRB1*11:45        | DRB1*08:18+DRB1*11:23        | DRB1*08:37+DRB1*11:37:02     |
| DRB1*08:01:01G+DRB1*11:19:02  | DRB1*08:03:02+DRB1*11:01:11  | DRB1*08:03:03+DRB1*11:01:03  |                              |
| DRB1*08:01:01G+DRB1*11:19:03  | DRB1*08:03:03+DRB1*11:01:02  |                              |                              |
| DRB1*08:01:01G+DRB1*11:20     | DRB1*08:03:03+DRB1*11:122    |                              |                              |
| DRB1*08:01:01G+DRB1*11:21     | DRB1*08:22+DRB1*11:14:01     |                              |                              |
| DRB1*08:01:01G+DRB1*11:24     | DRB1*08:16+DRB1*11:01:01G    |                              |                              |
| DRB1*08:01:01G+DRB1*11:25     | DRB1*08:06+DRB1*11:23        | DRB1*11:67+DRB1*13:55        |                              |
| DRB1*08:01:01G+DRB1*11:27:02  | DRB1*08:01:05+DRB1*11:27:03  |                              |                              |
| DRB1*08:01:01G+DRB1*11:31     | DRB1*08:03:03+DRB1*11:96     |                              |                              |
| DRB1*08:01:01G+DRB1*11:36     | DRB1*08:48+DRB1*11:03        |                              |                              |
| DRB1*08:01:01G+DRB1*11:37:01  | DRB1*08:01:05+DRB1*11:37:02  | DRB1*08:41+DRB1*13:55        |                              |
| DRB1*08:01:01G+DRB1*11:42     | DRB1*08:06+DRB1*11:08:02     | DRB1*08:48+DRB1*11:04:01     |                              |
| DRB1*08:01:01G+DRB1*11:44     | DRB1*08:06+DRB1*11:49:02     |                              |                              |
| DRB1*08:01:01G+DRB1*11:45     | DRB1*08:03:02+DRB1*11:23     |                              |                              |
| DRB1*08:01:01G+DRB1*11:47     | DRB1*08:22+DRB1*11:29        |                              |                              |
| DRB1*08:01:01G+DRB1*11:48     | DRB1*08:03:03+DRB1*11:41     |                              |                              |
| DRB1*08:01:01G+DRB1*11:49:01  | DRB1*08:01:05+DRB1*11:49:02  |                              |                              |
| DRB1*08:01:01G+DRB1*11:56     | DRB1*08:06+DRB1*11:37:02     | DRB1*08:31+DRB1*13:55        |                              |
| DRB1*08:01:01G+DRB1*11:57     | DRB1*08:22+DRB1*11:08:01     | DRB1*08:48+DRB1*11:06:01G    |                              |
| DRB1*08:01:01G+DRB1*11:68     | DRB1*08:48+DRB1*11:11:01G    |                              |                              |
| DRB1*08:01:01G+DRB1*11:73     | DRB1*08:03:03+DRB1*11:93     | DRB1*08:40+DRB1*11:23        |                              |
| DRB1*08:01:01G+DRB1*11:74:01  | DRB1*08:01:05+DRB1*11:74:02  |                              |                              |
| DRB1*08:01:01G+DRB1*11:82     | DRB1*08:03:03+DRB1*11:69     |                              |                              |
| DRB1*08:01:01G+DRB1*11:84:02  | DRB1*08:06+DRB1*11:27:03     |                              |                              |
| DRB1*08:01:01G+DRB1*11:92     | DRB1*08:06+DRB1*11:72        |                              |                              |
| DRB1*08:01:01G+DRB1*11:102:02 | DRB1*08:01:04+DRB1*11:102:01 |                              |                              |
| DRB1*08:01:01G+DRB1*11:103    | DRB1*08:17+DRB1*11:107       | DRB1*08:48+DRB1*11:125       |                              |
| DRB1*08:01:01G+DRB1*11:119    | DRB1*08:03:03+DRB1*11:25     | DRB1*08:10+DRB1*11:23        |                              |
| DRB1*08:01:01G+DRB1*11:127    | DRB1*08:03:03+DRB1*11:85     |                              |                              |
| DRB1*08:01:01G+DRB1*12:01:01G | DRB1*08:03:03+DRB1*12:02:01  |                              |                              |
| DRB1*08:01:01G+DRB1*12:01:03  | DRB1*08:03:03+DRB1*12:02:02  |                              |                              |
| DRB1*08:01:01G+DRB1*12:02:01  | DRB1*08:17+DRB1*12:21        |                              |                              |
| DRB1*08:01:01G+DRB1*12:03:03  | DRB1*08:03:03+DRB1*12:19     |                              |                              |
| DRB1*08:01:01G+DRB1*12:05     | DRB1*08:03:03+DRB1*12:15     |                              |                              |
| DRB1*08:01:01G+DRB1*12:12     | DRB1*08:48+DRB1*12:02:01     |                              |                              |
| DRB1*08:01:01G+DRB1*12:13     | DRB1*08:26+DRB1*12:02:01     |                              |                              |
| DRB1*08:01:01G+DRB1*13:01:01G | DRB1*08:01:05+DRB1*13:01:08  | DRB1*08:02:01+DRB1*13:93     | DRB1*08:03:03+DRB1*13:111    |
|                               | DRB1*08:04:04+DRB1*13:139    | DRB1*08:17+DRB1*13:40        |                              |
| DRB1*08:01:01G+DRB1*13:01:03  | DRB1*08:02:04+DRB1*13:93     |                              |                              |
| DRB1*08:01:01G+DRB1*13:02:01  | DRB1*08:02:01+DRB1*13:139    | DRB1*08:03:03+DRB1*13:63     | DRB1*08:17+DRB1*13:36        |
| DRB1*08:01:01G+DRB1*13:03:01  | DRB1*08:40+DRB1*13:55        |                              |                              |
| DRB1*08:01:01G+DRB1*13:03:02  | DRB1*08:01:05+DRB1*13:03:01  |                              |                              |
| DRB1*08:01:01G+DRB1*13:04     | DRB1*08:03:03+DRB1*13:75     | DRB1*08:17+DRB1*13:48        |                              |
| DRB1*08:01:01G+DRB1*13:05:01  | DRB1*08:01:05+DRB1*13:05:02  |                              |                              |
| DRB1*08:01:01G+DRB1*13:06     | DRB1*08:03:03+DRB1*13:42     | DRB1*08:10+DRB1*13:05:02     |                              |
| DRB1*08:01:01G+DRB1*13:07:01  | DRB1*08:02:01+DRB1*13:49     | DRB1*08:24+DRB1*13:55        |                              |
| DRB1*08:01:01G+DRB1*13:08     | DRB1*08:09+DRB1*13:48        | DRB1*13:38+DRB1*14:15        |                              |
| DRB1*08:01:01G+DRB1*13:10     | DRB1*08:28+DRB1*13:120       | DRB1*08:40+DRB1*13:18        |                              |
| DRB1*08:01:01G+DRB1*13:11:01  | DRB1*08:04:01+DRB1*13:21:02  | DRB1*08:04:04+DRB1*13:21:01  | DRB1*08:06+DRB1*13:14:03     |
| DRB1*08:01:01G+DRB1*13:11:02  | DRB1*08:04:06+DRB1*13:21:02  |                              |                              |
| DRB1*08:01:01G+DRB1*13:12:01  | DRB1*08:01:05+DRB1*13:12:02  | DRB1*08:03:03+DRB1*13:49     | DRB1*08:05+DRB1*13:13        |
|                               | DRB1*08:18+DRB1*13:55        |                              |                              |
| DRB1*08:01:01G+DRB1*13:13     | DRB1*08:03:02+DRB1*13:55     |                              |                              |
| DRB1*08:01:01G+DRB1*13:14:01  | DRB1*08:01:05+DRB1*13:14:03  | DRB1*08:02:01+DRB1*13:21:01  | DRB1*08:02:02+DRB1*13:21:02  |
|                               | DRB1*08:17+DRB1*13:07:01     |                              |                              |
| DRB1*08:01:01G+DRB1*13:14:02  | DRB1*08:17+DRB1*13:07:02     |                              |                              |
| DRB1*08:01:01G+DRB1*13:14:03  | DRB1*08:02:01+DRB1*13:21:02  |                              |                              |
| DRB1*08:01:01G+DRB1*13:15     | DRB1*08:17+DRB1*13:53        |                              |                              |
| DRB1*08:01:01G+DRB1*13:17     | DRB1*08:17+DRB1*13:116       |                              |                              |
| DRB1*08:01:01G+DRB1*13:20     | DRB1*08:48+DRB1*13:111       |                              |                              |
| DRB1*08:01:01G+DRB1*13:21:01  | DRB1*08:01:05+DRB1*13:21:02  | DRB1*08:17+DRB1*13:49        |                              |
| DRB1*08:01:01G+DRB1*13:22     | DRB1*08:02:01+DRB1*13:04     | DRB1*08:03:03+DRB1*13:24     | DRB1*08:06+DRB1*13:23:01     |
|                               | DRB1*08:17+DRB1*13:70        | DRB1*08:28+DRB1*13:38        | DRB1*08:30:03+DRB1*13:75     |
|                               | DRB1*13:17+DRB1*13:55        |                              |                              |
| DRB1*08:01:01G+DRB1*13:23:02  | DRB1*08:01:05+DRB1*13:23:01  |                              |                              |
| DRB1*08:01:01G+DRB1*13:24     | DRB1*08:02:01+DRB1*13:75     |                              |                              |
| DRB1*08:01:01G+DRB1*13:25     | DRB1*08:13+DRB1*13:21:01     | DRB1*08:48+DRB1*13:14:01     |                              |
| DRB1*08:01:01G+DRB1*13:26:02  | DRB1*08:05+DRB1*14:27        |                              |                              |
| DRB1*08:01:01G+DRB1*13:29     | DRB1*08:48+DRB1*13:63        |                              |                              |
| DRB1*08:01:01G+DRB1*13:30     | DRB1*08:03:02+DRB1*13:21:02  | DRB1*08:03:03+DRB1*13:21:01  | DRB1*08:17+DRB1*13:12:01     |
| DRB1*08:01:01G+DRB1*13:33:02  | DRB1*08:01:05+DRB1*13:33:03  |                              |                              |

|                               |                              |                             |                             |
|-------------------------------|------------------------------|-----------------------------|-----------------------------|
| DRB1*08:01:01G+DRB1*13:36     | DRB1*08:02:01+DRB1*13:65     |                             |                             |
| DRB1*08:01:01G+DRB1*13:37     | DRB1*08:02:01+DRB1*13:03:01  | DRB1*08:40+DRB1*13:47       |                             |
| DRB1*08:01:01G+DRB1*13:40     | DRB1*08:02:01+DRB1*13:32     | DRB1*08:04:04+DRB1*13:65    |                             |
| DRB1*08:01:01G+DRB1*13:42     | DRB1*08:05+DRB1*13:18        | DRB1*08:06+DRB1*13:05:02    |                             |
| DRB1*08:01:01G+DRB1*13:47     | DRB1*08:02:01+DRB1*13:55     |                             |                             |
| DRB1*08:01:01G+DRB1*13:48     | DRB1*08:06+DRB1*13:38        |                             |                             |
| DRB1*08:01:01G+DRB1*13:56     | DRB1*08:05+DRB1*13:119       | DRB1*08:48+DRB1*13:05:01    |                             |
| DRB1*08:01:01G+DRB1*13:57     | DRB1*08:17+DRB1*13:19        |                             |                             |
| DRB1*08:01:01G+DRB1*13:58     | DRB1*08:22+DRB1*13:12:01     |                             |                             |
| DRB1*08:01:01G+DRB1*13:66:01  | DRB1*08:01:05+DRB1*13:66:02  | DRB1*08:17+DRB1*13:03:02    |                             |
| DRB1*08:01:01G+DRB1*13:66:02  | DRB1*08:17+DRB1*13:03:01     |                             |                             |
| DRB1*08:01:01G+DRB1*13:68     | DRB1*08:16+DRB1*13:52        |                             |                             |
| DRB1*08:01:01G+DRB1*13:70     | DRB1*08:02:01+DRB1*13:48     | DRB1*08:04:01+DRB1*13:38    | DRB1*13:55+DRB1*13:116      |
| DRB1*08:01:01G+DRB1*13:73     | DRB1*08:26+DRB1*13:02:01     |                             |                             |
| DRB1*08:01:01G+DRB1*13:81     | DRB1*08:22+DRB1*13:03:02     |                             |                             |
| DRB1*08:01:01G+DRB1*13:82     | DRB1*08:02:01+DRB1*13:30     | DRB1*08:03:02+DRB1*13:14:03 | DRB1*08:03:03+DRB1*13:14:01 |
|                               | DRB1*08:30:01+DRB1*13:21:02  | DRB1*08:30:03+DRB1*13:21:01 | DRB1*08:45+DRB1*13:49       |
| DRB1*08:01:01G+DRB1*13:83     | DRB1*08:09+DRB1*13:04        | DRB1*08:17+DRB1*13:08       |                             |
| DRB1*08:01:01G+DRB1*13:85     | DRB1*08:40+DRB1*14:27        |                             |                             |
| DRB1*08:01:01G+DRB1*13:93     | DRB1*08:17+DRB1*13:32        |                             |                             |
| DRB1*08:01:01G+DRB1*13:94     | DRB1*08:06+DRB1*13:33:01     |                             |                             |
| DRB1*08:01:01G+DRB1*13:134    | DRB1*08:48+DRB1*13:49        |                             |                             |
| DRB1*08:01:01G+DRB1*13:139    | DRB1*08:17+DRB1*13:65        |                             |                             |
| DRB1*08:01:01G+DRB1*14:01:01G | DRB1*08:06+DRB1*14:07:02     | DRB1*13:55+DRB1*14:04       |                             |
| DRB1*08:01:01G+DRB1*14:02     | DRB1*08:02:01+DRB1*14:13     | DRB1*08:05+DRB1*14:89       |                             |
| DRB1*08:01:01G+DRB1*14:03:01  | DRB1*08:02:01+DRB1*14:85     | DRB1*08:48+DRB1*14:27       |                             |
| DRB1*08:01:01G+DRB1*14:05:01  | DRB1*08:06+DRB1*14:44:03     |                             |                             |
| DRB1*08:01:01G+DRB1*14:06:01  | DRB1*08:01:05+DRB1*14:06:02  | DRB1*08:04:04+DRB1*14:13    | DRB1*08:48+DRB1*14:108      |
|                               | DRB1*13:55+DRB1*14:52        |                             |                             |
| DRB1*08:01:01G+DRB1*14:07:01  | DRB1*08:01:05+DRB1*14:07:02  | DRB1*13:55+DRB1*14:68       |                             |
| DRB1*08:01:01G+DRB1*14:12:01  | DRB1*08:04:04+DRB1*14:85     |                             |                             |
| DRB1*08:01:01G+DRB1*14:15     | DRB1*08:06+DRB1*08:09        |                             |                             |
| DRB1*08:01:01G+DRB1*14:17     | DRB1*08:17+DRB1*14:80        |                             |                             |
| DRB1*08:01:01G+DRB1*14:23:01  | DRB1*13:55+DRB1*14:126       |                             |                             |
| DRB1*08:01:01G+DRB1*14:25     | DRB1*08:08+DRB1*13:49        |                             |                             |
| DRB1*08:01:01G+DRB1*14:28     | DRB1*08:22+DRB1*14:68        |                             |                             |
| DRB1*08:01:01G+DRB1*14:29     | DRB1*08:22+DRB1*14:02        |                             |                             |
| DRB1*08:01:01G+DRB1*14:30     | DRB1*08:17+DRB1*14:09        |                             |                             |
| DRB1*08:01:01G+DRB1*14:32:02  | DRB1*08:05+DRB1*14:55        | DRB1*13:55+DRB1*14:31       |                             |
| DRB1*08:01:01G+DRB1*14:35     | DRB1*08:17+DRB1*14:01:01G    |                             |                             |
| DRB1*08:01:01G+DRB1*14:38     | DRB1*13:55+DRB1*14:50        |                             |                             |
| DRB1*08:01:01G+DRB1*14:44:01  | DRB1*08:01:05+DRB1*14:44:03  |                             |                             |
| DRB1*08:01:01G+DRB1*14:53     | DRB1*08:08+DRB1*13:21:01     | DRB1*08:17+DRB1*14:25       |                             |
| DRB1*08:01:01G+DRB1*14:67     | DRB1*08:02:01+DRB1*14:63     | DRB1*08:03:03+DRB1*14:27    |                             |
| DRB1*08:01:01G+DRB1*14:69     | DRB1*08:08+DRB1*13:134       | DRB1*08:48+DRB1*14:25       |                             |
| DRB1*08:01:01G+DRB1*14:99     | DRB1*08:22+DRB1*14:07:01     | DRB1*13:55+DRB1*14:28       |                             |
| DRB1*08:01:01G+DRB1*14:111    | DRB1*13:55+DRB1*14:107       |                             |                             |
| DRB1*08:01:01G+DRB1*14:122    | DRB1*13:55+DRB1*14:120       |                             |                             |
| DRB1*08:01:01G+DRB1*15:01:01G | DRB1*08:03:03+DRB1*15:04     | DRB1*08:06+DRB1*15:02:09    | DRB1*08:17+DRB1*15:07:01    |
| DRB1*08:01:01G+DRB1*15:01:04  | DRB1*08:02:01+DRB1*15:12     | DRB1*08:06+DRB1*15:02:05    | DRB1*08:17+DRB1*15:07:02    |
| DRB1*08:01:01G+DRB1*15:01:19  | DRB1*08:01:04+DRB1*15:01:01G |                             |                             |
| DRB1*08:01:01G+DRB1*15:02:01  | DRB1*08:01:05+DRB1*15:02:09  | DRB1*08:03:03+DRB1*15:15    | DRB1*08:17+DRB1*15:11       |
| DRB1*08:01:01G+DRB1*15:02:02  | DRB1*08:01:05+DRB1*15:02:05  |                             |                             |
| DRB1*08:01:01G+DRB1*15:05     | DRB1*08:48+DRB1*15:04        |                             |                             |
| DRB1*08:01:01G+DRB1*15:09     | DRB1*08:17+DRB1*15:48        |                             |                             |
| DRB1*08:01:01G+DRB1*15:27     | DRB1*08:17+DRB1*15:34        |                             |                             |
| DRB1*08:01:01G+DRB1*15:31     | DRB1*08:48+DRB1*15:15        |                             |                             |
| DRB1*08:01:01G+DRB1*15:35     | DRB1*08:22+DRB1*15:02:01     |                             |                             |
| DRB1*08:01:01G+DRB1*16:02:01  | DRB1*08:48+DRB1*16:01:01     |                             |                             |
| DRB1*08:01:01G+DRB1*16:02:02  | DRB1*08:05+DRB1*16:18        | DRB1*08:48+DRB1*16:01:02    |                             |
| DRB1*08:01:01G+DRB1*16:05:01  | DRB1*08:03:03+DRB1*16:01:01  |                             |                             |
| DRB1*08:01:01G+DRB1*16:09     | DRB1*08:17+DRB1*16:01:01     |                             |                             |
| DRB1*08:01:01G+DRB1*16:10     | DRB1*08:17+DRB1*16:02:01     | DRB1*08:48+DRB1*16:09       |                             |
| DRB1*08:01:04+DRB1*11:08:01   | DRB1*08:48+DRB1*11:01:04     |                             |                             |
| DRB1*08:01:04+DRB1*11:18      | DRB1*08:03:03+DRB1*11:04:05  |                             |                             |
| DRB1*08:01:04+DRB1*11:19:01   | DRB1*08:03:03+DRB1*11:01:04  |                             |                             |
| DRB1*08:01:04+DRB1*11:24      | DRB1*08:16+DRB1*11:01:04     |                             |                             |
| DRB1*08:01:04+DRB1*11:42      | DRB1*08:48+DRB1*11:04:05     |                             |                             |
| DRB1*08:01:04+DRB1*11:57      | DRB1*08:48+DRB1*11:06:03     |                             |                             |
| DRB1*08:01:05+DRB1*08:04:01   | DRB1*08:02:02+DRB1*08:06     |                             |                             |
| DRB1*08:01:05+DRB1*08:10      | DRB1*08:03:02+DRB1*08:06     |                             |                             |
| DRB1*08:01:05+DRB1*08:13      | DRB1*08:02:02+DRB1*08:48     |                             |                             |
| DRB1*08:01:05+DRB1*08:30:01   | DRB1*08:02:02+DRB1*08:03:02  |                             |                             |
| DRB1*08:01:05+DRB1*08:31      | DRB1*08:06+DRB1*08:41        |                             |                             |
| DRB1*08:01:05+DRB1*08:45      | DRB1*08:02:01+DRB1*08:37     | DRB1*08:17+DRB1*08:30:01    |                             |
| DRB1*08:01:05+DRB1*09:06      | DRB1*08:06+DRB1*09:01:02     |                             |                             |
| DRB1*08:01:05+DRB1*10:02      | DRB1*08:06+DRB1*10:01:01     |                             |                             |
| DRB1*08:01:05+DRB1*11:02:01   | DRB1*08:03:02+DRB1*11:03     | DRB1*08:06+DRB1*11:14:01    | DRB1*08:10+DRB1*11:11:01G   |
|                               | DRB1*08:18+DRB1*11:55        | DRB1*08:37+DRB1*11:41       |                             |
| DRB1*08:01:05+DRB1*11:03      | DRB1*08:06+DRB1*11:11:01G    |                             |                             |
| DRB1*08:01:05+DRB1*11:04:01   | DRB1*08:06+DRB1*11:01:01G    | DRB1*11:67+DRB1*13:49       |                             |
| DRB1*08:01:05+DRB1*11:04:03   | DRB1*08:06+DRB1*11:01:05     |                             |                             |
| DRB1*08:01:05+DRB1*11:04:04   | DRB1*08:06+DRB1*11:01:12     |                             |                             |
| DRB1*08:01:05+DRB1*11:04:05   | DRB1*08:06+DRB1*11:01:04     |                             |                             |
| DRB1*08:01:05+DRB1*11:04:07   | DRB1*08:06+DRB1*11:01:03     |                             |                             |
| DRB1*08:01:05+DRB1*11:07      | DRB1*08:06+DRB1*11:103       |                             |                             |
| DRB1*08:01:05+DRB1*11:14:01   | DRB1*08:03:02+DRB1*11:11:01G |                             |                             |
| DRB1*08:01:05+DRB1*11:16      | DRB1*08:03:02+DRB1*11:14:0   | DRB1*08:06+DRB1*11:20       | DRB1*08:10+DRB1*11:122      |
|                               | DRB1*11:67+DRB1*13:65        |                             |                             |
| DRB1*08:01:05+DRB1*11:18      | DRB1*08:03:02+DRB1*11:04:01  | DRB1*08:06+DRB1*11:19:01    | DRB1*08:10+DRB1*11:01:01G   |
|                               | DRB1*08:18+DRB1*11:25        | DRB1*08:37+DRB1*11:56       | DRB1*11:67+DRB1*13:12:01    |
| DRB1*08:01:05+DRB1*11:19:01   | DRB1*08:03:02+DRB1*11:01:01G | DRB1*08:37+DRB1*11:37:01    |                             |
| DRB1*08:01:05+DRB1*11:19:02   | DRB1*08:03:02+DRB1*11:01:03  |                             |                             |
| DRB1*08:01:05+DRB1*11:20      | DRB1*08:03:02+DRB1*11:122    |                             |                             |
| DRB1*08:01:05+DRB1*11:21      | DRB1*08:12+DRB1*11:11:01G    |                             |                             |
| DRB1*08:01:05+DRB1*11:31      | DRB1*08:03:02+DRB1*11:96     |                             |                             |
| DRB1*08:01:05+DRB1*11:34      | DRB1*08:06+DRB1*11:26        |                             |                             |
| DRB1*08:01:05+DRB1*11:35      | DRB1*08:06+DRB1*11:33        |                             |                             |
| DRB1*08:01:05+DRB1*11:36      | DRB1*08:06+DRB1*11:68        |                             |                             |
| DRB1*08:01:05+DRB1*11:40      | DRB1*08:06+DRB1*11:122       |                             |                             |
| DRB1*08:01:05+DRB1*11:42      | DRB1*08:06+DRB1*11:08:01     | DRB1*11:67+DRB1*13:134      |                             |
| DRB1*08:01:05+DRB1*11:43      | DRB1*08:06+DRB1*11:39        |                             |                             |
| DRB1*08:01:05+DRB1*11:44      | DRB1*08:06+DRB1*11:49:01     |                             |                             |
| DRB1*08:01:05+DRB1*11:46:02   | DRB1*08:06+DRB1*11:62        |                             |                             |
| DRB1*08:01:05+DRB1*11:48      | DRB1*08:03:02+DRB1*11:41     |                             |                             |

|                              |                              |                             |                             |
|------------------------------|------------------------------|-----------------------------|-----------------------------|
| DRB1*08:01:05+DRB1*11:56     | DRB1*08:06+DRB1*11:37:01     |                             |                             |
| DRB1*08:01:05+DRB1*11:58:01  | DRB1*08:06+DRB1*11:28:02     |                             |                             |
| DRB1*08:01:05+DRB1*11:58:02  | DRB1*08:06+DRB1*11:28:01     |                             |                             |
| DRB1*08:01:05+DRB1*11:60     | DRB1*08:06+DRB1*11:109       |                             |                             |
| DRB1*08:01:05+DRB1*11:73     | DRB1*08:03:02+DRB1*11:93     |                             |                             |
| DRB1*08:01:05+DRB1*11:82     | DRB1*08:03:02+DRB1*11:69     |                             |                             |
| DRB1*08:01:05+DRB1*11:84:01  | DRB1*08:06+DRB1*11:27:01     |                             |                             |
| DRB1*08:01:05+DRB1*11:84:02  | DRB1*08:06+DRB1*11:27:02     |                             |                             |
| DRB1*08:01:05+DRB1*11:113    | DRB1*08:06+DRB1*11:09        |                             |                             |
| DRB1*08:01:05+DRB1*11:116    | DRB1*08:06+DRB1*11:120       |                             |                             |
| DRB1*08:01:05+DRB1*11:119    | DRB1*08:03:02+DRB1*11:25     | DRB1*08:06+DRB1*11:45       | DRB1*11:67+DRB1*13:13       |
| DRB1*08:01:05+DRB1*11:127    | DRB1*08:03:02+DRB1*11:85     |                             |                             |
| DRB1*08:01:05+DRB1*12:01:01G | DRB1*08:03:02+DRB1*12:02:01  | DRB1*08:37+DRB1*12:21       |                             |
| DRB1*08:01:05+DRB1*12:01:02  | DRB1*08:12+DRB1*12:16:01     |                             |                             |
| DRB1*08:01:05+DRB1*12:01:03  | DRB1*08:03:02+DRB1*12:02:02  |                             |                             |
| DRB1*08:01:05+DRB1*12:03:03  | DRB1*08:03:02+DRB1*12:19     |                             |                             |
| DRB1*08:01:05+DRB1*12:05     | DRB1*08:03:02+DRB1*12:15     |                             |                             |
| DRB1*08:01:05+DRB1*13:01:01G | DRB1*08:02:02+DRB1*13:93     | DRB1*08:03:02+DRB1*13:111   | DRB1*08:04:01+DRB1*13:139   |
|                              | DRB1*08:06+DRB1*13:02:01     | DRB1*08:10+DRB1*13:63       | DRB1*08:28+DRB1*13:65       |
|                              | DRB1*08:04:06+DRB1*13:139    | DRB1*08:06+DRB1*13:02:03    |                             |
| DRB1*08:01:05+DRB1*13:01:13  | DRB1*08:04:07+DRB1*13:139    |                             |                             |
| DRB1*08:01:05+DRB1*13:02:01  | DRB1*08:02:02+DRB1*13:139    | DRB1*08:03:02+DRB1*13:63    |                             |
| DRB1*08:01:05+DRB1*13:04     | DRB1*08:03:02+DRB1*13:75     |                             |                             |
| DRB1*08:01:05+DRB1*13:06     | DRB1*08:03:02+DRB1*13:42     | DRB1*08:10+DRB1*13:05:01    | DRB1*08:18+DRB1*13:18       |
| DRB1*08:01:05+DRB1*13:07:01  | DRB1*08:02:02+DRB1*13:49     |                             |                             |
| DRB1*08:01:05+DRB1*13:11:01  | DRB1*08:04:01+DRB1*13:21:01  | DRB1*08:06+DRB1*13:14:01    | DRB1*08:28+DRB1*13:49       |
| DRB1*08:01:05+DRB1*13:11:02  | DRB1*08:04:06+DRB1*13:21:01  | DRB1*08:06+DRB1*13:14:02    |                             |
| DRB1*08:01:05+DRB1*13:12:01  | DRB1*08:03:02+DRB1*13:49     |                             |                             |
| DRB1*08:01:05+DRB1*13:14:01  | DRB1*08:02:02+DRB1*13:21:01  |                             |                             |
| DRB1*08:01:05+DRB1*13:15     | DRB1*08:06+DRB1*13:104       |                             |                             |
| DRB1*08:01:05+DRB1*13:20     | DRB1*08:06+DRB1*13:29        |                             |                             |
| DRB1*08:01:05+DRB1*13:22     | DRB1*08:02:02+DRB1*13:04     | DRB1*08:03:02+DRB1*13:24    | DRB1*08:06+DRB1*13:23:02    |
|                              | DRB1*08:30:01+DRB1*13:75     |                             |                             |
| DRB1*08:01:05+DRB1*13:24     | DRB1*08:02:02+DRB1*13:75     |                             |                             |
| DRB1*08:01:05+DRB1*13:27     | DRB1*08:06+DRB1*13:41        |                             |                             |
| DRB1*08:01:05+DRB1*13:30     | DRB1*08:03:02+DRB1*13:21:01  | DRB1*08:37+DRB1*13:49       |                             |
| DRB1*08:01:05+DRB1*13:32     | DRB1*08:06+DRB1*13:65        |                             |                             |
| DRB1*08:01:05+DRB1*13:36     | DRB1*08:02:02+DRB1*13:65     |                             |                             |
| DRB1*08:01:05+DRB1*13:37     | DRB1*08:02:01+DRB1*13:03:02  | DRB1*08:02:02+DRB1*13:03:01 |                             |
| DRB1*08:01:05+DRB1*13:40     | DRB1*08:02:02+DRB1*13:32     | DRB1*08:04:01+DRB1*13:65    | DRB1*08:06+DRB1*13:36       |
| DRB1*08:01:05+DRB1*13:42     | DRB1*08:06+DRB1*13:05:01     |                             |                             |
| DRB1*08:01:05+DRB1*13:47     | DRB1*08:02:02+DRB1*13:55     |                             |                             |
| DRB1*08:01:05+DRB1*13:52     | DRB1*08:06+DRB1*13:97:01     |                             |                             |
| DRB1*08:01:05+DRB1*13:58     | DRB1*08:12+DRB1*13:49        |                             |                             |
| DRB1*08:01:05+DRB1*13:61:01  | DRB1*08:06+DRB1*13:96:02     |                             |                             |
| DRB1*08:01:05+DRB1*13:61:02  | DRB1*08:06+DRB1*13:96:01     |                             |                             |
| DRB1*08:01:05+DRB1*13:70     | DRB1*08:02:02+DRB1*13:48     |                             |                             |
| DRB1*08:01:05+DRB1*13:79     | DRB1*08:06+DRB1*13:39        |                             |                             |
| DRB1*08:01:05+DRB1*13:80     | DRB1*08:33+DRB1*13:111       |                             |                             |
| DRB1*08:01:05+DRB1*13:82     | DRB1*08:02:02+DRB1*13:30     | DRB1*08:03:02+DRB1*13:14:01 | DRB1*08:30:01+DRB1*13:21:01 |
|                              | DRB1*08:37+DRB1*13:07:01     |                             |                             |
| DRB1*08:01:05+DRB1*13:83     | DRB1*08:06+DRB1*13:107       | DRB1*08:35+DRB1*13:24       |                             |
| DRB1*08:01:05+DRB1*13:89     | DRB1*08:06+DRB1*13:03:01     |                             |                             |
| DRB1*08:01:05+DRB1*13:93     | DRB1*08:06+DRB1*13:139       |                             |                             |
| DRB1*08:01:05+DRB1*13:98     | DRB1*08:46+DRB1*13:111       |                             |                             |
| DRB1*08:01:05+DRB1*13:108    | DRB1*08:06+DRB1*13:49        |                             |                             |
| DRB1*08:01:05+DRB1*13:111    | DRB1*08:06+DRB1*13:63        |                             |                             |
| DRB1*08:01:05+DRB1*13:112    | DRB1*08:06+DRB1*13:128       |                             |                             |
| DRB1*08:01:05+DRB1*14:01:01G | DRB1*08:06+DRB1*14:07:01     |                             |                             |
| DRB1*08:01:05+DRB1*14:02     | DRB1*08:02:02+DRB1*14:13     |                             |                             |
| DRB1*08:01:05+DRB1*14:03:01  | DRB1*08:02:02+DRB1*14:85     |                             |                             |
| DRB1*08:01:05+DRB1*14:04     | DRB1*08:06+DRB1*14:68        |                             |                             |
| DRB1*08:01:05+DRB1*14:05:01  | DRB1*08:06+DRB1*14:44:01     |                             |                             |
| DRB1*08:01:05+DRB1*14:05:03  | DRB1*08:06+DRB1*14:44:02     |                             |                             |
| DRB1*08:01:05+DRB1*14:06:01  | DRB1*08:04:01+DRB1*14:13     | DRB1*08:06+DRB1*14:02       |                             |
| DRB1*08:01:05+DRB1*14:12:01  | DRB1*08:04:01+DRB1*14:85     | DRB1*08:06+DRB1*14:03:01    |                             |
| DRB1*08:01:05+DRB1*14:17     | DRB1*08:06+DRB1*14:30        |                             |                             |
| DRB1*08:01:05+DRB1*14:23:01  | DRB1*08:06+DRB1*14:14        |                             |                             |
| DRB1*08:01:05+DRB1*14:67     | DRB1*08:02:02+DRB1*14:63     | DRB1*08:03:02+DRB1*14:27    |                             |
| DRB1*08:01:05+DRB1*14:78     | DRB1*08:06+DRB1*14:63        |                             |                             |
| DRB1*08:01:05+DRB1*14:80     | DRB1*08:06+DRB1*14:09        |                             |                             |
| DRB1*08:01:05+DRB1*14:106    | DRB1*08:06+DRB1*14:51        |                             |                             |
| DRB1*08:01:05+DRB1*15:01:01G | DRB1*08:03:02+DRB1*15:04     | DRB1*08:06+DRB1*15:02:01    | DRB1*08:10+DRB1*15:15       |
| DRB1*08:01:05+DRB1*15:01:03  | DRB1*08:06+DRB1*15:02:06     |                             |                             |
| DRB1*08:01:05+DRB1*15:01:04  | DRB1*08:02:02+DRB1*15:12     | DRB1*08:06+DRB1*15:02:02    |                             |
| DRB1*08:01:05+DRB1*15:01:09  | DRB1*08:06+DRB1*15:02:04     |                             |                             |
| DRB1*08:01:05+DRB1*15:01:10  | DRB1*08:06+DRB1*15:02:08     |                             |                             |
| DRB1*08:01:05+DRB1*15:02:01  | DRB1*08:03:02+DRB1*15:15     |                             |                             |
| DRB1*08:01:05+DRB1*15:04     | DRB1*08:06+DRB1*15:15        |                             |                             |
| DRB1*08:01:05+DRB1*15:05     | DRB1*08:06+DRB1*15:31        |                             |                             |
| DRB1*08:01:05+DRB1*15:07:01  | DRB1*08:06+DRB1*15:11        |                             |                             |
| DRB1*08:01:05+DRB1*15:16     | DRB1*08:23+DRB1*15:04        |                             |                             |
| DRB1*08:01:05+DRB1*15:35     | DRB1*08:12+DRB1*15:15        |                             |                             |
| DRB1*08:01:05+DRB1*15:62     | DRB1*08:36:01+DRB1*15:04     |                             |                             |
| DRB1*08:01:05+DRB1*15:65     | DRB1*08:06+DRB1*15:47        |                             |                             |
| DRB1*08:01:05+DRB1*15:66     | DRB1*08:06+DRB1*15:27        |                             |                             |
| DRB1*08:01:05+DRB1*16:05:01  | DRB1*08:03:02+DRB1*16:01:01  |                             |                             |
| DRB1*08:01:05+DRB1*16:15     | DRB1*08:06+DRB1*16:01:01     |                             |                             |
| DRB1*08:02:01+DRB1*08:04:01  | DRB1*08:02:02+DRB1*08:04:04  |                             |                             |
| DRB1*08:02:01+DRB1*08:04:02  | DRB1*08:02:02+DRB1*08:04:03  |                             |                             |
| DRB1*08:02:01+DRB1*08:10     | DRB1*08:03:02+DRB1*08:04:04  | DRB1*08:03:03+DRB1*08:04:01 | DRB1*08:06+DRB1*08:30:03    |
| DRB1*08:02:01+DRB1*08:12     | DRB1*08:22+DRB1*08:30:01     |                             |                             |
| DRB1*08:02:01+DRB1*08:18     | DRB1*08:03:03+DRB1*08:24     | DRB1*08:05+DRB1*08:30:01    |                             |
| DRB1*08:02:01+DRB1*08:20     | DRB1*08:04:01+DRB1*13:47     |                             |                             |
| DRB1*08:02:01+DRB1*08:30:01  | DRB1*08:02:02+DRB1*08:30:03  |                             |                             |
| DRB1*08:02:01+DRB1*08:31     | DRB1*08:04:04+DRB1*08:41     |                             |                             |
| DRB1*08:02:01+DRB1*08:35     | DRB1*08:03:02+DRB1*08:09     |                             |                             |
| DRB1*08:02:01+DRB1*09:04     | DRB1*08:13+DRB1*09:01:02     |                             |                             |
| DRB1*08:02:01+DRB1*09:06     | DRB1*08:04:04+DRB1*09:01:02  |                             |                             |
| DRB1*08:02:01+DRB1*10:02     | DRB1*08:04:04+DRB1*10:01:01  |                             |                             |
| DRB1*08:02:01+DRB1*11:01:01G | DRB1*08:02:02+DRB1*11:01:02  | DRB1*08:24+DRB1*11:23       |                             |
| DRB1*08:02:01+DRB1*11:01:03  | DRB1*08:02:02+DRB1*11:01:11  |                             |                             |
| DRB1*08:02:01+DRB1*11:01:05  | DRB1*08:02:04+DRB1*11:01:01G |                             |                             |
| DRB1*08:02:01+DRB1*11:01:10  | DRB1*08:02:04+DRB1*11:01:03  |                             |                             |
| DRB1*08:02:01+DRB1*11:01:16  | DRB1*08:02:03+DRB1*11:01:01G |                             |                             |

|                              |                              |                              |                              |
|------------------------------|------------------------------|------------------------------|------------------------------|
| DRB1*08:02:01+DRB1*11:02:01  | DRB1*08:04:01+DRB1*11:14:02  | DRB1*08:04:04+DRB1*11:14:01  | DRB1*08:30:03+DRB1*11:03     |
| DRB1*08:02:01+DRB1*11:03     | DRB1*08:45+DRB1*11:41        | DRB1*11:23+DRB1*13:116       |                              |
| DRB1*08:02:01+DRB1*11:04:01  | DRB1*08:04:04+DRB1*11:11:01G | DRB1*08:04:01+DRB1*11:01:02  | DRB1*08:04:04+DRB1*11:01:01G |
|                              | DRB1*08:02:02+DRB1*11:04:02  |                              |                              |
| DRB1*08:02:01+DRB1*11:04:02  | DRB1*08:28+DRB1*11:37:02     |                              |                              |
| DRB1*08:02:01+DRB1*11:04:03  | DRB1*08:04:04+DRB1*11:01:02  | DRB1*08:04:04+DRB1*11:01:05  |                              |
| DRB1*08:02:01+DRB1*11:04:04  | DRB1*08:02:04+DRB1*11:04:01  |                              |                              |
| DRB1*08:02:01+DRB1*11:04:05  | DRB1*08:04:04+DRB1*11:01:12  |                              |                              |
| DRB1*08:02:01+DRB1*11:04:07  | DRB1*08:04:04+DRB1*11:01:04  |                              |                              |
| DRB1*08:02:01+DRB1*11:06:02  | DRB1*08:04:01+DRB1*11:01:11  | DRB1*08:04:04+DRB1*11:01:03  |                              |
| DRB1*08:02:01+DRB1*11:07     | DRB1*08:02:04+DRB1*11:06:01G |                              |                              |
| DRB1*08:02:01+DRB1*11:08:01  | DRB1*08:04:04+DRB1*11:103    |                              |                              |
| DRB1*08:02:01+DRB1*11:08:02  | DRB1*08:02:02+DRB1*11:08:02  | DRB1*08:13+DRB1*11:01:01G    |                              |
| DRB1*08:02:01+DRB1*11:10:01  | DRB1*08:13+DRB1*11:01:02     |                              |                              |
| DRB1*08:02:01+DRB1*11:10:02  | DRB1*08:09+DRB1*11:01:02     |                              |                              |
| DRB1*08:02:01+DRB1*11:14:01  | DRB1*08:02:02+DRB1*11:10:01  | DRB1*08:09+DRB1*11:01:01G    |                              |
| DRB1*08:02:01+DRB1*11:16     | DRB1*08:02:02+DRB1*11:14:02  | DRB1*08:30:03+DRB1*11:11:01G |                              |
| DRB1*08:02:01+DRB1*11:17     | DRB1*08:04:04+DRB1*11:20     | DRB1*08:30:03+DRB1*11:40     |                              |
| DRB1*08:02:01+DRB1*11:18     | DRB1*13:47+DRB1*14:11        |                              |                              |
|                              | DRB1*08:04:01+DRB1*11:19:03  | DRB1*08:04:04+DRB1*11:19:01  | DRB1*08:30:01+DRB1*11:04:02  |
| DRB1*08:02:01+DRB1*11:19:01  | DRB1*08:30:03+DRB1*11:04:01  | DRB1*08:45+DRB1*11:56        |                              |
|                              | DRB1*08:02:02+DRB1*11:19:03  | DRB1*08:30:01+DRB1*11:01:02  | DRB1*08:30:03+DRB1*11:01:01G |
|                              | DRB1*08:45+DRB1*11:37:01     |                              |                              |
| DRB1*08:02:01+DRB1*11:19:02  | DRB1*08:30:01+DRB1*11:01:11  | DRB1*08:30:03+DRB1*11:01:03  |                              |
| DRB1*08:02:01+DRB1*11:19:03  | DRB1*08:30:03+DRB1*11:01:02  | DRB1*08:45+DRB1*11:37:02     |                              |
| DRB1*08:02:01+DRB1*11:20     | DRB1*08:30:03+DRB1*11:122    |                              |                              |
| DRB1*08:02:01+DRB1*11:25     | DRB1*08:04:01+DRB1*11:23     | DRB1*11:67+DRB1*13:47        |                              |
| DRB1*08:02:01+DRB1*11:27:02  | DRB1*08:02:02+DRB1*11:27:03  |                              |                              |
| DRB1*08:02:01+DRB1*11:29     | DRB1*08:42+DRB1*11:01:01G    |                              |                              |
| DRB1*08:02:01+DRB1*11:31     | DRB1*08:30:03+DRB1*11:96     |                              |                              |
| DRB1*08:02:01+DRB1*11:34     | DRB1*08:04:04+DRB1*11:26     |                              |                              |
| DRB1*08:02:01+DRB1*11:35     | DRB1*08:04:04+DRB1*11:33     |                              |                              |
| DRB1*08:02:01+DRB1*11:36     | DRB1*08:04:04+DRB1*11:68     | DRB1*08:13+DRB1*11:03        |                              |
| DRB1*08:02:01+DRB1*11:37:01  | DRB1*08:02:02+DRB1*11:37:02  | DRB1*08:41+DRB1*13:47        |                              |
| DRB1*08:02:01+DRB1*11:40     | DRB1*08:04:04+DRB1*11:122    |                              |                              |
| DRB1*08:02:01+DRB1*11:42     | DRB1*08:04:01+DRB1*11:08:02  | DRB1*08:04:04+DRB1*11:08:01  | DRB1*08:13+DRB1*11:04:01     |
| DRB1*08:02:01+DRB1*11:43     | DRB1*08:04:04+DRB1*11:39     |                              |                              |
| DRB1*08:02:01+DRB1*11:44     | DRB1*08:04:01+DRB1*11:49:02  | DRB1*08:04:04+DRB1*11:49:01  |                              |
| DRB1*08:02:01+DRB1*11:45     | DRB1*08:30:01+DRB1*11:23     |                              |                              |
| DRB1*08:02:01+DRB1*11:46:02  | DRB1*08:04:04+DRB1*11:62     |                              |                              |
| DRB1*08:02:01+DRB1*11:47     | DRB1*08:42+DRB1*11:06:01G    |                              |                              |
| DRB1*08:02:01+DRB1*11:48     | DRB1*08:30:03+DRB1*11:41     |                              |                              |
| DRB1*08:02:01+DRB1*11:49:01  | DRB1*08:02:02+DRB1*11:49:02  |                              |                              |
| DRB1*08:02:01+DRB1*11:54:01  | DRB1*08:02:04+DRB1*11:54:02  |                              |                              |
| DRB1*08:02:01+DRB1*11:56     | DRB1*08:04:01+DRB1*11:37:02  | DRB1*08:04:04+DRB1*11:37:01  | DRB1*08:31+DRB1*13:47        |
| DRB1*08:02:01+DRB1*11:57     | DRB1*08:13+DRB1*11:06:01G    |                              |                              |
| DRB1*08:02:01+DRB1*11:58:01  | DRB1*08:04:04+DRB1*11:28:02  |                              |                              |
| DRB1*08:02:01+DRB1*11:58:02  | DRB1*08:04:04+DRB1*11:28:01  |                              |                              |
| DRB1*08:02:01+DRB1*11:60     | DRB1*08:04:04+DRB1*11:109    |                              |                              |
| DRB1*08:02:01+DRB1*11:63     | DRB1*08:42+DRB1*11:03        |                              |                              |
| DRB1*08:02:01+DRB1*11:66     | DRB1*08:44+DRB1*11:01:01G    |                              |                              |
| DRB1*08:02:01+DRB1*11:68     | DRB1*08:13+DRB1*11:11:01G    |                              |                              |
| DRB1*08:02:01+DRB1*11:73     | DRB1*08:30:03+DRB1*11:93     |                              |                              |
| DRB1*08:02:01+DRB1*11:74:01  | DRB1*08:02:02+DRB1*11:74:02  |                              |                              |
| DRB1*08:02:01+DRB1*11:82     | DRB1*08:30:03+DRB1*11:69     |                              |                              |
| DRB1*08:02:01+DRB1*11:84:01  | DRB1*08:04:04+DRB1*11:27:01  |                              |                              |
| DRB1*08:02:01+DRB1*11:84:02  | DRB1*08:04:01+DRB1*11:27:03  | DRB1*08:04:04+DRB1*11:27:02  |                              |
| DRB1*08:02:01+DRB1*11:92     | DRB1*08:04:01+DRB1*11:72     |                              |                              |
| DRB1*08:02:01+DRB1*11:103    | DRB1*08:13+DRB1*11:125       |                              |                              |
| DRB1*08:02:01+DRB1*11:113    | DRB1*08:04:04+DRB1*11:09     |                              |                              |
| DRB1*08:02:01+DRB1*11:116    | DRB1*08:04:04+DRB1*11:120    |                              |                              |
| DRB1*08:02:01+DRB1*11:119    | DRB1*08:04:04+DRB1*11:45     | DRB1*08:30:03+DRB1*11:25     |                              |
| DRB1*08:02:01+DRB1*11:127    | DRB1*08:30:03+DRB1*11:85     |                              |                              |
| DRB1*08:02:01+DRB1*12:01:01G | DRB1*08:02:04+DRB1*12:01:03  | DRB1*08:30:03+DRB1*12:02:01  | DRB1*08:45+DRB1*12:21        |
| DRB1*08:02:01+DRB1*12:01:03  | DRB1*08:30:03+DRB1*12:02:02  |                              |                              |
| DRB1*08:02:01+DRB1*12:02:01  | DRB1*08:02:04+DRB1*12:02:02  |                              |                              |
| DRB1*08:02:01+DRB1*12:03:03  | DRB1*08:02:04+DRB1*12:03:02  | DRB1*08:30:03+DRB1*12:19     |                              |
| DRB1*08:02:01+DRB1*12:05     | DRB1*08:30:03+DRB1*12:15     |                              |                              |
| DRB1*08:02:01+DRB1*12:12     | DRB1*08:13+DRB1*12:02:01     |                              |                              |
| DRB1*08:02:01+DRB1*13:01:01G | DRB1*08:02:02+DRB1*13:01:08  | DRB1*08:04:04+DRB1*13:02:01  | DRB1*08:30:03+DRB1*13:111    |
| DRB1*08:02:01+DRB1*13:01:03  | DRB1*08:02:04+DRB1*13:01:01G |                              |                              |
| DRB1*08:02:01+DRB1*13:01:05  | DRB1*08:04:04+DRB1*13:02:03  |                              |                              |
| DRB1*08:02:01+DRB1*13:02:01  | DRB1*08:30:03+DRB1*13:63     |                              |                              |
| DRB1*08:02:01+DRB1*13:05:01  | DRB1*08:02:02+DRB1*13:05:02  |                              |                              |
| DRB1*08:02:01+DRB1*13:06     | DRB1*08:30:03+DRB1*13:42     |                              |                              |
| DRB1*08:02:01+DRB1*13:07:01  | DRB1*08:24+DRB1*13:47        |                              |                              |
| DRB1*08:02:01+DRB1*13:08     | DRB1*08:09+DRB1*13:70        |                              |                              |
| DRB1*08:02:01+DRB1*13:11:01  | DRB1*08:04:01+DRB1*13:14:03  | DRB1*08:04:04+DRB1*13:14:01  |                              |
| DRB1*08:02:01+DRB1*13:11:02  | DRB1*08:04:04+DRB1*13:14:02  | DRB1*08:04:06+DRB1*13:14:03  |                              |
| DRB1*08:02:01+DRB1*13:12:01  | DRB1*08:02:02+DRB1*13:12:02  | DRB1*08:03:03+DRB1*13:07:01  | DRB1*08:18+DRB1*13:47        |
|                              | DRB1*08:30:03+DRB1*13:49     |                              |                              |
| DRB1*08:02:01+DRB1*13:13     | DRB1*08:03:02+DRB1*13:47     | DRB1*08:30:01+DRB1*13:55     |                              |
| DRB1*08:02:01+DRB1*13:14:01  | DRB1*08:02:02+DRB1*13:14:03  |                              |                              |
| DRB1*08:02:01+DRB1*13:15     | DRB1*08:04:04+DRB1*13:104    |                              |                              |
| DRB1*08:02:01+DRB1*13:20     | DRB1*08:04:04+DRB1*13:29     | DRB1*08:13+DRB1*13:111       |                              |
| DRB1*08:02:01+DRB1*13:22     | DRB1*08:04:01+DRB1*13:23:01  | DRB1*08:04:04+DRB1*13:23:02  | DRB1*08:30:03+DRB1*13:24     |
|                              | DRB1*13:17+DRB1*13:47        |                              |                              |
| DRB1*08:02:01+DRB1*13:23:02  | DRB1*08:02:02+DRB1*13:23:01  |                              |                              |
| DRB1*08:02:01+DRB1*13:25     | DRB1*08:13+DRB1*13:14:01     |                              |                              |
| DRB1*08:02:01+DRB1*13:27     | DRB1*08:04:04+DRB1*13:41     |                              |                              |
| DRB1*08:02:01+DRB1*13:29     | DRB1*08:13+DRB1*13:63        |                              |                              |
| DRB1*08:02:01+DRB1*13:33:02  | DRB1*08:02:02+DRB1*13:33:03  |                              |                              |
| DRB1*08:02:01+DRB1*13:40     | DRB1*08:04:04+DRB1*13:36     |                              |                              |
| DRB1*08:02:01+DRB1*13:42     | DRB1*08:04:01+DRB1*13:05:02  | DRB1*08:04:04+DRB1*13:05:01  |                              |
| DRB1*08:02:01+DRB1*13:43     | DRB1*08:08+DRB1*13:20        |                              |                              |
| DRB1*08:02:01+DRB1*13:45     | DRB1*08:08+DRB1*13:23:01     |                              |                              |
| DRB1*08:02:01+DRB1*13:52     | DRB1*08:04:04+DRB1*13:97:01  |                              |                              |
| DRB1*08:02:01+DRB1*13:56     | DRB1*08:13+DRB1*13:05:01     |                              |                              |
| DRB1*08:02:01+DRB1*13:61:01  | DRB1*08:04:04+DRB1*13:96:02  |                              |                              |
| DRB1*08:02:01+DRB1*13:61:02  | DRB1*08:04:04+DRB1*13:96:01  |                              |                              |
| DRB1*08:02:01+DRB1*13:66:01  | DRB1*08:02:02+DRB1*13:66:02  |                              |                              |
| DRB1*08:02:01+DRB1*13:66:02  | DRB1*08:17+DRB1*13:37        |                              |                              |
| DRB1*08:02:01+DRB1*13:70     | DRB1*13:47+DRB1*13:116       |                              |                              |
| DRB1*08:02:01+DRB1*13:79     | DRB1*08:04:04+DRB1*13:39     |                              |                              |
| DRB1*08:02:01+DRB1*13:82     | DRB1*08:30:01+DRB1*13:14:03  | DRB1*08:30:03+DRB1*13:14:01  | DRB1*08:45+DRB1*13:07:01     |

|                              |                              |                              |                             |
|------------------------------|------------------------------|------------------------------|-----------------------------|
| DRB1*08:02:01+DRB1*13:83     | DRB1*08:04:04+DRB1*13:107    | DRB1*08:09+DRB1*13:22        | DRB1*13:23:01+DRB1*14:15    |
| DRB1*08:02:01+DRB1*13:89     | DRB1*08:04:04+DRB1*13:03:01  |                              |                             |
| DRB1*08:02:01+DRB1*13:94     | DRB1*08:04:01+DRB1*13:33:01  |                              |                             |
| DRB1*08:02:01+DRB1*13:107    | DRB1*08:09+DRB1*13:23:02     |                              |                             |
| DRB1*08:02:01+DRB1*13:108    | DRB1*08:04:04+DRB1*13:49     | DRB1*08:05+DRB1*08:20        |                             |
| DRB1*08:02:01+DRB1*13:111    | DRB1*08:04:04+DRB1*13:63     |                              |                             |
| DRB1*08:02:01+DRB1*13:112    | DRB1*08:04:04+DRB1*13:128    |                              |                             |
| DRB1*08:02:01+DRB1*13:134    | DRB1*08:05+DRB1*14:116       | DRB1*08:13+DRB1*13:49        | DRB1*08:48+DRB1*13:07:01    |
| DRB1*08:02:01+DRB1*14:01:01G | DRB1*08:02:04+DRB1*14:01:02  | DRB1*08:04:01+DRB1*14:07:02  | DRB1*08:04:04+DRB1*14:07:01 |
|                              | DRB1*08:08+DRB1*14:23:01     | DRB1*08:09+DRB1*14:58        | DRB1*08:11+DRB1*14:08       |
|                              | DRB1*13:47+DRB1*14:04        |                              |                             |
| DRB1*08:02:01+DRB1*14:03:01  | DRB1*08:13+DRB1*14:27        |                              |                             |
| DRB1*08:02:01+DRB1*14:04     | DRB1*08:04:04+DRB1*14:68     | DRB1*08:08+DRB1*14:126       |                             |
| DRB1*08:02:01+DRB1*14:05:01  | DRB1*08:02:04+DRB1*14:05:03  | DRB1*08:04:01+DRB1*14:44:03  | DRB1*08:04:04+DRB1*14:44:01 |
| DRB1*08:02:01+DRB1*14:05:03  | DRB1*08:04:04+DRB1*14:44:02  |                              |                             |
| DRB1*08:02:01+DRB1*14:06:01  | DRB1*08:02:02+DRB1*14:06:02  | DRB1*08:04:04+DRB1*14:02     | DRB1*08:13+DRB1*14:108      |
|                              | DRB1*13:47+DRB1*14:52        |                              |                             |
| DRB1*08:02:01+DRB1*14:07:01  | DRB1*08:02:02+DRB1*14:07:02  | DRB1*08:08+DRB1*14:14        | DRB1*13:47+DRB1*14:68       |
| DRB1*08:02:01+DRB1*14:12:01  | DRB1*08:04:04+DRB1*14:03:01  |                              |                             |
| DRB1*08:02:01+DRB1*14:15     | DRB1*08:04:01+DRB1*08:09     |                              |                             |
| DRB1*08:02:01+DRB1*14:16     | DRB1*08:08+DRB1*13:08        |                              |                             |
| DRB1*08:02:01+DRB1*14:17     | DRB1*08:04:04+DRB1*14:30     |                              |                             |
| DRB1*08:02:01+DRB1*14:22     | DRB1*08:09+DRB1*14:25        |                              |                             |
| DRB1*08:02:01+DRB1*14:23:01  | DRB1*08:04:04+DRB1*14:14     | DRB1*13:47+DRB1*14:126       |                             |
| DRB1*08:02:01+DRB1*14:25     | DRB1*08:08+DRB1*13:07:01     |                              |                             |
| DRB1*08:02:01+DRB1*14:32:02  | DRB1*08:02:04+DRB1*14:32:01  | DRB1*08:08+DRB1*14:123       | DRB1*08:11+DRB1*14:34       |
|                              | DRB1*13:47+DRB1*14:31        |                              |                             |
| DRB1*08:02:01+DRB1*14:35     | DRB1*08:28+DRB1*14:07:02     |                              |                             |
| DRB1*08:02:01+DRB1*14:38     | DRB1*13:47+DRB1*14:50        |                              |                             |
| DRB1*08:02:01+DRB1*14:40     | DRB1*08:09+DRB1*14:102       |                              |                             |
| DRB1*08:02:01+DRB1*14:44:01  | DRB1*08:02:02+DRB1*14:44:03  | DRB1*08:02:04+DRB1*14:44:02  |                             |
| DRB1*08:02:01+DRB1*14:53     | DRB1*08:08+DRB1*13:14:01     |                              |                             |
| DRB1*08:02:01+DRB1*14:65     | DRB1*08:17+DRB1*14:123       |                              |                             |
| DRB1*08:02:01+DRB1*14:67     | DRB1*08:30:03+DRB1*14:27     |                              |                             |
| DRB1*08:02:01+DRB1*14:69     | DRB1*08:13+DRB1*14:25        |                              |                             |
| DRB1*08:02:01+DRB1*14:78     | DRB1*08:04:04+DRB1*14:63     |                              |                             |
| DRB1*08:02:01+DRB1*14:80     | DRB1*08:04:04+DRB1*14:09     |                              |                             |
| DRB1*08:02:01+DRB1*14:99     | DRB1*13:47+DRB1*14:28        |                              |                             |
| DRB1*08:02:01+DRB1*14:101    | DRB1*08:11+DRB1*14:23:02     |                              |                             |
| DRB1*08:02:01+DRB1*14:106    | DRB1*08:04:04+DRB1*14:51     |                              |                             |
| DRB1*08:02:01+DRB1*14:111    | DRB1*13:47+DRB1*14:107       |                              |                             |
| DRB1*08:02:01+DRB1*14:122    | DRB1*13:47+DRB1*14:120       |                              |                             |
| DRB1*08:02:01+DRB1*15:01:01G | DRB1*08:04:01+DRB1*15:02:09  | DRB1*08:04:04+DRB1*15:02:01  | DRB1*08:04:06+DRB1*15:02:05 |
|                              | DRB1*08:30:03+DRB1*15:04     |                              |                             |
| DRB1*08:02:01+DRB1*15:01:03  | DRB1*08:02:04+DRB1*15:01:01G | DRB1*08:04:04+DRB1*15:02:06  |                             |
| DRB1*08:02:01+DRB1*15:01:04  | DRB1*08:04:01+DRB1*15:02:05  | DRB1*08:04:04+DRB1*15:02:02  |                             |
| DRB1*08:02:01+DRB1*15:01:09  | DRB1*08:04:04+DRB1*15:02:04  |                              |                             |
| DRB1*08:02:01+DRB1*15:01:10  | DRB1*08:04:04+DRB1*15:02:08  |                              |                             |
| DRB1*08:02:01+DRB1*15:02:01  | DRB1*08:02:02+DRB1*15:02:09  | DRB1*08:30:03+DRB1*15:15     |                             |
| DRB1*08:02:01+DRB1*15:02:02  | DRB1*08:02:02+DRB1*15:02:05  |                              |                             |
| DRB1*08:02:01+DRB1*15:02:06  | DRB1*08:02:04+DRB1*15:02:01  |                              |                             |
| DRB1*08:02:01+DRB1*15:04     | DRB1*08:04:04+DRB1*15:15     |                              |                             |
| DRB1*08:02:01+DRB1*15:05     | DRB1*08:04:04+DRB1*15:31     | DRB1*08:13+DRB1*15:04        |                             |
| DRB1*08:02:01+DRB1*15:07:01  | DRB1*08:04:04+DRB1*15:11     |                              |                             |
| DRB1*08:02:01+DRB1*15:10     | DRB1*13:17+DRB1*16:04        |                              |                             |
| DRB1*08:02:01+DRB1*15:29     | DRB1*08:07+DRB1*15:02:01     |                              |                             |
| DRB1*08:02:01+DRB1*15:31     | DRB1*08:13+DRB1*15:15        |                              |                             |
| DRB1*08:02:01+DRB1*15:65     | DRB1*08:04:04+DRB1*15:47     |                              |                             |
| DRB1*08:02:01+DRB1*15:66     | DRB1*08:04:04+DRB1*15:27     |                              |                             |
| DRB1*08:02:01+DRB1*16:01:02  | DRB1*08:24+DRB1*16:04        |                              |                             |
| DRB1*08:02:01+DRB1*16:02:01  | DRB1*08:13+DRB1*16:01:01     |                              |                             |
| DRB1*08:02:01+DRB1*16:02:02  | DRB1*08:13+DRB1*16:01:02     |                              |                             |
| DRB1*08:02:01+DRB1*16:05:01  | DRB1*08:30:03+DRB1*16:01:01  |                              |                             |
| DRB1*08:02:01+DRB1*16:10     | DRB1*08:13+DRB1*16:09        |                              |                             |
| DRB1*08:02:01+DRB1*16:15     | DRB1*08:04:04+DRB1*16:01:01  |                              |                             |
| DRB1*08:02:02+DRB1*08:10     | DRB1*08:03:02+DRB1*08:04:01  | DRB1*08:06+DRB1*08:30:01     |                             |
| DRB1*08:02:02+DRB1*08:18     | DRB1*08:03:02+DRB1*08:24     |                              |                             |
| DRB1*08:02:02+DRB1*08:31     | DRB1*08:04:01+DRB1*08:41     |                              |                             |
| DRB1*08:02:02+DRB1*09:06     | DRB1*08:04:01+DRB1*09:01:02  |                              |                             |
| DRB1*08:02:02+DRB1*10:02     | DRB1*08:04:01+DRB1*10:01:01  |                              |                             |
| DRB1*08:02:02+DRB1*11:02:01  | DRB1*08:04:01+DRB1*11:14:01  | DRB1*08:30:01+DRB1*11:03     |                             |
| DRB1*08:02:02+DRB1*11:03     | DRB1*08:04:01+DRB1*11:11:01G | DRB1*08:24+DRB1*11:55        |                             |
| DRB1*08:02:02+DRB1*11:04:01  | DRB1*08:04:01+DRB1*11:01:01G | DRB1*08:24+DRB1*11:25        | DRB1*08:28+DRB1*11:37:01    |
|                              | DRB1*11:67+DRB1*13:07:01     |                              |                             |
| DRB1*08:02:02+DRB1*11:04:03  | DRB1*08:04:01+DRB1*11:01:05  |                              |                             |
| DRB1*08:02:02+DRB1*11:04:04  | DRB1*08:04:01+DRB1*11:01:12  |                              |                             |
| DRB1*08:02:02+DRB1*11:04:05  | DRB1*08:04:01+DRB1*11:01:04  |                              |                             |
| DRB1*08:02:02+DRB1*11:04:07  | DRB1*08:04:01+DRB1*11:01:03  |                              |                             |
| DRB1*08:02:02+DRB1*11:08:01  | DRB1*08:24+DRB1*11:64        |                              |                             |
| DRB1*08:02:02+DRB1*11:14:01  | DRB1*08:30:01+DRB1*11:11:01G |                              |                             |
| DRB1*08:02:02+DRB1*11:16     | DRB1*08:04:01+DRB1*11:20     | DRB1*08:30:01+DRB1*11:40     | DRB1*11:67+DRB1*13:36       |
| DRB1*08:02:02+DRB1*11:18     | DRB1*08:04:01+DRB1*11:19:01  | DRB1*08:24+DRB1*11:119       | DRB1*08:30:01+DRB1*11:04:01 |
| DRB1*08:02:02+DRB1*11:19:01  | DRB1*08:24+DRB1*11:45        | DRB1*08:30:01+DRB1*11:01:01G |                             |
| DRB1*08:02:02+DRB1*11:19:02  | DRB1*08:02:02+DRB1*11:19:03  |                              |                             |
| DRB1*08:02:02+DRB1*11:20     | DRB1*08:30:01+DRB1*11:122    |                              |                             |
| DRB1*08:02:02+DRB1*11:31     | DRB1*08:30:01+DRB1*11:96     |                              |                             |
| DRB1*08:02:02+DRB1*11:34     | DRB1*08:04:01+DRB1*11:26     |                              |                             |
| DRB1*08:02:02+DRB1*11:35     | DRB1*08:04:01+DRB1*11:33     |                              |                             |
| DRB1*08:02:02+DRB1*11:36     | DRB1*08:04:01+DRB1*11:68     |                              |                             |
| DRB1*08:02:02+DRB1*11:40     | DRB1*08:04:01+DRB1*11:122    |                              |                             |
| DRB1*08:02:02+DRB1*11:42     | DRB1*08:04:01+DRB1*11:08:01  |                              |                             |
| DRB1*08:02:02+DRB1*11:43     | DRB1*08:04:01+DRB1*11:39     |                              |                             |
| DRB1*08:02:02+DRB1*11:44     | DRB1*08:04:01+DRB1*11:49:01  |                              |                             |
| DRB1*08:02:02+DRB1*11:46:02  | DRB1*08:04:01+DRB1*11:62     |                              |                             |
| DRB1*08:02:02+DRB1*11:48     | DRB1*08:30:01+DRB1*11:41     |                              |                             |
| DRB1*08:02:02+DRB1*11:56     | DRB1*08:04:01+DRB1*11:37:01  | DRB1*08:20+DRB1*08:41        |                             |
| DRB1*08:02:02+DRB1*11:58:01  | DRB1*08:04:01+DRB1*11:28:02  |                              |                             |
| DRB1*08:02:02+DRB1*11:58:02  | DRB1*08:04:01+DRB1*11:28:01  |                              |                             |
| DRB1*08:02:02+DRB1*11:60     | DRB1*08:04:01+DRB1*11:109    |                              |                             |
| DRB1*08:02:02+DRB1*11:73     | DRB1*08:30:01+DRB1*11:93     |                              |                             |
| DRB1*08:02:02+DRB1*11:82     | DRB1*08:30:01+DRB1*11:69     |                              |                             |
| DRB1*08:02:02+DRB1*11:84:01  | DRB1*08:04:01+DRB1*11:27:01  |                              |                             |
| DRB1*08:02:02+DRB1*11:84:02  | DRB1*08:04:01+DRB1*11:27:02  |                              |                             |
| DRB1*08:02:02+DRB1*11:113    | DRB1*08:04:01+DRB1*11:09     | DRB1*08:41+DRB1*13:18        |                             |
| DRB1*08:02:02+DRB1*11:116    | DRB1*08:04:01+DRB1*11:120    |                              |                             |

|                              |                             |                             |                           |
|------------------------------|-----------------------------|-----------------------------|---------------------------|
| DRB1*08:02:02+DRB1*11:119    | DRB1*08:04:01+DRB1*11:45    | DRB1*08:30:01+DRB1*11:25    |                           |
| DRB1*08:02:02+DRB1*11:127    | DRB1*08:30:01+DRB1*11:85    |                             |                           |
| DRB1*08:02:02+DRB1*12:01:01G | DRB1*08:30:01+DRB1*12:02:01 |                             |                           |
| DRB1*08:02:02+DRB1*12:01:03  | DRB1*08:30:01+DRB1*12:02:02 |                             |                           |
| DRB1*08:02:02+DRB1*12:03:03  | DRB1*08:30:01+DRB1*12:19    |                             |                           |
| DRB1*08:02:02+DRB1*12:05     | DRB1*08:30:01+DRB1*12:15    |                             |                           |
| DRB1*08:02:02+DRB1*13:01:01G | DRB1*08:04:01+DRB1*13:02:01 | DRB1*08:28+DRB1*13:36       | DRB1*08:30:01+DRB1*13:111 |
| DRB1*08:02:02+DRB1*13:01:05  | DRB1*08:04:01+DRB1*13:02:03 | DRB1*08:04:06+DRB1*13:02:01 |                           |
| DRB1*08:02:02+DRB1*13:01:06  | DRB1*08:30:02+DRB1*13:111   |                             |                           |
| DRB1*08:02:02+DRB1*13:01:13  | DRB1*08:04:07+DRB1*13:02:01 |                             |                           |
| DRB1*08:02:02+DRB1*13:02:01  | DRB1*08:30:01+DRB1*13:63    |                             |                           |
| DRB1*08:02:02+DRB1*13:06     | DRB1*08:30:01+DRB1*13:42    |                             |                           |
| DRB1*08:02:02+DRB1*13:11:01  | DRB1*08:04:01+DRB1*13:14:01 | DRB1*08:28+DRB1*13:07:01    |                           |
| DRB1*08:02:02+DRB1*13:11:02  | DRB1*08:04:01+DRB1*13:14:02 | DRB1*08:04:06+DRB1*13:14:01 | DRB1*08:28+DRB1*13:07:02  |
| DRB1*08:02:02+DRB1*13:12:01  | DRB1*08:03:02+DRB1*13:07:01 | DRB1*08:24+DRB1*13:13       | DRB1*08:30:01+DRB1*13:49  |
| DRB1*08:02:02+DRB1*13:15     | DRB1*08:04:01+DRB1*13:104   | DRB1*13:17+DRB1*14:27       |                           |
| DRB1*08:02:02+DRB1*13:20     | DRB1*08:04:01+DRB1*13:29    |                             |                           |
| DRB1*08:02:02+DRB1*13:22     | DRB1*08:04:01+DRB1*13:23:02 | DRB1*08:30:01+DRB1*13:24    |                           |
| DRB1*08:02:02+DRB1*13:26:02  | DRB1*08:24+DRB1*14:27       |                             |                           |
| DRB1*08:02:02+DRB1*13:27     | DRB1*08:04:01+DRB1*13:41    |                             |                           |
| DRB1*08:02:02+DRB1*13:40     | DRB1*08:04:01+DRB1*13:36    |                             |                           |
| DRB1*08:02:02+DRB1*13:42     | DRB1*08:04:01+DRB1*13:05:01 | DRB1*08:24+DRB1*13:18       |                           |
| DRB1*08:02:02+DRB1*13:45     | DRB1*08:08+DRB1*13:23:02    |                             |                           |
| DRB1*08:02:02+DRB1*13:52     | DRB1*08:04:01+DRB1*13:97:01 |                             |                           |
| DRB1*08:02:02+DRB1*13:53     | DRB1*13:116+DRB1*14:27      |                             |                           |
| DRB1*08:02:02+DRB1*13:56     | DRB1*08:24+DRB1*13:119      |                             |                           |
| DRB1*08:02:02+DRB1*13:58     | DRB1*08:12+DRB1*13:07:01    |                             |                           |
| DRB1*08:02:02+DRB1*13:61:01  | DRB1*08:04:01+DRB1*13:96:02 |                             |                           |
| DRB1*08:02:02+DRB1*13:61:02  | DRB1*08:04:01+DRB1*13:96:01 |                             |                           |
| DRB1*08:02:02+DRB1*13:77     | DRB1*08:25+DRB1*13:18       |                             |                           |
| DRB1*08:02:02+DRB1*13:79     | DRB1*08:04:01+DRB1*13:39    |                             |                           |
| DRB1*08:02:02+DRB1*13:82     | DRB1*08:30:01+DRB1*13:14:01 |                             |                           |
| DRB1*08:02:02+DRB1*13:83     | DRB1*08:04:01+DRB1*13:107   | DRB1*13:23:02+DRB1*14:15    |                           |
| DRB1*08:02:02+DRB1*13:89     | DRB1*08:04:01+DRB1*13:03:01 | DRB1*08:04:04+DRB1*13:03:02 | DRB1*08:06+DRB1*13:37     |
|                              | DRB1*08:20+DRB1*08:40       |                             |                           |
| DRB1*08:02:02+DRB1*13:108    | DRB1*08:04:01+DRB1*13:49    | DRB1*08:06+DRB1*13:07:01    |                           |
| DRB1*08:02:02+DRB1*13:111    | DRB1*08:04:01+DRB1*13:63    |                             |                           |
| DRB1*08:02:02+DRB1*13:112    | DRB1*08:04:01+DRB1*13:128   |                             |                           |
| DRB1*08:02:02+DRB1*14:01:01G | DRB1*08:04:01+DRB1*14:07:01 | DRB1*08:20+DRB1*14:68       |                           |
| DRB1*08:02:02+DRB1*14:02     | DRB1*08:24+DRB1*14:89       |                             |                           |
| DRB1*08:02:02+DRB1*14:04     | DRB1*08:04:01+DRB1*14:68    |                             |                           |
| DRB1*08:02:02+DRB1*14:05:01  | DRB1*08:04:01+DRB1*14:44:01 |                             |                           |
| DRB1*08:02:02+DRB1*14:05:03  | DRB1*08:04:01+DRB1*14:44:02 |                             |                           |
| DRB1*08:02:02+DRB1*14:06:01  | DRB1*08:04:01+DRB1*14:02    |                             |                           |
| DRB1*08:02:02+DRB1*14:12:01  | DRB1*08:04:01+DRB1*14:03:01 |                             |                           |
| DRB1*08:02:02+DRB1*14:17     | DRB1*08:04:01+DRB1*14:30    | DRB1*08:28+DRB1*14:09       |                           |
| DRB1*08:02:02+DRB1*14:23:01  | DRB1*08:04:01+DRB1*14:14    |                             |                           |
| DRB1*08:02:02+DRB1*14:32:02  | DRB1*08:24+DRB1*14:55       |                             |                           |
| DRB1*08:02:02+DRB1*14:35     | DRB1*08:28+DRB1*14:07:01    |                             |                           |
| DRB1*08:02:02+DRB1*14:67     | DRB1*08:30:01+DRB1*14:27    |                             |                           |
| DRB1*08:02:02+DRB1*14:74     | DRB1*14:15+DRB1*14:69       |                             |                           |
| DRB1*08:02:02+DRB1*14:78     | DRB1*08:04:01+DRB1*14:63    | DRB1*08:06+DRB1*14:67       | DRB1*08:10+DRB1*14:27     |
| DRB1*08:02:02+DRB1*14:80     | DRB1*08:04:01+DRB1*14:09    |                             |                           |
| DRB1*08:02:02+DRB1*14:106    | DRB1*08:04:01+DRB1*14:51    |                             |                           |
| DRB1*08:02:02+DRB1*15:01:01G | DRB1*08:04:01+DRB1*15:02:01 | DRB1*08:04:06+DRB1*15:02:02 | DRB1*08:28+DRB1*15:11     |
|                              | DRB1*08:30:01+DRB1*15:04    |                             |                           |
| DRB1*08:02:02+DRB1*15:01:03  | DRB1*08:04:01+DRB1*15:02:06 |                             |                           |
| DRB1*08:02:02+DRB1*15:01:04  | DRB1*08:04:01+DRB1*15:02:02 |                             |                           |
| DRB1*08:02:02+DRB1*15:01:09  | DRB1*08:04:01+DRB1*15:02:04 |                             |                           |
| DRB1*08:02:02+DRB1*15:01:10  | DRB1*08:04:01+DRB1*15:02:08 |                             |                           |
| DRB1*08:02:02+DRB1*15:02:01  | DRB1*08:30:01+DRB1*15:15    |                             |                           |
| DRB1*08:02:02+DRB1*15:04     | DRB1*08:04:01+DRB1*15:15    |                             |                           |
| DRB1*08:02:02+DRB1*15:05     | DRB1*08:04:01+DRB1*15:31    |                             |                           |
| DRB1*08:02:02+DRB1*15:07:01  | DRB1*08:04:01+DRB1*15:11    |                             |                           |
| DRB1*08:02:02+DRB1*15:65     | DRB1*08:04:01+DRB1*15:47    |                             |                           |
| DRB1*08:02:02+DRB1*15:66     | DRB1*08:04:01+DRB1*15:27    | DRB1*08:28+DRB1*15:34       |                           |
| DRB1*08:02:02+DRB1*15:71     | DRB1*08:04:06+DRB1*15:38    |                             |                           |
| DRB1*08:02:02+DRB1*16:02:02  | DRB1*08:24+DRB1*16:18       |                             |                           |
| DRB1*08:02:02+DRB1*16:05:01  | DRB1*08:30:01+DRB1*16:01:01 |                             |                           |
| DRB1*08:02:02+DRB1*16:15     | DRB1*08:04:01+DRB1*16:01:01 |                             |                           |
| DRB1*08:02:03+DRB1*11:01:05  | DRB1*08:02:04+DRB1*11:01:16 |                             |                           |
| DRB1*08:02:03+DRB1*11:04:01  | DRB1*08:04:04+DRB1*11:01:16 |                             |                           |
| DRB1*08:02:03+DRB1*11:08:01  | DRB1*08:13+DRB1*11:01:16    |                             |                           |
| DRB1*08:02:03+DRB1*11:10:02  | DRB1*08:09+DRB1*11:01:16    |                             |                           |
| DRB1*08:02:03+DRB1*11:19:01  | DRB1*08:30:03+DRB1*11:01:16 |                             |                           |
| DRB1*08:02:03+DRB1*11:29     | DRB1*08:42+DRB1*11:01:16    |                             |                           |
| DRB1*08:02:03+DRB1*11:66     | DRB1*08:44+DRB1*11:01:16    |                             |                           |
| DRB1*08:02:04+DRB1*11:04:07  | DRB1*08:04:04+DRB1*11:01:10 |                             |                           |
| DRB1*08:02:04+DRB1*11:08:01  | DRB1*08:13+DRB1*11:01:05    |                             |                           |
| DRB1*08:02:04+DRB1*11:10:02  | DRB1*08:09+DRB1*11:01:05    |                             |                           |
| DRB1*08:02:04+DRB1*11:18     | DRB1*08:30:03+DRB1*11:04:03 |                             |                           |
| DRB1*08:02:04+DRB1*11:19:01  | DRB1*08:30:03+DRB1*11:01:05 |                             |                           |
| DRB1*08:02:04+DRB1*11:19:02  | DRB1*08:30:03+DRB1*11:01:10 |                             |                           |
| DRB1*08:02:04+DRB1*11:29     | DRB1*08:42+DRB1*11:01:05    |                             |                           |
| DRB1*08:02:04+DRB1*11:42     | DRB1*08:13+DRB1*11:04:03    |                             |                           |
| DRB1*08:02:04+DRB1*11:47     | DRB1*08:42+DRB1*11:06:02    |                             |                           |
| DRB1*08:02:04+DRB1*11:57     | DRB1*08:13+DRB1*11:06:02    |                             |                           |
| DRB1*08:02:04+DRB1*11:66     | DRB1*08:44+DRB1*11:01:05    |                             |                           |
| DRB1*08:02:04+DRB1*12:01:02  | DRB1*08:30:03+DRB1*12:02:04 |                             |                           |
| DRB1*08:02:04+DRB1*14:74     | DRB1*08:13+DRB1*14:105      |                             |                           |
| DRB1*08:02:04+DRB1*15:29     | DRB1*08:07+DRB1*15:02:06    |                             |                           |
| DRB1*08:03:02+DRB1*08:04:03  | DRB1*08:03:03+DRB1*08:04:02 |                             |                           |
| DRB1*08:03:02+DRB1*08:13     | DRB1*08:30:01+DRB1*08:48    |                             |                           |
| DRB1*08:03:02+DRB1*08:20     | DRB1*08:04:01+DRB1*13:13    |                             |                           |
| DRB1*08:03:02+DRB1*08:28     | DRB1*08:04:01+DRB1*08:37    |                             |                           |
| DRB1*08:03:02+DRB1*08:30:03  | DRB1*08:03:03+DRB1*08:30:01 |                             |                           |
| DRB1*08:03:02+DRB1*08:31     | DRB1*08:10+DRB1*08:41       |                             |                           |
| DRB1*08:03:02+DRB1*08:45     | DRB1*08:30:03+DRB1*08:37    |                             |                           |
| DRB1*08:03:02+DRB1*09:06     | DRB1*08:10+DRB1*09:01:02    |                             |                           |
| DRB1*08:03:02+DRB1*10:02     | DRB1*08:10+DRB1*10:01:01    |                             |                           |
| DRB1*08:03:02+DRB1*11:02:01  | DRB1*08:10+DRB1*11:14:01    | DRB1*08:37+DRB1*11:48       |                           |
| DRB1*08:03:02+DRB1*11:04:03  | DRB1*08:10+DRB1*11:01:05    |                             |                           |
| DRB1*08:03:02+DRB1*11:04:04  | DRB1*08:10+DRB1*11:01:12    |                             |                           |
| DRB1*08:03:02+DRB1*11:04:05  | DRB1*08:10+DRB1*11:01:04    |                             |                           |
| DRB1*08:03:02+DRB1*11:04:07  | DRB1*08:06+DRB1*11:19:02    | DRB1*08:10+DRB1*11:01:03    |                           |

|                              |                              |                             |                          |
|------------------------------|------------------------------|-----------------------------|--------------------------|
| DRB1*08:03:02+DRB1*11:06:01G | DRB1*08:12+DRB1*11:01:01G    |                             |                          |
| DRB1*08:03:02+DRB1*11:06:02  | DRB1*08:12+DRB1*11:01:05     |                             |                          |
| DRB1*08:03:02+DRB1*11:06:03  | DRB1*08:12+DRB1*11:01:04     |                             |                          |
| DRB1*08:03:02+DRB1*11:07     | DRB1*08:10+DRB1*11:103       |                             |                          |
| DRB1*08:03:02+DRB1*11:08:01  | DRB1*08:18+DRB1*11:64        |                             |                          |
| DRB1*08:03:02+DRB1*11:08:02  | DRB1*08:03:03+DRB1*11:08:01  | DRB1*08:48+DRB1*11:19:01    |                          |
| DRB1*08:03:02+DRB1*11:09     | DRB1*08:36:01+DRB1*11:28:02  |                             |                          |
| DRB1*08:03:02+DRB1*11:10:01  | DRB1*08:03:03+DRB1*11:10:02  | DRB1*08:35+DRB1*11:01:02    |                          |
| DRB1*08:03:02+DRB1*11:10:02  | DRB1*08:35+DRB1*11:01:01G    | DRB1*08:36:01+DRB1*11:12:02 |                          |
| DRB1*08:03:02+DRB1*11:14:02  | DRB1*08:03:03+DRB1*11:14:01  |                             |                          |
| DRB1*08:03:02+DRB1*11:16     | DRB1*08:10+DRB1*11:20        |                             |                          |
| DRB1*08:03:02+DRB1*11:17     | DRB1*13:13+DRB1*14:11        |                             |                          |
| DRB1*08:03:02+DRB1*11:18     | DRB1*08:10+DRB1*11:19:01     | DRB1*08:18+DRB1*11:119      |                          |
| DRB1*08:03:02+DRB1*11:19:01  | DRB1*08:18+DRB1*11:45        |                             |                          |
| DRB1*08:03:02+DRB1*11:19:03  | DRB1*08:03:03+DRB1*11:19:01  |                             |                          |
| DRB1*08:03:02+DRB1*11:21     | DRB1*08:12+DRB1*11:14:01     |                             |                          |
| DRB1*08:03:02+DRB1*11:27:03  | DRB1*08:03:03+DRB1*11:27:02  |                             |                          |
| DRB1*08:03:02+DRB1*11:34     | DRB1*08:10+DRB1*11:26        |                             |                          |
| DRB1*08:03:02+DRB1*11:35     | DRB1*08:10+DRB1*11:33        |                             |                          |
| DRB1*08:03:02+DRB1*11:36     | DRB1*08:10+DRB1*11:68        |                             |                          |
| DRB1*08:03:02+DRB1*11:37:01  | DRB1*08:41+DRB1*13:13        |                             |                          |
| DRB1*08:03:02+DRB1*11:37:02  | DRB1*08:03:03+DRB1*11:37:01  |                             |                          |
| DRB1*08:03:02+DRB1*11:42     | DRB1*08:10+DRB1*11:08:01     |                             |                          |
| DRB1*08:03:02+DRB1*11:43     | DRB1*08:10+DRB1*11:39        | DRB1*11:67+DRB1*13:118      |                          |
| DRB1*08:03:02+DRB1*11:44     | DRB1*08:10+DRB1*11:49:01     |                             |                          |
| DRB1*08:03:02+DRB1*11:46:01  | DRB1*08:36:01+DRB1*11:04:04  |                             |                          |
| DRB1*08:03:02+DRB1*11:46:02  | DRB1*08:10+DRB1*11:62        | DRB1*08:36:01+DRB1*11:04:01 |                          |
| DRB1*08:03:02+DRB1*11:47     | DRB1*08:12+DRB1*11:29        |                             |                          |
| DRB1*08:03:02+DRB1*11:49:02  | DRB1*08:03:03+DRB1*11:49:01  |                             |                          |
| DRB1*08:03:02+DRB1*11:54:02  | DRB1*08:29+DRB1*11:25        |                             |                          |
| DRB1*08:03:02+DRB1*11:56     | DRB1*08:10+DRB1*11:37:01     | DRB1*08:31+DRB1*13:13       |                          |
| DRB1*08:03:02+DRB1*11:57     | DRB1*08:12+DRB1*11:08:01     |                             |                          |
| DRB1*08:03:02+DRB1*11:58:01  | DRB1*08:10+DRB1*11:28:02     |                             |                          |
| DRB1*08:03:02+DRB1*11:58:02  | DRB1*08:10+DRB1*11:28:01     |                             |                          |
| DRB1*08:03:02+DRB1*11:60     | DRB1*08:10+DRB1*11:109       |                             |                          |
| DRB1*08:03:02+DRB1*11:62     | DRB1*08:36:01+DRB1*11:01:01G |                             |                          |
| DRB1*08:03:02+DRB1*11:73     | DRB1*08:40+DRB1*11:45        |                             |                          |
| DRB1*08:03:02+DRB1*11:74:02  | DRB1*08:03:03+DRB1*11:74:01  |                             |                          |
| DRB1*08:03:02+DRB1*11:84:01  | DRB1*08:10+DRB1*11:27:01     |                             |                          |
| DRB1*08:03:02+DRB1*11:84:02  | DRB1*08:10+DRB1*11:27:02     |                             |                          |
| DRB1*08:03:02+DRB1*11:102:01 | DRB1*08:38+DRB1*11:04:01     |                             |                          |
| DRB1*08:03:02+DRB1*11:102:02 | DRB1*08:38+DRB1*11:04:05     |                             |                          |
| DRB1*08:03:02+DRB1*11:103    | DRB1*08:37+DRB1*11:107       |                             |                          |
| DRB1*08:03:02+DRB1*11:113    | DRB1*08:10+DRB1*11:09        | DRB1*08:36:01+DRB1*11:58:01 |                          |
| DRB1*08:03:02+DRB1*11:116    | DRB1*08:10+DRB1*11:120       | DRB1*08:47+DRB1*11:25       |                          |
| DRB1*08:03:02+DRB1*11:119    | DRB1*08:10+DRB1*11:45        |                             |                          |
| DRB1*08:03:02+DRB1*13:01:01G | DRB1*08:10+DRB1*13:02:01     | DRB1*08:30:01+DRB1*13:93    | DRB1*08:36:01+DRB1*13:69 |
|                              | DRB1*08:37+DRB1*13:40        |                             |                          |
|                              | DRB1*08:10+DRB1*13:02:03     |                             |                          |
| DRB1*08:03:02+DRB1*13:01:05  | DRB1*08:30:02+DRB1*13:93     |                             |                          |
| DRB1*08:03:02+DRB1*13:01:06  | DRB1*08:03:03+DRB1*13:01:01G | DRB1*08:30:03+DRB1*13:93    | DRB1*08:45+DRB1*13:32    |
| DRB1*08:03:02+DRB1*13:01:08  | DRB1*08:30:01+DRB1*13:139    | DRB1*08:37+DRB1*13:36       |                          |
| DRB1*08:03:02+DRB1*13:02:01  | DRB1*08:03:03+DRB1*13:03:02  | DRB1*08:40+DRB1*13:13       |                          |
| DRB1*08:03:02+DRB1*13:03:01  | DRB1*08:37+DRB1*13:48        |                             |                          |
| DRB1*08:03:02+DRB1*13:04     | DRB1*08:36:01+DRB1*13:50:02  |                             |                          |
| DRB1*08:03:02+DRB1*13:05:01  | DRB1*08:03:03+DRB1*13:05:01  |                             |                          |
| DRB1*08:03:02+DRB1*13:05:02  | DRB1*08:35+DRB1*13:70        |                             |                          |
| DRB1*08:03:02+DRB1*13:08     | DRB1*08:04:01+DRB1*13:30     | DRB1*08:06+DRB1*13:82       | DRB1*08:10+DRB1*13:14:01 |
| DRB1*08:03:02+DRB1*13:11:01  | DRB1*08:28+DRB1*13:12:01     |                             |                          |
|                              | DRB1*08:04:06+DRB1*13:30     | DRB1*08:10+DRB1*13:14:02    |                          |
| DRB1*08:03:02+DRB1*13:11:02  | DRB1*08:18+DRB1*13:13        |                             |                          |
| DRB1*08:03:02+DRB1*13:12:01  | DRB1*08:03:03+DRB1*13:12:01  |                             |                          |
| DRB1*08:03:02+DRB1*13:12:02  | DRB1*08:37+DRB1*13:07:02     |                             |                          |
| DRB1*08:03:02+DRB1*13:14:02  | DRB1*08:10+DRB1*13:104       | DRB1*08:37+DRB1*13:53       | DRB1*13:17+DRB1*14:63    |
| DRB1*08:03:02+DRB1*13:15     | DRB1*08:37+DRB1*13:116       |                             |                          |
| DRB1*08:03:02+DRB1*13:17     | DRB1*08:10+DRB1*13:29        |                             |                          |
| DRB1*08:03:02+DRB1*13:20     | DRB1*08:10+DRB1*13:23:02     | DRB1*08:30:01+DRB1*13:04    | DRB1*08:37+DRB1*13:70    |
| DRB1*08:03:02+DRB1*13:22     | DRB1*13:13+DRB1*13:17        |                             |                          |
|                              | DRB1*08:03:03+DRB1*13:23:02  |                             |                          |
| DRB1*08:03:02+DRB1*13:23:01  | DRB1*08:18+DRB1*14:27        | DRB1*08:24+DRB1*14:63       |                          |
| DRB1*08:03:02+DRB1*13:26:02  | DRB1*08:10+DRB1*13:41        |                             |                          |
| DRB1*08:03:02+DRB1*13:27     | DRB1*08:37+DRB1*13:12:01     |                             |                          |
| DRB1*08:03:02+DRB1*13:30     | DRB1*08:10+DRB1*13:65        |                             |                          |
| DRB1*08:03:02+DRB1*13:32     | DRB1*08:03:03+DRB1*13:33:02  |                             |                          |
| DRB1*08:03:02+DRB1*13:33:03  | DRB1*08:30:01+DRB1*13:65     |                             |                          |
| DRB1*08:03:02+DRB1*13:36     | DRB1*08:30:01+DRB1*13:03:01  | DRB1*08:30:03+DRB1*13:03:02 |                          |
| DRB1*08:03:02+DRB1*13:37     | DRB1*08:10+DRB1*13:36        | DRB1*08:30:01+DRB1*13:32    |                          |
| DRB1*08:03:02+DRB1*13:40     | DRB1*08:10+DRB1*13:97:01     |                             |                          |
| DRB1*08:03:02+DRB1*13:52     | DRB1*13:116+DRB1*14:63       |                             |                          |
| DRB1*08:03:02+DRB1*13:53     | DRB1*08:34+DRB1*13:75        |                             |                          |
| DRB1*08:03:02+DRB1*13:54     | DRB1*08:18+DRB1*13:119       |                             |                          |
| DRB1*08:03:02+DRB1*13:56     | DRB1*08:37+DRB1*13:19        |                             |                          |
| DRB1*08:03:02+DRB1*13:57     | DRB1*08:12+DRB1*13:12:01     |                             |                          |
| DRB1*08:03:02+DRB1*13:58     | DRB1*08:10+DRB1*13:96:02     |                             |                          |
| DRB1*08:03:02+DRB1*13:61:01  | DRB1*08:10+DRB1*13:96:01     |                             |                          |
| DRB1*08:03:02+DRB1*13:61:02  | DRB1*08:37+DRB1*13:03:02     |                             |                          |
| DRB1*08:03:02+DRB1*13:66:01  | DRB1*08:03:03+DRB1*13:66:01  | DRB1*08:37+DRB1*13:03:01    |                          |
| DRB1*08:03:02+DRB1*13:66:02  | DRB1*08:30:01+DRB1*13:48     | DRB1*13:13+DRB1*13:116      |                          |
| DRB1*08:03:02+DRB1*13:70     | DRB1*08:10+DRB1*13:39        |                             |                          |
| DRB1*08:03:02+DRB1*13:79     | DRB1*08:33+DRB1*13:01:01G    |                             |                          |
| DRB1*08:03:02+DRB1*13:80     | DRB1*08:12+DRB1*13:03:02     |                             |                          |
| DRB1*08:03:02+DRB1*13:81     | DRB1*08:30:01+DRB1*13:30     |                             |                          |
| DRB1*08:03:02+DRB1*13:82     | DRB1*08:10+DRB1*13:107       | DRB1*08:35+DRB1*13:22       | DRB1*08:37+DRB1*13:08    |
| DRB1*08:03:02+DRB1*13:83     | DRB1*08:48+DRB1*13:03:02     |                             |                          |
| DRB1*08:03:02+DRB1*13:88     | DRB1*08:10+DRB1*13:03:01     |                             |                          |
| DRB1*08:03:02+DRB1*13:89     | DRB1*08:10+DRB1*13:139       | DRB1*08:37+DRB1*13:32       |                          |
| DRB1*08:03:02+DRB1*13:93     | DRB1*08:36:01+DRB1*13:23:02  |                             |                          |
| DRB1*08:03:02+DRB1*13:97:02  | DRB1*08:46+DRB1*13:01:01G    |                             |                          |
| DRB1*08:03:02+DRB1*13:98     | DRB1*08:34+DRB1*13:21:01     |                             |                          |
| DRB1*08:03:02+DRB1*13:100    | DRB1*08:35+DRB1*13:23:02     |                             |                          |
| DRB1*08:03:02+DRB1*13:107    | DRB1*08:06+DRB1*13:12:01     | DRB1*08:10+DRB1*13:49       |                          |
| DRB1*08:03:02+DRB1*13:108    | DRB1*08:10+DRB1*13:128       |                             |                          |
| DRB1*08:03:02+DRB1*13:112    | DRB1*08:37+DRB1*13:65        |                             |                          |
| DRB1*08:03:02+DRB1*13:139    | DRB1*08:10+DRB1*14:07:01     | DRB1*08:29+DRB1*14:55       | DRB1*08:35+DRB1*14:58    |
| DRB1*08:03:02+DRB1*14:01:01G | DRB1*13:13+DRB1*14:04        |                             |                          |



|                              |                              |                           |
|------------------------------|------------------------------|---------------------------|
| DRB1*08:03:02+DRB1*14:02     | DRB1*08:18+DRB1*14:89        | DRB1*08:30:01+DRB1*14:13  |
| DRB1*08:03:02+DRB1*14:03:01  | DRB1*08:30:01+DRB1*14:85     |                           |
| DRB1*08:03:02+DRB1*14:04     | DRB1*08:10+DRB1*14:68        |                           |
| DRB1*08:03:02+DRB1*14:05:01  | DRB1*08:10+DRB1*14:44:01     |                           |
| DRB1*08:03:02+DRB1*14:05:03  | DRB1*08:10+DRB1*14:44:02     |                           |
| DRB1*08:03:02+DRB1*14:06:01  | DRB1*08:10+DRB1*14:02        | DRB1*13:13+DRB1*14:52     |
| DRB1*08:03:02+DRB1*14:06:02  | DRB1*08:03:03+DRB1*14:06:01  |                           |
| DRB1*08:03:02+DRB1*14:07:01  | DRB1*13:13+DRB1*14:68        |                           |
| DRB1*08:03:02+DRB1*14:07:02  | DRB1*08:03:03+DRB1*14:07:01  |                           |
| DRB1*08:03:02+DRB1*14:12:01  | DRB1*08:10+DRB1*14:03:01     |                           |
| DRB1*08:03:02+DRB1*14:15     | DRB1*08:04:01+DRB1*08:35     |                           |
| DRB1*08:03:02+DRB1*14:17     | DRB1*08:10+DRB1*14:30        | DRB1*08:37+DRB1*14:80     |
| DRB1*08:03:02+DRB1*14:22     | DRB1*08:35+DRB1*14:25        |                           |
| DRB1*08:03:02+DRB1*14:23:01  | DRB1*08:10+DRB1*14:14        | DRB1*13:13+DRB1*14:126    |
| DRB1*08:03:02+DRB1*14:28     | DRB1*08:12+DRB1*14:68        |                           |
| DRB1*08:03:02+DRB1*14:29     | DRB1*08:12+DRB1*14:02        |                           |
| DRB1*08:03:02+DRB1*14:30     | DRB1*08:37+DRB1*14:09        |                           |
| DRB1*08:03:02+DRB1*14:32:02  | DRB1*08:18+DRB1*14:55        | DRB1*13:13+DRB1*14:31     |
| DRB1*08:03:02+DRB1*14:35     | DRB1*08:37+DRB1*14:01:01G    |                           |
| DRB1*08:03:02+DRB1*14:38     | DRB1*13:13+DRB1*14:50        |                           |
| DRB1*08:03:02+DRB1*14:40     | DRB1*08:35+DRB1*14:102       |                           |
| DRB1*08:03:02+DRB1*14:44:03  | DRB1*08:03:03+DRB1*14:44:01  |                           |
| DRB1*08:03:02+DRB1*14:48     | DRB1*08:34+DRB1*14:13        |                           |
| DRB1*08:03:02+DRB1*14:51     | DRB1*08:29+DRB1*14:89        |                           |
| DRB1*08:03:02+DRB1*14:53     | DRB1*08:37+DRB1*14:25        |                           |
| DRB1*08:03:02+DRB1*14:60     | DRB1*08:23+DRB1*14:01:01G    |                           |
| DRB1*08:03:02+DRB1*14:67     | DRB1*08:30:01+DRB1*14:63     |                           |
| DRB1*08:03:02+DRB1*14:71     | DRB1*08:46+DRB1*14:04        |                           |
| DRB1*08:03:02+DRB1*14:78     | DRB1*08:10+DRB1*14:63        |                           |
| DRB1*08:03:02+DRB1*14:80     | DRB1*08:10+DRB1*14:09        | DRB1*13:13+DRB1*14:28     |
| DRB1*08:03:02+DRB1*14:99     | DRB1*08:12+DRB1*14:07:01     |                           |
| DRB1*08:03:02+DRB1*14:106    | DRB1*08:10+DRB1*14:51        |                           |
| DRB1*08:03:02+DRB1*14:111    | DRB1*13:13+DRB1*14:107       |                           |
| DRB1*08:03:02+DRB1*14:122    | DRB1*13:13+DRB1*14:120       |                           |
| DRB1*08:03:02+DRB1*15:01:01G | DRB1*08:10+DRB1*15:02:01     | DRB1*08:37+DRB1*15:07:01  |
| DRB1*08:03:02+DRB1*15:01:03  | DRB1*08:10+DRB1*15:02:06     |                           |
| DRB1*08:03:02+DRB1*15:01:04  | DRB1*08:10+DRB1*15:02:02     | DRB1*08:30:01+DRB1*15:12  |
| DRB1*08:03:02+DRB1*15:01:09  | DRB1*08:10+DRB1*15:02:04     | DRB1*08:37+DRB1*15:07:02  |
| DRB1*08:03:02+DRB1*15:01:10  | DRB1*08:10+DRB1*15:02:08     |                           |
| DRB1*08:03:02+DRB1*15:02:01  | DRB1*08:37+DRB1*15:11        |                           |
| DRB1*08:03:02+DRB1*15:02:05  | DRB1*08:03:03+DRB1*15:02:02  |                           |
| DRB1*08:03:02+DRB1*15:02:09  | DRB1*08:03:03+DRB1*15:02:01  |                           |
| DRB1*08:03:02+DRB1*15:05     | DRB1*08:10+DRB1*15:31        |                           |
| DRB1*08:03:02+DRB1*15:07:01  | DRB1*08:10+DRB1*15:11        |                           |
| DRB1*08:03:02+DRB1*15:09     | DRB1*08:37+DRB1*15:48        |                           |
| DRB1*08:03:02+DRB1*15:16     | DRB1*08:23+DRB1*15:01:01G    |                           |
| DRB1*08:03:02+DRB1*15:27     | DRB1*08:37+DRB1*15:34        |                           |
| DRB1*08:03:02+DRB1*15:35     | DRB1*08:12+DRB1*15:02:01     |                           |
| DRB1*08:03:02+DRB1*15:62     | DRB1*08:36:01+DRB1*15:01:01G |                           |
| DRB1*08:03:02+DRB1*15:65     | DRB1*08:10+DRB1*15:47        |                           |
| DRB1*08:03:02+DRB1*15:66     | DRB1*08:10+DRB1*15:27        |                           |
| DRB1*08:03:02+DRB1*16:02:02  | DRB1*08:18+DRB1*16:18        |                           |
| DRB1*08:03:02+DRB1*16:09     | DRB1*08:37+DRB1*16:01:01     |                           |
| DRB1*08:03:02+DRB1*16:10     | DRB1*08:37+DRB1*16:02:01     |                           |
| DRB1*08:03:02+DRB1*16:15     | DRB1*08:06+DRB1*16:05:01     | DRB1*08:10+DRB1*16:01:01  |
| DRB1*08:03:03+DRB1*08:13     | DRB1*08:30:03+DRB1*08:48     |                           |
| DRB1*08:03:03+DRB1*08:20     | DRB1*08:04:04+DRB1*13:13     | DRB1*08:10+DRB1*13:47     |
| DRB1*08:03:03+DRB1*08:28     | DRB1*08:04:04+DRB1*08:37     | DRB1*08:06+DRB1*08:45     |
| DRB1*08:03:03+DRB1*11:02:01  | DRB1*08:10+DRB1*11:14:02     |                           |
| DRB1*08:03:03+DRB1*11:04:07  | DRB1*08:10+DRB1*11:01:11     |                           |
| DRB1*08:03:03+DRB1*11:06:01G | DRB1*08:12+DRB1*11:01:02     | DRB1*08:22+DRB1*11:19:01  |
| DRB1*08:03:03+DRB1*11:08:02  | DRB1*08:48+DRB1*11:19:03     |                           |
| DRB1*08:03:03+DRB1*11:18     | DRB1*08:10+DRB1*11:19:03     |                           |
| DRB1*08:03:03+DRB1*11:21     | DRB1*08:12+DRB1*11:14:02     |                           |
| DRB1*08:03:03+DRB1*11:24     | DRB1*08:16+DRB1*11:19:01     |                           |
| DRB1*08:03:03+DRB1*11:36     | DRB1*08:48+DRB1*11:02:01     |                           |
| DRB1*08:03:03+DRB1*11:42     | DRB1*08:10+DRB1*11:08:02     | DRB1*08:48+DRB1*11:18     |
| DRB1*08:03:03+DRB1*11:44     | DRB1*08:10+DRB1*11:49:02     |                           |
| DRB1*08:03:03+DRB1*11:46:02  | DRB1*08:36:01+DRB1*11:04:02  |                           |
| DRB1*08:03:03+DRB1*11:56     | DRB1*08:10+DRB1*11:37:02     |                           |
| DRB1*08:03:03+DRB1*11:57     | DRB1*08:12+DRB1*11:08:02     |                           |
| DRB1*08:03:03+DRB1*11:62     | DRB1*08:36:01+DRB1*11:01:02  |                           |
| DRB1*08:03:03+DRB1*11:64     | DRB1*08:48+DRB1*11:45        |                           |
| DRB1*08:03:03+DRB1*11:68     | DRB1*08:48+DRB1*11:14:01     |                           |
| DRB1*08:03:03+DRB1*11:84:02  | DRB1*08:10+DRB1*11:27:03     |                           |
| DRB1*08:03:03+DRB1*11:92     | DRB1*08:10+DRB1*11:72        |                           |
| DRB1*08:03:03+DRB1*11:102:01 | DRB1*08:38+DRB1*11:04:02     |                           |
| DRB1*08:03:03+DRB1*11:120    | DRB1*08:47+DRB1*11:23        |                           |
| DRB1*08:03:03+DRB1*12:12     | DRB1*08:48+DRB1*12:01:01G    |                           |
| DRB1*08:03:03+DRB1*12:13     | DRB1*08:26+DRB1*12:01:01G    |                           |
| DRB1*08:03:03+DRB1*13:02:01  | DRB1*08:30:03+DRB1*13:139    | DRB1*08:45+DRB1*13:65     |
| DRB1*08:03:03+DRB1*13:11:01  | DRB1*08:04:04+DRB1*13:30     | DRB1*08:10+DRB1*13:14:03  |
|                              | DRB1*08:45+DRB1*13:108       | DRB1*08:28+DRB1*13:12:02  |
| DRB1*08:03:03+DRB1*13:14:03  | DRB1*08:30:03+DRB1*13:21:02  |                           |
| DRB1*08:03:03+DRB1*13:20     | DRB1*08:13+DRB1*13:93        | DRB1*08:48+DRB1*13:01:01G |
| DRB1*08:03:03+DRB1*13:21:02  | DRB1*08:17+DRB1*13:12:02     |                           |
| DRB1*08:03:03+DRB1*13:22     | DRB1*08:10+DRB1*13:23:01     | DRB1*08:30:03+DRB1*13:04  |
| DRB1*08:03:03+DRB1*13:23:01  | DRB1*08:45+DRB1*13:38        | DRB1*08:45+DRB1*13:48     |
| DRB1*08:03:03+DRB1*13:25     | DRB1*08:13+DRB1*13:30        | DRB1*08:45+DRB1*13:134    |
| DRB1*08:03:03+DRB1*13:26:02  | DRB1*08:05+DRB1*14:67        | DRB1*08:48+DRB1*13:82     |
| DRB1*08:03:03+DRB1*13:29     | DRB1*08:13+DRB1*13:139       | DRB1*08:48+DRB1*13:02:01  |
| DRB1*08:03:03+DRB1*13:30     | DRB1*08:37+DRB1*13:12:02     |                           |
| DRB1*08:03:03+DRB1*13:36     | DRB1*08:30:03+DRB1*13:65     |                           |
| DRB1*08:03:03+DRB1*13:37     | DRB1*08:30:03+DRB1*13:03:01  |                           |
| DRB1*08:03:03+DRB1*13:40     | DRB1*08:30:03+DRB1*13:32     |                           |
| DRB1*08:03:03+DRB1*13:47     | DRB1*08:30:03+DRB1*13:55     |                           |
| DRB1*08:03:03+DRB1*13:48     | DRB1*08:10+DRB1*13:38        |                           |
| DRB1*08:03:03+DRB1*13:58     | DRB1*08:12+DRB1*13:12:02     |                           |
| DRB1*08:03:03+DRB1*13:70     | DRB1*08:30:03+DRB1*13:48     |                           |
| DRB1*08:03:03+DRB1*13:71     | DRB1*08:48+DRB1*13:27        |                           |
| DRB1*08:03:03+DRB1*13:78     | DRB1*08:48+DRB1*13:79        |                           |
| DRB1*08:03:03+DRB1*13:80     | DRB1*08:33+DRB1*13:01:08     |                           |
| DRB1*08:03:03+DRB1*13:81     | DRB1*08:12+DRB1*13:03:01     |                           |
| DRB1*08:03:03+DRB1*13:82     | DRB1*08:30:03+DRB1*13:30     | DRB1*08:45+DRB1*13:12:01  |
| DRB1*08:03:03+DRB1*13:85     | DRB1*08:40+DRB1*14:67        |                           |

|                              |                              |                           |                           |
|------------------------------|------------------------------|---------------------------|---------------------------|
| DRB1*08:03:03+DRB1*13:88     | DRB1*08:48+DRB1*13:03:01     |                           |                           |
| DRB1*08:03:03+DRB1*13:94     | DRB1*08:10+DRB1*13:33:01     |                           |                           |
| DRB1*08:03:03+DRB1*13:97:02  | DRB1*08:36:01+DRB1*13:23:01  |                           |                           |
| DRB1*08:03:03+DRB1*13:98     | DRB1*08:46+DRB1*13:01:08     |                           |                           |
| DRB1*08:03:03+DRB1*13:100    | DRB1*08:34+DRB1*13:21:02     |                           |                           |
| DRB1*08:03:03+DRB1*13:107    | DRB1*08:35+DRB1*13:23:01     |                           |                           |
| DRB1*08:03:03+DRB1*13:108    | DRB1*08:06+DRB1*13:12:02     |                           |                           |
| DRB1*08:03:03+DRB1*13:134    | DRB1*08:48+DRB1*13:12:01     |                           |                           |
| DRB1*08:03:03+DRB1*14:01:01G | DRB1*08:10+DRB1*14:07:02     | DRB1*08:48+DRB1*14:122    |                           |
| DRB1*08:03:03+DRB1*14:02     | DRB1*08:30:03+DRB1*14:13     |                           |                           |
| DRB1*08:03:03+DRB1*14:03:01  | DRB1*08:13+DRB1*14:63        | DRB1*08:30:03+DRB1*14:85  | DRB1*08:48+DRB1*14:67     |
| DRB1*08:03:03+DRB1*14:04     | DRB1*08:48+DRB1*14:120       |                           |                           |
| DRB1*08:03:03+DRB1*14:05:01  | DRB1*08:10+DRB1*14:44:03     | DRB1*08:48+DRB1*14:45     |                           |
| DRB1*08:03:03+DRB1*14:12:01  | DRB1*08:13+DRB1*14:78        |                           |                           |
| DRB1*08:03:03+DRB1*14:15     | DRB1*08:04:04+DRB1*08:35     | DRB1*08:09+DRB1*08:10     |                           |
| DRB1*08:03:03+DRB1*14:19     | DRB1*08:40+DRB1*14:89        |                           |                           |
| DRB1*08:03:03+DRB1*14:25     | DRB1*08:08+DRB1*13:12:01     |                           |                           |
| DRB1*08:03:03+DRB1*14:53     | DRB1*08:08+DRB1*13:30        |                           |                           |
| DRB1*08:03:03+DRB1*14:67     | DRB1*08:30:03+DRB1*14:63     |                           |                           |
| DRB1*08:03:03+DRB1*14:85     | DRB1*08:48+DRB1*14:63        |                           |                           |
| DRB1*08:03:03+DRB1*14:99     | DRB1*08:12+DRB1*14:07:02     |                           |                           |
| DRB1*08:03:03+DRB1*14:116    | DRB1*08:13+DRB1*13:13        |                           |                           |
| DRB1*08:03:03+DRB1*15:01:01G | DRB1*08:10+DRB1*15:02:09     |                           |                           |
| DRB1*08:03:03+DRB1*15:01:04  | DRB1*08:10+DRB1*15:02:05     | DRB1*08:30:03+DRB1*15:12  |                           |
| DRB1*08:03:03+DRB1*15:05     | DRB1*08:48+DRB1*15:01:01G    |                           |                           |
| DRB1*08:03:03+DRB1*15:23     | DRB1*08:48+DRB1*15:03:01G    |                           |                           |
| DRB1*08:03:03+DRB1*15:31     | DRB1*08:48+DRB1*15:02:01     |                           |                           |
| DRB1*08:03:03+DRB1*15:35     | DRB1*08:12+DRB1*15:02:09     |                           |                           |
| DRB1*08:03:03+DRB1*15:63     | DRB1*08:48+DRB1*15:38        |                           |                           |
| DRB1*08:03:03+DRB1*15:73     | DRB1*08:48+DRB1*15:06:01     |                           |                           |
| DRB1*08:03:03+DRB1*16:01:02  | DRB1*08:18+DRB1*16:04        |                           |                           |
| DRB1*08:03:03+DRB1*16:02:01  | DRB1*08:48+DRB1*16:05:01     |                           |                           |
| DRB1*08:03:03+DRB1*16:09     | DRB1*08:17+DRB1*16:05:01     |                           |                           |
| DRB1*08:04:01+DRB1*08:04:03  | DRB1*08:04:02+DRB1*08:04:04  |                           |                           |
| DRB1*08:04:01+DRB1*08:18     | DRB1*08:10+DRB1*08:24        |                           |                           |
| DRB1*08:04:01+DRB1*08:30:03  | DRB1*08:04:04+DRB1*08:30:01  |                           |                           |
| DRB1*08:04:01+DRB1*08:45     | DRB1*08:28+DRB1*08:30:03     |                           |                           |
| DRB1*08:04:01+DRB1*08:48     | DRB1*08:06+DRB1*08:13        |                           |                           |
| DRB1*08:04:01+DRB1*09:02:01  | DRB1*08:04:06+DRB1*09:02:02  |                           |                           |
| DRB1*08:04:01+DRB1*11:02:01  | DRB1*08:28+DRB1*11:48        | DRB1*11:25+DRB1*13:116    | DRB1*11:67+DRB1*13:70     |
| DRB1*08:04:01+DRB1*11:03     | DRB1*08:28+DRB1*11:41        |                           |                           |
| DRB1*08:04:01+DRB1*11:04:01  | DRB1*08:28+DRB1*11:56        |                           |                           |
| DRB1*08:04:01+DRB1*11:04:02  | DRB1*08:04:04+DRB1*11:04:01  |                           |                           |
| DRB1*08:04:01+DRB1*11:10:01  | DRB1*08:04:04+DRB1*11:10:02  | DRB1*08:09+DRB1*11:04:01  | DRB1*11:01:02+DRB1*14:15  |
| DRB1*08:04:01+DRB1*11:10:02  | DRB1*11:01:01G+DRB1*14:15    |                           |                           |
| DRB1*08:04:01+DRB1*11:13:01G | DRB1*11:67+DRB1*14:123       |                           |                           |
| DRB1*08:04:01+DRB1*11:16     | DRB1*11:67+DRB1*13:40        |                           |                           |
| DRB1*08:04:01+DRB1*11:17     | DRB1*08:20+DRB1*14:11        |                           |                           |
| DRB1*08:04:01+DRB1*11:19:02  | DRB1*08:30:01+DRB1*11:04:07  |                           |                           |
| DRB1*08:04:01+DRB1*11:25     | DRB1*08:20+DRB1*11:67        |                           |                           |
| DRB1*08:04:01+DRB1*11:56     | DRB1*08:20+DRB1*08:31        |                           |                           |
| DRB1*08:04:01+DRB1*11:64     | DRB1*11:67+DRB1*14:116       |                           |                           |
| DRB1*08:04:01+DRB1*11:73     | DRB1*11:67+DRB1*13:37        |                           |                           |
| DRB1*08:04:01+DRB1*11:74:02  | DRB1*08:04:04+DRB1*11:74:01  |                           |                           |
| DRB1*08:04:01+DRB1*11:113    | DRB1*08:31+DRB1*13:18        |                           |                           |
| DRB1*08:04:01+DRB1*12:02:01  | DRB1*08:28+DRB1*12:21        |                           |                           |
| DRB1*08:04:01+DRB1*13:01:01G | DRB1*08:28+DRB1*13:40        | DRB1*13:18+DRB1*13:116    |                           |
| DRB1*08:04:01+DRB1*13:01:05  | DRB1*08:04:06+DRB1*13:01:01G |                           |                           |
| DRB1*08:04:01+DRB1*13:01:08  | DRB1*08:04:04+DRB1*13:01:01G |                           |                           |
| DRB1*08:04:01+DRB1*13:01:13  | DRB1*08:04:07+DRB1*13:01:01G |                           |                           |
| DRB1*08:04:01+DRB1*13:04     | DRB1*08:06+DRB1*13:22        | DRB1*08:10+DRB1*13:24     | DRB1*08:28+DRB1*13:48     |
| DRB1*08:04:01+DRB1*13:07:01  | DRB1*08:20+DRB1*08:24        |                           |                           |
| DRB1*08:04:01+DRB1*13:07:02  | DRB1*08:04:06+DRB1*13:07:01  |                           |                           |
| DRB1*08:04:01+DRB1*13:08     | DRB1*13:70+DRB1*14:15        |                           |                           |
| DRB1*08:04:01+DRB1*13:11:02  | DRB1*08:04:06+DRB1*13:11:01  |                           |                           |
| DRB1*08:04:01+DRB1*13:12:01  | DRB1*08:10+DRB1*13:07:01     | DRB1*08:18+DRB1*08:20     | DRB1*08:30:01+DRB1*13:108 |
| DRB1*08:04:01+DRB1*13:12:02  | DRB1*08:04:04+DRB1*13:12:01  | DRB1*08:30:03+DRB1*13:108 |                           |
| DRB1*08:04:01+DRB1*13:15     | DRB1*08:28+DRB1*13:53        |                           |                           |
| DRB1*08:04:01+DRB1*13:17     | DRB1*08:28+DRB1*13:116       |                           |                           |
| DRB1*08:04:01+DRB1*13:22     | DRB1*08:20+DRB1*13:17        | DRB1*08:28+DRB1*13:70     |                           |
| DRB1*08:04:01+DRB1*13:32     | DRB1*08:06+DRB1*13:40        |                           |                           |
| DRB1*08:04:01+DRB1*13:33:03  | DRB1*08:04:04+DRB1*13:33:02  |                           |                           |
| DRB1*08:04:01+DRB1*13:45     | DRB1*08:08+DRB1*13:22        |                           |                           |
| DRB1*08:04:01+DRB1*13:48     | DRB1*08:06+DRB1*13:70        |                           |                           |
| DRB1*08:04:01+DRB1*13:57     | DRB1*08:28+DRB1*13:19        |                           |                           |
| DRB1*08:04:01+DRB1*13:66:01  | DRB1*08:28+DRB1*13:03:02     |                           |                           |
| DRB1*08:04:01+DRB1*13:66:02  | DRB1*08:04:04+DRB1*13:66:01  | DRB1*08:28+DRB1*13:03:01  |                           |
| DRB1*08:04:01+DRB1*13:70     | DRB1*08:20+DRB1*13:116       |                           |                           |
| DRB1*08:04:01+DRB1*13:75     | DRB1*08:06+DRB1*13:24        |                           |                           |
| DRB1*08:04:01+DRB1*13:82     | DRB1*08:30:01+DRB1*13:11:01  |                           |                           |
| DRB1*08:04:01+DRB1*13:83     | DRB1*08:28+DRB1*13:08        | DRB1*13:22+DRB1*14:15     |                           |
| DRB1*08:04:01+DRB1*13:93     | DRB1*08:06+DRB1*13:01:01G    | DRB1*08:10+DRB1*13:111    | DRB1*08:28+DRB1*13:32     |
| DRB1*08:04:01+DRB1*14:01:01G | DRB1*08:20+DRB1*14:04        | DRB1*14:15+DRB1*14:58     |                           |
| DRB1*08:04:01+DRB1*14:06:01  | DRB1*08:20+DRB1*14:52        |                           |                           |
| DRB1*08:04:01+DRB1*14:06:02  | DRB1*08:04:04+DRB1*14:06:01  |                           |                           |
| DRB1*08:04:01+DRB1*14:17     | DRB1*08:28+DRB1*14:80        |                           |                           |
| DRB1*08:04:01+DRB1*14:22     | DRB1*14:15+DRB1*14:25        |                           |                           |
| DRB1*08:04:01+DRB1*14:23:01  | DRB1*08:20+DRB1*14:126       |                           |                           |
| DRB1*08:04:01+DRB1*14:32:02  | DRB1*08:20+DRB1*14:31        |                           |                           |
| DRB1*08:04:01+DRB1*14:35     | DRB1*08:28+DRB1*14:01:01G    |                           |                           |
| DRB1*08:04:01+DRB1*14:38     | DRB1*08:20+DRB1*14:50        |                           |                           |
| DRB1*08:04:01+DRB1*14:40     | DRB1*14:15+DRB1*14:102       |                           |                           |
| DRB1*08:04:01+DRB1*14:53     | DRB1*08:28+DRB1*14:25        |                           |                           |
| DRB1*08:04:01+DRB1*14:99     | DRB1*08:20+DRB1*14:28        |                           |                           |
| DRB1*08:04:01+DRB1*14:111    | DRB1*08:20+DRB1*14:107       |                           |                           |
| DRB1*08:04:01+DRB1*14:122    | DRB1*08:20+DRB1*14:120       |                           |                           |
| DRB1*08:04:01+DRB1*15:01:01G | DRB1*08:04:06+DRB1*15:01:04  | DRB1*08:28+DRB1*15:07:01  |                           |
| DRB1*08:04:01+DRB1*15:01:04  | DRB1*08:28+DRB1*15:07:02     |                           |                           |
| DRB1*08:04:01+DRB1*15:07:01  | DRB1*08:04:06+DRB1*15:07:02  |                           |                           |
| DRB1*08:04:01+DRB1*15:09     | DRB1*08:28+DRB1*15:48        |                           |                           |
| DRB1*08:04:01+DRB1*15:12     | DRB1*08:06+DRB1*15:01:04     |                           |                           |
| DRB1*08:04:01+DRB1*16:05:01  | DRB1*08:30:01+DRB1*16:15     |                           |                           |
| DRB1*08:04:01+DRB1*16:09     | DRB1*08:28+DRB1*16:01:01     |                           |                           |
| DRB1*08:04:01+DRB1*16:10     | DRB1*08:28+DRB1*16:02:01     |                           |                           |
| DRB1*08:04:02+DRB1*08:30:03  | DRB1*08:04:03+DRB1*08:30:01  |                           |                           |

|                              |                              |                          |
|------------------------------|------------------------------|--------------------------|
| DRB1*08:04:02+DRB1*11:01:02  | DRB1*08:04:03+DRB1*11:01:01G |                          |
| DRB1*08:04:02+DRB1*11:01:11  | DRB1*08:04:03+DRB1*11:01:03  |                          |
| DRB1*08:04:02+DRB1*11:04:02  | DRB1*08:04:03+DRB1*11:04:01  |                          |
| DRB1*08:04:02+DRB1*11:08:02  | DRB1*08:04:03+DRB1*11:08:01  |                          |
| DRB1*08:04:02+DRB1*11:10:01  | DRB1*08:04:03+DRB1*11:10:02  |                          |
| DRB1*08:04:02+DRB1*11:14:02  | DRB1*08:04:03+DRB1*11:14:01  |                          |
| DRB1*08:04:02+DRB1*11:19:03  | DRB1*08:04:03+DRB1*11:19:01  |                          |
| DRB1*08:04:02+DRB1*11:27:03  | DRB1*08:04:03+DRB1*11:27:02  |                          |
| DRB1*08:04:02+DRB1*11:37:02  | DRB1*08:04:03+DRB1*11:37:01  |                          |
| DRB1*08:04:02+DRB1*11:49:02  | DRB1*08:04:03+DRB1*11:49:01  |                          |
| DRB1*08:04:02+DRB1*11:74:02  | DRB1*08:04:03+DRB1*11:74:01  |                          |
| DRB1*08:04:02+DRB1*13:01:08  | DRB1*08:04:03+DRB1*13:01:01G |                          |
| DRB1*08:04:02+DRB1*13:03:01  | DRB1*08:04:03+DRB1*13:03:02  |                          |
| DRB1*08:04:02+DRB1*13:05:02  | DRB1*08:04:03+DRB1*13:05:01  |                          |
| DRB1*08:04:02+DRB1*13:12:02  | DRB1*08:04:03+DRB1*13:12:01  |                          |
| DRB1*08:04:02+DRB1*13:14:03  | DRB1*08:04:03+DRB1*13:14:01  |                          |
| DRB1*08:04:02+DRB1*13:21:02  | DRB1*08:04:03+DRB1*13:21:01  |                          |
| DRB1*08:04:02+DRB1*13:23:01  | DRB1*08:04:03+DRB1*13:23:02  |                          |
| DRB1*08:04:02+DRB1*13:33:03  | DRB1*08:04:03+DRB1*13:33:02  |                          |
| DRB1*08:04:02+DRB1*13:66:02  | DRB1*08:04:03+DRB1*13:66:01  |                          |
| DRB1*08:04:02+DRB1*14:06:02  | DRB1*08:04:03+DRB1*14:06:01  |                          |
| DRB1*08:04:02+DRB1*14:07:02  | DRB1*08:04:03+DRB1*14:07:01  |                          |
| DRB1*08:04:02+DRB1*14:44:03  | DRB1*08:04:03+DRB1*14:44:01  |                          |
| DRB1*08:04:02+DRB1*15:02:05  | DRB1*08:04:03+DRB1*15:02:02  |                          |
| DRB1*08:04:02+DRB1*15:02:09  | DRB1*08:04:03+DRB1*15:02:01  |                          |
| DRB1*08:04:04+DRB1*09:04     | DRB1*08:13+DRB1*09:06        |                          |
| DRB1*08:04:04+DRB1*11:08:02  | DRB1*08:13+DRB1*11:04:02     |                          |
| DRB1*08:04:04+DRB1*11:10:01  | DRB1*08:09+DRB1*11:04:02     |                          |
| DRB1*08:04:04+DRB1*11:19:02  | DRB1*08:30:03+DRB1*11:04:07  |                          |
| DRB1*08:04:04+DRB1*11:19:03  | DRB1*08:30:03+DRB1*11:04:02  |                          |
| DRB1*08:04:04+DRB1*11:29     | DRB1*08:42+DRB1*11:04:01     |                          |
| DRB1*08:04:04+DRB1*11:64     | DRB1*08:13+DRB1*11:25        |                          |
| DRB1*08:04:04+DRB1*11:66     | DRB1*08:44+DRB1*11:04:01     |                          |
| DRB1*08:04:04+DRB1*13:01:05  | DRB1*08:04:06+DRB1*13:01:08  |                          |
| DRB1*08:04:04+DRB1*13:01:13  | DRB1*08:04:07+DRB1*13:01:08  |                          |
| DRB1*08:04:04+DRB1*13:25     | DRB1*08:13+DRB1*13:11:01     |                          |
| DRB1*08:04:04+DRB1*13:56     | DRB1*08:13+DRB1*13:42        |                          |
| DRB1*08:04:04+DRB1*13:82     | DRB1*08:30:03+DRB1*13:11:01  |                          |
| DRB1*08:04:04+DRB1*13:93     | DRB1*08:06+DRB1*13:01:08     |                          |
| DRB1*08:04:04+DRB1*13:119    | DRB1*08:13+DRB1*13:18        |                          |
| DRB1*08:04:04+DRB1*13:134    | DRB1*08:13+DRB1*13:108       |                          |
| DRB1*08:04:04+DRB1*14:49     | DRB1*08:08+DRB1*14:20        |                          |
| DRB1*08:04:04+DRB1*14:53     | DRB1*08:08+DRB1*13:11:01     |                          |
| DRB1*08:04:04+DRB1*14:116    | DRB1*08:13+DRB1*08:20        |                          |
| DRB1*08:04:04+DRB1*15:29     | DRB1*08:07+DRB1*15:01:01G    |                          |
| DRB1*08:04:04+DRB1*16:02:01  | DRB1*08:13+DRB1*16:15        |                          |
| DRB1*08:04:04+DRB1*16:05:01  | DRB1*08:30:03+DRB1*16:15     |                          |
| DRB1*08:04:06+DRB1*11:01:01G | DRB1*11:67+DRB1*13:07:02     |                          |
| DRB1*08:04:06+DRB1*13:01:13  | DRB1*08:04:07+DRB1*13:01:05  |                          |
| DRB1*08:04:06+DRB1*13:12:01  | DRB1*08:10+DRB1*13:07:02     |                          |
| DRB1*08:04:06+DRB1*13:49     | DRB1*08:06+DRB1*13:07:02     |                          |
| DRB1*08:04:06+DRB1*13:82     | DRB1*08:30:01+DRB1*13:11:02  |                          |
| DRB1*08:04:06+DRB1*13:93     | DRB1*08:06+DRB1*13:01:05     |                          |
| DRB1*08:04:06+DRB1*15:12     | DRB1*08:06+DRB1*15:01:01G    | DRB1*08:10+DRB1*15:04    |
| DRB1*08:04:07+DRB1*13:93     | DRB1*08:06+DRB1*13:01:13     |                          |
| DRB1*08:05+DRB1*08:12        | DRB1*08:18+DRB1*08:22        |                          |
| DRB1*08:05+DRB1*08:37        | DRB1*08:17+DRB1*08:18        |                          |
| DRB1*08:05+DRB1*11:01:01G    | DRB1*08:41+DRB1*13:21:02     |                          |
| DRB1*08:05+DRB1*11:04:01     | DRB1*08:31+DRB1*13:21:02     |                          |
| DRB1*08:05+DRB1*11:18        | DRB1*08:18+DRB1*11:04:02     |                          |
| DRB1*08:05+DRB1*11:19:01     | DRB1*08:18+DRB1*11:01:02     |                          |
| DRB1*08:05+DRB1*11:19:02     | DRB1*08:18+DRB1*11:01:11     |                          |
| DRB1*08:05+DRB1*11:48        | DRB1*08:31+DRB1*13:38        |                          |
| DRB1*08:05+DRB1*11:67        | DRB1*08:17+DRB1*08:31        |                          |
| DRB1*08:05+DRB1*11:73        | DRB1*08:40+DRB1*11:01:02     |                          |
| DRB1*08:05+DRB1*13:03:02     | DRB1*08:40+DRB1*13:49        |                          |
| DRB1*08:05+DRB1*13:10        | DRB1*08:40+DRB1*13:42        |                          |
| DRB1*08:05+DRB1*13:14:01     | DRB1*08:24+DRB1*13:21:02     |                          |
| DRB1*08:05+DRB1*13:22        | DRB1*13:21:02+DRB1*13:116    |                          |
| DRB1*08:05+DRB1*13:30        | DRB1*08:18+DRB1*13:21:02     |                          |
| DRB1*08:05+DRB1*13:66:01     | DRB1*08:40+DRB1*13:21:01     |                          |
| DRB1*08:05+DRB1*13:66:02     | DRB1*08:40+DRB1*13:21:02     |                          |
| DRB1*08:05+DRB1*13:82        | DRB1*08:18+DRB1*13:14:03     |                          |
| DRB1*08:05+DRB1*13:85        | DRB1*08:40+DRB1*13:26:02     |                          |
| DRB1*08:05+DRB1*14:03:01     | DRB1*08:48+DRB1*13:26:02     |                          |
| DRB1*08:05+DRB1*14:35        | DRB1*13:21:02+DRB1*14:04     |                          |
| DRB1*08:06+DRB1*11:02:01     | DRB1*08:10+DRB1*11:03        | DRB1*11:67+DRB1*13:48    |
| DRB1*08:06+DRB1*11:04:01     | DRB1*11:67+DRB1*13:108       |                          |
| DRB1*08:06+DRB1*11:16        | DRB1*08:10+DRB1*11:40        | DRB1*11:67+DRB1*13:32    |
| DRB1*08:06+DRB1*11:18        | DRB1*08:10+DRB1*11:04:01     |                          |
| DRB1*08:06+DRB1*11:21        | DRB1*08:12+DRB1*11:03        |                          |
| DRB1*08:06+DRB1*11:31        | DRB1*08:10+DRB1*11:96        |                          |
| DRB1*08:06+DRB1*11:48        | DRB1*08:10+DRB1*11:41        |                          |
| DRB1*08:06+DRB1*11:73        | DRB1*08:10+DRB1*11:93        | DRB1*08:40+DRB1*11:25    |
| DRB1*08:06+DRB1*11:82        | DRB1*08:10+DRB1*11:69        | DRB1*11:67+DRB1*13:03:01 |
| DRB1*08:06+DRB1*11:119       | DRB1*08:10+DRB1*11:25        |                          |
| DRB1*08:06+DRB1*11:127       | DRB1*08:10+DRB1*11:85        |                          |
| DRB1*08:06+DRB1*12:01:01G    | DRB1*08:10+DRB1*12:02:01     | DRB1*08:12+DRB1*12:19    |
| DRB1*08:06+DRB1*12:01:03     | DRB1*08:10+DRB1*12:02:02     |                          |
| DRB1*08:06+DRB1*12:03:03     | DRB1*08:10+DRB1*12:19        |                          |
| DRB1*08:06+DRB1*12:05        | DRB1*08:10+DRB1*12:15        |                          |
| DRB1*08:06+DRB1*13:04        | DRB1*08:10+DRB1*13:75        |                          |
| DRB1*08:06+DRB1*13:06        | DRB1*08:10+DRB1*13:42        |                          |
| DRB1*08:06+DRB1*13:08        | DRB1*13:48+DRB1*14:15        |                          |
| DRB1*08:06+DRB1*13:11:01     | DRB1*08:28+DRB1*13:108       |                          |
| DRB1*08:06+DRB1*13:21:02     | DRB1*08:17+DRB1*13:108       |                          |
| DRB1*08:06+DRB1*13:25        | DRB1*08:28+DRB1*13:134       |                          |
| DRB1*08:06+DRB1*13:30        | DRB1*08:10+DRB1*13:21:01     | DRB1*08:37+DRB1*13:108   |
| DRB1*08:06+DRB1*13:45        | DRB1*08:08+DRB1*13:04        |                          |
| DRB1*08:06+DRB1*13:58        | DRB1*08:12+DRB1*13:108       |                          |
| DRB1*08:06+DRB1*13:83        | DRB1*13:04+DRB1*14:15        |                          |
| DRB1*08:06+DRB1*13:97:02     | DRB1*08:36:01+DRB1*13:24     |                          |
| DRB1*08:06+DRB1*15:35        | DRB1*08:12+DRB1*15:04        |                          |
| DRB1*08:08+DRB1*08:30:01     | DRB1*08:11+DRB1*08:15        |                          |
| DRB1*08:08+DRB1*11:13:01G    | DRB1*11:23+DRB1*14:31        |                          |

|                           |                              |                             |
|---------------------------|------------------------------|-----------------------------|
| DRB1*08:08+DRB1*13:25     | DRB1*08:13+DRB1*14:53        |                             |
| DRB1*08:08+DRB1*13:82     | DRB1*08:30:03+DRB1*14:53     | DRB1*08:45+DRB1*14:25       |
| DRB1*08:08+DRB1*13:83     | DRB1*13:45+DRB1*14:15        |                             |
| DRB1*08:08+DRB1*14:65     | DRB1*08:17+DRB1*14:32:02     |                             |
| DRB1*08:09+DRB1*08:20     | DRB1*13:47+DRB1*14:15        |                             |
| DRB1*08:09+DRB1*11:02:01  | DRB1*11:14:02+DRB1*14:15     |                             |
| DRB1*08:09+DRB1*11:04:07  | DRB1*11:01:11+DRB1*14:15     |                             |
| DRB1*08:09+DRB1*11:08:01  | DRB1*08:13+DRB1*11:10:02     |                             |
| DRB1*08:09+DRB1*11:08:02  | DRB1*08:13+DRB1*11:10:01     |                             |
| DRB1*08:09+DRB1*11:18     | DRB1*11:19:03+DRB1*14:15     |                             |
| DRB1*08:09+DRB1*11:19:01  | DRB1*08:30:01+DRB1*11:10:01  | DRB1*08:30:03+DRB1*11:10:02 |
| DRB1*08:09+DRB1*11:19:03  | DRB1*08:30:03+DRB1*11:10:01  |                             |
| DRB1*08:09+DRB1*11:25     | DRB1*11:23+DRB1*14:15        |                             |
| DRB1*08:09+DRB1*11:29     | DRB1*08:42+DRB1*11:10:02     |                             |
| DRB1*08:09+DRB1*11:42     | DRB1*11:08:02+DRB1*14:15     |                             |
| DRB1*08:09+DRB1*11:44     | DRB1*11:49:02+DRB1*14:15     |                             |
| DRB1*08:09+DRB1*11:56     | DRB1*11:37:02+DRB1*14:15     |                             |
| DRB1*08:09+DRB1*11:66     | DRB1*08:44+DRB1*11:10:02     |                             |
| DRB1*08:09+DRB1*11:84:02  | DRB1*11:27:03+DRB1*14:15     |                             |
| DRB1*08:09+DRB1*11:92     | DRB1*11:72+DRB1*14:15        |                             |
| DRB1*08:09+DRB1*13:11:01  | DRB1*13:14:03+DRB1*14:15     |                             |
| DRB1*08:09+DRB1*13:13     | DRB1*08:35+DRB1*13:47        |                             |
| DRB1*08:09+DRB1*13:30     | DRB1*08:35+DRB1*13:14:03     |                             |
| DRB1*08:09+DRB1*13:42     | DRB1*13:05:02+DRB1*14:15     |                             |
| DRB1*08:09+DRB1*13:94     | DRB1*13:33:01+DRB1*14:15     |                             |
| DRB1*08:09+DRB1*13:103    | DRB1*08:21+DRB1*13:02:01     |                             |
| DRB1*08:09+DRB1*14:01:01G | DRB1*14:07:02+DRB1*14:15     |                             |
| DRB1*08:09+DRB1*14:05:01  | DRB1*14:15+DRB1*14:44:03     |                             |
| DRB1*08:09+DRB1*14:69     | DRB1*08:13+DRB1*14:22        |                             |
| DRB1*08:09+DRB1*15:01:01G | DRB1*14:15+DRB1*15:02:09     |                             |
| DRB1*08:09+DRB1*15:01:04  | DRB1*14:15+DRB1*15:02:05     |                             |
| DRB1*08:10+DRB1*11:06:01G | DRB1*08:12+DRB1*11:04:01     | DRB1*11:67+DRB1*13:58       |
| DRB1*08:10+DRB1*11:06:02  | DRB1*08:12+DRB1*11:04:03     |                             |
| DRB1*08:10+DRB1*11:06:03  | DRB1*08:12+DRB1*11:04:05     |                             |
| DRB1*08:10+DRB1*11:10:01  | DRB1*08:35+DRB1*11:04:02     |                             |
| DRB1*08:10+DRB1*11:10:02  | DRB1*08:35+DRB1*11:04:01     |                             |
| DRB1*08:10+DRB1*11:21     | DRB1*08:12+DRB1*11:02:01     |                             |
| DRB1*08:10+DRB1*11:57     | DRB1*08:12+DRB1*11:42        |                             |
| DRB1*08:10+DRB1*11:73     | DRB1*08:40+DRB1*11:119       |                             |
| DRB1*08:10+DRB1*11:87     | DRB1*08:37+DRB1*11:83        |                             |
| DRB1*08:10+DRB1*12:01:01G | DRB1*08:12+DRB1*12:03:03     |                             |
| DRB1*08:10+DRB1*12:01:03  | DRB1*08:12+DRB1*12:03:02     |                             |
| DRB1*08:10+DRB1*13:15     | DRB1*13:17+DRB1*14:78        |                             |
| DRB1*08:10+DRB1*13:26:02  | DRB1*08:24+DRB1*14:78        |                             |
| DRB1*08:10+DRB1*13:37     | DRB1*08:30:01+DRB1*13:89     |                             |
| DRB1*08:10+DRB1*13:53     | DRB1*13:116+DRB1*14:78       |                             |
| DRB1*08:10+DRB1*13:66:02  | DRB1*08:37+DRB1*13:89        |                             |
| DRB1*08:10+DRB1*13:97:02  | DRB1*08:36:01+DRB1*13:22     |                             |
| DRB1*08:10+DRB1*14:28     | DRB1*08:12+DRB1*14:04        |                             |
| DRB1*08:10+DRB1*14:29     | DRB1*08:12+DRB1*14:06:01     |                             |
| DRB1*08:10+DRB1*14:67     | DRB1*08:30:01+DRB1*14:78     |                             |
| DRB1*08:10+DRB1*14:99     | DRB1*08:12+DRB1*14:01:01G    |                             |
| DRB1*08:10+DRB1*15:35     | DRB1*08:12+DRB1*15:01:01G    |                             |
| DRB1*08:10+DRB1*16:09     | DRB1*08:37+DRB1*16:15        |                             |
| DRB1*08:12+DRB1*08:17     | DRB1*08:22+DRB1*08:37        |                             |
| DRB1*08:12+DRB1*11:01:11  | DRB1*08:22+DRB1*11:19:02     |                             |
| DRB1*08:12+DRB1*11:04:02  | DRB1*08:22+DRB1*11:18        |                             |
| DRB1*08:12+DRB1*11:10:02  | DRB1*08:35+DRB1*11:06:01G    |                             |
| DRB1*08:12+DRB1*11:23     | DRB1*08:22+DRB1*11:45        |                             |
| DRB1*08:12+DRB1*11:62     | DRB1*08:36:01+DRB1*11:06:01G |                             |
| DRB1*08:12+DRB1*13:11:01  | DRB1*08:28+DRB1*13:58        |                             |
| DRB1*08:12+DRB1*13:14:03  | DRB1*08:22+DRB1*13:82        |                             |
| DRB1*08:12+DRB1*13:21:02  | DRB1*08:17+DRB1*13:58        | DRB1*08:22+DRB1*13:30       |
| DRB1*08:12+DRB1*13:30     | DRB1*08:37+DRB1*13:58        |                             |
| DRB1*08:12+DRB1*13:37     | DRB1*08:30:03+DRB1*13:81     |                             |
| DRB1*08:12+DRB1*13:55     | DRB1*08:22+DRB1*13:13        |                             |
| DRB1*08:12+DRB1*13:66:01  | DRB1*08:37+DRB1*13:81        |                             |
| DRB1*08:12+DRB1*13:88     | DRB1*08:48+DRB1*13:81        |                             |
| DRB1*08:13+DRB1*11:02:01  | DRB1*08:30:03+DRB1*11:36     |                             |
| DRB1*08:13+DRB1*11:14:01  | DRB1*08:30:03+DRB1*11:68     |                             |
| DRB1*08:13+DRB1*11:18     | DRB1*08:30:03+DRB1*11:42     |                             |
| DRB1*08:13+DRB1*11:19:01  | DRB1*08:30:01+DRB1*11:08:02  | DRB1*08:30:03+DRB1*11:08:01 |
| DRB1*08:13+DRB1*11:19:03  | DRB1*08:30:03+DRB1*11:08:02  |                             |
| DRB1*08:13+DRB1*11:29     | DRB1*08:42+DRB1*11:08:01     |                             |
| DRB1*08:13+DRB1*11:45     | DRB1*08:30:03+DRB1*11:64     |                             |
| DRB1*08:13+DRB1*11:47     | DRB1*08:42+DRB1*11:57        |                             |
| DRB1*08:13+DRB1*11:63     | DRB1*08:42+DRB1*11:36        |                             |
| DRB1*08:13+DRB1*11:66     | DRB1*08:44+DRB1*11:08:01     |                             |
| DRB1*08:13+DRB1*12:01:01G | DRB1*08:30:03+DRB1*12:12     |                             |
| DRB1*08:13+DRB1*13:01:01G | DRB1*08:30:03+DRB1*13:20     |                             |
| DRB1*08:13+DRB1*13:02:01  | DRB1*08:30:03+DRB1*13:29     |                             |
| DRB1*08:13+DRB1*13:03:01  | DRB1*08:30:03+DRB1*13:88     | DRB1*08:48+DRB1*13:37       |
| DRB1*08:13+DRB1*13:03:02  | DRB1*08:30:01+DRB1*13:88     | DRB1*08:40+DRB1*14:116      |
| DRB1*08:13+DRB1*13:04     | DRB1*08:48+DRB1*13:22        |                             |
| DRB1*08:13+DRB1*13:12:01  | DRB1*08:30:03+DRB1*13:134    |                             |
| DRB1*08:13+DRB1*13:21:02  | DRB1*08:48+DRB1*13:14:03     |                             |
| DRB1*08:13+DRB1*13:27     | DRB1*08:30:03+DRB1*13:71     |                             |
| DRB1*08:13+DRB1*13:32     | DRB1*08:48+DRB1*13:40        |                             |
| DRB1*08:13+DRB1*13:48     | DRB1*08:48+DRB1*13:70        |                             |
| DRB1*08:13+DRB1*13:55     | DRB1*08:48+DRB1*13:47        |                             |
| DRB1*08:13+DRB1*13:65     | DRB1*08:48+DRB1*13:36        |                             |
| DRB1*08:13+DRB1*13:66:02  | DRB1*08:45+DRB1*13:88        |                             |
| DRB1*08:13+DRB1*13:75     | DRB1*08:48+DRB1*13:24        |                             |
| DRB1*08:13+DRB1*13:79     | DRB1*08:30:03+DRB1*13:78     |                             |
| DRB1*08:13+DRB1*13:82     | DRB1*08:30:03+DRB1*13:25     |                             |
| DRB1*08:13+DRB1*14:13     | DRB1*08:48+DRB1*14:02        |                             |
| DRB1*08:13+DRB1*14:45     | DRB1*08:30:03+DRB1*14:05:01  |                             |
| DRB1*08:13+DRB1*14:67     | DRB1*08:30:03+DRB1*14:03:01  |                             |
| DRB1*08:13+DRB1*14:85     | DRB1*08:48+DRB1*14:03:01     |                             |
| DRB1*08:13+DRB1*14:120    | DRB1*08:30:03+DRB1*14:04     |                             |
| DRB1*08:13+DRB1*14:122    | DRB1*08:30:03+DRB1*14:01:01G |                             |
| DRB1*08:13+DRB1*15:01:01G | DRB1*08:30:03+DRB1*15:05     |                             |
| DRB1*08:13+DRB1*15:02:01  | DRB1*08:30:03+DRB1*15:31     |                             |
| DRB1*08:13+DRB1*15:03:01G | DRB1*08:30:03+DRB1*15:23     |                             |
| DRB1*08:13+DRB1*15:06:01  | DRB1*08:30:03+DRB1*15:73     |                             |

|                           |                             |                           |                           |
|---------------------------|-----------------------------|---------------------------|---------------------------|
| DRB1*08:13+DRB1*15:12     | DRB1*08:48+DRB1*15:01:04    |                           |                           |
| DRB1*08:13+DRB1*15:38     | DRB1*08:30:03+DRB1*15:63    |                           |                           |
| DRB1*08:13+DRB1*16:05:01  | DRB1*08:30:03+DRB1*16:02:01 |                           |                           |
| DRB1*08:15+DRB1*14:23:01  | DRB1*08:30:01+DRB1*14:08    |                           |                           |
| DRB1*08:15+DRB1*14:23:03  | DRB1*08:30:02+DRB1*14:08    |                           |                           |
| DRB1*08:15+DRB1*14:65     | DRB1*08:37+DRB1*14:34       |                           |                           |
| DRB1*08:15+DRB1*14:123    | DRB1*08:30:01+DRB1*14:34    |                           |                           |
| DRB1*08:16+DRB1*11:06:01G | DRB1*08:22+DRB1*11:24       |                           |                           |
| DRB1*08:16+DRB1*11:08:01  | DRB1*08:48+DRB1*11:24       |                           |                           |
| DRB1*08:17+DRB1*08:20     | DRB1*08:28+DRB1*13:55       |                           |                           |
| DRB1*08:17+DRB1*11:04:01  | DRB1*11:67+DRB1*13:21:02    |                           |                           |
| DRB1*08:17+DRB1*11:18     | DRB1*08:37+DRB1*11:04:02    |                           |                           |
| DRB1*08:17+DRB1*11:19:01  | DRB1*08:37+DRB1*11:01:02    |                           |                           |
| DRB1*08:17+DRB1*11:19:02  | DRB1*08:37+DRB1*11:01:11    |                           |                           |
| DRB1*08:17+DRB1*11:45     | DRB1*08:37+DRB1*11:23       |                           |                           |
| DRB1*08:17+DRB1*13:11:01  | DRB1*08:28+DRB1*13:21:02    |                           |                           |
| DRB1*08:17+DRB1*13:13     | DRB1*08:37+DRB1*13:55       |                           |                           |
| DRB1*08:17+DRB1*13:22     | DRB1*08:45+DRB1*13:75       |                           |                           |
| DRB1*08:17+DRB1*13:30     | DRB1*08:37+DRB1*13:21:02    |                           |                           |
| DRB1*08:17+DRB1*13:81     | DRB1*08:22+DRB1*13:66:01    |                           |                           |
| DRB1*08:17+DRB1*13:82     | DRB1*08:37+DRB1*13:14:03    | DRB1*08:45+DRB1*13:21:01  |                           |
| DRB1*08:17+DRB1*13:134    | DRB1*08:48+DRB1*13:21:01    |                           |                           |
| DRB1*08:17+DRB1*14:69     | DRB1*08:48+DRB1*14:53       |                           |                           |
| DRB1*08:18+DRB1*11:01:01G | DRB1*08:41+DRB1*13:30       |                           |                           |
| DRB1*08:18+DRB1*11:03     | DRB1*08:41+DRB1*13:04       |                           |                           |
| DRB1*08:18+DRB1*11:04:01  | DRB1*08:31+DRB1*13:30       |                           |                           |
| DRB1*08:18+DRB1*11:17     | DRB1*13:12:01+DRB1*14:11    |                           |                           |
| DRB1*08:18+DRB1*11:37:01  | DRB1*08:41+DRB1*13:12:01    |                           |                           |
| DRB1*08:18+DRB1*11:37:02  | DRB1*08:41+DRB1*13:12:02    |                           |                           |
| DRB1*08:18+DRB1*11:40     | DRB1*08:31+DRB1*13:139      | DRB1*08:41+DRB1*13:93     |                           |
| DRB1*08:18+DRB1*11:41     | DRB1*08:41+DRB1*13:48       |                           |                           |
| DRB1*08:18+DRB1*11:54:01  | DRB1*08:29+DRB1*11:04:03    |                           |                           |
| DRB1*08:18+DRB1*11:54:02  | DRB1*08:29+DRB1*11:04:01    |                           |                           |
| DRB1*08:18+DRB1*11:56     | DRB1*08:31+DRB1*13:12:01    |                           |                           |
| DRB1*08:18+DRB1*11:67     | DRB1*08:31+DRB1*08:37       |                           |                           |
| DRB1*08:18+DRB1*11:73     | DRB1*08:40+DRB1*11:19:01    |                           |                           |
| DRB1*08:18+DRB1*11:93     | DRB1*08:40+DRB1*11:01:01G   | DRB1*08:41+DRB1*13:66:02  |                           |
| DRB1*08:18+DRB1*11:116    | DRB1*08:47+DRB1*11:04:01    |                           |                           |
| DRB1*08:18+DRB1*11:120    | DRB1*08:47+DRB1*11:01:01G   |                           |                           |
| DRB1*08:18+DRB1*11:122    | DRB1*08:41+DRB1*13:139      |                           |                           |
| DRB1*08:18+DRB1*13:03:01  | DRB1*08:40+DRB1*13:12:01    |                           |                           |
| DRB1*08:18+DRB1*13:07:01  | DRB1*08:24+DRB1*13:12:01    |                           |                           |
| DRB1*08:18+DRB1*13:14:01  | DRB1*08:24+DRB1*13:30       |                           |                           |
| DRB1*08:18+DRB1*13:22     | DRB1*13:12:01+DRB1*13:17    | DRB1*13:30+DRB1*13:116    |                           |
| DRB1*08:18+DRB1*13:24     | DRB1*08:24+DRB1*13:04       | DRB1*13:17+DRB1*13:49     | DRB1*13:21:01+DRB1*13:116 |
| DRB1*08:18+DRB1*13:39     | DRB1*08:47+DRB1*13:02:01    |                           |                           |
| DRB1*08:18+DRB1*13:63     | DRB1*08:24+DRB1*13:139      |                           |                           |
| DRB1*08:18+DRB1*13:66:02  | DRB1*08:40+DRB1*13:30       |                           |                           |
| DRB1*08:18+DRB1*13:70     | DRB1*13:12:01+DRB1*13:116   |                           |                           |
| DRB1*08:18+DRB1*13:78     | DRB1*08:47+DRB1*13:20       |                           |                           |
| DRB1*08:18+DRB1*13:79     | DRB1*08:47+DRB1*13:01:01G   |                           |                           |
| DRB1*08:18+DRB1*13:88     | DRB1*08:40+DRB1*13:134      |                           |                           |
| DRB1*08:18+DRB1*13:100    | DRB1*08:47+DRB1*13:46       |                           |                           |
| DRB1*08:18+DRB1*13:111    | DRB1*08:24+DRB1*13:93       |                           |                           |
| DRB1*08:18+DRB1*14:01:01G | DRB1*08:29+DRB1*14:32:02    | DRB1*13:12:01+DRB1*14:04  | DRB1*13:134+DRB1*14:120   |
| DRB1*08:18+DRB1*14:01:02  | DRB1*08:29+DRB1*14:32:01    |                           |                           |
| DRB1*08:18+DRB1*14:04     | DRB1*08:29+DRB1*14:31       |                           |                           |
| DRB1*08:18+DRB1*14:05:01  | DRB1*08:29+DRB1*14:100      |                           |                           |
| DRB1*08:18+DRB1*14:06:01  | DRB1*13:12:01+DRB1*14:52    |                           |                           |
| DRB1*08:18+DRB1*14:06:02  | DRB1*13:12:02+DRB1*14:52    |                           |                           |
| DRB1*08:18+DRB1*14:07:01  | DRB1*13:12:01+DRB1*14:68    |                           |                           |
| DRB1*08:18+DRB1*14:07:02  | DRB1*13:12:02+DRB1*14:68    |                           |                           |
| DRB1*08:18+DRB1*14:08     | DRB1*08:29+DRB1*14:34       |                           |                           |
| DRB1*08:18+DRB1*14:23:01  | DRB1*08:29+DRB1*14:123      | DRB1*13:12:01+DRB1*14:126 |                           |
| DRB1*08:18+DRB1*14:32:02  | DRB1*13:12:01+DRB1*14:31    |                           |                           |
| DRB1*08:18+DRB1*14:33     | DRB1*08:29+DRB1*14:17       |                           |                           |
| DRB1*08:18+DRB1*14:35     | DRB1*13:30+DRB1*14:04       |                           |                           |
| DRB1*08:18+DRB1*14:38     | DRB1*13:12:01+DRB1*14:50    |                           |                           |
| DRB1*08:18+DRB1*14:51     | DRB1*08:29+DRB1*14:02       |                           |                           |
| DRB1*08:18+DRB1*14:86     | DRB1*13:118+DRB1*14:04      |                           |                           |
| DRB1*08:18+DRB1*14:99     | DRB1*13:12:01+DRB1*14:28    | DRB1*13:58+DRB1*14:68     |                           |
| DRB1*08:18+DRB1*14:106    | DRB1*08:29+DRB1*14:06:01    |                           |                           |
| DRB1*08:18+DRB1*14:109    | DRB1*08:47+DRB1*14:19       |                           |                           |
| DRB1*08:18+DRB1*14:111    | DRB1*13:12:01+DRB1*14:107   |                           |                           |
| DRB1*08:18+DRB1*14:115    | DRB1*08:47+DRB1*14:03:01    |                           |                           |
| DRB1*08:18+DRB1*14:116    | DRB1*08:30:01+DRB1*13:134   |                           |                           |
| DRB1*08:18+DRB1*14:122    | DRB1*13:12:01+DRB1*14:120   |                           |                           |
| DRB1*08:18+DRB1*15:38     | DRB1*08:47+DRB1*15:02:02    |                           |                           |
| DRB1*08:18+DRB1*15:71     | DRB1*08:47+DRB1*15:01:01G   |                           |                           |
| DRB1*08:19+DRB1*11:120    | DRB1*08:34+DRB1*11:110      |                           |                           |
| DRB1*08:20+DRB1*08:35     | DRB1*13:13+DRB1*14:15       |                           |                           |
| DRB1*08:20+DRB1*08:37     | DRB1*08:28+DRB1*13:13       |                           |                           |
| DRB1*08:20+DRB1*09:04     | DRB1*09:06+DRB1*14:116      |                           |                           |
| DRB1*08:20+DRB1*11:01:01G | DRB1*11:25+DRB1*13:07:01    |                           |                           |
| DRB1*08:20+DRB1*11:01:02  | DRB1*11:04:01+DRB1*13:47    |                           |                           |
| DRB1*08:20+DRB1*11:01:11  | DRB1*11:04:07+DRB1*13:47    |                           |                           |
| DRB1*08:20+DRB1*11:02:01  | DRB1*11:25+DRB1*13:70       |                           |                           |
| DRB1*08:20+DRB1*11:08:01  | DRB1*11:04:01+DRB1*14:116   | DRB1*11:42+DRB1*13:47     |                           |
| DRB1*08:20+DRB1*11:08:02  | DRB1*11:04:02+DRB1*14:116   |                           |                           |
| DRB1*08:20+DRB1*11:09     | DRB1*11:37:01+DRB1*13:18    |                           |                           |
| DRB1*08:20+DRB1*11:11:01G | DRB1*11:55+DRB1*13:07:01    |                           |                           |
| DRB1*08:20+DRB1*11:13:01G | DRB1*11:25+DRB1*14:123      |                           |                           |
| DRB1*08:20+DRB1*11:14:02  | DRB1*11:02:01+DRB1*13:47    | DRB1*11:23+DRB1*13:70     |                           |
| DRB1*08:20+DRB1*11:16     | DRB1*11:25+DRB1*13:40       | DRB1*11:48+DRB1*13:18     |                           |
| DRB1*08:20+DRB1*11:19:01  | DRB1*11:119+DRB1*13:07:01   |                           |                           |
| DRB1*08:20+DRB1*11:19:03  | DRB1*11:18+DRB1*13:47       |                           |                           |
| DRB1*08:20+DRB1*11:20     | DRB1*11:25+DRB1*13:36       |                           |                           |
| DRB1*08:20+DRB1*11:23     | DRB1*11:25+DRB1*13:47       |                           |                           |
| DRB1*08:20+DRB1*11:27:03  | DRB1*11:84:02+DRB1*13:47    |                           |                           |
| DRB1*08:20+DRB1*11:37:02  | DRB1*11:56+DRB1*13:47       |                           |                           |
| DRB1*08:20+DRB1*11:40     | DRB1*11:41+DRB1*13:18       |                           |                           |
| DRB1*08:20+DRB1*11:49:02  | DRB1*11:44+DRB1*13:47       |                           |                           |
| DRB1*08:20+DRB1*11:64     | DRB1*11:25+DRB1*14:116      |                           |                           |
| DRB1*08:20+DRB1*11:68     | DRB1*11:03+DRB1*14:116      |                           |                           |
| DRB1*08:20+DRB1*11:72     | DRB1*11:92+DRB1*13:47       |                           |                           |

|                           |                             |                           |                            |
|---------------------------|-----------------------------|---------------------------|----------------------------|
| DRB1*08:20+DRB1*11:73     | DRB1*11:25+DRB1*13:37       |                           |                            |
| DRB1*08:20+DRB1*11:113    | DRB1*11:56+DRB1*13:18       |                           |                            |
| DRB1*08:20+DRB1*13:01:01G | DRB1*13:18+DRB1*13:70       |                           |                            |
| DRB1*08:20+DRB1*13:05:01  | DRB1*13:07:01+DRB1*13:18    |                           |                            |
| DRB1*08:20+DRB1*13:05:02  | DRB1*13:42+DRB1*13:47       |                           |                            |
| DRB1*08:20+DRB1*13:14:03  | DRB1*13:11:01+DRB1*13:47    |                           |                            |
| DRB1*08:20+DRB1*13:21:02  | DRB1*13:11:01+DRB1*13:55    |                           |                            |
| DRB1*08:20+DRB1*13:23:01  | DRB1*13:22+DRB1*13:47       |                           |                            |
| DRB1*08:20+DRB1*13:25     | DRB1*13:11:01+DRB1*14:116   |                           |                            |
| DRB1*08:20+DRB1*13:29     | DRB1*13:111+DRB1*14:116     |                           |                            |
| DRB1*08:20+DRB1*13:30     | DRB1*13:11:01+DRB1*13:13    |                           |                            |
| DRB1*08:20+DRB1*13:33:01  | DRB1*13:47+DRB1*13:94       |                           |                            |
| DRB1*08:20+DRB1*13:38     | DRB1*13:47+DRB1*13:48       | DRB1*13:55+DRB1*13:70     |                            |
| DRB1*08:20+DRB1*13:56     | DRB1*13:42+DRB1*14:116      |                           |                            |
| DRB1*08:20+DRB1*13:93     | DRB1*13:18+DRB1*13:48       |                           |                            |
| DRB1*08:20+DRB1*13:104    | DRB1*13:22+DRB1*14:27       | DRB1*13:24+DRB1*14:67     |                            |
| DRB1*08:20+DRB1*13:119    | DRB1*13:18+DRB1*14:116      |                           |                            |
| DRB1*08:20+DRB1*13:134    | DRB1*13:108+DRB1*14:116     |                           |                            |
| DRB1*08:20+DRB1*13:139    | DRB1*13:13+DRB1*13:111      |                           |                            |
| DRB1*08:20+DRB1*14:02     | DRB1*14:108+DRB1*14:116     |                           |                            |
| DRB1*08:20+DRB1*14:07:02  | DRB1*13:47+DRB1*14:01:01G   |                           |                            |
| DRB1*08:20+DRB1*14:13     | DRB1*13:108+DRB1*14:89      |                           |                            |
| DRB1*08:20+DRB1*14:44:03  | DRB1*13:47+DRB1*14:05:01    |                           |                            |
| DRB1*08:20+DRB1*15:02:05  | DRB1*13:47+DRB1*15:01:04    |                           |                            |
| DRB1*08:20+DRB1*15:02:09  | DRB1*13:47+DRB1*15:01:01G   |                           |                            |
| DRB1*08:20+DRB1*15:31     | DRB1*14:116+DRB1*15:04      |                           |                            |
| DRB1*08:20+DRB1*16:02:01  | DRB1*14:116+DRB1*16:15      |                           |                            |
| DRB1*08:23+DRB1*14:35     | DRB1*08:37+DRB1*14:60       |                           |                            |
| DRB1*08:23+DRB1*15:62     | DRB1*08:36:01+DRB1*15:16    |                           |                            |
| DRB1*08:24+DRB1*11:01:01G | DRB1*08:41+DRB1*13:14:01    |                           |                            |
| DRB1*08:24+DRB1*11:01:02  | DRB1*08:41+DRB1*13:14:03    |                           |                            |
| DRB1*08:24+DRB1*11:02:01  | DRB1*08:31+DRB1*13:23:02    | DRB1*08:41+DRB1*13:22     | DRB1*11:01:01G+DRB1*13:116 |
|                           | DRB1*11:37:01+DRB1*13:17    |                           |                            |
| DRB1*08:24+DRB1*11:03     | DRB1*08:41+DRB1*13:24       |                           |                            |
| DRB1*08:24+DRB1*11:04:01  | DRB1*08:31+DRB1*13:14:01    | DRB1*08:41+DRB1*13:11:01  |                            |
| DRB1*08:24+DRB1*11:04:02  | DRB1*08:31+DRB1*13:14:03    |                           |                            |
| DRB1*08:24+DRB1*11:08:01  | DRB1*08:41+DRB1*13:25       |                           |                            |
| DRB1*08:24+DRB1*11:09     | DRB1*08:41+DRB1*13:05:01    |                           |                            |
| DRB1*08:24+DRB1*11:14:01  | DRB1*08:41+DRB1*13:23:02    |                           |                            |
| DRB1*08:24+DRB1*11:14:02  | DRB1*08:41+DRB1*13:23:01    |                           |                            |
| DRB1*08:24+DRB1*11:15     | DRB1*08:41+DRB1*13:62       |                           |                            |
| DRB1*08:24+DRB1*11:16     | DRB1*08:31+DRB1*13:02:01    | DRB1*08:41+DRB1*13:01:01G | DRB1*11:09+DRB1*13:116     |
| DRB1*08:24+DRB1*11:17     | DRB1*08:31+DRB1*14:14       | DRB1*08:41+DRB1*14:23:01  | DRB1*11:37:01+DRB1*14:126  |
|                           | DRB1*13:07:01+DRB1*14:11    |                           |                            |
| DRB1*08:24+DRB1*11:18     | DRB1*08:31+DRB1*13:82       |                           |                            |
| DRB1*08:24+DRB1*11:19:01  | DRB1*08:41+DRB1*13:82       |                           |                            |
| DRB1*08:24+DRB1*11:20     | DRB1*08:41+DRB1*13:02:01    |                           |                            |
| DRB1*08:24+DRB1*11:28:01  | DRB1*08:41+DRB1*13:50:01    |                           |                            |
| DRB1*08:24+DRB1*11:28:02  | DRB1*08:41+DRB1*13:50:02    |                           |                            |
| DRB1*08:24+DRB1*11:34     | DRB1*08:41+DRB1*13:44       |                           |                            |
| DRB1*08:24+DRB1*11:37:01  | DRB1*08:41+DRB1*13:07:01    |                           |                            |
| DRB1*08:24+DRB1*11:40     | DRB1*08:31+DRB1*13:63       | DRB1*08:41+DRB1*13:111    |                            |
| DRB1*08:24+DRB1*11:42     | DRB1*08:31+DRB1*13:25       |                           |                            |
| DRB1*08:24+DRB1*11:46:01  | DRB1*08:31+DRB1*13:132      |                           |                            |
| DRB1*08:24+DRB1*11:48     | DRB1*08:41+DRB1*13:70       | DRB1*11:37:01+DRB1*13:116 |                            |
| DRB1*08:24+DRB1*11:56     | DRB1*08:31+DRB1*13:07:01    |                           |                            |
| DRB1*08:24+DRB1*11:58:01  | DRB1*08:31+DRB1*13:50:02    |                           |                            |
| DRB1*08:24+DRB1*11:58:02  | DRB1*08:31+DRB1*13:50:01    |                           |                            |
| DRB1*08:24+DRB1*11:65:01  | DRB1*11:33+DRB1*13:116      |                           |                            |
| DRB1*08:24+DRB1*11:67     | DRB1*08:28+DRB1*08:41       |                           |                            |
| DRB1*08:24+DRB1*11:70     | DRB1*11:32+DRB1*13:116      |                           |                            |
| DRB1*08:24+DRB1*11:113    | DRB1*08:31+DRB1*13:05:01    | DRB1*08:41+DRB1*13:42     |                            |
| DRB1*08:24+DRB1*11:118    | DRB1*08:31+DRB1*13:97:01    | DRB1*08:41+DRB1*13:52     |                            |
| DRB1*08:24+DRB1*11:122    | DRB1*08:41+DRB1*13:63       |                           |                            |
| DRB1*08:24+DRB1*11:124    | DRB1*11:27:01+DRB1*13:116   |                           |                            |
| DRB1*08:24+DRB1*11:127    | DRB1*11:49:01+DRB1*13:116   |                           |                            |
| DRB1*08:24+DRB1*12:04     | DRB1*08:41+DRB1*12:09       |                           |                            |
| DRB1*08:24+DRB1*13:01:01G | DRB1*13:05:01+DRB1*13:116   |                           |                            |
| DRB1*08:24+DRB1*13:01:08  | DRB1*13:05:02+DRB1*13:116   |                           |                            |
| DRB1*08:24+DRB1*13:03:01  | DRB1*08:40+DRB1*13:07:01    |                           |                            |
| DRB1*08:24+DRB1*13:15     | DRB1*13:17+DRB1*13:26:02    |                           |                            |
| DRB1*08:24+DRB1*13:22     | DRB1*13:07:01+DRB1*13:17    | DRB1*13:14:01+DRB1*13:116 |                            |
| DRB1*08:24+DRB1*13:48     | DRB1*13:49+DRB1*13:116      |                           |                            |
| DRB1*08:24+DRB1*13:52     | DRB1*13:116+DRB1*13:132     |                           |                            |
| DRB1*08:24+DRB1*13:53     | DRB1*13:26:02+DRB1*13:116   |                           |                            |
| DRB1*08:24+DRB1*13:66:02  | DRB1*08:40+DRB1*13:14:01    |                           |                            |
| DRB1*08:24+DRB1*13:69     | DRB1*13:50:02+DRB1*13:116   |                           |                            |
| DRB1*08:24+DRB1*13:70     | DRB1*13:07:01+DRB1*13:116   |                           |                            |
| DRB1*08:24+DRB1*13:77     | DRB1*08:25+DRB1*13:42       |                           |                            |
| DRB1*08:24+DRB1*14:01:01G | DRB1*13:07:01+DRB1*14:04    | DRB1*14:25+DRB1*14:126    |                            |
| DRB1*08:24+DRB1*14:06:01  | DRB1*13:07:01+DRB1*14:52    |                           |                            |
| DRB1*08:24+DRB1*14:07:01  | DRB1*13:07:01+DRB1*14:68    |                           |                            |
| DRB1*08:24+DRB1*14:11     | DRB1*08:41+DRB1*14:126      |                           |                            |
| DRB1*08:24+DRB1*14:16     | DRB1*13:116+DRB1*14:22      |                           |                            |
| DRB1*08:24+DRB1*14:23:01  | DRB1*13:07:01+DRB1*14:126   |                           |                            |
| DRB1*08:24+DRB1*14:32:02  | DRB1*13:07:01+DRB1*14:31    |                           |                            |
| DRB1*08:24+DRB1*14:35     | DRB1*13:11:01+DRB1*14:68    | DRB1*13:14:01+DRB1*14:04  | DRB1*14:53+DRB1*14:126     |
| DRB1*08:24+DRB1*14:38     | DRB1*13:07:01+DRB1*14:50    |                           |                            |
| DRB1*08:24+DRB1*14:67     | DRB1*08:30:01+DRB1*13:26:02 |                           |                            |
| DRB1*08:24+DRB1*14:99     | DRB1*13:07:01+DRB1*14:28    |                           |                            |
| DRB1*08:24+DRB1*14:111    | DRB1*13:07:01+DRB1*14:107   |                           |                            |
| DRB1*08:24+DRB1*14:122    | DRB1*13:07:01+DRB1*14:120   |                           |                            |
| DRB1*08:24+DRB1*15:10     | DRB1*13:17+DRB1*16:01:02    |                           |                            |
| DRB1*08:25+DRB1*11:23     | DRB1*08:34+DRB1*11:01:11    |                           |                            |
| DRB1*08:25+DRB1*11:25     | DRB1*08:34+DRB1*11:04:07    |                           |                            |
| DRB1*08:25+DRB1*11:45     | DRB1*08:34+DRB1*11:19:02    |                           |                            |
| DRB1*08:25+DRB1*11:113    | DRB1*08:41+DRB1*13:77       |                           |                            |
| DRB1*08:25+DRB1*16:18     | DRB1*08:34+DRB1*16:02:01    |                           |                            |
| DRB1*08:26+DRB1*12:12     | DRB1*08:48+DRB1*12:13       |                           |                            |
| DRB1*08:28+DRB1*08:35     | DRB1*08:37+DRB1*14:15       |                           |                            |
| DRB1*08:28+DRB1*11:01:01G | DRB1*11:67+DRB1*13:14:01    |                           |                            |
| DRB1*08:28+DRB1*11:01:02  | DRB1*11:67+DRB1*13:14:03    |                           |                            |
| DRB1*08:28+DRB1*11:02:01  | DRB1*11:25+DRB1*13:17       | DRB1*11:67+DRB1*13:22     |                            |
| DRB1*08:28+DRB1*11:03     | DRB1*11:67+DRB1*13:24       |                           |                            |
| DRB1*08:28+DRB1*11:04:01  | DRB1*11:67+DRB1*13:11:01    |                           |                            |

|                              |                              |                          |                          |
|------------------------------|------------------------------|--------------------------|--------------------------|
| DRB1*08:28+DRB1*11:08:01     | DRB1*11:67+DRB1*13:25        |                          |                          |
| DRB1*08:28+DRB1*11:09        | DRB1*11:67+DRB1*13:05:01     |                          |                          |
| DRB1*08:28+DRB1*11:14:01     | DRB1*11:67+DRB1*13:23:02     |                          |                          |
| DRB1*08:28+DRB1*11:14:02     | DRB1*08:45+DRB1*11:03        | DRB1*11:23+DRB1*13:17    | DRB1*11:67+DRB1*13:23:01 |
| DRB1*08:28+DRB1*11:15        | DRB1*11:67+DRB1*13:62        |                          |                          |
| DRB1*08:28+DRB1*11:16        | DRB1*11:67+DRB1*13:01:01G    |                          |                          |
| DRB1*08:28+DRB1*11:17        | DRB1*11:25+DRB1*14:126       | DRB1*11:67+DRB1*14:23:01 |                          |
| DRB1*08:28+DRB1*11:19:01     | DRB1*11:67+DRB1*13:82        |                          |                          |
| DRB1*08:28+DRB1*11:19:03     | DRB1*08:45+DRB1*11:04:01     |                          |                          |
| DRB1*08:28+DRB1*11:20        | DRB1*11:67+DRB1*13:02:01     |                          |                          |
| DRB1*08:28+DRB1*11:28:01     | DRB1*11:67+DRB1*13:50:01     |                          |                          |
| DRB1*08:28+DRB1*11:28:02     | DRB1*11:67+DRB1*13:50:02     |                          |                          |
| DRB1*08:28+DRB1*11:34        | DRB1*11:67+DRB1*13:44        |                          |                          |
| DRB1*08:28+DRB1*11:40        | DRB1*11:67+DRB1*13:111       |                          |                          |
| DRB1*08:28+DRB1*11:113       | DRB1*11:67+DRB1*13:42        |                          |                          |
| DRB1*08:28+DRB1*11:118       | DRB1*11:67+DRB1*13:52        |                          |                          |
| DRB1*08:28+DRB1*11:122       | DRB1*11:67+DRB1*13:63        |                          |                          |
| DRB1*08:28+DRB1*12:04        | DRB1*11:67+DRB1*12:09        |                          |                          |
| DRB1*08:28+DRB1*13:01:01G    | DRB1*13:17+DRB1*13:18        |                          |                          |
| DRB1*08:28+DRB1*13:23:01     | DRB1*08:45+DRB1*13:24        |                          |                          |
| DRB1*08:28+DRB1*13:30        | DRB1*08:37+DRB1*13:11:01     |                          |                          |
| DRB1*08:28+DRB1*13:139       | DRB1*08:37+DRB1*13:111       |                          |                          |
| DRB1*08:28+DRB1*14:11        | DRB1*11:67+DRB1*14:126       |                          |                          |
| DRB1*08:28+DRB1*14:14        | DRB1*14:15+DRB1*14:42        |                          |                          |
| DRB1*08:28+DRB1*14:22        | DRB1*14:15+DRB1*14:53        |                          |                          |
| DRB1*08:28+DRB1*15:02:09     | DRB1*08:45+DRB1*15:04        |                          |                          |
| DRB1*08:29+DRB1*11:13:01G    | DRB1*13:30+DRB1*14:11        |                          |                          |
| DRB1*08:29+DRB1*11:116       | DRB1*08:47+DRB1*11:54:02     |                          |                          |
| DRB1*08:29+DRB1*14:105       | DRB1*13:12:01+DRB1*14:73     |                          |                          |
| DRB1*08:30:01+DRB1*09:01:02  | DRB1*08:34+DRB1*09:02:02     |                          |                          |
| DRB1*08:30:01+DRB1*09:01:08  | DRB1*08:30:02+DRB1*09:01:02  |                          |                          |
| DRB1*08:30:01+DRB1*11:02:01  | DRB1*11:45+DRB1*13:116       |                          |                          |
| DRB1*08:30:01+DRB1*11:14:02  | DRB1*08:30:03+DRB1*11:14:01  |                          |                          |
| DRB1*08:30:01+DRB1*11:19:03  | DRB1*08:30:03+DRB1*11:19:01  |                          |                          |
| DRB1*08:30:01+DRB1*11:27:03  | DRB1*08:30:03+DRB1*11:27:02  |                          |                          |
| DRB1*08:30:01+DRB1*11:36     | DRB1*11:64+DRB1*13:116       |                          |                          |
| DRB1*08:30:01+DRB1*11:37:02  | DRB1*08:30:03+DRB1*11:37:01  |                          |                          |
| DRB1*08:30:01+DRB1*11:49:02  | DRB1*08:30:03+DRB1*11:49:01  |                          |                          |
| DRB1*08:30:01+DRB1*11:74:02  | DRB1*08:30:03+DRB1*11:74:01  |                          |                          |
| DRB1*08:30:01+DRB1*12:01:01G | DRB1*08:34+DRB1*12:09        |                          |                          |
| DRB1*08:30:01+DRB1*13:01:06  | DRB1*08:30:02+DRB1*13:01:01G | DRB1*08:45+DRB1*13:40    |                          |
| DRB1*08:30:01+DRB1*13:01:08  | DRB1*08:30:03+DRB1*13:01:01G |                          |                          |
| DRB1*08:30:01+DRB1*13:05:02  | DRB1*08:30:03+DRB1*13:05:01  |                          |                          |
| DRB1*08:30:01+DRB1*13:12:02  | DRB1*08:30:03+DRB1*13:12:01  |                          |                          |
| DRB1*08:30:01+DRB1*13:15     | DRB1*13:17+DRB1*14:67        |                          |                          |
| DRB1*08:30:01+DRB1*13:20     | DRB1*13:116+DRB1*13:119      |                          |                          |
| DRB1*08:30:01+DRB1*13:23:01  | DRB1*08:30:03+DRB1*13:23:02  |                          |                          |
| DRB1*08:30:01+DRB1*13:33:03  | DRB1*08:30:03+DRB1*13:33:02  |                          |                          |
| DRB1*08:30:01+DRB1*13:53     | DRB1*13:116+DRB1*14:67       |                          |                          |
| DRB1*08:30:01+DRB1*13:54     | DRB1*08:34+DRB1*13:24        |                          |                          |
| DRB1*08:30:01+DRB1*13:66:02  | DRB1*08:30:03+DRB1*13:66:01  | DRB1*08:37+DRB1*13:37    | DRB1*08:45+DRB1*13:03:02 |
| DRB1*08:30:01+DRB1*13:100    | DRB1*08:34+DRB1*13:14:01     |                          |                          |
| DRB1*08:30:01+DRB1*14:01:01G | DRB1*14:116+DRB1*14:120      |                          |                          |
| DRB1*08:30:01+DRB1*14:05:01  | DRB1*08:30:02+DRB1*14:05:02  |                          |                          |
| DRB1*08:30:01+DRB1*14:06:02  | DRB1*08:30:03+DRB1*14:06:01  |                          |                          |
| DRB1*08:30:01+DRB1*14:07:02  | DRB1*08:30:03+DRB1*14:07:01  |                          |                          |
| DRB1*08:30:01+DRB1*14:23:03  | DRB1*08:30:02+DRB1*14:23:01  |                          |                          |
| DRB1*08:30:01+DRB1*14:44:03  | DRB1*08:30:03+DRB1*14:44:01  |                          |                          |
| DRB1*08:30:01+DRB1*14:48     | DRB1*08:34+DRB1*14:02        |                          |                          |
| DRB1*08:30:01+DRB1*14:65     | DRB1*08:37+DRB1*14:123       |                          |                          |
| DRB1*08:30:01+DRB1*15:02:05  | DRB1*08:30:03+DRB1*15:02:02  |                          |                          |
| DRB1*08:30:01+DRB1*15:02:09  | DRB1*08:30:03+DRB1*15:02:01  | DRB1*08:45+DRB1*15:11    |                          |
| DRB1*08:30:02+DRB1*13:01:08  | DRB1*08:30:03+DRB1*13:01:06  |                          |                          |
| DRB1*08:30:03+DRB1*11:02:01  | DRB1*08:45+DRB1*11:48        |                          |                          |
| DRB1*08:30:03+DRB1*11:29     | DRB1*08:42+DRB1*11:19:01     |                          |                          |
| DRB1*08:30:03+DRB1*11:63     | DRB1*08:42+DRB1*11:02:01     |                          |                          |
| DRB1*08:30:03+DRB1*11:66     | DRB1*08:44+DRB1*11:19:01     |                          |                          |
| DRB1*08:30:03+DRB1*11:103    | DRB1*08:45+DRB1*11:107       |                          |                          |
| DRB1*08:30:03+DRB1*13:02:01  | DRB1*08:45+DRB1*13:36        |                          |                          |
| DRB1*08:30:03+DRB1*13:14:02  | DRB1*08:45+DRB1*13:07:02     |                          |                          |
| DRB1*08:30:03+DRB1*13:15     | DRB1*08:45+DRB1*13:53        |                          |                          |
| DRB1*08:30:03+DRB1*13:17     | DRB1*08:45+DRB1*13:116       |                          |                          |
| DRB1*08:30:03+DRB1*13:22     | DRB1*08:45+DRB1*13:70        |                          |                          |
| DRB1*08:30:03+DRB1*13:57     | DRB1*08:45+DRB1*13:19        |                          |                          |
| DRB1*08:30:03+DRB1*13:66:02  | DRB1*08:45+DRB1*13:03:01     |                          |                          |
| DRB1*08:30:03+DRB1*13:83     | DRB1*08:45+DRB1*13:08        |                          |                          |
| DRB1*08:30:03+DRB1*13:100    | DRB1*08:34+DRB1*13:14:03     |                          |                          |
| DRB1*08:30:03+DRB1*14:17     | DRB1*08:45+DRB1*14:80        |                          |                          |
| DRB1*08:30:03+DRB1*14:30     | DRB1*08:45+DRB1*14:09        |                          |                          |
| DRB1*08:30:03+DRB1*14:35     | DRB1*08:45+DRB1*14:01:01G    |                          |                          |
| DRB1*08:30:03+DRB1*15:01:01G | DRB1*08:45+DRB1*15:07:01     |                          |                          |
| DRB1*08:30:03+DRB1*15:01:04  | DRB1*08:45+DRB1*15:07:02     |                          |                          |
| DRB1*08:30:03+DRB1*15:09     | DRB1*08:45+DRB1*15:48        |                          |                          |
| DRB1*08:30:03+DRB1*15:27     | DRB1*08:45+DRB1*15:34        |                          |                          |
| DRB1*08:30:03+DRB1*16:09     | DRB1*08:45+DRB1*16:01:01     |                          |                          |
| DRB1*08:30:03+DRB1*16:10     | DRB1*08:45+DRB1*16:02:01     |                          |                          |
| DRB1*08:31+DRB1*09:01:02     | DRB1*08:41+DRB1*09:06        |                          |                          |
| DRB1*08:31+DRB1*10:01:01     | DRB1*08:41+DRB1*10:02        |                          |                          |
| DRB1*08:31+DRB1*11:01:01G    | DRB1*08:41+DRB1*11:04:01     |                          |                          |
| DRB1*08:31+DRB1*11:01:02     | DRB1*08:41+DRB1*11:04:02     |                          |                          |
| DRB1*08:31+DRB1*11:01:03     | DRB1*08:41+DRB1*11:04:07     |                          |                          |
| DRB1*08:31+DRB1*11:01:04     | DRB1*08:41+DRB1*11:04:05     |                          |                          |
| DRB1*08:31+DRB1*11:01:05     | DRB1*08:41+DRB1*11:04:03     |                          |                          |
| DRB1*08:31+DRB1*11:01:12     | DRB1*08:41+DRB1*11:04:04     |                          |                          |
| DRB1*08:31+DRB1*11:08:01     | DRB1*08:41+DRB1*11:42        |                          |                          |
| DRB1*08:31+DRB1*11:09        | DRB1*08:41+DRB1*11:113       |                          |                          |
| DRB1*08:31+DRB1*11:11:01G    | DRB1*08:41+DRB1*11:03        |                          |                          |
| DRB1*08:31+DRB1*11:14:01     | DRB1*08:41+DRB1*11:02:01     |                          |                          |
| DRB1*08:31+DRB1*11:17        | DRB1*11:56+DRB1*14:11        |                          |                          |
| DRB1*08:31+DRB1*11:19:01     | DRB1*08:41+DRB1*11:18        |                          |                          |
| DRB1*08:31+DRB1*11:20        | DRB1*08:41+DRB1*11:16        |                          |                          |
| DRB1*08:31+DRB1*11:23        | DRB1*11:37:02+DRB1*11:67     |                          |                          |
| DRB1*08:31+DRB1*11:25        | DRB1*11:56+DRB1*11:67        |                          |                          |
| DRB1*08:31+DRB1*11:26        | DRB1*08:41+DRB1*11:34        |                          |                          |
| DRB1*08:31+DRB1*11:27:01     | DRB1*08:41+DRB1*11:84:01     |                          |                          |

|                              |                             |                           |                       |
|------------------------------|-----------------------------|---------------------------|-----------------------|
| DRB1*08:31+DRB1*11:27:02     | DRB1*08:41+DRB1*11:84:02    |                           |                       |
| DRB1*08:31+DRB1*11:28:01     | DRB1*08:41+DRB1*11:58:02    |                           |                       |
| DRB1*08:31+DRB1*11:28:02     | DRB1*08:41+DRB1*11:58:01    |                           |                       |
| DRB1*08:31+DRB1*11:33        | DRB1*08:41+DRB1*11:35       |                           |                       |
| DRB1*08:31+DRB1*11:37:01     | DRB1*08:41+DRB1*11:56       |                           |                       |
| DRB1*08:31+DRB1*11:39        | DRB1*08:41+DRB1*11:43       |                           |                       |
| DRB1*08:31+DRB1*11:45        | DRB1*08:41+DRB1*11:119      |                           |                       |
| DRB1*08:31+DRB1*11:49:01     | DRB1*08:41+DRB1*11:44       |                           |                       |
| DRB1*08:31+DRB1*11:55        | DRB1*11:41+DRB1*11:67       |                           |                       |
| DRB1*08:31+DRB1*11:62        | DRB1*08:41+DRB1*11:46:02    |                           |                       |
| DRB1*08:31+DRB1*11:68        | DRB1*08:41+DRB1*11:36       |                           |                       |
| DRB1*08:31+DRB1*11:103       | DRB1*08:41+DRB1*11:07       |                           |                       |
| DRB1*08:31+DRB1*11:109       | DRB1*08:41+DRB1*11:60       |                           |                       |
| DRB1*08:31+DRB1*11:120       | DRB1*08:41+DRB1*11:116      |                           |                       |
| DRB1*08:31+DRB1*11:122       | DRB1*08:41+DRB1*11:40       |                           |                       |
| DRB1*08:31+DRB1*13:01:01G    | DRB1*11:113+DRB1*13:116     |                           |                       |
| DRB1*08:31+DRB1*13:02:03     | DRB1*08:41+DRB1*13:01:05    |                           |                       |
| DRB1*08:31+DRB1*13:03:01     | DRB1*08:40+DRB1*11:56       | DRB1*08:41+DRB1*13:89     |                       |
| DRB1*08:31+DRB1*13:14:02     | DRB1*08:41+DRB1*13:11:02    |                           |                       |
| DRB1*08:31+DRB1*13:22        | DRB1*11:04:01+DRB1*13:116   | DRB1*11:56+DRB1*13:17     |                       |
| DRB1*08:31+DRB1*13:23:01     | DRB1*11:01:02+DRB1*13:116   | DRB1*11:37:02+DRB1*13:17  |                       |
| DRB1*08:31+DRB1*13:27        | DRB1*11:83+DRB1*13:17       |                           |                       |
| DRB1*08:31+DRB1*13:29        | DRB1*08:41+DRB1*13:20       |                           |                       |
| DRB1*08:31+DRB1*13:36        | DRB1*08:41+DRB1*13:40       |                           |                       |
| DRB1*08:31+DRB1*13:39        | DRB1*08:41+DRB1*13:79       |                           |                       |
| DRB1*08:31+DRB1*13:41        | DRB1*08:41+DRB1*13:27       | DRB1*11:87+DRB1*13:116    |                       |
| DRB1*08:31+DRB1*13:49        | DRB1*08:41+DRB1*13:108      |                           |                       |
| DRB1*08:31+DRB1*13:52        | DRB1*11:46:01+DRB1*13:116   |                           |                       |
| DRB1*08:31+DRB1*13:65        | DRB1*08:41+DRB1*13:32       |                           |                       |
| DRB1*08:31+DRB1*13:66:02     | DRB1*08:40+DRB1*11:04:01    |                           |                       |
| DRB1*08:31+DRB1*13:69        | DRB1*11:58:01+DRB1*13:116   |                           |                       |
| DRB1*08:31+DRB1*13:70        | DRB1*11:56+DRB1*13:116      |                           |                       |
| DRB1*08:31+DRB1*13:96:01     | DRB1*08:41+DRB1*13:61:02    |                           |                       |
| DRB1*08:31+DRB1*13:96:02     | DRB1*08:41+DRB1*13:61:01    |                           |                       |
| DRB1*08:31+DRB1*13:97:02     | DRB1*11:62+DRB1*13:116      |                           |                       |
| DRB1*08:31+DRB1*13:104       | DRB1*08:41+DRB1*13:15       |                           |                       |
| DRB1*08:31+DRB1*13:107       | DRB1*08:41+DRB1*13:83       | DRB1*11:10:02+DRB1*13:116 |                       |
| DRB1*08:31+DRB1*13:128       | DRB1*08:41+DRB1*13:112      |                           |                       |
| DRB1*08:31+DRB1*14:01:01G    | DRB1*11:56+DRB1*14:04       |                           |                       |
| DRB1*08:31+DRB1*14:02        | DRB1*08:41+DRB1*14:06:01    | DRB1*11:37:01+DRB1*14:52  |                       |
| DRB1*08:31+DRB1*14:03:01     | DRB1*08:41+DRB1*14:12:01    |                           |                       |
| DRB1*08:31+DRB1*14:06:01     | DRB1*11:56+DRB1*14:52       |                           |                       |
| DRB1*08:31+DRB1*14:07:01     | DRB1*08:41+DRB1*14:01:01G   | DRB1*11:37:01+DRB1*14:04  | DRB1*11:56+DRB1*14:68 |
|                              | DRB1*14:11+DRB1*14:25       |                           |                       |
| DRB1*08:31+DRB1*14:07:02     | DRB1*11:37:02+DRB1*14:04    |                           |                       |
| DRB1*08:31+DRB1*14:09        | DRB1*08:41+DRB1*14:80       |                           |                       |
| DRB1*08:31+DRB1*14:23:01     | DRB1*11:56+DRB1*14:126      |                           |                       |
| DRB1*08:31+DRB1*14:30        | DRB1*08:41+DRB1*14:17       |                           |                       |
| DRB1*08:31+DRB1*14:32:02     | DRB1*11:56+DRB1*14:31       |                           |                       |
| DRB1*08:31+DRB1*14:35        | DRB1*11:04:01+DRB1*14:04    | DRB1*11:54:02+DRB1*14:31  |                       |
| DRB1*08:31+DRB1*14:38        | DRB1*11:56+DRB1*14:50       |                           |                       |
| DRB1*08:31+DRB1*14:44:01     | DRB1*08:41+DRB1*14:05:01    |                           |                       |
| DRB1*08:31+DRB1*14:44:02     | DRB1*08:41+DRB1*14:05:03    |                           |                       |
| DRB1*08:31+DRB1*14:51        | DRB1*08:41+DRB1*14:106      |                           |                       |
| DRB1*08:31+DRB1*14:63        | DRB1*08:41+DRB1*14:78       |                           |                       |
| DRB1*08:31+DRB1*14:68        | DRB1*08:41+DRB1*14:04       |                           |                       |
| DRB1*08:31+DRB1*14:99        | DRB1*11:56+DRB1*14:28       |                           |                       |
| DRB1*08:31+DRB1*14:111       | DRB1*11:56+DRB1*14:107      |                           |                       |
| DRB1*08:31+DRB1*14:122       | DRB1*11:56+DRB1*14:120      |                           |                       |
| DRB1*08:31+DRB1*15:02:01     | DRB1*08:41+DRB1*15:01:01G   |                           |                       |
| DRB1*08:31+DRB1*15:02:02     | DRB1*08:41+DRB1*15:01:04    |                           |                       |
| DRB1*08:31+DRB1*15:02:04     | DRB1*08:41+DRB1*15:01:09    |                           |                       |
| DRB1*08:31+DRB1*15:02:06     | DRB1*08:41+DRB1*15:01:03    |                           |                       |
| DRB1*08:31+DRB1*15:02:08     | DRB1*08:41+DRB1*15:01:10    |                           |                       |
| DRB1*08:31+DRB1*15:11        | DRB1*08:41+DRB1*15:07:01    |                           |                       |
| DRB1*08:31+DRB1*15:15        | DRB1*08:41+DRB1*15:04       |                           |                       |
| DRB1*08:31+DRB1*15:27        | DRB1*08:41+DRB1*15:66       |                           |                       |
| DRB1*08:31+DRB1*15:31        | DRB1*08:41+DRB1*15:05       |                           |                       |
| DRB1*08:31+DRB1*15:47        | DRB1*08:41+DRB1*15:65       |                           |                       |
| DRB1*08:31+DRB1*16:01:01     | DRB1*08:41+DRB1*16:15       |                           |                       |
| DRB1*08:32+DRB1*13:100       | DRB1*12:16:01+DRB1*13:13    |                           |                       |
| DRB1*08:33+DRB1*13:98        | DRB1*08:46+DRB1*13:80       |                           |                       |
| DRB1*08:35+DRB1*11:62        | DRB1*08:36:01+DRB1*11:10:02 |                           |                       |
| DRB1*08:35+DRB1*13:11:01     | DRB1*13:30+DRB1*14:15       |                           |                       |
| DRB1*08:35+DRB1*13:97:02     | DRB1*08:36:01+DRB1*13:107   |                           |                       |
| DRB1*08:35+DRB1*13:111       | DRB1*13:139+DRB1*14:15      |                           |                       |
| DRB1*08:35+DRB1*14:42        | DRB1*08:37+DRB1*14:14       |                           |                       |
| DRB1*08:35+DRB1*14:53        | DRB1*08:37+DRB1*14:22       |                           |                       |
| DRB1*08:36:01+DRB1*11:102:01 | DRB1*08:38+DRB1*11:46:02    |                           |                       |
| DRB1*08:37+DRB1*11:04:01     | DRB1*11:67+DRB1*13:30       |                           |                       |
| DRB1*08:37+DRB1*11:40        | DRB1*11:67+DRB1*13:139      |                           |                       |
| DRB1*08:37+DRB1*13:01:08     | DRB1*08:45+DRB1*13:93       |                           |                       |
| DRB1*08:37+DRB1*13:88        | DRB1*08:48+DRB1*13:66:01    |                           |                       |
| DRB1*08:40+DRB1*11:17        | DRB1*13:03:01+DRB1*14:11    |                           |                       |
| DRB1*08:40+DRB1*11:37:01     | DRB1*08:41+DRB1*13:03:01    |                           |                       |
| DRB1*08:40+DRB1*11:120       | DRB1*08:47+DRB1*11:93       |                           |                       |
| DRB1*08:40+DRB1*13:01:01G    | DRB1*13:17+DRB1*13:120      |                           |                       |
| DRB1*08:40+DRB1*13:22        | DRB1*13:03:01+DRB1*13:17    | DRB1*13:66:02+DRB1*13:116 |                       |
| DRB1*08:40+DRB1*13:40        | DRB1*13:116+DRB1*13:120     |                           |                       |
| DRB1*08:40+DRB1*13:70        | DRB1*13:03:01+DRB1*13:116   |                           |                       |
| DRB1*08:40+DRB1*14:01:01G    | DRB1*13:03:01+DRB1*14:04    | DRB1*13:88+DRB1*14:120    | DRB1*13:89+DRB1*14:68 |
| DRB1*08:40+DRB1*14:03:01     | DRB1*08:48+DRB1*13:85       |                           |                       |
| DRB1*08:40+DRB1*14:06:01     | DRB1*13:03:01+DRB1*14:52    |                           |                       |
| DRB1*08:40+DRB1*14:07:01     | DRB1*13:03:01+DRB1*14:68    |                           |                       |
| DRB1*08:40+DRB1*14:23:01     | DRB1*13:03:01+DRB1*14:31    |                           |                       |
| DRB1*08:40+DRB1*14:32:02     | DRB1*13:66:02+DRB1*14:04    |                           |                       |
| DRB1*08:40+DRB1*14:35        | DRB1*13:03:01+DRB1*14:50    |                           |                       |
| DRB1*08:40+DRB1*14:38        | DRB1*13:03:01+DRB1*14:28    |                           |                       |
| DRB1*08:40+DRB1*14:99        | DRB1*13:03:01+DRB1*14:107   |                           |                       |
| DRB1*08:40+DRB1*14:111       | DRB1*13:03:01+DRB1*14:120   |                           |                       |
| DRB1*08:40+DRB1*14:122       | DRB1*11:37:01+DRB1*14:11    |                           |                       |
| DRB1*08:41+DRB1*11:17        | DRB1*11:37:01+DRB1*11:67    |                           |                       |
| DRB1*08:41+DRB1*11:25        | DRB1*11:28:02+DRB1*13:116   |                           |                       |
| DRB1*08:41+DRB1*13:69        | DRB1*11:37:02+DRB1*14:52    |                           |                       |
| DRB1*08:41+DRB1*14:06:02     |                             |                           |                       |



|                              |                              |                          |                       |
|------------------------------|------------------------------|--------------------------|-----------------------|
| DRB1*08:41+DRB1*14:07:01     | DRB1*11:37:01+DRB1*14:68     |                          |                       |
| DRB1*08:41+DRB1*14:07:02     | DRB1*11:37:02+DRB1*14:68     |                          |                       |
| DRB1*08:41+DRB1*14:32:02     | DRB1*11:37:01+DRB1*14:31     |                          |                       |
| DRB1*08:41+DRB1*14:35        | DRB1*11:01:01G+DRB1*14:04    | DRB1*11:04:01+DRB1*14:68 | DRB1*14:11+DRB1*14:53 |
| DRB1*08:41+DRB1*14:38        | DRB1*11:37:01+DRB1*14:50     |                          |                       |
| DRB1*08:41+DRB1*14:72        | DRB1*11:96+DRB1*14:126       |                          |                       |
| DRB1*08:41+DRB1*14:99        | DRB1*11:37:01+DRB1*14:28     |                          |                       |
| DRB1*08:41+DRB1*14:111       | DRB1*11:37:01+DRB1*14:107    |                          |                       |
| DRB1*08:41+DRB1*14:122       | DRB1*11:37:01+DRB1*14:120    |                          |                       |
| DRB1*08:42+DRB1*11:66        | DRB1*08:44+DRB1*11:29        |                          |                       |
| DRB1*08:46+DRB1*14:01:01G    | DRB1*13:13+DRB1*14:71        |                          |                       |
| DRB1*09:01:02+DRB1*10:02     | DRB1*09:06+DRB1*10:01:01     |                          |                       |
| DRB1*09:01:02+DRB1*11:01:12  | DRB1*09:01:04+DRB1*11:01:01G |                          |                       |
| DRB1*09:01:02+DRB1*11:02:01  | DRB1*09:06+DRB1*11:14:01     |                          |                       |
| DRB1*09:01:02+DRB1*11:03     | DRB1*09:06+DRB1*11:11:01G    |                          |                       |
| DRB1*09:01:02+DRB1*11:04:01  | DRB1*09:06+DRB1*11:01:01G    |                          |                       |
| DRB1*09:01:02+DRB1*11:04:02  | DRB1*09:06+DRB1*11:01:02     |                          |                       |
| DRB1*09:01:02+DRB1*11:04:03  | DRB1*09:06+DRB1*11:01:05     |                          |                       |
| DRB1*09:01:02+DRB1*11:04:04  | DRB1*09:01:04+DRB1*11:04:01  | DRB1*09:06+DRB1*11:01:12 |                       |
| DRB1*09:01:02+DRB1*11:04:05  | DRB1*09:06+DRB1*11:01:04     |                          |                       |
| DRB1*09:01:02+DRB1*11:04:07  | DRB1*09:06+DRB1*11:01:03     |                          |                       |
| DRB1*09:01:02+DRB1*11:07     | DRB1*09:06+DRB1*11:103       |                          |                       |
| DRB1*09:01:02+DRB1*11:08:01  | DRB1*09:04+DRB1*11:01:01G    |                          |                       |
| DRB1*09:01:02+DRB1*11:08:02  | DRB1*09:04+DRB1*11:01:02     |                          |                       |
| DRB1*09:01:02+DRB1*11:12:02  | DRB1*09:01:04+DRB1*11:12:01  |                          |                       |
| DRB1*09:01:02+DRB1*11:16     | DRB1*09:06+DRB1*11:20        |                          |                       |
| DRB1*09:01:02+DRB1*11:18     | DRB1*09:06+DRB1*11:19:01     |                          |                       |
| DRB1*09:01:02+DRB1*11:28:02  | DRB1*09:01:04+DRB1*11:28:01  |                          |                       |
| DRB1*09:01:02+DRB1*11:34     | DRB1*09:06+DRB1*11:26        |                          |                       |
| DRB1*09:01:02+DRB1*11:35     | DRB1*09:06+DRB1*11:33        |                          |                       |
| DRB1*09:01:02+DRB1*11:36     | DRB1*09:04+DRB1*11:03        | DRB1*09:06+DRB1*11:68    |                       |
| DRB1*09:01:02+DRB1*11:40     | DRB1*09:06+DRB1*11:122       |                          |                       |
| DRB1*09:01:02+DRB1*11:42     | DRB1*09:04+DRB1*11:04:01     | DRB1*09:06+DRB1*11:08:01 |                       |
| DRB1*09:01:02+DRB1*11:43     | DRB1*09:06+DRB1*11:39        |                          |                       |
| DRB1*09:01:02+DRB1*11:44     | DRB1*09:06+DRB1*11:49:01     |                          |                       |
| DRB1*09:01:02+DRB1*11:46:01  | DRB1*09:01:04+DRB1*11:46:02  |                          |                       |
| DRB1*09:01:02+DRB1*11:46:02  | DRB1*09:06+DRB1*11:62        |                          |                       |
| DRB1*09:01:02+DRB1*11:56     | DRB1*09:06+DRB1*11:37:01     |                          |                       |
| DRB1*09:01:02+DRB1*11:57     | DRB1*09:04+DRB1*11:06:01G    |                          |                       |
| DRB1*09:01:02+DRB1*11:58:01  | DRB1*09:01:04+DRB1*11:58:02  | DRB1*09:06+DRB1*11:28:02 |                       |
| DRB1*09:01:02+DRB1*11:58:02  | DRB1*09:06+DRB1*11:28:01     |                          |                       |
| DRB1*09:01:02+DRB1*11:60     | DRB1*09:06+DRB1*11:109       |                          |                       |
| DRB1*09:01:02+DRB1*11:68     | DRB1*09:04+DRB1*11:11:01G    |                          |                       |
| DRB1*09:01:02+DRB1*11:84:01  | DRB1*09:06+DRB1*11:27:01     |                          |                       |
| DRB1*09:01:02+DRB1*11:84:02  | DRB1*09:06+DRB1*11:27:02     |                          |                       |
| DRB1*09:01:02+DRB1*11:103    | DRB1*09:04+DRB1*11:125       |                          |                       |
| DRB1*09:01:02+DRB1*11:113    | DRB1*09:06+DRB1*11:09        |                          |                       |
| DRB1*09:01:02+DRB1*11:116    | DRB1*09:06+DRB1*11:120       |                          |                       |
| DRB1*09:01:02+DRB1*11:119    | DRB1*09:06+DRB1*11:45        |                          |                       |
| DRB1*09:01:02+DRB1*12:09     | DRB1*09:02:02+DRB1*12:01:01G |                          |                       |
| DRB1*09:01:02+DRB1*12:12     | DRB1*09:04+DRB1*12:02:01     |                          |                       |
| DRB1*09:01:02+DRB1*13:01:01G | DRB1*09:06+DRB1*13:02:01     |                          |                       |
| DRB1*09:01:02+DRB1*13:01:02  | DRB1*09:01:07+DRB1*13:01:01G |                          |                       |
| DRB1*09:01:02+DRB1*13:01:05  | DRB1*09:06+DRB1*13:02:03     |                          |                       |
| DRB1*09:01:02+DRB1*13:01:06  | DRB1*09:01:08+DRB1*13:01:01G |                          |                       |
| DRB1*09:01:02+DRB1*13:11:01  | DRB1*09:06+DRB1*13:14:01     |                          |                       |
| DRB1*09:01:02+DRB1*13:11:02  | DRB1*09:06+DRB1*13:14:02     |                          |                       |
| DRB1*09:01:02+DRB1*13:14:01  | DRB1*09:02:02+DRB1*13:100    |                          |                       |
| DRB1*09:01:02+DRB1*13:14:02  | DRB1*09:02:01+DRB1*13:100    |                          |                       |
| DRB1*09:01:02+DRB1*13:15     | DRB1*09:06+DRB1*13:104       |                          |                       |
| DRB1*09:01:02+DRB1*13:20     | DRB1*09:04+DRB1*13:111       | DRB1*09:06+DRB1*13:29    |                       |
| DRB1*09:01:02+DRB1*13:21:01  | DRB1*09:08+DRB1*13:46        |                          |                       |
| DRB1*09:01:02+DRB1*13:22     | DRB1*09:06+DRB1*13:23:02     |                          |                       |
| DRB1*09:01:02+DRB1*13:24     | DRB1*09:02:02+DRB1*13:54     |                          |                       |
| DRB1*09:01:02+DRB1*13:25     | DRB1*09:04+DRB1*13:14:01     |                          |                       |
| DRB1*09:01:02+DRB1*13:27     | DRB1*09:06+DRB1*13:41        |                          |                       |
| DRB1*09:01:02+DRB1*13:29     | DRB1*09:04+DRB1*13:63        |                          |                       |
| DRB1*09:01:02+DRB1*13:32     | DRB1*09:06+DRB1*13:65        |                          |                       |
| DRB1*09:01:02+DRB1*13:40     | DRB1*09:06+DRB1*13:36        |                          |                       |
| DRB1*09:01:02+DRB1*13:42     | DRB1*09:06+DRB1*13:05:01     |                          |                       |
| DRB1*09:01:02+DRB1*13:50:02  | DRB1*09:01:04+DRB1*13:50:01  |                          |                       |
| DRB1*09:01:02+DRB1*13:52     | DRB1*09:06+DRB1*13:97:01     |                          |                       |
| DRB1*09:01:02+DRB1*13:56     | DRB1*09:04+DRB1*13:05:01     |                          |                       |
| DRB1*09:01:02+DRB1*13:61:01  | DRB1*09:06+DRB1*13:96:02     |                          |                       |
| DRB1*09:01:02+DRB1*13:61:02  | DRB1*09:06+DRB1*13:96:01     |                          |                       |
| DRB1*09:01:02+DRB1*13:79     | DRB1*09:06+DRB1*13:39        |                          |                       |
| DRB1*09:01:02+DRB1*13:83     | DRB1*09:06+DRB1*13:107       |                          |                       |
| DRB1*09:01:02+DRB1*13:89     | DRB1*09:06+DRB1*13:03:01     |                          |                       |
| DRB1*09:01:02+DRB1*13:93     | DRB1*09:06+DRB1*13:139       |                          |                       |
| DRB1*09:01:02+DRB1*13:97:01  | DRB1*09:01:04+DRB1*13:97:02  |                          |                       |
| DRB1*09:01:02+DRB1*13:108    | DRB1*09:06+DRB1*13:49        |                          |                       |
| DRB1*09:01:02+DRB1*13:111    | DRB1*09:06+DRB1*13:63        |                          |                       |
| DRB1*09:01:02+DRB1*13:112    | DRB1*09:06+DRB1*13:128       |                          |                       |
| DRB1*09:01:02+DRB1*13:134    | DRB1*09:04+DRB1*13:49        |                          |                       |
| DRB1*09:01:02+DRB1*13:139    | DRB1*09:08+DRB1*13:31        |                          |                       |
| DRB1*09:01:02+DRB1*14:01:01G | DRB1*09:06+DRB1*14:07:01     |                          |                       |
| DRB1*09:01:02+DRB1*14:02     | DRB1*09:02:02+DRB1*14:48     |                          |                       |
| DRB1*09:01:02+DRB1*14:03:01  | DRB1*09:04+DRB1*14:27        |                          |                       |
| DRB1*09:01:02+DRB1*14:04     | DRB1*09:06+DRB1*14:68        |                          |                       |
| DRB1*09:01:02+DRB1*14:05:01  | DRB1*09:01:08+DRB1*14:05:02  | DRB1*09:06+DRB1*14:44:01 |                       |
| DRB1*09:01:02+DRB1*14:05:03  | DRB1*09:06+DRB1*14:44:02     |                          |                       |
| DRB1*09:01:02+DRB1*14:06:01  | DRB1*09:04+DRB1*14:108       | DRB1*09:06+DRB1*14:02    |                       |
| DRB1*09:01:02+DRB1*14:12:01  | DRB1*09:06+DRB1*14:03:01     |                          |                       |
| DRB1*09:01:02+DRB1*14:17     | DRB1*09:06+DRB1*14:30        |                          |                       |
| DRB1*09:01:02+DRB1*14:23:01  | DRB1*09:06+DRB1*14:14        |                          |                       |
| DRB1*09:01:02+DRB1*14:23:02  | DRB1*09:01:09+DRB1*14:23:01  |                          |                       |
| DRB1*09:01:02+DRB1*14:23:03  | DRB1*09:01:08+DRB1*14:23:01  |                          |                       |
| DRB1*09:01:02+DRB1*14:69     | DRB1*09:04+DRB1*14:25        |                          |                       |
| DRB1*09:01:02+DRB1*14:78     | DRB1*09:06+DRB1*14:63        |                          |                       |
| DRB1*09:01:02+DRB1*14:80     | DRB1*09:06+DRB1*14:09        |                          |                       |
| DRB1*09:01:02+DRB1*14:106    | DRB1*09:06+DRB1*14:51        |                          |                       |
| DRB1*09:01:02+DRB1*15:01:01G | DRB1*09:06+DRB1*15:02:01     |                          |                       |
| DRB1*09:01:02+DRB1*15:01:03  | DRB1*09:06+DRB1*15:02:06     |                          |                       |
| DRB1*09:01:02+DRB1*15:01:04  | DRB1*09:06+DRB1*15:02:02     |                          |                       |
| DRB1*09:01:02+DRB1*15:01:05  | DRB1*09:01:03+DRB1*15:01:01G |                          |                       |

|                              |                              |
|------------------------------|------------------------------|
| DRB1*09:01:02+DRB1*15:01:07  | DRB1*09:01:07+DRB1*15:01:01G |
| DRB1*09:01:02+DRB1*15:01:09  | DRB1*09:06+DRB1*15:02:04     |
| DRB1*09:01:02+DRB1*15:01:10  | DRB1*09:06+DRB1*15:02:08     |
| DRB1*09:01:02+DRB1*15:04     | DRB1*09:06+DRB1*15:15        |
| DRB1*09:01:02+DRB1*15:05     | DRB1*09:04+DRB1*15:04        |
| DRB1*09:01:02+DRB1*15:07:01  | DRB1*09:06+DRB1*15:11        |
| DRB1*09:01:02+DRB1*15:31     | DRB1*09:04+DRB1*15:15        |
| DRB1*09:01:02+DRB1*15:56     | DRB1*09:11+DRB1*15:01:01G    |
| DRB1*09:01:02+DRB1*15:65     | DRB1*09:06+DRB1*15:47        |
| DRB1*09:01:02+DRB1*15:66     | DRB1*09:06+DRB1*15:27        |
| DRB1*09:01:02+DRB1*16:02:01  | DRB1*09:04+DRB1*16:01:01     |
| DRB1*09:01:02+DRB1*16:02:02  | DRB1*09:04+DRB1*16:01:02     |
| DRB1*09:01:02+DRB1*16:10     | DRB1*09:04+DRB1*16:09        |
| DRB1*09:01:02+DRB1*16:15     | DRB1*09:06+DRB1*16:01:01     |
| DRB1*09:01:03+DRB1*15:01:07  | DRB1*09:01:07+DRB1*15:01:05  |
| DRB1*09:01:03+DRB1*15:56     | DRB1*09:11+DRB1*15:01:05     |
| DRB1*09:01:04+DRB1*11:08:01  | DRB1*09:04+DRB1*11:01:12     |
| DRB1*09:01:04+DRB1*11:42     | DRB1*09:04+DRB1*11:04:04     |
| DRB1*09:01:07+DRB1*13:01:06  | DRB1*09:01:08+DRB1*13:01:02  |
| DRB1*09:01:07+DRB1*15:56     | DRB1*09:11+DRB1*15:01:07     |
| DRB1*09:01:08+DRB1*14:23:02  | DRB1*09:01:09+DRB1*14:23:03  |
| DRB1*09:02:01+DRB1*13:01:01G | DRB1*09:02:02+DRB1*13:01:05  |
| DRB1*09:02:01+DRB1*13:02:01  | DRB1*09:02:02+DRB1*13:02:03  |
| DRB1*09:02:01+DRB1*13:07:01  | DRB1*09:02:02+DRB1*13:07:02  |
| DRB1*09:02:01+DRB1*13:11:01  | DRB1*09:02:02+DRB1*13:11:02  |
| DRB1*09:02:01+DRB1*13:14:01  | DRB1*09:02:02+DRB1*13:14:02  |
| DRB1*09:02:01+DRB1*15:01:04  | DRB1*09:02:02+DRB1*15:01:01G |
| DRB1*09:02:01+DRB1*15:02:02  | DRB1*09:02:02+DRB1*15:02:01  |
| DRB1*09:02:01+DRB1*15:02:05  | DRB1*09:02:02+DRB1*15:02:09  |
| DRB1*09:02:01+DRB1*15:07:02  | DRB1*09:02:02+DRB1*15:07:01  |
| DRB1*09:04+DRB1*11:04:02     | DRB1*09:06+DRB1*11:08:02     |
| DRB1*09:04+DRB1*11:25        | DRB1*09:06+DRB1*11:64        |
| DRB1*09:04+DRB1*13:11:01     | DRB1*09:06+DRB1*13:25        |
| DRB1*09:04+DRB1*13:18        | DRB1*09:06+DRB1*13:119       |
| DRB1*09:04+DRB1*13:42        | DRB1*09:06+DRB1*13:56        |
| DRB1*09:04+DRB1*13:108       | DRB1*09:06+DRB1*13:134       |
| DRB1*09:04+DRB1*16:15        | DRB1*09:06+DRB1*16:02:01     |
| DRB1*10:01:01+DRB1*11:01:01G | DRB1*10:01:03+DRB1*11:01:09  |
| DRB1*10:01:01+DRB1*11:01:03  | DRB1*10:01:02+DRB1*11:01:09  |
| DRB1*10:01:01+DRB1*11:02:01  | DRB1*10:02+DRB1*11:14:01     |
| DRB1*10:01:01+DRB1*11:03     | DRB1*10:02+DRB1*11:11:01G    |
| DRB1*10:01:01+DRB1*11:04:01  | DRB1*10:02+DRB1*11:01:01G    |
| DRB1*10:01:01+DRB1*11:04:02  | DRB1*10:02+DRB1*11:01:02     |
| DRB1*10:01:01+DRB1*11:04:03  | DRB1*10:02+DRB1*11:01:05     |
| DRB1*10:01:01+DRB1*11:04:04  | DRB1*10:02+DRB1*11:01:12     |
| DRB1*10:01:01+DRB1*11:04:05  | DRB1*10:02+DRB1*11:01:04     |
| DRB1*10:01:01+DRB1*11:04:07  | DRB1*10:02+DRB1*11:01:03     |
| DRB1*10:01:01+DRB1*11:07     | DRB1*10:02+DRB1*11:103       |
| DRB1*10:01:01+DRB1*11:16     | DRB1*10:02+DRB1*11:20        |
| DRB1*10:01:01+DRB1*11:18     | DRB1*10:02+DRB1*11:19:01     |
| DRB1*10:01:01+DRB1*11:34     | DRB1*10:02+DRB1*11:26        |
| DRB1*10:01:01+DRB1*11:35     | DRB1*10:02+DRB1*11:33        |
| DRB1*10:01:01+DRB1*11:36     | DRB1*10:02+DRB1*11:68        |
| DRB1*10:01:01+DRB1*11:40     | DRB1*10:02+DRB1*11:122       |
| DRB1*10:01:01+DRB1*11:42     | DRB1*10:02+DRB1*11:08:01     |
| DRB1*10:01:01+DRB1*11:43     | DRB1*10:02+DRB1*11:39        |
| DRB1*10:01:01+DRB1*11:44     | DRB1*10:02+DRB1*11:49:01     |
| DRB1*10:01:01+DRB1*11:46:02  | DRB1*10:02+DRB1*11:62        |
| DRB1*10:01:01+DRB1*11:56     | DRB1*10:02+DRB1*11:37:01     |
| DRB1*10:01:01+DRB1*11:58:01  | DRB1*10:02+DRB1*11:28:02     |
| DRB1*10:01:01+DRB1*11:58:02  | DRB1*10:02+DRB1*11:28:01     |
| DRB1*10:01:01+DRB1*11:60     | DRB1*10:02+DRB1*11:109       |
| DRB1*10:01:01+DRB1*11:84:01  | DRB1*10:02+DRB1*11:27:01     |
| DRB1*10:01:01+DRB1*11:84:02  | DRB1*10:02+DRB1*11:27:02     |
| DRB1*10:01:01+DRB1*11:113    | DRB1*10:02+DRB1*11:09        |
| DRB1*10:01:01+DRB1*11:116    | DRB1*10:02+DRB1*11:120       |
| DRB1*10:01:01+DRB1*11:119    | DRB1*10:02+DRB1*11:45        |
| DRB1*10:01:01+DRB1*13:01:01G | DRB1*10:02+DRB1*13:02:01     |
| DRB1*10:01:01+DRB1*13:01:05  | DRB1*10:02+DRB1*13:02:03     |
| DRB1*10:01:01+DRB1*13:11:01  | DRB1*10:02+DRB1*13:14:01     |
| DRB1*10:01:01+DRB1*13:11:02  | DRB1*10:02+DRB1*13:14:02     |
| DRB1*10:01:01+DRB1*13:15     | DRB1*10:02+DRB1*13:104       |
| DRB1*10:01:01+DRB1*13:20     | DRB1*10:02+DRB1*13:29        |
| DRB1*10:01:01+DRB1*13:22     | DRB1*10:02+DRB1*13:23:02     |
| DRB1*10:01:01+DRB1*13:27     | DRB1*10:02+DRB1*13:41        |
| DRB1*10:01:01+DRB1*13:32     | DRB1*10:02+DRB1*13:65        |
| DRB1*10:01:01+DRB1*13:40     | DRB1*10:02+DRB1*13:36        |
| DRB1*10:01:01+DRB1*13:42     | DRB1*10:02+DRB1*13:05:01     |
| DRB1*10:01:01+DRB1*13:52     | DRB1*10:02+DRB1*13:97:01     |
| DRB1*10:01:01+DRB1*13:61:01  | DRB1*10:02+DRB1*13:96:02     |
| DRB1*10:01:01+DRB1*13:61:02  | DRB1*10:02+DRB1*13:96:01     |
| DRB1*10:01:01+DRB1*13:79     | DRB1*10:02+DRB1*13:39        |
| DRB1*10:01:01+DRB1*13:83     | DRB1*10:02+DRB1*13:107       |
| DRB1*10:01:01+DRB1*13:89     | DRB1*10:02+DRB1*13:03:01     |
| DRB1*10:01:01+DRB1*13:93     | DRB1*10:02+DRB1*13:139       |
| DRB1*10:01:01+DRB1*13:108    | DRB1*10:02+DRB1*13:49        |
| DRB1*10:01:01+DRB1*13:111    | DRB1*10:02+DRB1*13:63        |
| DRB1*10:01:01+DRB1*13:112    | DRB1*10:02+DRB1*13:128       |
| DRB1*10:01:01+DRB1*14:01:01G | DRB1*10:02+DRB1*14:07:01     |
| DRB1*10:01:01+DRB1*14:04     | DRB1*10:02+DRB1*14:68        |
| DRB1*10:01:01+DRB1*14:05:01  | DRB1*10:02+DRB1*14:44:01     |
| DRB1*10:01:01+DRB1*14:05:03  | DRB1*10:02+DRB1*14:44:02     |
| DRB1*10:01:01+DRB1*14:06:01  | DRB1*10:02+DRB1*14:02        |
| DRB1*10:01:01+DRB1*14:12:01  | DRB1*10:02+DRB1*14:03:01     |
| DRB1*10:01:01+DRB1*14:17     | DRB1*10:02+DRB1*14:30        |
| DRB1*10:01:01+DRB1*14:23:01  | DRB1*10:02+DRB1*14:14        |
| DRB1*10:01:01+DRB1*14:78     | DRB1*10:02+DRB1*14:63        |
| DRB1*10:01:01+DRB1*14:80     | DRB1*10:02+DRB1*14:09        |
| DRB1*10:01:01+DRB1*14:106    | DRB1*10:02+DRB1*14:51        |
| DRB1*10:01:01+DRB1*15:01:01G | DRB1*10:02+DRB1*15:02:01     |
| DRB1*10:01:01+DRB1*15:01:03  | DRB1*10:02+DRB1*15:02:06     |
| DRB1*10:01:01+DRB1*15:01:04  | DRB1*10:02+DRB1*15:02:02     |
| DRB1*10:01:01+DRB1*15:01:09  | DRB1*10:02+DRB1*15:02:04     |
| DRB1*10:01:01+DRB1*15:01:10  | DRB1*10:02+DRB1*15:02:08     |
| DRB1*10:01:01+DRB1*15:04     | DRB1*10:02+DRB1*15:15        |

|                               |                              |                              |                             |
|-------------------------------|------------------------------|------------------------------|-----------------------------|
| DRB1*10:01:01+DRB1*15:05      | DRB1*10:02+DRB1*15:31        |                              |                             |
| DRB1*10:01:01+DRB1*15:07:01   | DRB1*10:02+DRB1*15:11        |                              |                             |
| DRB1*10:01:01+DRB1*15:65      | DRB1*10:02+DRB1*15:47        |                              |                             |
| DRB1*10:01:01+DRB1*15:66      | DRB1*10:02+DRB1*15:27        |                              |                             |
| DRB1*10:01:01+DRB1*16:15      | DRB1*10:02+DRB1*16:01:01     |                              |                             |
| DRB1*10:01:02+DRB1*11:01:01G  | DRB1*10:01:03+DRB1*11:01:03  |                              |                             |
| DRB1*10:01:02+DRB1*11:01:02   | DRB1*10:01:03+DRB1*11:01:11  |                              |                             |
| DRB1*10:01:02+DRB1*11:01:05   | DRB1*10:01:03+DRB1*11:01:10  |                              |                             |
| DRB1*10:01:02+DRB1*11:04:01   | DRB1*10:01:03+DRB1*11:04:07  |                              |                             |
| DRB1*10:01:02+DRB1*11:19:01   | DRB1*10:01:03+DRB1*11:19:02  |                              |                             |
| DRB1*10:01:02+DRB1*12:01:02   | DRB1*10:01:03+DRB1*12:01:03  |                              |                             |
| DRB1*10:01:02+DRB1*12:02:04   | DRB1*10:01:03+DRB1*12:02:01  |                              |                             |
| DRB1*10:01:02+DRB1*13:02:01   | DRB1*10:01:03+DRB1*13:02:02  |                              |                             |
| DRB1*10:01:02+DRB1*16:01:02   | DRB1*10:01:03+DRB1*16:01:01  |                              |                             |
| DRB1*10:01:02+DRB1*16:02:02   | DRB1*10:01:03+DRB1*16:02:01  |                              |                             |
| DRB1*10:01:03+DRB1*14:06:01   | DRB1*10:04+DRB1*14:81        |                              |                             |
| DRB1*11:01:01G+DRB1*11:01:10  | DRB1*11:01:03+DRB1*11:01:05  |                              |                             |
| DRB1*11:01:01G+DRB1*11:01:11  | DRB1*11:01:02+DRB1*11:01:03  |                              |                             |
| DRB1*11:01:01G+DRB1*11:02:01  | DRB1*11:03+DRB1*11:19:01     | DRB1*11:04:01+DRB1*11:14:01  | DRB1*11:11:01G+DRB1*11:18   |
| DRB1*11:01:01G+DRB1*11:03     | DRB1*11:04:01+DRB1*11:11:01G |                              |                             |
| DRB1*11:01:01G+DRB1*11:04:02  | DRB1*11:01:02+DRB1*11:04:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:04:03  | DRB1*11:01:05+DRB1*11:04:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:04:04  | DRB1*11:01:12+DRB1*11:04:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:04:05  | DRB1*11:01:04+DRB1*11:04:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:04:07  | DRB1*11:01:03+DRB1*11:04:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:06:02  | DRB1*11:01:05+DRB1*11:06:01G |                              |                             |
| DRB1*11:01:01G+DRB1*11:06:03  | DRB1*11:01:04+DRB1*11:06:01G |                              |                             |
| DRB1*11:01:01G+DRB1*11:07     | DRB1*11:04:01+DRB1*11:103    | DRB1*11:42+DRB1*11:125       | DRB1*11:84:02+DRB1*11:105   |
| DRB1*11:01:01G+DRB1*11:08:02  | DRB1*11:01:02+DRB1*11:08:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:09     | DRB1*11:28:02+DRB1*11:62     |                              |                             |
| DRB1*11:01:01G+DRB1*11:10:01  | DRB1*11:01:02+DRB1*11:10:02  |                              |                             |
| DRB1*11:01:01G+DRB1*11:10:02  | DRB1*11:12:02+DRB1*11:62     |                              |                             |
| DRB1*11:01:01G+DRB1*11:12:02  | DRB1*11:01:12+DRB1*11:12:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:14:01  | DRB1*11:11:01G+DRB1*11:19:01 |                              |                             |
| DRB1*11:01:01G+DRB1*11:14:02  | DRB1*11:01:02+DRB1*11:14:01  | DRB1*11:11:01G+DRB1*11:19:03 |                             |
| DRB1*11:01:01G+DRB1*11:16     | DRB1*11:02:01+DRB1*11:09     | DRB1*11:04:01+DRB1*11:20     | DRB1*11:14:01+DRB1*11:113   |
|                               | DRB1*11:18+DRB1*11:122       | DRB1*11:19:01+DRB1*11:40     | DRB1*11:28:01+DRB1*11:118   |
| DRB1*11:01:01G+DRB1*11:18     | DRB1*11:04:01+DRB1*11:19:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:19:02  | DRB1*11:01:03+DRB1*11:19:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:19:03  | DRB1*11:01:02+DRB1*11:19:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:20     | DRB1*11:09+DRB1*11:14:01     | DRB1*11:19:01+DRB1*11:122    |                             |
| DRB1*11:01:01G+DRB1*11:21     | DRB1*11:06:01G+DRB1*11:14:01 |                              |                             |
| DRB1*11:01:01G+DRB1*11:27:03  | DRB1*11:01:02+DRB1*11:27:02  |                              |                             |
| DRB1*11:01:01G+DRB1*11:28:02  | DRB1*11:01:12+DRB1*11:28:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:31     | DRB1*11:19:01+DRB1*11:96     |                              |                             |
| DRB1*11:01:01G+DRB1*11:34     | DRB1*11:04:01+DRB1*11:26     |                              |                             |
| DRB1*11:01:01G+DRB1*11:35     | DRB1*11:04:01+DRB1*11:33     |                              |                             |
| DRB1*11:01:01G+DRB1*11:36     | DRB1*11:03+DRB1*11:08:01     | DRB1*11:04:01+DRB1*11:68     | DRB1*11:11:01G+DRB1*11:42   |
| DRB1*11:01:01G+DRB1*11:37:02  | DRB1*11:01:02+DRB1*11:37:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:40     | DRB1*11:03+DRB1*11:09        | DRB1*11:04:01+DRB1*11:122    | DRB1*11:11:01G+DRB1*11:113  |
| DRB1*11:01:01G+DRB1*11:41     | DRB1*11:03+DRB1*11:37:01     | DRB1*11:11:01G+DRB1*11:56    |                             |
| DRB1*11:01:01G+DRB1*11:42     | DRB1*11:04:01+DRB1*11:08:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:43     | DRB1*11:04:01+DRB1*11:39     |                              |                             |
| DRB1*11:01:01G+DRB1*11:44     | DRB1*11:04:01+DRB1*11:49:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:46:01  | DRB1*11:01:12+DRB1*11:46:02  | DRB1*11:04:04+DRB1*11:62     |                             |
| DRB1*11:01:01G+DRB1*11:46:02  | DRB1*11:04:01+DRB1*11:62     |                              |                             |
| DRB1*11:01:01G+DRB1*11:47     | DRB1*11:06:01G+DRB1*11:29    |                              |                             |
| DRB1*11:01:01G+DRB1*11:48     | DRB1*11:02:01+DRB1*11:37:01  | DRB1*11:14:01+DRB1*11:56     | DRB1*11:19:01+DRB1*11:41    |
| DRB1*11:01:01G+DRB1*11:49:02  | DRB1*11:01:02+DRB1*11:49:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:52     | DRB1*11:17+DRB1*11:96        |                              |                             |
| DRB1*11:01:01G+DRB1*11:54:01  | DRB1*11:01:05+DRB1*11:54:02  |                              |                             |
| DRB1*11:01:01G+DRB1*11:55     | DRB1*11:11:01G+DRB1*11:25    |                              |                             |
| DRB1*11:01:01G+DRB1*11:56     | DRB1*11:04:01+DRB1*11:37:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:57     | DRB1*11:06:01G+DRB1*11:08:01 |                              |                             |
| DRB1*11:01:01G+DRB1*11:58:01  | DRB1*11:01:12+DRB1*11:58:02  | DRB1*11:04:01+DRB1*11:28:02  | DRB1*11:04:04+DRB1*11:28:01 |
| DRB1*11:01:01G+DRB1*11:58:02  | DRB1*11:04:01+DRB1*11:28:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:59     | DRB1*11:03+DRB1*11:87        |                              |                             |
| DRB1*11:01:01G+DRB1*11:60     | DRB1*11:04:01+DRB1*11:109    |                              |                             |
| DRB1*11:01:01G+DRB1*11:63     | DRB1*11:03+DRB1*11:29        |                              |                             |
| DRB1*11:01:01G+DRB1*11:65:01  | DRB1*11:02:01+DRB1*11:33     | DRB1*11:14:01+DRB1*11:35     |                             |
| DRB1*11:01:01G+DRB1*11:68     | DRB1*11:08:01+DRB1*11:11:01G |                              |                             |
| DRB1*11:01:01G+DRB1*11:70     | DRB1*11:02:01+DRB1*11:32     |                              |                             |
| DRB1*11:01:01G+DRB1*11:73     | DRB1*11:19:01+DRB1*11:93     |                              |                             |
| DRB1*11:01:01G+DRB1*11:74:02  | DRB1*11:01:02+DRB1*11:74:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:82     | DRB1*11:19:01+DRB1*11:69     |                              |                             |
| DRB1*11:01:01G+DRB1*11:83     | DRB1*11:56+DRB1*11:87        |                              |                             |
| DRB1*11:01:01G+DRB1*11:84:01  | DRB1*11:04:01+DRB1*11:27:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:84:02  | DRB1*11:04:01+DRB1*11:27:02  |                              |                             |
| DRB1*11:01:01G+DRB1*11:85     | DRB1*11:03+DRB1*11:49:01     | DRB1*11:11:01G+DRB1*11:44    |                             |
| DRB1*11:01:01G+DRB1*11:87     | DRB1*11:28:02+DRB1*11:80     |                              |                             |
| DRB1*11:01:01G+DRB1*11:102:02 | DRB1*11:01:04+DRB1*11:102:01 |                              |                             |
| DRB1*11:01:01G+DRB1*11:103    | DRB1*11:08:01+DRB1*11:125    | DRB1*11:27:02+DRB1*11:105    |                             |
| DRB1*11:01:01G+DRB1*11:107    | DRB1*11:37:01+DRB1*11:103    |                              |                             |
| DRB1*11:01:01G+DRB1*11:113    | DRB1*11:04:01+DRB1*11:09     | DRB1*11:28:01+DRB1*11:46:01  | DRB1*11:28:02+DRB1*11:46:02 |
|                               | DRB1*11:58:01+DRB1*11:62     |                              |                             |
| DRB1*11:01:01G+DRB1*11:115    | DRB1*11:28:02+DRB1*11:43     | DRB1*11:39+DRB1*11:58:01     |                             |
| DRB1*11:01:01G+DRB1*11:116    | DRB1*11:04:01+DRB1*11:120    |                              |                             |
| DRB1*11:01:01G+DRB1*11:118    | DRB1*11:14:01+DRB1*11:46:01  |                              |                             |
| DRB1*11:01:01G+DRB1*11:119    | DRB1*11:04:01+DRB1*11:45     | DRB1*11:19:01+DRB1*11:25     |                             |
| DRB1*11:01:01G+DRB1*11:122    | DRB1*11:09+DRB1*11:11:01G    |                              |                             |
| DRB1*11:01:01G+DRB1*11:124    | DRB1*11:02:01+DRB1*11:27:01  | DRB1*11:14:01+DRB1*11:84:01  |                             |
| DRB1*11:01:01G+DRB1*11:127    | DRB1*11:02:01+DRB1*11:49:01  | DRB1*11:14:01+DRB1*11:44     | DRB1*11:19:01+DRB1*11:85    |
| DRB1*11:01:01G+DRB1*12:01:01G | DRB1*11:01:05+DRB1*12:01:03  | DRB1*11:01:10+DRB1*12:01:02  | DRB1*11:19:01+DRB1*12:02:01 |
|                               | DRB1*11:19:02+DRB1*12:02:04  | DRB1*12:04+DRB1*13:100       |                             |
| DRB1*11:01:01G+DRB1*12:01:03  | DRB1*11:01:03+DRB1*12:01:02  | DRB1*11:19:01+DRB1*12:02:02  |                             |
| DRB1*11:01:01G+DRB1*12:01:04  | DRB1*11:01:13+DRB1*12:01:01G |                              |                             |
| DRB1*11:01:01G+DRB1*12:02:01  | DRB1*11:01:03+DRB1*12:02:04  | DRB1*11:01:05+DRB1*12:02:02  |                             |
| DRB1*11:01:01G+DRB1*12:02:04  | DRB1*11:06:02+DRB1*12:16:01  |                              |                             |
| DRB1*11:01:01G+DRB1*12:03:03  | DRB1*11:01:05+DRB1*12:03:02  | DRB1*11:19:01+DRB1*12:19     |                             |
| DRB1*11:01:01G+DRB1*12:05     | DRB1*11:19:01+DRB1*12:15     |                              |                             |
| DRB1*11:01:01G+DRB1*12:09     | DRB1*12:04+DRB1*13:14:01     |                              |                             |
| DRB1*11:01:01G+DRB1*12:12     | DRB1*11:08:01+DRB1*12:02:01  |                              |                             |
| DRB1*11:01:01G+DRB1*12:21     | DRB1*11:37:01+DRB1*12:02:01  |                              |                             |
| DRB1*11:01:01G+DRB1*12:34     | DRB1*11:39+DRB1*12:01:01G    |                              |                             |
| DRB1*11:01:01G+DRB1*13:01:01G | DRB1*11:02:01+DRB1*13:05:01  | DRB1*11:04:01+DRB1*13:02:01  | DRB1*11:09+DRB1*13:22       |

|  |                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                             |
|--|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
|  | DRB1*11:01:01G+DRB1*13:01:03<br>DRB1*11:01:01G+DRB1*13:01:05<br>DRB1*11:01:01G+DRB1*13:01:08 | DRB1*11:11:01G+DRB1*13:06<br>DRB1*11:18+DRB1*13:63<br>DRB1*11:28:01+DRB1*13:52<br>DRB1*11:58:02+DRB1*13:97:01<br>DRB1*11:118+DRB1*13:50:01<br>DRB1*11:01:05+DRB1*13:01:01G<br>DRB1*11:04:01+DRB1*13:02:03<br>DRB1*11:01:02+DRB1*13:01:01G<br>DRB1*11:14:02+DRB1*13:42<br>DRB1*11:113+DRB1*13:23:01<br>DRB1*11:01:07+DRB1*13:01:01G<br>DRB1*11:09+DRB1*13:23:02<br>DRB1*11:20+DRB1*13:14:01<br>DRB1*11:122+DRB1*13:82<br>DRB1*11:01:03+DRB1*13:02:01<br>DRB1*11:20+DRB1*13:14:02<br>DRB1*11:01:02+DRB1*13:03:02<br>DRB1*11:73+DRB1*13:49<br>DRB1*11:37:01+DRB1*13:66:01<br>DRB1*11:02:01+DRB1*13:21:01<br>DRB1*11:09+DRB1*13:14:01<br>DRB1*11:01:02+DRB1*13:05:01<br>DRB1*11:18+DRB1*13:05:01<br>DRB1*11:37:01+DRB1*13:14:01<br>DRB1*11:37:01+DRB1*13:14:02<br>DRB1*11:10:02+DRB1*13:70<br>DRB1*11:69+DRB1*13:06<br>DRB1*11:04:01+DRB1*13:14:01<br>DRB1*11:04:01+DRB1*13:14:02<br>DRB1*11:19:01+DRB1*13:49<br>DRB1*11:01:02+DRB1*13:12:01<br>DRB1*11:45+DRB1*13:49<br>DRB1*11:01:02+DRB1*13:14:01<br>DRB1*11:04:01+DRB1*13:104<br>DRB1*11:86+DRB1*13:05:01<br>DRB1*11:25+DRB1*13:05:01<br>DRB1*11:37:01+DRB1*13:57<br>DRB1*11:03+DRB1*13:56<br>DRB1*11:36+DRB1*13:05:01<br>DRB1*11:68+DRB1*13:42<br>DRB1*11:01:02+DRB1*13:21:01<br>DRB1*11:02:01+DRB1*13:14:01<br>DRB1*11:14:01+DRB1*13:11:01<br>DRB1*11:01:02+DRB1*13:23:02<br>DRB1*11:11:01G+DRB1*13:82<br>DRB1*11:03+DRB1*13:14:01<br>DRB1*11:08:01+DRB1*13:14:01<br>DRB1*11:04:01+DRB1*13:41<br>DRB1*11:87+DRB1*13:22<br>DRB1*11:101+DRB1*13:01:08<br>DRB1*11:08:01+DRB1*13:63<br>DRB1*11:122+DRB1*13:25<br>DRB1*11:19:01+DRB1*13:21:01<br>DRB1*11:20+DRB1*13:46<br>DRB1*11:04:01+DRB1*13:65<br>DRB1*11:20+DRB1*13:108<br>DRB1*11:56+DRB1*13:139<br>DRB1*11:27:02+DRB1*13:03:01<br>DRB1*11:27:01+DRB1*13:03:02<br>DRB1*11:01:02+DRB1*13:33:02<br>DRB1*11:14:01+DRB1*13:136<br>DRB1*11:20+DRB1*13:07:01<br>DRB1*11:73+DRB1*13:07:01<br>DRB1*11:11:01G+DRB1*13:12:02<br>DRB1*11:120+DRB1*13:02:01<br>DRB1*11:04:01+DRB1*13:36<br>DRB1*11:37:01+DRB1*13:01:01G<br>DRB1*11:87+DRB1*13:23:02<br>DRB1*11:04:01+DRB1*13:05:01<br>DRB1*11:46:02+DRB1*13:50:02<br>DRB1*11:26+DRB1*13:11:01<br>DRB1*11:14:02+DRB1*14:53<br>DRB1*11:23+DRB1*13:07:01<br>DRB1*11:02:01+DRB1*13:49<br>DRB1*11:37:01+DRB1*13:04<br>DRB1*11:37:01+DRB1*13:21:01<br>DRB1*11:28:01+DRB1*13:14:01<br>DRB1*11:01:12+DRB1*13:50:01<br>DRB1*11:02:01+DRB1*13:132<br>DRB1*11:46:01+DRB1*13:23:02<br>DRB1*11:02:01+DRB1*13:26:02<br>DRB1*11:03+DRB1*13:100<br>DRB1*11:23+DRB1*13:49<br>DRB1*11:08:01+DRB1*13:05:01<br>DRB1*11:06:01G+DRB1*13:12:01<br>DRB1*11:04:01+DRB1*13:96:02<br>DRB1*11:124+DRB1*13:05:01<br>DRB1*11:04:01+DRB1*13:96:01<br>DRB1*11:15+DRB1*13:14:01<br>DRB1*11:11:01G+DRB1*13:05:01<br>DRB1*11:114+DRB1*13:52<br>DRB1*11:20+DRB1*13:49<br>DRB1*11:01:02+DRB1*13:66:01<br>DRB1*11:30+DRB1*13:02:01<br>DRB1*11:24+DRB1*13:52<br>DRB1*11:02:01+DRB1*13:50:02<br>DRB1*11:02:01+DRB1*13:07:01<br>DRB1*11:48+DRB1*13:14:01<br>DRB1*11:59+DRB1*13:25<br>DRB1*11:03+DRB1*13:21:01<br>DRB1*11:116+DRB1*13:29<br>DRB1*11:04:01+DRB1*13:39<br>DRB1*11:06:01G+DRB1*13:03:02<br>DRB1*11:19:01+DRB1*13:14:01<br>DRB1*11:04:01+DRB1*13:107<br>DRB1*11:10:02+DRB1*13:22 | DRB1*11:14:01+DRB1*13:42<br>DRB1*11:19:01+DRB1*13:111<br>DRB1*11:40+DRB1*13:82<br>DRB1*11:62+DRB1*13:69<br>DRB1*11:04:03+DRB1*13:02:01<br>DRB1*11:16+DRB1*13:14:02<br>DRB1*11:02:01+DRB1*13:05:02<br>DRB1*11:16+DRB1*13:14:03<br>DRB1*11:14:01+DRB1*13:05:01<br>DRB1*11:28:01+DRB1*13:97:01<br>DRB1*11:19:02+DRB1*13:63<br>DRB1*11:37:01+DRB1*13:66:02<br>DRB1*11:93+DRB1*13:12:01<br>DRB1*11:03+DRB1*13:30<br>DRB1*11:28:01+DRB1*13:132<br>DRB1*11:09+DRB1*13:14:03<br>DRB1*11:19:01+DRB1*13:42<br>DRB1*11:37:01+DRB1*13:83<br>DRB1*11:82+DRB1*13:42<br>DRB1*11:37:01+DRB1*13:30<br>DRB1*11:19:03+DRB1*13:49<br>DRB1*11:04:01+DRB1*13:29<br>DRB1*11:40+DRB1*13:25<br>DRB1*11:03+DRB1*13:82<br>DRB1*11:19:01+DRB1*13:24<br>DRB1*11:14:01+DRB1*13:14:03<br>DRB1*11:11:01G+DRB1*13:11:01<br>DRB1*11:59+DRB1*13:82<br>DRB1*11:11:01G+DRB1*13:56<br>DRB1*11:11:01G+DRB1*13:56<br>DRB1*11:27:03+DRB1*13:03:02<br>DRB1*11:27:01+DRB1*13:03:01<br>DRB1*11:37:01+DRB1*13:02:01<br>DRB1*11:14:02+DRB1*13:49<br>DRB1*11:09+DRB1*13:70<br>DRB1*11:48+DRB1*13:05:01<br>DRB1*11:09+DRB1*13:25<br>DRB1*11:28:02+DRB1*13:14:01<br>DRB1*11:04:01+DRB1*13:97:01<br>DRB1*11:58:01+DRB1*13:14:01<br>DRB1*11:37:01+DRB1*13:15<br>DRB1*11:09+DRB1*13:25<br>DRB1*11:27:01+DRB1*13:01:01G<br>DRB1*11:28:02+DRB1*13:14:01<br>DRB1*11:04:01+DRB1*13:97:01<br>DRB1*11:58:01+DRB1*13:14:01<br>DRB1*11:37:01+DRB1*13:15<br>DRB1*11:28:02+DRB1*13:22<br>DRB1*11:37:01+DRB1*13:22<br>DRB1*11:56+DRB1*13:23:02 | DRB1*11:16+DRB1*13:14:01<br>DRB1*11:20+DRB1*13:11:01<br>DRB1*11:58:01+DRB1*13:97:02<br>DRB1*11:113+DRB1*13:23:02<br>DRB1*11:20+DRB1*13:11:0 |
|--|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|

|                               |                              |                              |                             |
|-------------------------------|------------------------------|------------------------------|-----------------------------|
| DRB1*11:01:01G+DRB1*13:87     | DRB1*11:12:01+DRB1*13:01:01G | DRB1*11:28:01+DRB1*13:83     | DRB1*11:58:02+DRB1*13:107   |
| DRB1*11:01:01G+DRB1*13:88     | DRB1*11:93+DRB1*13:134       |                              |                             |
| DRB1*11:01:01G+DRB1*13:89     | DRB1*11:04:01+DRB1*13:03:01  | DRB1*11:04:02+DRB1*13:03:02  | DRB1*11:56+DRB1*13:66:02    |
|                               | DRB1*11:73+DRB1*13:108       |                              |                             |
| DRB1*11:01:01G+DRB1*13:93     | DRB1*11:04:01+DRB1*13:139    | DRB1*11:09+DRB1*13:04        | DRB1*11:16+DRB1*13:21:01    |
|                               | DRB1*11:40+DRB1*13:30        |                              |                             |
| DRB1*11:01:01G+DRB1*13:94     | DRB1*11:84:02+DRB1*13:03:02  |                              |                             |
| DRB1*11:01:01G+DRB1*13:96:01  | DRB1*11:27:02+DRB1*13:02:01  |                              |                             |
| DRB1*11:01:01G+DRB1*13:96:02  | DRB1*11:27:01+DRB1*13:02:01  |                              |                             |
| DRB1*11:01:01G+DRB1*13:97:01  | DRB1*11:01:12+DRB1*13:97:02  | DRB1*11:14:01+DRB1*13:132    |                             |
| DRB1*11:01:01G+DRB1*13:97:02  | DRB1*11:62+DRB1*13:23:02     |                              |                             |
| DRB1*11:01:01G+DRB1*13:100    | DRB1*11:120+DRB1*13:46       |                              |                             |
| DRB1*11:01:01G+DRB1*13:105    | DRB1*11:100+DRB1*13:01:01G   |                              |                             |
| DRB1*11:01:01G+DRB1*13:106    | DRB1*11:44+DRB1*13:97:01     | DRB1*11:49:01+DRB1*13:52     | DRB1*11:127+DRB1*13:132     |
| DRB1*11:01:01G+DRB1*13:107    | DRB1*11:10:02+DRB1*13:23:02  | DRB1*11:12:01+DRB1*13:97:01  | DRB1*11:12:02+DRB1*13:97:02 |
| DRB1*11:01:01G+DRB1*13:108    | DRB1*11:04:01+DRB1*13:49     | DRB1*11:56+DRB1*13:21:01     |                             |
| DRB1*11:01:01G+DRB1*13:111    | DRB1*11:03+DRB1*13:05:01     | DRB1*11:04:01+DRB1*13:63     | DRB1*11:09+DRB1*13:24       |
|                               | DRB1*11:11:01G+DRB1*13:42    | DRB1*11:40+DRB1*13:14:01     | DRB1*11:122+DRB1*13:11:01   |
| DRB1*11:01:01G+DRB1*13:112    | DRB1*11:04:01+DRB1*13:128    |                              |                             |
| DRB1*11:01:01G+DRB1*13:115    | DRB1*11:28:01+DRB1*13:03:01  |                              |                             |
| DRB1*11:01:01G+DRB1*13:118    | DRB1*11:39+DRB1*13:12:01     |                              |                             |
| DRB1*11:01:01G+DRB1*13:119    | DRB1*11:64+DRB1*13:05:01     |                              |                             |
| DRB1*11:01:01G+DRB1*13:120    | DRB1*11:09+DRB1*13:03:01     |                              |                             |
| DRB1*11:01:01G+DRB1*13:131    | DRB1*11:39+DRB1*13:01:01G    | DRB1*11:43+DRB1*13:02:01     | DRB1*11:115+DRB1*13:97:02   |
| DRB1*11:01:01G+DRB1*13:134    | DRB1*11:08:01+DRB1*13:49     |                              |                             |
| DRB1*11:01:01G+DRB1*13:139    | DRB1*11:20+DRB1*13:21:01     | DRB1*11:122+DRB1*13:30       |                             |
| DRB1*11:01:01G+DRB1*14:01:01G | DRB1*11:01:05+DRB1*14:01:02  | DRB1*11:04:01+DRB1*14:07:01  | DRB1*11:10:02+DRB1*14:58    |
|                               | DRB1*11:17+DRB1*14:53        | DRB1*11:37:01+DRB1*14:35     | DRB1*11:96+DRB1*14:101      |
| DRB1*11:01:01G+DRB1*14:02     | DRB1*11:26+DRB1*13:26:02     |                              |                             |
| DRB1*11:01:01G+DRB1*14:03:01  | DRB1*11:08:01+DRB1*14:27     | DRB1*11:09+DRB1*14:102       | DRB1*11:64+DRB1*13:26:02    |
| DRB1*11:01:01G+DRB1*14:05:01  | DRB1*11:01:05+DRB1*14:05:03  | DRB1*11:04:01+DRB1*14:44:01  | DRB1*11:04:03+DRB1*14:44:02 |
| DRB1*11:01:01G+DRB1*14:05:03  | DRB1*11:04:01+DRB1*14:44:02  |                              |                             |
| DRB1*11:01:01G+DRB1*14:06:01  | DRB1*11:04:01+DRB1*14:02     | DRB1*11:08:01+DRB1*14:108    | DRB1*11:34+DRB1*13:26:02    |
| DRB1*11:01:01G+DRB1*14:06:02  | DRB1*11:01:02+DRB1*14:06:01  | DRB1*11:04:02+DRB1*14:02     | DRB1*11:08:02+DRB1*14:108   |
| DRB1*11:01:01G+DRB1*14:07:02  | DRB1*11:01:02+DRB1*14:07:01  |                              |                             |
| DRB1*11:01:01G+DRB1*14:08     | DRB1*11:96+DRB1*14:23:02     |                              |                             |
| DRB1*11:01:01G+DRB1*14:09     | DRB1*11:37:01+DRB1*14:30     |                              |                             |
| DRB1*11:01:01G+DRB1*14:12:01  | DRB1*11:04:01+DRB1*14:03:01  | DRB1*11:42+DRB1*14:27        | DRB1*11:113+DRB1*14:102     |
| DRB1*11:01:01G+DRB1*14:12:02  | DRB1*11:04:06+DRB1*14:03:01  |                              |                             |
| DRB1*11:01:01G+DRB1*14:16     | DRB1*11:02:01+DRB1*14:22     |                              |                             |
| DRB1*11:01:01G+DRB1*14:17     | DRB1*11:04:01+DRB1*14:30     | DRB1*11:09+DRB1*13:44        | DRB1*11:26+DRB1*13:42       |
|                               | DRB1*11:34+DRB1*13:05:01     |                              |                             |
| DRB1*11:01:01G+DRB1*14:19     | DRB1*11:79+DRB1*13:26:02     |                              |                             |
| DRB1*11:01:01G+DRB1*14:21     | DRB1*11:79+DRB1*13:42        |                              |                             |
| DRB1*11:01:01G+DRB1*14:22     | DRB1*11:10:02+DRB1*14:25     |                              |                             |
| DRB1*11:01:01G+DRB1*14:23:01  | DRB1*11:04:01+DRB1*14:14     | DRB1*11:17+DRB1*13:14:01     |                             |
| DRB1*11:01:01G+DRB1*14:24     | DRB1*11:82+DRB1*13:26:02     |                              |                             |
| DRB1*11:01:01G+DRB1*14:25     | DRB1*11:37:01+DRB1*14:53     |                              |                             |
| DRB1*11:01:01G+DRB1*14:28     | DRB1*11:06:01G+DRB1*14:68    |                              |                             |
| DRB1*11:01:01G+DRB1*14:29     | DRB1*11:06:01G+DRB1*14:02    |                              |                             |
| DRB1*11:01:01G+DRB1*14:30     | DRB1*11:26+DRB1*13:05:01     |                              |                             |
| DRB1*11:01:01G+DRB1*14:32:02  | DRB1*11:01:05+DRB1*14:32:01  | DRB1*11:13:01G+DRB1*14:25    |                             |
| DRB1*11:01:01G+DRB1*14:33     | DRB1*11:54:02+DRB1*14:30     |                              |                             |
| DRB1*11:01:01G+DRB1*14:38     | DRB1*11:27:01+DRB1*14:01:02  |                              |                             |
| DRB1*11:01:01G+DRB1*14:40     | DRB1*11:10:02+DRB1*14:102    |                              |                             |
| DRB1*11:01:01G+DRB1*14:44:01  | DRB1*11:01:05+DRB1*14:44:02  |                              |                             |
| DRB1*11:01:01G+DRB1*14:44:03  | DRB1*11:01:02+DRB1*14:44:01  |                              |                             |
| DRB1*11:01:01G+DRB1*14:47     | DRB1*11:27:01+DRB1*14:02     |                              |                             |
| DRB1*11:01:01G+DRB1*14:61     | DRB1*11:05+DRB1*14:01:01G    |                              |                             |
| DRB1*11:01:01G+DRB1*14:62     | DRB1*11:110+DRB1*14:01:01G   |                              |                             |
| DRB1*11:01:01G+DRB1*14:65     | DRB1*11:13:01G+DRB1*13:21:01 |                              |                             |
| DRB1*11:01:01G+DRB1*14:67     | DRB1*11:19:01+DRB1*14:27     | DRB1*11:45+DRB1*13:26:02     |                             |
| DRB1*11:01:01G+DRB1*14:69     | DRB1*11:08:01+DRB1*14:25     |                              |                             |
| DRB1*11:01:01G+DRB1*14:74     | DRB1*11:42+DRB1*14:22        |                              |                             |
| DRB1*11:01:01G+DRB1*14:75     | DRB1*11:108+DRB1*14:01:02    |                              |                             |
| DRB1*11:01:01G+DRB1*14:78     | DRB1*11:04:01+DRB1*14:63     |                              |                             |
| DRB1*11:01:01G+DRB1*14:79     | DRB1*11:96+DRB1*14:76        |                              |                             |
| DRB1*11:01:01G+DRB1*14:80     | DRB1*11:04:01+DRB1*14:09     | DRB1*11:37:01+DRB1*14:17     | DRB1*11:56+DRB1*14:30       |
| DRB1*11:01:01G+DRB1*14:86     | DRB1*11:39+DRB1*14:01:01G    | DRB1*11:43+DRB1*14:07:01     |                             |
| DRB1*11:01:01G+DRB1*14:88     | DRB1*11:94+DRB1*14:01:01G    |                              |                             |
| DRB1*11:01:01G+DRB1*14:89     | DRB1*11:26+DRB1*14:27        |                              |                             |
| DRB1*11:01:01G+DRB1*14:96     | DRB1*11:39+DRB1*14:05:01     | DRB1*11:43+DRB1*14:44:01     |                             |
| DRB1*11:01:01G+DRB1*14:98     | DRB1*11:27:01+DRB1*14:03:01  |                              |                             |
| DRB1*11:01:01G+DRB1*14:99     | DRB1*11:06:01G+DRB1*14:07:01 |                              |                             |
| DRB1*11:01:01G+DRB1*14:103    | DRB1*11:108+DRB1*14:05:03    |                              |                             |
| DRB1*11:01:01G+DRB1*14:105    | DRB1*11:04:03+DRB1*14:22     |                              |                             |
| DRB1*11:01:01G+DRB1*14:106    | DRB1*11:04:01+DRB1*14:51     | DRB1*11:54:02+DRB1*14:02     |                             |
| DRB1*11:01:01G+DRB1*14:109    | DRB1*11:120+DRB1*14:19       |                              |                             |
| DRB1*11:01:01G+DRB1*14:111    | DRB1*11:105+DRB1*14:105      |                              |                             |
| DRB1*11:01:01G+DRB1*14:115    | DRB1*11:120+DRB1*14:03:01    |                              |                             |
| DRB1*11:01:01G+DRB1*14:116    | DRB1*11:64+DRB1*13:07:01     |                              |                             |
| DRB1*11:01:01G+DRB1*14:119    | DRB1*11:26+DRB1*14:22        |                              |                             |
| DRB1*11:01:01G+DRB1*14:123    | DRB1*11:13:01G+DRB1*13:07:01 |                              |                             |
| DRB1*11:01:01G+DRB1*14:126    | DRB1*13:14:01+DRB1*14:11     |                              |                             |
| DRB1*11:01:01G+DRB1*14:127    | DRB1*11:27:01+DRB1*14:05:03  | DRB1*11:84:01+DRB1*14:44:02  |                             |
| DRB1*11:01:01G+DRB1*15:01:01G | DRB1*11:04:01+DRB1*15:02:01  | DRB1*11:18+DRB1*15:15        | DRB1*11:19:01+DRB1*15:04    |
| DRB1*11:01:01G+DRB1*15:01:03  | DRB1*11:01:05+DRB1*15:01:01G | DRB1*11:04:01+DRB1*15:02:06  | DRB1*11:04:03+DRB1*15:02:01 |
| DRB1*11:01:01G+DRB1*15:01:04  | DRB1*11:04:01+DRB1*15:02:02  |                              |                             |
| DRB1*11:01:01G+DRB1*15:01:09  | DRB1*11:04:01+DRB1*15:02:04  |                              |                             |
| DRB1*11:01:01G+DRB1*15:01:10  | DRB1*11:04:01+DRB1*15:02:08  |                              |                             |
| DRB1*11:01:01G+DRB1*15:01:11  | DRB1*11:04:08+DRB1*15:02:01  |                              |                             |
| DRB1*11:01:01G+DRB1*15:01:15  | DRB1*11:01:14+DRB1*15:01:01G |                              |                             |
| DRB1*11:01:01G+DRB1*15:01:19  | DRB1*11:01:04+DRB1*15:01:01G | DRB1*11:04:05+DRB1*15:02:01  |                             |
| DRB1*11:01:01G+DRB1*15:02:01  | DRB1*11:19:01+DRB1*15:15     |                              |                             |
| DRB1*11:01:01G+DRB1*15:02:05  | DRB1*11:01:02+DRB1*15:02:02  |                              |                             |
| DRB1*11:01:01G+DRB1*15:02:06  | DRB1*11:01:05+DRB1*15:02:01  |                              |                             |
| DRB1*11:01:01G+DRB1*15:02:09  | DRB1*11:01:02+DRB1*15:02:01  | DRB1*11:19:03+DRB1*15:15     |                             |
| DRB1*11:01:01G+DRB1*15:04     | DRB1*11:04:01+DRB1*15:15     |                              |                             |
| DRB1*11:01:01G+DRB1*15:05     | DRB1*11:04:01+DRB1*15:31     | DRB1*11:08:01+DRB1*15:04     | DRB1*11:42+DRB1*15:15       |
| DRB1*11:01:01G+DRB1*15:07:01  | DRB1*11:04:01+DRB1*15:11     | DRB1*11:37:01+DRB1*15:01:01G | DRB1*11:56+DRB1*15:02:01    |
| DRB1*11:01:01G+DRB1*15:07:02  | DRB1*11:37:01+DRB1*15:01:04  | DRB1*11:56+DRB1*15:02:02     |                             |
| DRB1*11:01:01G+DRB1*15:08     | DRB1*11:11+DRB1*15:02:01     |                              |                             |
| DRB1*11:01:01G+DRB1*15:11     | DRB1*11:37:01+DRB1*15:02:01  | DRB1*11:82+DRB1*16:01:02     |                             |
| DRB1*11:01:01G+DRB1*15:31     | DRB1*11:08:01+DRB1*15:15     |                              |                             |
| DRB1*11:01:01G+DRB1*15:32     | DRB1*11:28:01+DRB1*15:01:01G | DRB1*11:58:02+DRB1*15:02:01  |                             |

|                              |                              |                             |                             |
|------------------------------|------------------------------|-----------------------------|-----------------------------|
| DRB1*11:01:01G+DRB1*15:34    | DRB1*11:26+DRB1*16:01:02     | DRB1*11:37:01+DRB1*15:27    |                             |
| DRB1*11:01:01G+DRB1*15:35    | DRB1*11:06:01G+DRB1*15:02:01 |                             |                             |
| DRB1*11:01:01G+DRB1*15:37    | DRB1*11:27:02+DRB1*15:01:01G | DRB1*11:84:02+DRB1*15:02:01 |                             |
| DRB1*11:01:01G+DRB1*15:38    | DRB1*11:120+DRB1*15:02:02    |                             |                             |
| DRB1*11:01:01G+DRB1*15:42    | DRB1*11:106+DRB1*15:01:01G   |                             |                             |
| DRB1*11:01:01G+DRB1*15:43    | DRB1*11:78+DRB1*15:02:01     |                             |                             |
| DRB1*11:01:01G+DRB1*15:47    | DRB1*11:39+DRB1*15:02:01     |                             |                             |
| DRB1*11:01:01G+DRB1*15:48    | DRB1*11:37:01+DRB1*15:09     | DRB1*11:88+DRB1*15:02:01    |                             |
| DRB1*11:01:01G+DRB1*15:51    | DRB1*11:90+DRB1*15:01:01G    |                             |                             |
| DRB1*11:01:01G+DRB1*15:57    | DRB1*11:27:01+DRB1*15:03:01G |                             |                             |
| DRB1*11:01:01G+DRB1*15:60    | DRB1*11:108+DRB1*15:02:01    |                             |                             |
| DRB1*11:01:01G+DRB1*15:62    | DRB1*11:46:02+DRB1*15:02:01  | DRB1*11:62+DRB1*15:01:01G   |                             |
| DRB1*11:01:01G+DRB1*15:64    | DRB1*11:126+DRB1*15:01:01G   |                             |                             |
| DRB1*11:01:01G+DRB1*15:65    | DRB1*11:04:01+DRB1*15:47     | DRB1*11:39+DRB1*15:01:01G   | DRB1*11:43+DRB1*15:02:01    |
| DRB1*11:01:01G+DRB1*15:66    | DRB1*11:04:01+DRB1*15:27     |                             |                             |
| DRB1*11:01:01G+DRB1*15:68    | DRB1*11:109+DRB1*15:02:01    |                             |                             |
| DRB1*11:01:01G+DRB1*15:71    | DRB1*11:116+DRB1*15:02:01    | DRB1*11:120+DRB1*15:01:01G  |                             |
| DRB1*11:01:01G+DRB1*16:01:01 | DRB1*11:01:03+DRB1*16:01:02  | DRB1*11:37:01+DRB1*16:09    |                             |
| DRB1*11:01:01G+DRB1*16:02:01 | DRB1*11:01:03+DRB1*16:02:02  | DRB1*11:08:01+DRB1*16:01:01 | DRB1*11:37:01+DRB1*16:10    |
|                              | DRB1*13:14:02+DRB1*16:16     |                             |                             |
| DRB1*11:01:01G+DRB1*16:02:02 | DRB1*11:08:01+DRB1*16:01:02  |                             |                             |
| DRB1*11:01:01G+DRB1*16:04    | DRB1*11:23+DRB1*16:01:02     |                             |                             |
| DRB1*11:01:01G+DRB1*16:05:01 | DRB1*11:19:01+DRB1*16:01:01  | DRB1*11:19:02+DRB1*16:01:02 |                             |
| DRB1*11:01:01G+DRB1*16:10    | DRB1*11:08:01+DRB1*16:09     |                             |                             |
| DRB1*11:01:01G+DRB1*16:15    | DRB1*11:04:01+DRB1*16:01:01  | DRB1*11:04:07+DRB1*16:01:02 | DRB1*11:56+DRB1*16:09       |
| DRB1*11:01:01G+DRB1*16:18    | DRB1*11:64+DRB1*16:01:02     |                             |                             |
| DRB1*11:01:02+DRB1*11:01:10  | DRB1*11:01:05+DRB1*11:01:11  |                             |                             |
| DRB1*11:01:02+DRB1*11:02:01  | DRB1*11:03+DRB1*11:19:03     | DRB1*11:04:01+DRB1*11:14:02 | DRB1*11:04:02+DRB1*11:14:01 |
|                              | DRB1*11:93+DRB1*11:98        |                             |                             |
| DRB1*11:01:02+DRB1*11:03     | DRB1*11:04:02+DRB1*11:11:01G |                             |                             |
| DRB1*11:01:02+DRB1*11:04:03  | DRB1*11:01:05+DRB1*11:04:02  |                             |                             |
| DRB1*11:01:02+DRB1*11:04:04  | DRB1*11:01:12+DRB1*11:04:02  |                             |                             |
| DRB1*11:01:02+DRB1*11:04:05  | DRB1*11:01:04+DRB1*11:04:02  |                             |                             |
| DRB1*11:01:02+DRB1*11:04:07  | DRB1*11:01:03+DRB1*11:04:02  | DRB1*11:01:11+DRB1*11:04:01 |                             |
| DRB1*11:01:02+DRB1*11:07     | DRB1*11:04:02+DRB1*11:103    |                             |                             |
| DRB1*11:01:02+DRB1*11:16     | DRB1*11:04:02+DRB1*11:20     | DRB1*11:14:02+DRB1*11:113   | DRB1*11:19:03+DRB1*11:40    |
| DRB1*11:01:02+DRB1*11:18     | DRB1*11:04:01+DRB1*11:19:03  | DRB1*11:04:02+DRB1*11:19:01 |                             |
| DRB1*11:01:02+DRB1*11:19:02  | DRB1*11:01:03+DRB1*11:19:03  | DRB1*11:01:11+DRB1*11:19:01 |                             |
| DRB1*11:01:02+DRB1*11:20     | DRB1*11:09+DRB1*11:14:02     | DRB1*11:19:03+DRB1*11:122   |                             |
| DRB1*11:01:02+DRB1*11:21     | DRB1*11:06:01G+DRB1*11:14:02 |                             |                             |
| DRB1*11:01:02+DRB1*11:25     | DRB1*11:04:01+DRB1*11:23     |                             |                             |
| DRB1*11:01:02+DRB1*11:31     | DRB1*11:19:03+DRB1*11:96     |                             |                             |
| DRB1*11:01:02+DRB1*11:34     | DRB1*11:04:02+DRB1*11:26     |                             |                             |
| DRB1*11:01:02+DRB1*11:35     | DRB1*11:04:02+DRB1*11:33     |                             |                             |
| DRB1*11:01:02+DRB1*11:36     | DRB1*11:03+DRB1*11:08:02     | DRB1*11:04:02+DRB1*11:68    |                             |
| DRB1*11:01:02+DRB1*11:40     | DRB1*11:04:02+DRB1*11:122    |                             |                             |
| DRB1*11:01:02+DRB1*11:41     | DRB1*11:03+DRB1*11:37:02     |                             |                             |
| DRB1*11:01:02+DRB1*11:42     | DRB1*11:04:01+DRB1*11:08:02  | DRB1*11:04:02+DRB1*11:08:01 |                             |
| DRB1*11:01:02+DRB1*11:43     | DRB1*11:04:02+DRB1*11:39     |                             |                             |
| DRB1*11:01:02+DRB1*11:44     | DRB1*11:04:01+DRB1*11:49:02  | DRB1*11:04:02+DRB1*11:49:01 |                             |
| DRB1*11:01:02+DRB1*11:45     | DRB1*11:19:01+DRB1*11:23     |                             |                             |
| DRB1*11:01:02+DRB1*11:46:02  | DRB1*11:04:02+DRB1*11:62     |                             |                             |
| DRB1*11:01:02+DRB1*11:48     | DRB1*11:02:01+DRB1*11:37:02  | DRB1*11:14:02+DRB1*11:56    | DRB1*11:19:03+DRB1*11:41    |
| DRB1*11:01:02+DRB1*11:55     | DRB1*11:03+DRB1*11:23        |                             |                             |
| DRB1*11:01:02+DRB1*11:56     | DRB1*11:04:01+DRB1*11:37:02  | DRB1*11:04:02+DRB1*11:37:01 |                             |
| DRB1*11:01:02+DRB1*11:57     | DRB1*11:06:01G+DRB1*11:08:02 |                             |                             |
| DRB1*11:01:02+DRB1*11:58:01  | DRB1*11:04:02+DRB1*11:28:02  |                             |                             |
| DRB1*11:01:02+DRB1*11:58:02  | DRB1*11:04:02+DRB1*11:28:01  |                             |                             |
| DRB1*11:01:02+DRB1*11:60     | DRB1*11:04:02+DRB1*11:109    |                             |                             |
| DRB1*11:01:02+DRB1*11:64     | DRB1*11:08:01+DRB1*11:23     |                             |                             |
| DRB1*11:01:02+DRB1*11:65:01  | DRB1*11:14:02+DRB1*11:35     |                             |                             |
| DRB1*11:01:02+DRB1*11:68     | DRB1*11:08:02+DRB1*11:11:01G |                             |                             |
| DRB1*11:01:02+DRB1*11:73     | DRB1*11:19:03+DRB1*11:93     |                             |                             |
| DRB1*11:01:02+DRB1*11:79     | DRB1*11:26+DRB1*11:93        |                             |                             |
| DRB1*11:01:02+DRB1*11:82     | DRB1*11:19:03+DRB1*11:69     |                             |                             |
| DRB1*11:01:02+DRB1*11:84:01  | DRB1*11:04:02+DRB1*11:27:01  |                             |                             |
| DRB1*11:01:02+DRB1*11:84:02  | DRB1*11:04:01+DRB1*11:27:03  | DRB1*11:04:02+DRB1*11:27:02 |                             |
| DRB1*11:01:02+DRB1*11:85     | DRB1*11:03+DRB1*11:49:02     |                             |                             |
| DRB1*11:01:02+DRB1*11:92     | DRB1*11:04:01+DRB1*11:72     |                             |                             |
| DRB1*11:01:02+DRB1*11:103    | DRB1*11:08:02+DRB1*11:125    | DRB1*11:27:03+DRB1*11:105   |                             |
| DRB1*11:01:02+DRB1*11:107    | DRB1*11:37:02+DRB1*11:103    |                             |                             |
| DRB1*11:01:02+DRB1*11:113    | DRB1*11:04:02+DRB1*11:09     |                             |                             |
| DRB1*11:01:02+DRB1*11:116    | DRB1*11:04:02+DRB1*11:120    |                             |                             |
| DRB1*11:01:02+DRB1*11:118    | DRB1*11:14:02+DRB1*11:46:01  |                             |                             |
| DRB1*11:01:02+DRB1*11:119    | DRB1*11:04:02+DRB1*11:45     | DRB1*11:18+DRB1*11:23       | DRB1*11:19:03+DRB1*11:25    |
| DRB1*11:01:02+DRB1*11:124    | DRB1*11:14:02+DRB1*11:84:01  |                             |                             |
| DRB1*11:01:02+DRB1*11:127    | DRB1*11:02:01+DRB1*11:49:02  | DRB1*11:14:02+DRB1*11:44    | DRB1*11:19:03+DRB1*11:85    |
| DRB1*11:01:02+DRB1*12:01:01G | DRB1*11:19:03+DRB1*12:02:01  |                             |                             |
| DRB1*11:01:02+DRB1*12:01:03  | DRB1*11:01:11+DRB1*12:01:02  | DRB1*11:19:03+DRB1*12:02:02 |                             |
| DRB1*11:01:02+DRB1*12:02:01  | DRB1*11:01:11+DRB1*12:02:04  |                             |                             |
| DRB1*11:01:02+DRB1*12:03:03  | DRB1*11:19:03+DRB1*12:19     |                             |                             |
| DRB1*11:01:02+DRB1*12:05     | DRB1*11:19:03+DRB1*12:15     |                             |                             |
| DRB1*11:01:02+DRB1*12:09     | DRB1*12:04+DRB1*13:14:03     |                             |                             |
| DRB1*11:01:02+DRB1*12:12     | DRB1*11:08:02+DRB1*12:02:01  |                             |                             |
| DRB1*11:01:02+DRB1*12:21     | DRB1*11:37:02+DRB1*12:02:01  |                             |                             |
| DRB1*11:01:02+DRB1*13:01:03  | DRB1*11:01:05+DRB1*13:01:08  |                             |                             |
| DRB1*11:01:02+DRB1*13:01:05  | DRB1*11:04:02+DRB1*13:02:03  |                             |                             |
| DRB1*11:01:02+DRB1*13:01:09  | DRB1*11:01:07+DRB1*13:01:08  |                             |                             |
| DRB1*11:01:02+DRB1*13:02:01  | DRB1*11:09+DRB1*13:23:01     | DRB1*11:14:01+DRB1*13:05:02 | DRB1*11:14:02+DRB1*13:05:01 |
|                              | DRB1*11:19:03+DRB1*13:63     | DRB1*11:20+DRB1*13:14:03    |                             |
| DRB1*11:01:02+DRB1*13:02:02  | DRB1*11:01:11+DRB1*13:02:01  |                             |                             |
| DRB1*11:01:02+DRB1*13:03:01  | DRB1*11:37:02+DRB1*13:66:02  | DRB1*11:93+DRB1*13:12:02    |                             |
| DRB1*11:01:02+DRB1*13:04     | DRB1*11:02:01+DRB1*13:21:02  | DRB1*11:19:03+DRB1*13:75    |                             |
| DRB1*11:01:02+DRB1*13:06     | DRB1*11:18+DRB1*13:05:02     | DRB1*11:19:03+DRB1*13:42    |                             |
| DRB1*11:01:02+DRB1*13:07:01  | DRB1*11:37:01+DRB1*13:14:03  | DRB1*11:37:02+DRB1*13:14:01 |                             |
| DRB1*11:01:02+DRB1*13:07:02  | DRB1*11:37:02+DRB1*13:14:02  |                             |                             |
| DRB1*11:01:02+DRB1*13:08     | DRB1*11:10:01+DRB1*13:70     | DRB1*11:37:02+DRB1*13:83    |                             |
| DRB1*11:01:02+DRB1*13:10     | DRB1*11:73+DRB1*13:42        | DRB1*11:93+DRB1*13:06       |                             |
| DRB1*11:01:02+DRB1*13:11:01  | DRB1*11:04:01+DRB1*13:14:03  | DRB1*11:04:02+DRB1*13:14:01 |                             |
| DRB1*11:01:02+DRB1*13:11:02  | DRB1*11:04:02+DRB1*13:14:02  |                             |                             |
| DRB1*11:01:02+DRB1*13:13     | DRB1*11:19:01+DRB1*13:55     | DRB1*11:23+DRB1*13:12:01    |                             |
| DRB1*11:01:02+DRB1*13:15     | DRB1*11:04:02+DRB1*13:104    |                             |                             |
| DRB1*11:01:02+DRB1*13:16     | DRB1*11:86+DRB1*13:05:02     |                             |                             |
| DRB1*11:01:02+DRB1*13:18     | DRB1*11:23+DRB1*13:42        | DRB1*11:25+DRB1*13:05:02    |                             |
| DRB1*11:01:02+DRB1*13:19     | DRB1*11:37:02+DRB1*13:57     |                             |                             |

|                              |                              |                              |                              |
|------------------------------|------------------------------|------------------------------|------------------------------|
| DRB1*11:01:02+DRB1*13:20     | DRB1*11:04:02+DRB1*13:29     | DRB1*11:08:02+DRB1*13:111    | DRB1*11:36+DRB1*13:05:02     |
| DRB1*11:01:02+DRB1*13:22     | DRB1*11:02:01+DRB1*13:14:03  | DRB1*11:04:01+DRB1*13:23:01  | DRB1*11:04:02+DRB1*13:23:02  |
|                              | DRB1*11:14:02+DRB1*13:11:01  | DRB1*11:19:03+DRB1*13:24     |                              |
| DRB1*11:01:02+DRB1*13:23:01  | DRB1*11:14:02+DRB1*13:14:03  |                              |                              |
| DRB1*11:01:02+DRB1*13:24     | DRB1*11:03+DRB1*13:14:03     |                              |                              |
| DRB1*11:01:02+DRB1*13:25     | DRB1*11:08:01+DRB1*13:14:03  | DRB1*11:08:02+DRB1*13:14:01  |                              |
| DRB1*11:01:02+DRB1*13:27     | DRB1*11:04:02+DRB1*13:41     |                              |                              |
| DRB1*11:01:02+DRB1*13:29     | DRB1*11:08:02+DRB1*13:63     | DRB1*11:68+DRB1*13:05:02     |                              |
| DRB1*11:01:02+DRB1*13:30     | DRB1*11:19:01+DRB1*13:21:02  | DRB1*11:19:03+DRB1*13:21:01  |                              |
| DRB1*11:01:02+DRB1*13:32     | DRB1*11:04:02+DRB1*13:65     | DRB1*11:37:02+DRB1*13:93     | DRB1*11:40+DRB1*13:12:02     |
|                              | DRB1*11:113+DRB1*13:38       |                              |                              |
| DRB1*11:01:02+DRB1*13:33:01  | DRB1*11:27:03+DRB1*13:03:01  |                              |                              |
| DRB1*11:01:02+DRB1*13:34     | DRB1*11:14:02+DRB1*13:136    |                              |                              |
| DRB1*11:01:02+DRB1*13:36     | DRB1*11:37:02+DRB1*13:02:01  |                              |                              |
| DRB1*11:01:02+DRB1*13:40     | DRB1*11:04:02+DRB1*13:36     | DRB1*11:37:01+DRB1*13:01:08  | DRB1*11:37:02+DRB1*13:01:01G |
|                              | DRB1*11:48+DRB1*13:05:02     |                              |                              |
| DRB1*11:01:02+DRB1*13:41     | DRB1*11:87+DRB1*13:23:01     |                              |                              |
| DRB1*11:01:02+DRB1*13:42     | DRB1*11:04:01+DRB1*13:05:02  | DRB1*11:04:02+DRB1*13:05:01  | DRB1*11:113+DRB1*13:14:03    |
| DRB1*11:01:02+DRB1*13:44     | DRB1*11:34+DRB1*13:14:03     |                              |                              |
| DRB1*11:01:02+DRB1*13:48     | DRB1*11:03+DRB1*13:12:02     | DRB1*11:04:01+DRB1*13:38     | DRB1*11:14:02+DRB1*13:108    |
|                              | DRB1*11:37:02+DRB1*13:04     | DRB1*11:48+DRB1*13:21:02     |                              |
|                              | DRB1*11:37:01+DRB1*13:21:02  | DRB1*11:37:02+DRB1*13:21:01  |                              |
| DRB1*11:01:02+DRB1*13:49     | DRB1*11:28:01+DRB1*13:14:03  |                              |                              |
| DRB1*11:01:02+DRB1*13:50:01  | DRB1*11:28:02+DRB1*13:14:03  |                              |                              |
| DRB1*11:01:02+DRB1*13:50:02  | DRB1*11:04:02+DRB1*13:97:01  | DRB1*11:46:01+DRB1*13:23:01  | DRB1*11:118+DRB1*13:14:03    |
| DRB1*11:01:02+DRB1*13:52     | DRB1*11:37:02+DRB1*13:15     |                              |                              |
| DRB1*11:01:02+DRB1*13:53     | DRB1*11:08:01+DRB1*13:05:02  | DRB1*11:08:02+DRB1*13:05:01  |                              |
| DRB1*11:01:02+DRB1*13:56     | DRB1*11:06:01G+DRB1*13:12:02 |                              |                              |
| DRB1*11:01:02+DRB1*13:58     | DRB1*11:04:02+DRB1*13:96:02  | DRB1*11:27:01+DRB1*13:01:08  | DRB1*11:124+DRB1*13:05:02    |
| DRB1*11:01:02+DRB1*13:61:01  | DRB1*11:04:02+DRB1*13:96:01  | DRB1*11:27:02+DRB1*13:01:08  | DRB1*11:27:03+DRB1*13:01:01G |
| DRB1*11:01:02+DRB1*13:61:02  | DRB1*11:15+DRB1*13:14:03     |                              |                              |
| DRB1*11:01:02+DRB1*13:62     | DRB1*11:11:01G+DRB1*13:05:02 | DRB1*11:122+DRB1*13:14:03    |                              |
| DRB1*11:01:02+DRB1*13:63     | DRB1*11:09+DRB1*13:38        | DRB1*11:37:02+DRB1*13:139    | DRB1*11:122+DRB1*13:12:02    |
| DRB1*11:01:02+DRB1*13:65     | DRB1*11:73+DRB1*13:21:02     |                              |                              |
| DRB1*11:01:02+DRB1*13:66:02  | DRB1*11:58:01+DRB1*13:23:01  |                              |                              |
| DRB1*11:01:02+DRB1*13:69     | DRB1*11:37:02+DRB1*13:22     | DRB1*11:48+DRB1*13:14:03     | DRB1*11:56+DRB1*13:23:01     |
| DRB1*11:01:02+DRB1*13:70     | DRB1*11:03+DRB1*13:21:02     |                              |                              |
| DRB1*11:01:02+DRB1*13:75     | DRB1*11:04:02+DRB1*13:39     | DRB1*11:120+DRB1*13:01:08    |                              |
| DRB1*11:01:02+DRB1*13:79     | DRB1*11:06:01G+DRB1*13:03:01 | DRB1*11:93+DRB1*13:58        |                              |
| DRB1*11:01:02+DRB1*13:81     | DRB1*11:19:01+DRB1*13:14:03  | DRB1*11:19:03+DRB1*13:14:01  |                              |
| DRB1*11:01:02+DRB1*13:82     | DRB1*11:04:02+DRB1*13:107    | DRB1*11:10:01+DRB1*13:22     |                              |
| DRB1*11:01:02+DRB1*13:83     | DRB1*11:73+DRB1*13:26:02     |                              |                              |
| DRB1*11:01:02+DRB1*13:85     | DRB1*11:12:01+DRB1*13:01:08  |                              |                              |
| DRB1*11:01:02+DRB1*13:87     | DRB1*11:04:02+DRB1*13:03:01  |                              |                              |
| DRB1*11:01:02+DRB1*13:89     | DRB1*11:04:02+DRB1*13:139    | DRB1*11:16+DRB1*13:21:02     |                              |
| DRB1*11:01:02+DRB1*13:93     | DRB1*11:04:01+DRB1*13:33:01  | DRB1*11:27:02+DRB1*13:89     | DRB1*11:84:02+DRB1*13:03:01  |
| DRB1*11:01:02+DRB1*13:94     | DRB1*11:27:03+DRB1*13:02:01  |                              |                              |
| DRB1*11:01:02+DRB1*13:96:01  | DRB1*11:14:02+DRB1*13:132    |                              |                              |
| DRB1*11:01:02+DRB1*13:97:01  | DRB1*11:62+DRB1*13:23:01     |                              |                              |
| DRB1*11:01:02+DRB1*13:97:02  | DRB1*11:100+DRB1*13:01:08    |                              |                              |
| DRB1*11:01:02+DRB1*13:105    | DRB1*11:49:02+DRB1*13:52     |                              |                              |
| DRB1*11:01:02+DRB1*13:106    | DRB1*11:10:01+DRB1*13:23:02  | DRB1*11:10:02+DRB1*13:23:01  |                              |
| DRB1*11:01:02+DRB1*13:107    | DRB1*11:04:02+DRB1*13:49     | DRB1*11:56+DRB1*13:21:02     |                              |
| DRB1*11:01:02+DRB1*13:108    | DRB1*11:03+DRB1*13:05:02     | DRB1*11:04:02+DRB1*13:63     | DRB1*11:40+DRB1*13:14:03     |
| DRB1*11:01:02+DRB1*13:111    | DRB1*11:04:02+DRB1*13:128    |                              |                              |
| DRB1*11:01:02+DRB1*13:112    | DRB1*11:39+DRB1*13:12:02     |                              |                              |
| DRB1*11:01:02+DRB1*13:118    | DRB1*11:23+DRB1*13:56        | DRB1*11:64+DRB1*13:05:02     |                              |
| DRB1*11:01:02+DRB1*13:119    | DRB1*11:39+DRB1*13:01:08     |                              |                              |
| DRB1*11:01:02+DRB1*13:131    | DRB1*11:08:02+DRB1*13:49     |                              |                              |
| DRB1*11:01:02+DRB1*13:134    | DRB1*11:20+DRB1*13:21:02     |                              |                              |
| DRB1*11:01:02+DRB1*13:139    | DRB1*11:04:01+DRB1*14:07:02  | DRB1*11:04:02+DRB1*14:07:01  | DRB1*11:10:01+DRB1*14:58     |
| DRB1*11:01:02+DRB1*14:01:01G | DRB1*11:37:02+DRB1*14:35     |                              |                              |
|                              | DRB1*11:08:02+DRB1*14:27     |                              |                              |
| DRB1*11:01:02+DRB1*14:03:01  | DRB1*11:04:02+DRB1*14:68     |                              |                              |
| DRB1*11:01:02+DRB1*14:04     | DRB1*11:04:01+DRB1*14:44:03  | DRB1*11:04:02+DRB1*14:44:01  |                              |
| DRB1*11:01:02+DRB1*14:05:01  | DRB1*11:04:02+DRB1*14:44:02  |                              |                              |
| DRB1*11:01:02+DRB1*14:05:03  | DRB1*11:37:02+DRB1*14:30     |                              |                              |
| DRB1*11:01:02+DRB1*14:09     | DRB1*11:04:02+DRB1*14:03:01  |                              |                              |
| DRB1*11:01:02+DRB1*14:12:01  | DRB1*11:04:02+DRB1*14:30     | DRB1*11:34+DRB1*13:05:02     |                              |
| DRB1*11:01:02+DRB1*14:17     | DRB1*11:93+DRB1*14:02        |                              |                              |
| DRB1*11:01:02+DRB1*14:19     | DRB1*11:93+DRB1*14:17        |                              |                              |
| DRB1*11:01:02+DRB1*14:21     | DRB1*11:10:01+DRB1*14:25     |                              |                              |
| DRB1*11:01:02+DRB1*14:22     | DRB1*11:04:02+DRB1*14:14     | DRB1*11:17+DRB1*13:14:03     |                              |
| DRB1*11:01:02+DRB1*14:23:01  | DRB1*11:37:02+DRB1*14:53     |                              |                              |
| DRB1*11:01:02+DRB1*14:25     | DRB1*11:23+DRB1*13:26:02     |                              |                              |
| DRB1*11:01:02+DRB1*14:27     | DRB1*11:26+DRB1*13:05:02     |                              |                              |
| DRB1*11:01:02+DRB1*14:30     | DRB1*11:10:01+DRB1*14:102    |                              |                              |
| DRB1*11:01:02+DRB1*14:40     | DRB1*11:23+DRB1*14:32:02     |                              |                              |
| DRB1*11:01:02+DRB1*14:55     | DRB1*11:11:01G+DRB1*13:21:02 |                              |                              |
| DRB1*11:01:02+DRB1*14:65     | DRB1*11:19:03+DRB1*14:27     |                              |                              |
| DRB1*11:01:02+DRB1*14:67     | DRB1*11:08:02+DRB1*14:25     |                              |                              |
| DRB1*11:01:02+DRB1*14:69     | DRB1*11:04:02+DRB1*14:63     |                              |                              |
| DRB1*11:01:02+DRB1*14:78     | DRB1*11:04:02+DRB1*14:09     | DRB1*11:37:02+DRB1*14:17     |                              |
| DRB1*11:01:02+DRB1*14:80     | DRB1*11:43+DRB1*14:07:02     |                              |                              |
| DRB1*11:01:02+DRB1*14:86     | DRB1*11:23+DRB1*14:02        |                              |                              |
| DRB1*11:01:02+DRB1*14:89     | DRB1*11:43+DRB1*14:44:03     |                              |                              |
| DRB1*11:01:02+DRB1*14:96     | DRB1*11:06:01G+DRB1*14:07:02 |                              |                              |
| DRB1*11:01:02+DRB1*14:99     | DRB1*11:04:02+DRB1*14:51     |                              |                              |
| DRB1*11:01:02+DRB1*14:106    | DRB1*11:08:01+DRB1*13:47     |                              |                              |
| DRB1*11:01:02+DRB1*14:116    | DRB1*13:14:03+DRB1*14:11     |                              |                              |
| DRB1*11:01:02+DRB1*14:126    | DRB1*11:04:01+DRB1*15:02:09  | DRB1*11:04:02+DRB1*15:02:01  | DRB1*11:19:03+DRB1*15:04     |
| DRB1*11:01:02+DRB1*15:01:01G | DRB1*11:04:02+DRB1*15:02:06  | DRB1*11:04:03+DRB1*15:02:09  |                              |
| DRB1*11:01:02+DRB1*15:01:03  | DRB1*11:04:01+DRB1*15:02:05  | DRB1*11:04:02+DRB1*15:02:02  |                              |
| DRB1*11:01:02+DRB1*15:01:04  | DRB1*11:04:02+DRB1*15:02:04  |                              |                              |
| DRB1*11:01:02+DRB1*15:01:09  | DRB1*11:04:02+DRB1*15:02:08  |                              |                              |
| DRB1*11:01:02+DRB1*15:01:10  | DRB1*11:04:08+DRB1*15:02:09  |                              |                              |
| DRB1*11:01:02+DRB1*15:01:11  | DRB1*11:04:05+DRB1*15:02:09  |                              |                              |
| DRB1*11:01:02+DRB1*15:01:19  | DRB1*11:01:05+DRB1*15:02:09  |                              |                              |
| DRB1*11:01:02+DRB1*15:02:06  | DRB1*11:04:02+DRB1*15:15     |                              |                              |
| DRB1*11:01:02+DRB1*15:04     | DRB1*11:04:02+DRB1*15:31     | DRB1*11:08:02+DRB1*15:04     |                              |
| DRB1*11:01:02+DRB1*15:05     | DRB1*11:04:02+DRB1*15:11     | DRB1*11:37:02+DRB1*15:01:01G | DRB1*11:56+DRB1*15:02:09     |
| DRB1*11:01:02+DRB1*15:07:01  | DRB1*11:37:02+DRB1*15:01:04  | DRB1*11:56+DRB1*15:02:05     |                              |
| DRB1*11:01:02+DRB1*15:07:02  | DRB1*11:111+DRB1*15:02:09    |                              |                              |
| DRB1*11:01:02+DRB1*15:08     | DRB1*11:37:01+DRB1*15:02:09  | DRB1*11:37:02+DRB1*15:02:01  |                              |
| DRB1*11:01:02+DRB1*15:11     | DRB1*11:08:02+DRB1*15:15     |                              |                              |
| DRB1*11:01:02+DRB1*15:31     |                              |                              |                              |

|                              |                              |                             |                           |
|------------------------------|------------------------------|-----------------------------|---------------------------|
| DRB1*11:01:02+DRB1*15:32     | DRB1*11:58:02+DRB1*15:02:09  |                             |                           |
| DRB1*11:01:02+DRB1*15:34     | DRB1*11:37:02+DRB1*15:27     |                             |                           |
| DRB1*11:01:02+DRB1*15:35     | DRB1*11:06:01G+DRB1*15:02:09 |                             |                           |
| DRB1*11:01:02+DRB1*15:37     | DRB1*11:27:03+DRB1*15:01:01G | DRB1*11:84:02+DRB1*15:02:09 |                           |
| DRB1*11:01:02+DRB1*15:38     | DRB1*11:120+DRB1*15:02:05    |                             |                           |
| DRB1*11:01:02+DRB1*15:43     | DRB1*11:78+DRB1*15:02:09     |                             |                           |
| DRB1*11:01:02+DRB1*15:47     | DRB1*11:39+DRB1*15:02:09     |                             |                           |
| DRB1*11:01:02+DRB1*15:48     | DRB1*11:37:02+DRB1*15:09     | DRB1*11:88+DRB1*15:02:09    |                           |
| DRB1*11:01:02+DRB1*15:60     | DRB1*11:108+DRB1*15:02:09    |                             |                           |
| DRB1*11:01:02+DRB1*15:62     | DRB1*11:46:02+DRB1*15:02:09  |                             |                           |
| DRB1*11:01:02+DRB1*15:65     | DRB1*11:04:02+DRB1*15:47     | DRB1*11:43+DRB1*15:02:09    |                           |
| DRB1*11:01:02+DRB1*15:66     | DRB1*11:04:02+DRB1*15:27     |                             |                           |
| DRB1*11:01:02+DRB1*15:68     | DRB1*11:109+DRB1*15:02:09    |                             |                           |
| DRB1*11:01:02+DRB1*15:71     | DRB1*11:116+DRB1*15:02:09    |                             |                           |
| DRB1*11:01:02+DRB1*16:01:01  | DRB1*11:01:11+DRB1*16:01:02  | DRB1*11:37:02+DRB1*16:09    |                           |
| DRB1*11:01:02+DRB1*16:02:01  | DRB1*11:01:11+DRB1*16:02:02  | DRB1*11:08:02+DRB1*16:01:01 | DRB1*11:37:02+DRB1*16:10  |
| DRB1*11:01:02+DRB1*16:02:02  | DRB1*11:08:02+DRB1*16:01:02  |                             |                           |
| DRB1*11:01:02+DRB1*16:05:01  | DRB1*11:19:03+DRB1*16:01:01  |                             |                           |
| DRB1*11:01:02+DRB1*16:10     | DRB1*11:08:02+DRB1*16:09     |                             |                           |
| DRB1*11:01:02+DRB1*16:15     | DRB1*11:04:02+DRB1*16:01:01  |                             |                           |
| DRB1*11:01:02+DRB1*16:18     | DRB1*11:08:01+DRB1*16:04     | DRB1*11:23+DRB1*16:02:02    |                           |
| DRB1*11:01:03+DRB1*11:02:01  | DRB1*11:03+DRB1*11:19:02     | DRB1*11:04:07+DRB1*11:14:01 |                           |
| DRB1*11:01:03+DRB1*11:03     | DRB1*11:04:07+DRB1*11:11:01G |                             |                           |
| DRB1*11:01:03+DRB1*11:04:03  | DRB1*11:01:05+DRB1*11:04:07  | DRB1*11:01:10+DRB1*11:04:01 |                           |
| DRB1*11:01:03+DRB1*11:04:04  | DRB1*11:01:12+DRB1*11:04:07  |                             |                           |
| DRB1*11:01:03+DRB1*11:04:05  | DRB1*11:01:04+DRB1*11:04:07  |                             |                           |
| DRB1*11:01:03+DRB1*11:06:02  | DRB1*11:01:10+DRB1*11:06:01G |                             |                           |
| DRB1*11:01:03+DRB1*11:07     | DRB1*11:04:07+DRB1*11:103    |                             |                           |
| DRB1*11:01:03+DRB1*11:08:02  | DRB1*11:01:11+DRB1*11:08:01  |                             |                           |
| DRB1*11:01:03+DRB1*11:10:01  | DRB1*11:01:11+DRB1*11:10:02  |                             |                           |
| DRB1*11:01:03+DRB1*11:14:01  | DRB1*11:11:01G+DRB1*11:19:02 |                             |                           |
| DRB1*11:01:03+DRB1*11:14:02  | DRB1*11:01:11+DRB1*11:14:01  |                             |                           |
| DRB1*11:01:03+DRB1*11:16     | DRB1*11:04:07+DRB1*11:20     | DRB1*11:19:02+DRB1*11:40    |                           |
| DRB1*11:01:03+DRB1*11:18     | DRB1*11:04:01+DRB1*11:19:02  | DRB1*11:04:07+DRB1*11:19:01 |                           |
| DRB1*11:01:03+DRB1*11:20     | DRB1*11:19:02+DRB1*11:122    |                             |                           |
| DRB1*11:01:03+DRB1*11:27:03  | DRB1*11:01:11+DRB1*11:27:02  |                             |                           |
| DRB1*11:01:03+DRB1*11:31     | DRB1*11:19:02+DRB1*11:96     |                             |                           |
| DRB1*11:01:03+DRB1*11:34     | DRB1*11:04:07+DRB1*11:26     |                             |                           |
| DRB1*11:01:03+DRB1*11:35     | DRB1*11:04:07+DRB1*11:33     |                             |                           |
| DRB1*11:01:03+DRB1*11:36     | DRB1*11:04:07+DRB1*11:68     |                             |                           |
| DRB1*11:01:03+DRB1*11:37:02  | DRB1*11:01:11+DRB1*11:37:01  |                             |                           |
| DRB1*11:01:03+DRB1*11:40     | DRB1*11:04:07+DRB1*11:122    |                             |                           |
| DRB1*11:01:03+DRB1*11:42     | DRB1*11:04:07+DRB1*11:08:01  |                             |                           |
| DRB1*11:01:03+DRB1*11:43     | DRB1*11:04:07+DRB1*11:39     |                             |                           |
| DRB1*11:01:03+DRB1*11:44     | DRB1*11:04:07+DRB1*11:49:01  |                             |                           |
| DRB1*11:01:03+DRB1*11:46:02  | DRB1*11:04:07+DRB1*11:62     |                             |                           |
| DRB1*11:01:03+DRB1*11:48     | DRB1*11:19:02+DRB1*11:41     |                             |                           |
| DRB1*11:01:03+DRB1*11:49:02  | DRB1*11:01:11+DRB1*11:49:01  |                             |                           |
| DRB1*11:01:03+DRB1*11:54:01  | DRB1*11:01:10+DRB1*11:54:02  |                             |                           |
| DRB1*11:01:03+DRB1*11:56     | DRB1*11:04:07+DRB1*11:37:01  |                             |                           |
| DRB1*11:01:03+DRB1*11:58:01  | DRB1*11:04:07+DRB1*11:28:02  |                             |                           |
| DRB1*11:01:03+DRB1*11:58:02  | DRB1*11:04:07+DRB1*11:28:01  |                             |                           |
| DRB1*11:01:03+DRB1*11:60     | DRB1*11:04:07+DRB1*11:109    |                             |                           |
| DRB1*11:01:03+DRB1*11:73     | DRB1*11:19:02+DRB1*11:93     |                             |                           |
| DRB1*11:01:03+DRB1*11:74:02  | DRB1*11:01:11+DRB1*11:74:01  |                             |                           |
| DRB1*11:01:03+DRB1*11:82     | DRB1*11:19:02+DRB1*11:69     |                             |                           |
| DRB1*11:01:03+DRB1*11:84:01  | DRB1*11:04:07+DRB1*11:27:01  |                             |                           |
| DRB1*11:01:03+DRB1*11:84:02  | DRB1*11:04:07+DRB1*11:27:02  |                             |                           |
| DRB1*11:01:03+DRB1*11:113    | DRB1*11:04:07+DRB1*11:09     |                             |                           |
| DRB1*11:01:03+DRB1*11:116    | DRB1*11:04:07+DRB1*11:120    |                             |                           |
| DRB1*11:01:03+DRB1*11:119    | DRB1*11:04:07+DRB1*11:45     | DRB1*11:19:02+DRB1*11:25    |                           |
| DRB1*11:01:03+DRB1*11:127    | DRB1*11:19:02+DRB1*11:85     |                             |                           |
| DRB1*11:01:03+DRB1*12:01:01G | DRB1*11:01:10+DRB1*12:01:03  | DRB1*11:19:02+DRB1*12:02:01 |                           |
| DRB1*11:01:03+DRB1*12:01:03  | DRB1*11:19:02+DRB1*12:02:02  |                             |                           |
| DRB1*11:01:03+DRB1*12:02:01  | DRB1*11:01:10+DRB1*12:02:02  |                             |                           |
| DRB1*11:01:03+DRB1*12:03:03  | DRB1*11:01:10+DRB1*12:03:02  | DRB1*11:19:02+DRB1*12:19    |                           |
| DRB1*11:01:03+DRB1*12:05     | DRB1*11:19:02+DRB1*12:15     |                             |                           |
| DRB1*11:01:03+DRB1*13:01:01G | DRB1*11:04:01+DRB1*13:02:02  | DRB1*11:04:07+DRB1*13:02:01 | DRB1*11:19:02+DRB1*13:111 |
| DRB1*11:01:03+DRB1*13:01:03  | DRB1*11:01:10+DRB1*13:01:01G | DRB1*11:04:03+DRB1*13:02:02 |                           |
| DRB1*11:01:03+DRB1*13:01:05  | DRB1*11:04:07+DRB1*13:02:03  |                             |                           |
| DRB1*11:01:03+DRB1*13:01:08  | DRB1*11:01:11+DRB1*13:01:01G | DRB1*11:04:02+DRB1*13:02:02 |                           |
| DRB1*11:01:03+DRB1*13:03:01  | DRB1*11:01:11+DRB1*13:03:02  |                             |                           |
| DRB1*11:01:03+DRB1*13:04     | DRB1*11:19:02+DRB1*13:75     |                             |                           |
| DRB1*11:01:03+DRB1*13:05:02  | DRB1*11:01:11+DRB1*13:05:01  |                             |                           |
| DRB1*11:01:03+DRB1*13:06     | DRB1*11:19:02+DRB1*13:42     |                             |                           |
| DRB1*11:01:03+DRB1*13:11:01  | DRB1*11:04:07+DRB1*13:14:01  |                             |                           |
| DRB1*11:01:03+DRB1*13:11:02  | DRB1*11:04:07+DRB1*13:14:02  |                             |                           |
| DRB1*11:01:03+DRB1*13:12:01  | DRB1*11:19:02+DRB1*13:49     |                             |                           |
| DRB1*11:01:03+DRB1*13:12:02  | DRB1*11:01:11+DRB1*13:12:01  |                             |                           |
| DRB1*11:01:03+DRB1*13:14:03  | DRB1*11:01:11+DRB1*13:14:01  |                             |                           |
| DRB1*11:01:03+DRB1*13:15     | DRB1*11:04:07+DRB1*13:104    |                             |                           |
| DRB1*11:01:03+DRB1*13:20     | DRB1*11:04:07+DRB1*13:29     |                             |                           |
| DRB1*11:01:03+DRB1*13:21:02  | DRB1*11:01:11+DRB1*13:21:01  |                             |                           |
| DRB1*11:01:03+DRB1*13:22     | DRB1*11:04:07+DRB1*13:23:02  | DRB1*11:19:02+DRB1*13:24    |                           |
| DRB1*11:01:03+DRB1*13:23:01  | DRB1*11:01:11+DRB1*13:23:02  |                             |                           |
| DRB1*11:01:03+DRB1*13:27     | DRB1*11:04:07+DRB1*13:41     |                             |                           |
| DRB1*11:01:03+DRB1*13:30     | DRB1*11:19:02+DRB1*13:21:01  |                             |                           |
| DRB1*11:01:03+DRB1*13:32     | DRB1*11:04:07+DRB1*13:65     |                             |                           |
| DRB1*11:01:03+DRB1*13:33:03  | DRB1*11:01:11+DRB1*13:33:02  |                             |                           |
| DRB1*11:01:03+DRB1*13:36     | DRB1*11:37:01+DRB1*13:02:02  |                             |                           |
| DRB1*11:01:03+DRB1*13:39     | DRB1*11:120+DRB1*13:02:02    |                             |                           |
| DRB1*11:01:03+DRB1*13:40     | DRB1*11:04:07+DRB1*13:36     | DRB1*11:56+DRB1*13:02:02    |                           |
| DRB1*11:01:03+DRB1*13:42     | DRB1*11:04:07+DRB1*13:05:01  |                             |                           |
| DRB1*11:01:03+DRB1*13:52     | DRB1*11:04:07+DRB1*13:97:01  |                             |                           |
| DRB1*11:01:03+DRB1*13:61:01  | DRB1*11:04:07+DRB1*13:96:02  | DRB1*11:84:01+DRB1*13:02:02 |                           |
| DRB1*11:01:03+DRB1*13:61:02  | DRB1*11:04:07+DRB1*13:96:01  | DRB1*11:84:02+DRB1*13:02:02 |                           |
| DRB1*11:01:03+DRB1*13:66:02  | DRB1*11:01:11+DRB1*13:66:01  |                             |                           |
| DRB1*11:01:03+DRB1*13:67     | DRB1*11:30+DRB1*13:02:02     |                             |                           |
| DRB1*11:01:03+DRB1*13:79     | DRB1*11:04:07+DRB1*13:39     | DRB1*11:116+DRB1*13:02:02   |                           |
| DRB1*11:01:03+DRB1*13:82     | DRB1*11:19:02+DRB1*13:14:01  |                             |                           |
| DRB1*11:01:03+DRB1*13:83     | DRB1*11:04:07+DRB1*13:107    |                             |                           |
| DRB1*11:01:03+DRB1*13:89     | DRB1*11:04:07+DRB1*13:03:01  |                             |                           |
| DRB1*11:01:03+DRB1*13:93     | DRB1*11:04:07+DRB1*13:139    |                             |                           |
| DRB1*11:01:03+DRB1*13:96:01  | DRB1*11:27:02+DRB1*13:02:02  |                             |                           |
| DRB1*11:01:03+DRB1*13:96:02  | DRB1*11:27:01+DRB1*13:02:02  |                             |                           |



|                              |                              |                             |
|------------------------------|------------------------------|-----------------------------|
| DRB1*11:01:03+DRB1*13:108    | DRB1*11:04:07+DRB1*13:49     |                             |
| DRB1*11:01:03+DRB1*13:111    | DRB1*11:04:07+DRB1*13:63     |                             |
| DRB1*11:01:03+DRB1*13:112    | DRB1*11:04:07+DRB1*13:128    |                             |
| DRB1*11:01:03+DRB1*13:131    | DRB1*11:43+DRB1*13:02:02     |                             |
| DRB1*11:01:03+DRB1*14:01:01G | DRB1*11:01:10+DRB1*14:01:02  | DRB1*11:04:07+DRB1*14:07:01 |
| DRB1*11:01:03+DRB1*14:04     | DRB1*11:04:07+DRB1*14:68     |                             |
| DRB1*11:01:03+DRB1*14:05:01  | DRB1*11:01:10+DRB1*14:05:03  | DRB1*11:04:07+DRB1*14:44:01 |
| DRB1*11:01:03+DRB1*14:05:03  | DRB1*11:04:07+DRB1*14:44:02  |                             |
| DRB1*11:01:03+DRB1*14:06:01  | DRB1*11:04:07+DRB1*14:02     |                             |
| DRB1*11:01:03+DRB1*14:06:02  | DRB1*11:01:11+DRB1*14:06:01  |                             |
| DRB1*11:01:03+DRB1*14:07:02  | DRB1*11:01:11+DRB1*14:07:01  |                             |
| DRB1*11:01:03+DRB1*14:12:01  | DRB1*11:04:07+DRB1*14:03:01  |                             |
| DRB1*11:01:03+DRB1*14:17     | DRB1*11:04:07+DRB1*14:30     |                             |
| DRB1*11:01:03+DRB1*14:23:01  | DRB1*11:04:07+DRB1*14:14     |                             |
| DRB1*11:01:03+DRB1*14:32:02  | DRB1*11:01:10+DRB1*14:32:01  |                             |
| DRB1*11:01:03+DRB1*14:44:01  | DRB1*11:01:10+DRB1*14:44:02  |                             |
| DRB1*11:01:03+DRB1*14:44:03  | DRB1*11:01:11+DRB1*14:44:01  |                             |
| DRB1*11:01:03+DRB1*14:67     | DRB1*11:19:02+DRB1*14:27     |                             |
| DRB1*11:01:03+DRB1*14:78     | DRB1*11:04:07+DRB1*14:63     |                             |
| DRB1*11:01:03+DRB1*14:80     | DRB1*11:04:07+DRB1*14:09     |                             |
| DRB1*11:01:03+DRB1*14:106    | DRB1*11:04:07+DRB1*14:51     |                             |
| DRB1*11:01:03+DRB1*15:01:01G | DRB1*11:04:07+DRB1*15:02:01  | DRB1*11:19:02+DRB1*15:04    |
| DRB1*11:01:03+DRB1*15:01:03  | DRB1*11:01:10+DRB1*15:01:01G | DRB1*11:04:07+DRB1*15:02:06 |
| DRB1*11:01:03+DRB1*15:01:04  | DRB1*11:04:07+DRB1*15:02:02  |                             |
| DRB1*11:01:03+DRB1*15:01:09  | DRB1*11:04:07+DRB1*15:02:04  |                             |
| DRB1*11:01:03+DRB1*15:01:10  | DRB1*11:04:07+DRB1*15:02:08  |                             |
| DRB1*11:01:03+DRB1*15:02:01  | DRB1*11:19:02+DRB1*15:15     | DRB1*11:82+DRB1*16:09       |
| DRB1*11:01:03+DRB1*15:02:05  | DRB1*11:01:11+DRB1*15:02:02  |                             |
| DRB1*11:01:03+DRB1*15:02:06  | DRB1*11:01:10+DRB1*15:02:01  |                             |
| DRB1*11:01:03+DRB1*15:02:09  | DRB1*11:01:11+DRB1*15:02:01  |                             |
| DRB1*11:01:03+DRB1*15:04     | DRB1*11:04:07+DRB1*15:15     |                             |
| DRB1*11:01:03+DRB1*15:05     | DRB1*11:04:07+DRB1*15:31     |                             |
| DRB1*11:01:03+DRB1*15:07:01  | DRB1*11:04:07+DRB1*15:11     | DRB1*11:82+DRB1*16:15       |
| DRB1*11:01:03+DRB1*15:10     | DRB1*11:02:01+DRB1*16:09     |                             |
| DRB1*11:01:03+DRB1*15:11     | DRB1*11:69+DRB1*16:05:01     | DRB1*11:82+DRB1*16:01:01    |
| DRB1*11:01:03+DRB1*15:15     | DRB1*11:69+DRB1*16:09        |                             |
| DRB1*11:01:03+DRB1*15:21     | DRB1*11:119+DRB1*16:09       |                             |
| DRB1*11:01:03+DRB1*15:25     | DRB1*11:07+DRB1*16:09        |                             |
| DRB1*11:01:03+DRB1*15:27     | DRB1*11:26+DRB1*16:09        |                             |
| DRB1*11:01:03+DRB1*15:31     | DRB1*11:69+DRB1*16:10        |                             |
| DRB1*11:01:03+DRB1*15:34     | DRB1*11:26+DRB1*16:01:01     |                             |
| DRB1*11:01:03+DRB1*15:65     | DRB1*11:04:07+DRB1*15:47     |                             |
| DRB1*11:01:03+DRB1*15:66     | DRB1*11:04:07+DRB1*15:27     | DRB1*11:34+DRB1*16:09       |
| DRB1*11:01:03+DRB1*16:04     | DRB1*11:23+DRB1*16:01:01     |                             |
| DRB1*11:01:03+DRB1*16:05:01  | DRB1*11:19:02+DRB1*16:01:01  |                             |
| DRB1*11:01:03+DRB1*16:15     | DRB1*11:04:07+DRB1*16:01:01  |                             |
| DRB1*11:01:03+DRB1*16:18     | DRB1*11:64+DRB1*16:01:01     |                             |
| DRB1*11:01:04+DRB1*11:02:01  | DRB1*11:04:05+DRB1*11:14:01  |                             |
| DRB1*11:01:04+DRB1*11:03     | DRB1*11:04:05+DRB1*11:11:01G |                             |
| DRB1*11:01:04+DRB1*11:04:03  | DRB1*11:01:05+DRB1*11:04:05  |                             |
| DRB1*11:01:04+DRB1*11:04:04  | DRB1*11:01:12+DRB1*11:04:05  |                             |
| DRB1*11:01:04+DRB1*11:06:02  | DRB1*11:01:05+DRB1*11:06:03  |                             |
| DRB1*11:01:04+DRB1*11:07     | DRB1*11:04:05+DRB1*11:103    |                             |
| DRB1*11:01:04+DRB1*11:16     | DRB1*11:04:05+DRB1*11:20     |                             |
| DRB1*11:01:04+DRB1*11:18     | DRB1*11:04:05+DRB1*11:19:01  |                             |
| DRB1*11:01:04+DRB1*11:21     | DRB1*11:06:03+DRB1*11:14:01  |                             |
| DRB1*11:01:04+DRB1*11:34     | DRB1*11:04:05+DRB1*11:26     |                             |
| DRB1*11:01:04+DRB1*11:35     | DRB1*11:04:05+DRB1*11:33     |                             |
| DRB1*11:01:04+DRB1*11:36     | DRB1*11:04:05+DRB1*11:68     |                             |
| DRB1*11:01:04+DRB1*11:40     | DRB1*11:04:05+DRB1*11:122    |                             |
| DRB1*11:01:04+DRB1*11:42     | DRB1*11:04:05+DRB1*11:08:01  |                             |
| DRB1*11:01:04+DRB1*11:43     | DRB1*11:04:05+DRB1*11:39     |                             |
| DRB1*11:01:04+DRB1*11:44     | DRB1*11:04:05+DRB1*11:49:01  |                             |
| DRB1*11:01:04+DRB1*11:46:02  | DRB1*11:04:05+DRB1*11:62     |                             |
| DRB1*11:01:04+DRB1*11:47     | DRB1*11:06:03+DRB1*11:29     |                             |
| DRB1*11:01:04+DRB1*11:56     | DRB1*11:04:05+DRB1*11:37:01  |                             |
| DRB1*11:01:04+DRB1*11:57     | DRB1*11:06:03+DRB1*11:08:01  |                             |
| DRB1*11:01:04+DRB1*11:58:01  | DRB1*11:04:05+DRB1*11:28:02  |                             |
| DRB1*11:01:04+DRB1*11:58:02  | DRB1*11:04:05+DRB1*11:28:01  |                             |
| DRB1*11:01:04+DRB1*11:60     | DRB1*11:04:05+DRB1*11:109    |                             |
| DRB1*11:01:04+DRB1*11:84:01  | DRB1*11:04:05+DRB1*11:27:01  |                             |
| DRB1*11:01:04+DRB1*11:84:02  | DRB1*11:04:05+DRB1*11:27:02  |                             |
| DRB1*11:01:04+DRB1*11:113    | DRB1*11:04:05+DRB1*11:09     |                             |
| DRB1*11:01:04+DRB1*11:116    | DRB1*11:04:05+DRB1*11:120    |                             |
| DRB1*11:01:04+DRB1*11:119    | DRB1*11:04:05+DRB1*11:45     |                             |
| DRB1*11:01:04+DRB1*13:01:01G | DRB1*11:04:05+DRB1*13:02:01  |                             |
| DRB1*11:01:04+DRB1*13:01:05  | DRB1*11:04:05+DRB1*13:02:03  |                             |
| DRB1*11:01:04+DRB1*13:11:01  | DRB1*11:04:05+DRB1*13:14:01  |                             |
| DRB1*11:01:04+DRB1*13:11:02  | DRB1*11:04:05+DRB1*13:14:02  |                             |
| DRB1*11:01:04+DRB1*13:15     | DRB1*11:04:05+DRB1*13:104    |                             |
| DRB1*11:01:04+DRB1*13:20     | DRB1*11:04:05+DRB1*13:29     |                             |
| DRB1*11:01:04+DRB1*13:22     | DRB1*11:04:05+DRB1*13:23:02  |                             |
| DRB1*11:01:04+DRB1*13:27     | DRB1*11:04:05+DRB1*13:41     |                             |
| DRB1*11:01:04+DRB1*13:32     | DRB1*11:04:05+DRB1*13:65     |                             |
| DRB1*11:01:04+DRB1*13:40     | DRB1*11:04:05+DRB1*13:36     |                             |
| DRB1*11:01:04+DRB1*13:42     | DRB1*11:04:05+DRB1*13:05:01  |                             |
| DRB1*11:01:04+DRB1*13:52     | DRB1*11:04:05+DRB1*13:97:01  |                             |
| DRB1*11:01:04+DRB1*13:58     | DRB1*11:06:03+DRB1*13:12:01  |                             |
| DRB1*11:01:04+DRB1*13:61:01  | DRB1*11:04:05+DRB1*13:96:02  |                             |
| DRB1*11:01:04+DRB1*13:61:02  | DRB1*11:04:05+DRB1*13:96:01  |                             |
| DRB1*11:01:04+DRB1*13:79     | DRB1*11:04:05+DRB1*13:39     |                             |
| DRB1*11:01:04+DRB1*13:81     | DRB1*11:06:03+DRB1*13:03:02  |                             |
| DRB1*11:01:04+DRB1*13:83     | DRB1*11:04:05+DRB1*13:107    |                             |
| DRB1*11:01:04+DRB1*13:89     | DRB1*11:04:05+DRB1*13:03:01  |                             |
| DRB1*11:01:04+DRB1*13:93     | DRB1*11:04:05+DRB1*13:139    |                             |
| DRB1*11:01:04+DRB1*13:108    | DRB1*11:04:05+DRB1*13:49     |                             |
| DRB1*11:01:04+DRB1*13:111    | DRB1*11:04:05+DRB1*13:63     |                             |
| DRB1*11:01:04+DRB1*13:112    | DRB1*11:04:05+DRB1*13:128    |                             |
| DRB1*11:01:04+DRB1*14:01:01G | DRB1*11:04:05+DRB1*14:07:01  |                             |
| DRB1*11:01:04+DRB1*14:04     | DRB1*11:04:05+DRB1*14:68     |                             |
| DRB1*11:01:04+DRB1*14:05:01  | DRB1*11:04:05+DRB1*14:44:01  |                             |
| DRB1*11:01:04+DRB1*14:05:03  | DRB1*11:04:05+DRB1*14:44:02  |                             |
| DRB1*11:01:04+DRB1*14:06:01  | DRB1*11:04:05+DRB1*14:02     |                             |
| DRB1*11:01:04+DRB1*14:12:01  | DRB1*11:04:05+DRB1*14:03:01  |                             |
| DRB1*11:01:04+DRB1*14:17     | DRB1*11:04:05+DRB1*14:30     |                             |

|                              |                              |                             |
|------------------------------|------------------------------|-----------------------------|
| DRB1*11:01:04+DRB1*14:23:01  | DRB1*11:04:05+DRB1*14:14     |                             |
| DRB1*11:01:04+DRB1*14:28     | DRB1*11:06:03+DRB1*14:68     |                             |
| DRB1*11:01:04+DRB1*14:29     | DRB1*11:06:03+DRB1*14:02     |                             |
| DRB1*11:01:04+DRB1*14:78     | DRB1*11:04:05+DRB1*14:63     |                             |
| DRB1*11:01:04+DRB1*14:80     | DRB1*11:04:05+DRB1*14:09     |                             |
| DRB1*11:01:04+DRB1*14:99     | DRB1*11:06:03+DRB1*14:07:01  |                             |
| DRB1*11:01:04+DRB1*14:106    | DRB1*11:04:05+DRB1*14:51     |                             |
| DRB1*11:01:04+DRB1*15:01:03  | DRB1*11:01:05+DRB1*15:01:19  | DRB1*11:04:05+DRB1*15:02:06 |
| DRB1*11:01:04+DRB1*15:01:04  | DRB1*11:04:05+DRB1*15:02:02  |                             |
| DRB1*11:01:04+DRB1*15:01:09  | DRB1*11:04:05+DRB1*15:02:04  |                             |
| DRB1*11:01:04+DRB1*15:01:10  | DRB1*11:04:05+DRB1*15:02:08  |                             |
| DRB1*11:01:04+DRB1*15:01:15  | DRB1*11:01:14+DRB1*15:01:19  |                             |
| DRB1*11:01:04+DRB1*15:04     | DRB1*11:04:05+DRB1*15:15     |                             |
| DRB1*11:01:04+DRB1*15:05     | DRB1*11:04:05+DRB1*15:31     |                             |
| DRB1*11:01:04+DRB1*15:07:01  | DRB1*11:04:05+DRB1*15:11     | DRB1*11:37:01+DRB1*15:01:19 |
| DRB1*11:01:04+DRB1*15:32     | DRB1*11:28:01+DRB1*15:01:19  |                             |
| DRB1*11:01:04+DRB1*15:35     | DRB1*11:06:03+DRB1*15:02:01  |                             |
| DRB1*11:01:04+DRB1*15:37     | DRB1*11:27:02+DRB1*15:01:19  |                             |
| DRB1*11:01:04+DRB1*15:42     | DRB1*11:106+DRB1*15:01:19    |                             |
| DRB1*11:01:04+DRB1*15:51     | DRB1*11:90+DRB1*15:01:19     |                             |
| DRB1*11:01:04+DRB1*15:62     | DRB1*11:62+DRB1*15:01:19     |                             |
| DRB1*11:01:04+DRB1*15:64     | DRB1*11:126+DRB1*15:01:19    |                             |
| DRB1*11:01:04+DRB1*15:65     | DRB1*11:04:05+DRB1*15:47     | DRB1*11:39+DRB1*15:01:19    |
| DRB1*11:01:04+DRB1*15:66     | DRB1*11:04:05+DRB1*15:27     |                             |
| DRB1*11:01:04+DRB1*15:71     | DRB1*11:120+DRB1*15:01:19    |                             |
| DRB1*11:01:04+DRB1*16:15     | DRB1*11:04:05+DRB1*16:01:01  |                             |
| DRB1*11:01:05+DRB1*11:02:01  | DRB1*11:04:03+DRB1*11:14:01  |                             |
| DRB1*11:01:05+DRB1*11:03     | DRB1*11:04:03+DRB1*11:11:01G |                             |
| DRB1*11:01:05+DRB1*11:04:04  | DRB1*11:01:12+DRB1*11:04:03  |                             |
| DRB1*11:01:05+DRB1*11:07     | DRB1*11:04:03+DRB1*11:103    |                             |
| DRB1*11:01:05+DRB1*11:16     | DRB1*11:04:03+DRB1*11:20     |                             |
| DRB1*11:01:05+DRB1*11:18     | DRB1*11:04:03+DRB1*11:19:01  |                             |
| DRB1*11:01:05+DRB1*11:19:02  | DRB1*11:01:10+DRB1*11:19:01  |                             |
| DRB1*11:01:05+DRB1*11:21     | DRB1*11:06:02+DRB1*11:14:01  |                             |
| DRB1*11:01:05+DRB1*11:34     | DRB1*11:04:03+DRB1*11:26     |                             |
| DRB1*11:01:05+DRB1*11:35     | DRB1*11:04:03+DRB1*11:33     |                             |
| DRB1*11:01:05+DRB1*11:36     | DRB1*11:04:03+DRB1*11:68     |                             |
| DRB1*11:01:05+DRB1*11:40     | DRB1*11:04:03+DRB1*11:122    |                             |
| DRB1*11:01:05+DRB1*11:42     | DRB1*11:04:03+DRB1*11:08:01  |                             |
| DRB1*11:01:05+DRB1*11:43     | DRB1*11:04:03+DRB1*11:39     |                             |
| DRB1*11:01:05+DRB1*11:44     | DRB1*11:04:03+DRB1*11:49:01  |                             |
| DRB1*11:01:05+DRB1*11:46:02  | DRB1*11:04:03+DRB1*11:62     |                             |
| DRB1*11:01:05+DRB1*11:47     | DRB1*11:06:02+DRB1*11:29     |                             |
| DRB1*11:01:05+DRB1*11:56     | DRB1*11:04:03+DRB1*11:37:01  |                             |
| DRB1*11:01:05+DRB1*11:57     | DRB1*11:06:02+DRB1*11:08:01  |                             |
| DRB1*11:01:05+DRB1*11:58:01  | DRB1*11:04:03+DRB1*11:28:02  |                             |
| DRB1*11:01:05+DRB1*11:58:02  | DRB1*11:04:03+DRB1*11:28:01  |                             |
| DRB1*11:01:05+DRB1*11:60     | DRB1*11:04:03+DRB1*11:109    |                             |
| DRB1*11:01:05+DRB1*11:84:01  | DRB1*11:04:03+DRB1*11:27:01  |                             |
| DRB1*11:01:05+DRB1*11:84:02  | DRB1*11:04:03+DRB1*11:27:02  |                             |
| DRB1*11:01:05+DRB1*11:113    | DRB1*11:04:03+DRB1*11:09     |                             |
| DRB1*11:01:05+DRB1*11:116    | DRB1*11:04:03+DRB1*11:120    |                             |
| DRB1*11:01:05+DRB1*11:119    | DRB1*11:04:03+DRB1*11:45     |                             |
| DRB1*11:01:05+DRB1*12:01:02  | DRB1*11:19:01+DRB1*12:02:04  |                             |
| DRB1*11:01:05+DRB1*12:02:01  | DRB1*11:01:10+DRB1*12:02:04  |                             |
| DRB1*11:01:05+DRB1*13:01:05  | DRB1*11:04:03+DRB1*13:02:03  |                             |
| DRB1*11:01:05+DRB1*13:01:09  | DRB1*11:01:07+DRB1*13:01:03  |                             |
| DRB1*11:01:05+DRB1*13:02:02  | DRB1*11:01:10+DRB1*13:02:01  |                             |
| DRB1*11:01:05+DRB1*13:11:01  | DRB1*11:04:03+DRB1*13:14:01  |                             |
| DRB1*11:01:05+DRB1*13:11:02  | DRB1*11:04:03+DRB1*13:14:02  |                             |
| DRB1*11:01:05+DRB1*13:15     | DRB1*11:04:03+DRB1*13:104    |                             |
| DRB1*11:01:05+DRB1*13:20     | DRB1*11:04:03+DRB1*13:29     |                             |
| DRB1*11:01:05+DRB1*13:22     | DRB1*11:04:03+DRB1*13:23:02  |                             |
| DRB1*11:01:05+DRB1*13:27     | DRB1*11:04:03+DRB1*13:41     |                             |
| DRB1*11:01:05+DRB1*13:32     | DRB1*11:04:03+DRB1*13:65     |                             |
| DRB1*11:01:05+DRB1*13:40     | DRB1*11:04:03+DRB1*13:36     | DRB1*11:37:01+DRB1*13:01:03 |
| DRB1*11:01:05+DRB1*13:42     | DRB1*11:04:03+DRB1*13:05:01  |                             |
| DRB1*11:01:05+DRB1*13:52     | DRB1*11:04:03+DRB1*13:97:01  |                             |
| DRB1*11:01:05+DRB1*13:58     | DRB1*11:06:02+DRB1*13:12:01  |                             |
| DRB1*11:01:05+DRB1*13:61:01  | DRB1*11:04:03+DRB1*13:96:02  | DRB1*11:27:01+DRB1*13:01:03 |
| DRB1*11:01:05+DRB1*13:61:02  | DRB1*11:04:03+DRB1*13:96:01  | DRB1*11:27:02+DRB1*13:01:03 |
| DRB1*11:01:05+DRB1*13:79     | DRB1*11:04:03+DRB1*13:39     | DRB1*11:120+DRB1*13:01:03   |
| DRB1*11:01:05+DRB1*13:81     | DRB1*11:06:02+DRB1*13:03:02  |                             |
| DRB1*11:01:05+DRB1*13:83     | DRB1*11:04:03+DRB1*13:107    |                             |
| DRB1*11:01:05+DRB1*13:87     | DRB1*11:12:01+DRB1*13:01:03  |                             |
| DRB1*11:01:05+DRB1*13:89     | DRB1*11:04:03+DRB1*13:03:01  |                             |
| DRB1*11:01:05+DRB1*13:93     | DRB1*11:04:03+DRB1*13:139    |                             |
| DRB1*11:01:05+DRB1*13:105    | DRB1*11:100+DRB1*13:01:03    |                             |
| DRB1*11:01:05+DRB1*13:108    | DRB1*11:04:03+DRB1*13:49     |                             |
| DRB1*11:01:05+DRB1*13:111    | DRB1*11:04:03+DRB1*13:63     |                             |
| DRB1*11:01:05+DRB1*13:112    | DRB1*11:04:03+DRB1*13:128    |                             |
| DRB1*11:01:05+DRB1*13:131    | DRB1*11:39+DRB1*13:01:03     |                             |
| DRB1*11:01:05+DRB1*14:01:01G | DRB1*11:04:03+DRB1*14:07:01  |                             |
| DRB1*11:01:05+DRB1*14:04     | DRB1*11:04:03+DRB1*14:68     |                             |
| DRB1*11:01:05+DRB1*14:05:01  | DRB1*11:04:03+DRB1*14:44:01  |                             |
| DRB1*11:01:05+DRB1*14:06:01  | DRB1*11:04:03+DRB1*14:02     |                             |
| DRB1*11:01:05+DRB1*14:12:01  | DRB1*11:04:03+DRB1*14:03:01  |                             |
| DRB1*11:01:05+DRB1*14:16     | DRB1*11:14:01+DRB1*14:105    |                             |
| DRB1*11:01:05+DRB1*14:17     | DRB1*11:04:03+DRB1*14:30     |                             |
| DRB1*11:01:05+DRB1*14:23:01  | DRB1*11:04:03+DRB1*14:14     |                             |
| DRB1*11:01:05+DRB1*14:28     | DRB1*11:06:02+DRB1*14:68     |                             |
| DRB1*11:01:05+DRB1*14:29     | DRB1*11:06:02+DRB1*14:02     |                             |
| DRB1*11:01:05+DRB1*14:33     | DRB1*11:54:01+DRB1*14:30     |                             |
| DRB1*11:01:05+DRB1*14:38     | DRB1*11:27:01+DRB1*14:01:01G | DRB1*11:84:01+DRB1*14:07:01 |
| DRB1*11:01:05+DRB1*14:50     | DRB1*11:27:01+DRB1*14:04     | DRB1*11:84:01+DRB1*14:68    |
| DRB1*11:01:05+DRB1*14:74     | DRB1*11:08:01+DRB1*14:105    |                             |
| DRB1*11:01:05+DRB1*14:75     | DRB1*11:108+DRB1*14:01:01G   |                             |
| DRB1*11:01:05+DRB1*14:78     | DRB1*11:04:03+DRB1*14:63     |                             |
| DRB1*11:01:05+DRB1*14:79     | DRB1*11:27:02+DRB1*14:107    |                             |
| DRB1*11:01:05+DRB1*14:80     | DRB1*11:04:03+DRB1*14:09     |                             |
| DRB1*11:01:05+DRB1*14:93     | DRB1*11:27:02+DRB1*14:68     |                             |
| DRB1*11:01:05+DRB1*14:99     | DRB1*11:06:02+DRB1*14:07:01  |                             |
| DRB1*11:01:05+DRB1*14:103    | DRB1*11:108+DRB1*14:05:01    |                             |
| DRB1*11:01:05+DRB1*14:106    | DRB1*11:04:03+DRB1*14:51     | DRB1*11:54:01+DRB1*14:02    |
| DRB1*11:01:05+DRB1*14:127    | DRB1*11:27:01+DRB1*14:05:01  | DRB1*11:84:01+DRB1*14:44:01 |

|                              |                              |                              |                             |
|------------------------------|------------------------------|------------------------------|-----------------------------|
| DRB1*11:01:05+DRB1*15:01:03  | DRB1*11:04:03+DRB1*15:02:06  |                              |                             |
| DRB1*11:01:05+DRB1*15:01:04  | DRB1*11:04:03+DRB1*15:02:02  |                              |                             |
| DRB1*11:01:05+DRB1*15:01:09  | DRB1*11:04:03+DRB1*15:02:04  |                              |                             |
| DRB1*11:01:05+DRB1*15:01:10  | DRB1*11:04:03+DRB1*15:02:08  |                              |                             |
| DRB1*11:01:05+DRB1*15:01:11  | DRB1*11:04:08+DRB1*15:02:06  |                              |                             |
| DRB1*11:01:05+DRB1*15:01:15  | DRB1*11:01:14+DRB1*15:01:03  |                              |                             |
| DRB1*11:01:05+DRB1*15:04     | DRB1*11:04:03+DRB1*15:15     |                              |                             |
| DRB1*11:01:05+DRB1*15:05     | DRB1*11:04:03+DRB1*15:31     |                              |                             |
| DRB1*11:01:05+DRB1*15:07:01  | DRB1*11:04:03+DRB1*15:11     | DRB1*11:37:01+DRB1*15:01:03  | DRB1*11:56+DRB1*15:02:06    |
| DRB1*11:01:05+DRB1*15:08     | DRB1*11:111+DRB1*15:02:06    |                              |                             |
| DRB1*11:01:05+DRB1*15:11     | DRB1*11:37:01+DRB1*15:02:06  |                              |                             |
| DRB1*11:01:05+DRB1*15:32     | DRB1*11:28:01+DRB1*15:01:03  | DRB1*11:58:02+DRB1*15:02:06  |                             |
| DRB1*11:01:05+DRB1*15:35     | DRB1*11:06:01G+DRB1*15:02:06 | DRB1*11:06:02+DRB1*15:02:01  |                             |
| DRB1*11:01:05+DRB1*15:37     | DRB1*11:27:02+DRB1*15:01:03  | DRB1*11:84:02+DRB1*15:02:06  |                             |
| DRB1*11:01:05+DRB1*15:42     | DRB1*11:106+DRB1*15:01:03    |                              |                             |
| DRB1*11:01:05+DRB1*15:43     | DRB1*11:78+DRB1*15:02:06     |                              |                             |
| DRB1*11:01:05+DRB1*15:47     | DRB1*11:39+DRB1*15:02:06     |                              |                             |
| DRB1*11:01:05+DRB1*15:48     | DRB1*11:88+DRB1*15:02:06     |                              |                             |
| DRB1*11:01:05+DRB1*15:51     | DRB1*11:90+DRB1*15:01:03     |                              |                             |
| DRB1*11:01:05+DRB1*15:60     | DRB1*11:108+DRB1*15:02:06    |                              |                             |
| DRB1*11:01:05+DRB1*15:62     | DRB1*11:46:02+DRB1*15:02:06  | DRB1*11:62+DRB1*15:01:03     |                             |
| DRB1*11:01:05+DRB1*15:64     | DRB1*11:126+DRB1*15:01:03    |                              |                             |
| DRB1*11:01:05+DRB1*15:65     | DRB1*11:04:03+DRB1*15:47     | DRB1*11:39+DRB1*15:01:03     | DRB1*11:43+DRB1*15:02:06    |
| DRB1*11:01:05+DRB1*15:66     | DRB1*11:04:03+DRB1*15:27     |                              |                             |
| DRB1*11:01:05+DRB1*15:68     | DRB1*11:109+DRB1*15:02:06    |                              |                             |
| DRB1*11:01:05+DRB1*15:71     | DRB1*11:116+DRB1*15:02:06    | DRB1*11:120+DRB1*15:01:03    |                             |
| DRB1*11:01:05+DRB1*16:01:01  | DRB1*11:01:10+DRB1*16:01:02  |                              |                             |
| DRB1*11:01:05+DRB1*16:02:01  | DRB1*11:01:10+DRB1*16:02:02  |                              |                             |
| DRB1*11:01:05+DRB1*16:15     | DRB1*11:04:03+DRB1*16:01:01  |                              |                             |
| DRB1*11:01:07+DRB1*13:40     | DRB1*11:37:01+DRB1*13:01:09  |                              |                             |
| DRB1*11:01:07+DRB1*13:61:01  | DRB1*11:27:01+DRB1*13:01:09  |                              |                             |
| DRB1*11:01:07+DRB1*13:61:02  | DRB1*11:27:02+DRB1*13:01:09  |                              |                             |
| DRB1*11:01:07+DRB1*13:79     | DRB1*11:120+DRB1*13:01:09    |                              |                             |
| DRB1*11:01:07+DRB1*13:87     | DRB1*11:12:01+DRB1*13:01:09  |                              |                             |
| DRB1*11:01:07+DRB1*13:105    | DRB1*11:100+DRB1*13:01:09    |                              |                             |
| DRB1*11:01:07+DRB1*13:131    | DRB1*11:39+DRB1*13:01:09     |                              |                             |
| DRB1*11:01:10+DRB1*11:04:02  | DRB1*11:01:11+DRB1*11:04:03  |                              |                             |
| DRB1*11:01:10+DRB1*11:18     | DRB1*11:04:03+DRB1*11:19:02  |                              |                             |
| DRB1*11:01:10+DRB1*13:01:08  | DRB1*11:01:11+DRB1*13:01:03  |                              |                             |
| DRB1*11:01:10+DRB1*15:02:09  | DRB1*11:01:11+DRB1*15:02:06  |                              |                             |
| DRB1*11:01:11+DRB1*11:02:01  | DRB1*11:04:07+DRB1*11:14:02  |                              |                             |
| DRB1*11:01:11+DRB1*11:18     | DRB1*11:04:02+DRB1*11:19:02  | DRB1*11:04:07+DRB1*11:19:03  |                             |
| DRB1*11:01:11+DRB1*11:25     | DRB1*11:04:07+DRB1*11:23     |                              |                             |
| DRB1*11:01:11+DRB1*11:42     | DRB1*11:04:07+DRB1*11:08:02  |                              |                             |
| DRB1*11:01:11+DRB1*11:44     | DRB1*11:04:07+DRB1*11:49:02  |                              |                             |
| DRB1*11:01:11+DRB1*11:45     | DRB1*11:19:02+DRB1*11:23     |                              |                             |
| DRB1*11:01:11+DRB1*11:56     | DRB1*11:04:07+DRB1*11:37:02  |                              |                             |
| DRB1*11:01:11+DRB1*11:84:02  | DRB1*11:04:07+DRB1*11:27:03  |                              |                             |
| DRB1*11:01:11+DRB1*11:92     | DRB1*11:04:07+DRB1*11:72     |                              |                             |
| DRB1*11:01:11+DRB1*13:11:01  | DRB1*11:04:07+DRB1*13:14:03  |                              |                             |
| DRB1*11:01:11+DRB1*13:13     | DRB1*11:19:02+DRB1*13:55     |                              |                             |
| DRB1*11:01:11+DRB1*13:22     | DRB1*11:04:07+DRB1*13:23:01  |                              |                             |
| DRB1*11:01:11+DRB1*13:30     | DRB1*11:19:02+DRB1*13:21:02  |                              |                             |
| DRB1*11:01:11+DRB1*13:36     | DRB1*11:37:02+DRB1*13:02:02  |                              |                             |
| DRB1*11:01:11+DRB1*13:42     | DRB1*11:04:07+DRB1*13:05:02  |                              |                             |
| DRB1*11:01:11+DRB1*13:48     | DRB1*11:04:07+DRB1*13:38     |                              |                             |
| DRB1*11:01:11+DRB1*13:82     | DRB1*11:19:02+DRB1*13:14:03  |                              |                             |
| DRB1*11:01:11+DRB1*13:94     | DRB1*11:04:07+DRB1*13:33:01  |                              |                             |
| DRB1*11:01:11+DRB1*13:96:01  | DRB1*11:27:03+DRB1*13:02:02  |                              |                             |
| DRB1*11:01:11+DRB1*14:01:01G | DRB1*11:04:07+DRB1*14:07:02  |                              |                             |
| DRB1*11:01:11+DRB1*14:05:01  | DRB1*11:04:07+DRB1*14:44:03  |                              |                             |
| DRB1*11:01:11+DRB1*15:01:01G | DRB1*11:04:07+DRB1*15:02:09  |                              |                             |
| DRB1*11:01:11+DRB1*15:01:04  | DRB1*11:04:07+DRB1*15:02:05  |                              |                             |
| DRB1*11:01:11+DRB1*16:18     | DRB1*11:23+DRB1*16:02:01     |                              |                             |
| DRB1*11:01:12+DRB1*11:02:01  | DRB1*11:04:04+DRB1*11:14:01  |                              |                             |
| DRB1*11:01:12+DRB1*11:03     | DRB1*11:04:04+DRB1*11:11:01G |                              |                             |
| DRB1*11:01:12+DRB1*11:07     | DRB1*11:04:04+DRB1*11:103    |                              |                             |
| DRB1*11:01:12+DRB1*11:16     | DRB1*11:04:04+DRB1*11:20     | DRB1*11:28:02+DRB1*11:118    |                             |
| DRB1*11:01:12+DRB1*11:18     | DRB1*11:04:04+DRB1*11:19:01  |                              |                             |
| DRB1*11:01:12+DRB1*11:34     | DRB1*11:04:04+DRB1*11:26     |                              |                             |
| DRB1*11:01:12+DRB1*11:35     | DRB1*11:04:04+DRB1*11:33     |                              |                             |
| DRB1*11:01:12+DRB1*11:36     | DRB1*11:04:04+DRB1*11:68     |                              |                             |
| DRB1*11:01:12+DRB1*11:40     | DRB1*11:04:04+DRB1*11:122    |                              |                             |
| DRB1*11:01:12+DRB1*11:42     | DRB1*11:04:04+DRB1*11:08:01  |                              |                             |
| DRB1*11:01:12+DRB1*11:43     | DRB1*11:04:04+DRB1*11:39     |                              |                             |
| DRB1*11:01:12+DRB1*11:44     | DRB1*11:04:04+DRB1*11:49:01  |                              |                             |
| DRB1*11:01:12+DRB1*11:56     | DRB1*11:04:04+DRB1*11:37:01  |                              |                             |
| DRB1*11:01:12+DRB1*11:58:01  | DRB1*11:04:04+DRB1*11:28:02  |                              |                             |
| DRB1*11:01:12+DRB1*11:60     | DRB1*11:04:04+DRB1*11:109    |                              |                             |
| DRB1*11:01:12+DRB1*11:84:01  | DRB1*11:04:04+DRB1*11:27:01  |                              |                             |
| DRB1*11:01:12+DRB1*11:84:02  | DRB1*11:04:04+DRB1*11:27:02  |                              |                             |
| DRB1*11:01:12+DRB1*11:113    | DRB1*11:04:04+DRB1*11:09     | DRB1*11:28:02+DRB1*11:46:01  |                             |
| DRB1*11:01:12+DRB1*11:116    | DRB1*11:04:04+DRB1*11:120    |                              |                             |
| DRB1*11:01:12+DRB1*11:119    | DRB1*11:04:04+DRB1*11:45     |                              |                             |
| DRB1*11:01:12+DRB1*13:01:01G | DRB1*11:04:04+DRB1*13:02:01  | DRB1*11:28:02+DRB1*13:52     | DRB1*11:58:01+DRB1*13:97:01 |
|                              | DRB1*11:118+DRB1*13:50:02    |                              |                             |
| DRB1*11:01:12+DRB1*13:01:05  | DRB1*11:04:04+DRB1*13:02:03  |                              |                             |
| DRB1*11:01:12+DRB1*13:02:01  | DRB1*11:28:02+DRB1*13:97:01  |                              |                             |
| DRB1*11:01:12+DRB1*13:05:01  | DRB1*11:28:02+DRB1*13:132    |                              |                             |
| DRB1*11:01:12+DRB1*13:11:01  | DRB1*11:04:04+DRB1*13:14:01  |                              |                             |
| DRB1*11:01:12+DRB1*13:11:02  | DRB1*11:04:04+DRB1*13:14:02  |                              |                             |
| DRB1*11:01:12+DRB1*13:15     | DRB1*11:04:04+DRB1*13:104    |                              |                             |
| DRB1*11:01:12+DRB1*13:20     | DRB1*11:04:04+DRB1*13:29     |                              |                             |
| DRB1*11:01:12+DRB1*13:22     | DRB1*11:04:04+DRB1*13:23:02  |                              |                             |
| DRB1*11:01:12+DRB1*13:27     | DRB1*11:04:04+DRB1*13:41     |                              |                             |
| DRB1*11:01:12+DRB1*13:32     | DRB1*11:04:04+DRB1*13:65     |                              |                             |
| DRB1*11:01:12+DRB1*13:40     | DRB1*11:04:04+DRB1*13:36     |                              |                             |
| DRB1*11:01:12+DRB1*13:42     | DRB1*11:04:04+DRB1*13:05:01  | DRB1*11:46:01+DRB1*13:50:02  | DRB1*11:58:01+DRB1*13:132   |
| DRB1*11:01:12+DRB1*13:52     | DRB1*11:04:04+DRB1*13:97:01  |                              |                             |
| DRB1*11:01:12+DRB1*13:61:01  | DRB1*11:04:04+DRB1*13:96:02  |                              |                             |
| DRB1*11:01:12+DRB1*13:61:02  | DRB1*11:04:04+DRB1*13:96:01  |                              |                             |
| DRB1*11:01:12+DRB1*13:79     | DRB1*11:04:04+DRB1*13:39     |                              |                             |
| DRB1*11:01:12+DRB1*13:83     | DRB1*11:04:04+DRB1*13:107    | DRB1*11:12:02+DRB1*13:52     |                             |
| DRB1*11:01:12+DRB1*13:87     | DRB1*11:10:02+DRB1*13:69     | DRB1*11:12:02+DRB1*13:01:01G | DRB1*11:28:02+DRB1*13:83    |
|                              | DRB1*11:58:01+DRB1*13:107    |                              |                             |

|                              |                              |                             |                           |
|------------------------------|------------------------------|-----------------------------|---------------------------|
| DRB1*11:01:12+DRB1*13:89     | DRB1*11:04:04+DRB1*13:03:01  |                             |                           |
| DRB1*11:01:12+DRB1*13:93     | DRB1*11:04:04+DRB1*13:139    |                             |                           |
| DRB1*11:01:12+DRB1*13:107    | DRB1*11:12:02+DRB1*13:97:01  |                             |                           |
| DRB1*11:01:12+DRB1*13:108    | DRB1*11:04:04+DRB1*13:49     |                             |                           |
| DRB1*11:01:12+DRB1*13:111    | DRB1*11:04:04+DRB1*13:63     |                             |                           |
| DRB1*11:01:12+DRB1*13:112    | DRB1*11:04:04+DRB1*13:128    |                             |                           |
| DRB1*11:01:12+DRB1*13:115    | DRB1*11:28:02+DRB1*13:03:01  |                             |                           |
| DRB1*11:01:12+DRB1*13:131    | DRB1*11:115+DRB1*13:97:01    |                             |                           |
| DRB1*11:01:12+DRB1*14:01:01G | DRB1*11:04:04+DRB1*14:07:01  |                             |                           |
| DRB1*11:01:12+DRB1*14:04     | DRB1*11:04:04+DRB1*14:68     |                             |                           |
| DRB1*11:01:12+DRB1*14:05:01  | DRB1*11:04:04+DRB1*14:44:01  |                             |                           |
| DRB1*11:01:12+DRB1*14:05:03  | DRB1*11:04:04+DRB1*14:44:02  |                             |                           |
| DRB1*11:01:12+DRB1*14:06:01  | DRB1*11:04:04+DRB1*14:02     |                             |                           |
| DRB1*11:01:12+DRB1*14:10     | DRB1*11:22+DRB1*14:01:01G    |                             |                           |
| DRB1*11:01:12+DRB1*14:12:01  | DRB1*11:04:04+DRB1*14:03:01  |                             |                           |
| DRB1*11:01:12+DRB1*14:17     | DRB1*11:04:04+DRB1*14:30     |                             |                           |
| DRB1*11:01:12+DRB1*14:23:01  | DRB1*11:04:04+DRB1*14:14     |                             |                           |
| DRB1*11:01:12+DRB1*14:78     | DRB1*11:04:04+DRB1*14:63     |                             |                           |
| DRB1*11:01:12+DRB1*14:80     | DRB1*11:04:04+DRB1*14:09     |                             |                           |
| DRB1*11:01:12+DRB1*14:106    | DRB1*11:04:04+DRB1*14:51     |                             |                           |
| DRB1*11:01:12+DRB1*15:01:01G | DRB1*11:04:04+DRB1*15:02:01  |                             |                           |
| DRB1*11:01:12+DRB1*15:01:03  | DRB1*11:04:04+DRB1*15:02:06  |                             |                           |
| DRB1*11:01:12+DRB1*15:01:04  | DRB1*11:04:04+DRB1*15:02:02  |                             |                           |
| DRB1*11:01:12+DRB1*15:01:09  | DRB1*11:04:04+DRB1*15:02:04  |                             |                           |
| DRB1*11:01:12+DRB1*15:01:10  | DRB1*11:04:04+DRB1*15:02:08  |                             |                           |
| DRB1*11:01:12+DRB1*15:04     | DRB1*11:04:04+DRB1*15:15     |                             |                           |
| DRB1*11:01:12+DRB1*15:05     | DRB1*11:04:04+DRB1*15:31     |                             |                           |
| DRB1*11:01:12+DRB1*15:07:01  | DRB1*11:04:04+DRB1*15:11     |                             |                           |
| DRB1*11:01:12+DRB1*15:32     | DRB1*11:28:02+DRB1*15:01:01G | DRB1*11:58:01+DRB1*15:02:01 |                           |
| DRB1*11:01:12+DRB1*15:62     | DRB1*11:46:01+DRB1*15:02:01  |                             |                           |
| DRB1*11:01:12+DRB1*15:65     | DRB1*11:04:04+DRB1*15:47     |                             |                           |
| DRB1*11:01:12+DRB1*15:66     | DRB1*11:04:04+DRB1*15:27     |                             |                           |
| DRB1*11:01:12+DRB1*16:15     | DRB1*11:04:04+DRB1*16:01:01  |                             |                           |
| DRB1*11:01:13+DRB1*12:34     | DRB1*11:39+DRB1*12:01:04     |                             |                           |
| DRB1*11:01:14+DRB1*15:07:01  | DRB1*11:37:01+DRB1*15:01:15  |                             |                           |
| DRB1*11:01:14+DRB1*15:32     | DRB1*11:28:01+DRB1*15:01:15  |                             |                           |
| DRB1*11:01:14+DRB1*15:37     | DRB1*11:27:02+DRB1*15:01:15  |                             |                           |
| DRB1*11:01:14+DRB1*15:42     | DRB1*11:106+DRB1*15:01:15    |                             |                           |
| DRB1*11:01:14+DRB1*15:51     | DRB1*11:90+DRB1*15:01:15     |                             |                           |
| DRB1*11:01:14+DRB1*15:62     | DRB1*11:62+DRB1*15:01:15     |                             |                           |
| DRB1*11:01:14+DRB1*15:64     | DRB1*11:126+DRB1*15:01:15    |                             |                           |
| DRB1*11:01:14+DRB1*15:65     | DRB1*11:39+DRB1*15:01:15     |                             |                           |
| DRB1*11:01:14+DRB1*15:71     | DRB1*11:120+DRB1*15:01:15    |                             |                           |
| DRB1*11:02:01+DRB1*11:04:01  | DRB1*11:03+DRB1*11:18        |                             |                           |
| DRB1*11:02:01+DRB1*11:06:01G | DRB1*11:04:01+DRB1*11:21     |                             |                           |
| DRB1*11:02:01+DRB1*11:06:02  | DRB1*11:04:03+DRB1*11:21     |                             |                           |
| DRB1*11:02:01+DRB1*11:06:03  | DRB1*11:04:05+DRB1*11:21     |                             |                           |
| DRB1*11:02:01+DRB1*11:08:01  | DRB1*11:14:01+DRB1*11:42     | DRB1*11:18+DRB1*11:68       | DRB1*11:19:01+DRB1*11:36  |
| DRB1*11:02:01+DRB1*11:08:02  | DRB1*11:14:02+DRB1*11:42     | DRB1*11:19:03+DRB1*11:36    |                           |
| DRB1*11:02:01+DRB1*11:10:02  | DRB1*11:12:01+DRB1*11:118    |                             |                           |
| DRB1*11:02:01+DRB1*11:11:01G | DRB1*11:03+DRB1*11:14:01     |                             |                           |
| DRB1*11:02:01+DRB1*11:19:01  | DRB1*11:14:01+DRB1*11:18     |                             |                           |
| DRB1*11:02:01+DRB1*11:19:03  | DRB1*11:14:02+DRB1*11:18     | DRB1*11:73+DRB1*11:98       |                           |
| DRB1*11:02:01+DRB1*11:20     | DRB1*11:14:01+DRB1*11:16     |                             |                           |
| DRB1*11:02:01+DRB1*11:23     | DRB1*11:14:02+DRB1*11:25     | DRB1*11:19:03+DRB1*11:55    |                           |
| DRB1*11:02:01+DRB1*11:25     | DRB1*11:03+DRB1*11:119       | DRB1*11:18+DRB1*11:55       |                           |
| DRB1*11:02:01+DRB1*11:26     | DRB1*11:14:01+DRB1*11:34     | DRB1*11:79+DRB1*11:98       |                           |
| DRB1*11:02:01+DRB1*11:27:02  | DRB1*11:14:01+DRB1*11:84:02  |                             |                           |
| DRB1*11:02:01+DRB1*11:27:03  | DRB1*11:14:02+DRB1*11:84:02  |                             |                           |
| DRB1*11:02:01+DRB1*11:28:01  | DRB1*11:14:01+DRB1*11:58:02  |                             |                           |
| DRB1*11:02:01+DRB1*11:28:02  | DRB1*11:14:01+DRB1*11:58:01  |                             |                           |
| DRB1*11:02:01+DRB1*11:29     | DRB1*11:19:01+DRB1*11:63     |                             |                           |
| DRB1*11:02:01+DRB1*11:35     | DRB1*11:04:01+DRB1*11:65:01  |                             |                           |
| DRB1*11:02:01+DRB1*11:39     | DRB1*11:14:01+DRB1*11:43     |                             |                           |
| DRB1*11:02:01+DRB1*11:40     | DRB1*11:03+DRB1*11:16        |                             |                           |
| DRB1*11:02:01+DRB1*11:41     | DRB1*11:03+DRB1*11:48        |                             |                           |
| DRB1*11:02:01+DRB1*11:42     | DRB1*11:18+DRB1*11:36        |                             |                           |
| DRB1*11:02:01+DRB1*11:44     | DRB1*11:04:01+DRB1*11:127    | DRB1*11:18+DRB1*11:85       |                           |
| DRB1*11:02:01+DRB1*11:45     | DRB1*11:14:01+DRB1*11:119    |                             |                           |
| DRB1*11:02:01+DRB1*11:46:01  | DRB1*11:04:01+DRB1*11:118    |                             |                           |
| DRB1*11:02:01+DRB1*11:56     | DRB1*11:04:01+DRB1*11:48     | DRB1*11:18+DRB1*11:41       |                           |
| DRB1*11:02:01+DRB1*11:57     | DRB1*11:21+DRB1*11:42        |                             |                           |
| DRB1*11:02:01+DRB1*11:62     | DRB1*11:14:01+DRB1*11:46:02  |                             |                           |
| DRB1*11:02:01+DRB1*11:64     | DRB1*11:36+DRB1*11:45        | DRB1*11:68+DRB1*11:119      |                           |
| DRB1*11:02:01+DRB1*11:68     | DRB1*11:14:01+DRB1*11:36     |                             |                           |
| DRB1*11:02:01+DRB1*11:69     | DRB1*11:03+DRB1*11:82        |                             |                           |
| DRB1*11:02:01+DRB1*11:72     | DRB1*11:14:02+DRB1*11:92     |                             |                           |
| DRB1*11:02:01+DRB1*11:84:01  | DRB1*11:04:01+DRB1*11:124    |                             |                           |
| DRB1*11:02:01+DRB1*11:85     | DRB1*11:03+DRB1*11:127       |                             |                           |
| DRB1*11:02:01+DRB1*11:87     | DRB1*11:19:01+DRB1*11:59     |                             |                           |
| DRB1*11:02:01+DRB1*11:93     | DRB1*11:03+DRB1*11:73        |                             |                           |
| DRB1*11:02:01+DRB1*11:96     | DRB1*11:03+DRB1*11:31        |                             |                           |
| DRB1*11:02:01+DRB1*11:103    | DRB1*11:07+DRB1*11:14:01     |                             |                           |
| DRB1*11:02:01+DRB1*11:107    | DRB1*11:48+DRB1*11:103       |                             |                           |
| DRB1*11:02:01+DRB1*11:109    | DRB1*11:14:01+DRB1*11:60     |                             |                           |
| DRB1*11:02:01+DRB1*11:113    | DRB1*11:04:01+DRB1*11:16     | DRB1*11:18+DRB1*11:40       | DRB1*11:58:02+DRB1*11:118 |
| DRB1*11:02:01+DRB1*11:120    | DRB1*11:14:01+DRB1*11:116    |                             |                           |
| DRB1*11:02:01+DRB1*11:122    | DRB1*11:03+DRB1*11:20        | DRB1*11:11:01G+DRB1*11:16   | DRB1*11:14:01+DRB1*11:40  |
| DRB1*11:02:01+DRB1*12:01:01G | DRB1*11:21+DRB1*12:03:03     |                             |                           |
| DRB1*11:02:01+DRB1*12:01:03  | DRB1*11:21+DRB1*12:03:02     |                             |                           |
| DRB1*11:02:01+DRB1*12:02:01  | DRB1*11:03+DRB1*12:01:01G    | DRB1*11:21+DRB1*12:19       | DRB1*12:04+DRB1*13:54     |
| DRB1*11:02:01+DRB1*12:02:02  | DRB1*11:03+DRB1*12:01:03     |                             |                           |
| DRB1*11:02:01+DRB1*12:09     | DRB1*12:04+DRB1*13:22        |                             |                           |
| DRB1*11:02:01+DRB1*12:12     | DRB1*11:36+DRB1*12:01:01G    |                             |                           |
| DRB1*11:02:01+DRB1*12:15     | DRB1*11:03+DRB1*12:05        | DRB1*11:76+DRB1*12:14       |                           |
| DRB1*11:02:01+DRB1*12:19     | DRB1*11:03+DRB1*12:03:03     |                             |                           |
| DRB1*11:02:01+DRB1*12:21     | DRB1*11:41+DRB1*12:01:01G    | DRB1*11:48+DRB1*12:02:01    |                           |
| DRB1*11:02:01+DRB1*13:01:01G | DRB1*11:16+DRB1*13:22        |                             |                           |
| DRB1*11:02:01+DRB1*13:02:01  | DRB1*11:14:01+DRB1*13:01:01G | DRB1*11:16+DRB1*13:23:02    | DRB1*11:20+DRB1*13:22     |
| DRB1*11:02:01+DRB1*13:02:03  | DRB1*11:14:01+DRB1*13:01:05  |                             |                           |
| DRB1*11:02:01+DRB1*13:03:01  | DRB1*11:14:01+DRB1*13:89     | DRB1*11:48+DRB1*13:66:02    | DRB1*11:73+DRB1*13:48     |
| DRB1*11:02:01+DRB1*13:03:02  | DRB1*11:48+DRB1*13:66:01     |                             |                           |
| DRB1*11:02:01+DRB1*13:03:03  | DRB1*11:02:02+DRB1*13:03:01  |                             |                           |
| DRB1*11:02:01+DRB1*13:06     | DRB1*11:18+DRB1*13:01:01G    | DRB1*11:98+DRB1*13:10       |                           |
| DRB1*11:02:01+DRB1*13:07:02  | DRB1*11:48+DRB1*13:14:02     |                             |                           |

|                              |                              |                               |                           |
|------------------------------|------------------------------|-------------------------------|---------------------------|
| DRB1*11:02:01+DRB1*13:08     | DRB1*11:48+DRB1*13:83        |                               |                           |
| DRB1*11:02:01+DRB1*13:11:01  | DRB1*11:04:01+DRB1*13:22     | DRB1*11:18+DRB1*13:24         |                           |
| DRB1*11:02:01+DRB1*13:12:01  | DRB1*11:19:01+DRB1*13:48     | DRB1*11:48+DRB1*13:30         | DRB1*11:98+DRB1*13:03:02  |
| DRB1*11:02:01+DRB1*13:12:02  | DRB1*11:18+DRB1*13:38        | DRB1*11:19:03+DRB1*13:48      | DRB1*11:98+DRB1*13:03:01  |
| DRB1*11:02:01+DRB1*13:13     | DRB1*11:45+DRB1*13:48        |                               |                           |
| DRB1*11:02:01+DRB1*13:14:02  | DRB1*11:14:01+DRB1*13:11:02  |                               |                           |
| DRB1*11:02:01+DRB1*13:16     | DRB1*11:86+DRB1*13:01:01G    |                               |                           |
| DRB1*11:02:01+DRB1*13:18     | DRB1*11:25+DRB1*13:01:01G    | DRB1*11:55+DRB1*13:06         | DRB1*11:119+DRB1*13:111   |
| DRB1*11:02:01+DRB1*13:19     | DRB1*11:48+DRB1*13:57        |                               |                           |
| DRB1*11:02:01+DRB1*13:20     | DRB1*11:36+DRB1*13:01:01G    |                               |                           |
| DRB1*11:02:01+DRB1*13:23:01  | DRB1*11:14:02+DRB1*13:22     |                               |                           |
| DRB1*11:02:01+DRB1*13:23:02  | DRB1*11:14:01+DRB1*13:22     |                               |                           |
| DRB1*11:02:01+DRB1*13:24     | DRB1*11:03+DRB1*13:22        |                               |                           |
| DRB1*11:02:01+DRB1*13:25     | DRB1*11:08:01+DRB1*13:22     | DRB1*11:36+DRB1*13:82         | DRB1*11:42+DRB1*13:23:02  |
| DRB1*11:02:01+DRB1*13:29     | DRB1*11:14:01+DRB1*13:20     | DRB1*11:36+DRB1*13:02:01      | DRB1*11:68+DRB1*13:01:01G |
| DRB1*11:02:01+DRB1*13:30     | DRB1*11:19:01+DRB1*13:04     | DRB1*11:98+DRB1*13:66:01      |                           |
| DRB1*11:02:01+DRB1*13:32     | DRB1*11:16+DRB1*13:48        | DRB1*11:48+DRB1*13:93         |                           |
| DRB1*11:02:01+DRB1*13:33:01  | DRB1*11:14:02+DRB1*13:94     |                               |                           |
| DRB1*11:02:01+DRB1*13:33:02  | DRB1*11:124+DRB1*13:03:02    |                               |                           |
| DRB1*11:02:01+DRB1*13:33:03  | DRB1*11:124+DRB1*13:03:01    |                               |                           |
| DRB1*11:02:01+DRB1*13:36     | DRB1*11:14:01+DRB1*13:40     | DRB1*11:20+DRB1*13:70         | DRB1*11:48+DRB1*13:02:01  |
| DRB1*11:02:01+DRB1*13:37     | DRB1*11:73+DRB1*13:70        |                               |                           |
| DRB1*11:02:01+DRB1*13:38     | DRB1*11:14:02+DRB1*13:48     |                               |                           |
| DRB1*11:02:01+DRB1*13:39     | DRB1*11:14:01+DRB1*13:79     |                               |                           |
| DRB1*11:02:01+DRB1*13:40     | DRB1*11:16+DRB1*13:70        | DRB1*11:48+DRB1*13:01:01G     |                           |
| DRB1*11:02:01+DRB1*13:41     | DRB1*11:14:01+DRB1*13:27     |                               |                           |
| DRB1*11:02:01+DRB1*13:42     | DRB1*11:03+DRB1*13:06        | DRB1*11:04:01+DRB1*13:01:01G  | DRB1*11:16+DRB1*13:11:01  |
|                              | DRB1*11:18+DRB1*13:111       | DRB1*11:46:02+DRB1*13:69      | DRB1*11:58:02+DRB1*13:52  |
|                              | DRB1*11:113+DRB1*13:22       |                               |                           |
| DRB1*11:02:01+DRB1*13:44     | DRB1*11:34+DRB1*13:22        |                               |                           |
| DRB1*11:02:01+DRB1*13:48     | DRB1*11:48+DRB1*13:04        |                               |                           |
| DRB1*11:02:01+DRB1*13:50:01  | DRB1*11:28:01+DRB1*13:22     | DRB1*11:58:02+DRB1*13:23:02   |                           |
| DRB1*11:02:01+DRB1*13:52     | DRB1*11:118+DRB1*13:22       |                               |                           |
| DRB1*11:02:01+DRB1*13:53     | DRB1*11:48+DRB1*13:15        |                               |                           |
| DRB1*11:02:01+DRB1*13:55     | DRB1*11:23+DRB1*13:48        | DRB1*11:25+DRB1*13:38         | DRB1*11:55+DRB1*13:12:02  |
| DRB1*11:02:01+DRB1*13:56     | DRB1*11:08:01+DRB1*13:01:01G | DRB1*11:16+DRB1*13:25         | DRB1*11:18+DRB1*13:29     |
|                              | DRB1*11:19:01+DRB1*13:20     | DRB1*11:42+DRB1*13:02:01      | DRB1*11:68+DRB1*13:06     |
| DRB1*11:02:01+DRB1*13:58     | DRB1*11:98+DRB1*13:81        |                               |                           |
| DRB1*11:02:01+DRB1*13:61:01  | DRB1*11:124+DRB1*13:01:01G   |                               |                           |
| DRB1*11:02:01+DRB1*13:62     | DRB1*11:15+DRB1*13:22        |                               |                           |
| DRB1*11:02:01+DRB1*13:63     | DRB1*11:03+DRB1*13:02:01     | DRB1*11:11:01G+DRB1*13:01:01G | DRB1*11:14:01+DRB1*13:111 |
|                              | DRB1*11:20+DRB1*13:24        | DRB1*11:40+DRB1*13:23:02      | DRB1*11:122+DRB1*13:22    |
| DRB1*11:02:01+DRB1*13:65     | DRB1*11:14:01+DRB1*13:32     | DRB1*11:20+DRB1*13:48         | DRB1*11:48+DRB1*13:139    |
| DRB1*11:02:01+DRB1*13:66:02  | DRB1*11:73+DRB1*13:04        |                               |                           |
| DRB1*11:02:01+DRB1*13:70     | DRB1*11:48+DRB1*13:22        |                               |                           |
| DRB1*11:02:01+DRB1*13:71     | DRB1*11:36+DRB1*13:27        |                               |                           |
| DRB1*11:02:01+DRB1*13:75     | DRB1*11:03+DRB1*13:04        |                               |                           |
| DRB1*11:02:01+DRB1*13:78     | DRB1*11:36+DRB1*13:79        |                               |                           |
| DRB1*11:02:01+DRB1*13:82     | DRB1*11:18+DRB1*13:23:02     | DRB1*11:19:01+DRB1*13:22      |                           |
| DRB1*11:02:01+DRB1*13:88     | DRB1*11:36+DRB1*13:03:01     | DRB1*11:68+DRB1*13:89         |                           |
| DRB1*11:02:01+DRB1*13:93     | DRB1*11:16+DRB1*13:04        |                               |                           |
| DRB1*11:02:01+DRB1*13:96:01  | DRB1*11:14:01+DRB1*13:61:02  |                               |                           |
| DRB1*11:02:01+DRB1*13:96:02  | DRB1*11:14:01+DRB1*13:61:01  | DRB1*11:124+DRB1*13:02:01     |                           |
| DRB1*11:02:01+DRB1*13:97:01  | DRB1*11:14:01+DRB1*13:52     | DRB1*11:118+DRB1*13:23:02     |                           |
| DRB1*11:02:01+DRB1*13:100    | DRB1*11:19:01+DRB1*13:54     |                               |                           |
| DRB1*11:02:01+DRB1*13:104    | DRB1*11:14:01+DRB1*13:15     |                               |                           |
| DRB1*11:02:01+DRB1*13:106    | DRB1*11:127+DRB1*13:52       |                               |                           |
| DRB1*11:02:01+DRB1*13:107    | DRB1*11:14:01+DRB1*13:83     |                               |                           |
| DRB1*11:02:01+DRB1*13:108    | DRB1*11:04:01+DRB1*13:48     | DRB1*11:56+DRB1*13:04         |                           |
| DRB1*11:02:01+DRB1*13:111    | DRB1*11:03+DRB1*13:01:01G    | DRB1*11:16+DRB1*13:24         | DRB1*11:40+DRB1*13:22     |
| DRB1*11:02:01+DRB1*13:116    | DRB1*11:48+DRB1*13:17        |                               |                           |
| DRB1*11:02:01+DRB1*13:119    | DRB1*11:45+DRB1*13:20        | DRB1*11:64+DRB1*13:01:01G     | DRB1*11:119+DRB1*13:29    |
| DRB1*11:02:01+DRB1*13:120    | DRB1*11:16+DRB1*13:03:01     | DRB1*11:20+DRB1*13:89         | DRB1*11:73+DRB1*13:32     |
|                              | DRB1*11:118+DRB1*13:115      |                               |                           |
| DRB1*11:02:01+DRB1*13:128    | DRB1*11:14:01+DRB1*13:112    |                               |                           |
| DRB1*11:02:01+DRB1*13:134    | DRB1*11:08:01+DRB1*13:48     | DRB1*11:36+DRB1*13:12:01      |                           |
| DRB1*11:02:01+DRB1*13:136    | DRB1*11:04:01+DRB1*13:34     |                               |                           |
| DRB1*11:02:01+DRB1*13:139    | DRB1*11:14:01+DRB1*13:93     | DRB1*11:20+DRB1*13:04         |                           |
| DRB1*11:02:01+DRB1*14:01:01G | DRB1*11:36+DRB1*14:122       | DRB1*11:48+DRB1*14:35         |                           |
| DRB1*11:02:01+DRB1*14:02     | DRB1*11:14:01+DRB1*14:06:01  | DRB1*11:26+DRB1*13:53         | DRB1*11:98+DRB1*14:19     |
| DRB1*11:02:01+DRB1*14:03:01  | DRB1*11:14:01+DRB1*14:12:01  | DRB1*11:16+DRB1*14:102        | DRB1*11:36+DRB1*14:67     |
|                              | DRB1*11:64+DRB1*13:53        |                               |                           |
| DRB1*11:02:01+DRB1*14:04     | DRB1*11:36+DRB1*14:120       |                               |                           |
| DRB1*11:02:01+DRB1*14:05:01  | DRB1*11:36+DRB1*14:45        |                               |                           |
| DRB1*11:02:01+DRB1*14:06:01  | DRB1*11:34+DRB1*13:53        |                               |                           |
| DRB1*11:02:01+DRB1*14:07:01  | DRB1*11:14:01+DRB1*14:01:01G | DRB1*11:68+DRB1*14:122        |                           |
| DRB1*11:02:01+DRB1*14:07:02  | DRB1*11:14:02+DRB1*14:01:01G | DRB1*11:17+DRB1*13:45         |                           |
| DRB1*11:02:01+DRB1*14:09     | DRB1*11:14:01+DRB1*14:80     | DRB1*11:26+DRB1*13:40         | DRB1*11:34+DRB1*13:36     |
|                              | DRB1*11:48+DRB1*14:30        |                               |                           |
| DRB1*11:02:01+DRB1*14:14     | DRB1*11:14:01+DRB1*14:23:01  | DRB1*11:17+DRB1*13:23:02      |                           |
| DRB1*11:02:01+DRB1*14:15     | DRB1*11:67+DRB1*13:08        |                               |                           |
| DRB1*11:02:01+DRB1*14:17     | DRB1*11:16+DRB1*13:44        | DRB1*11:34+DRB1*13:01:01G     | DRB1*11:98+DRB1*14:21     |
| DRB1*11:02:01+DRB1*14:19     | DRB1*11:79+DRB1*13:53        |                               |                           |
| DRB1*11:02:01+DRB1*14:20     | DRB1*11:34+DRB1*13:19        |                               |                           |
| DRB1*11:02:01+DRB1*14:23:01  | DRB1*11:17+DRB1*13:22        |                               |                           |
| DRB1*11:02:01+DRB1*14:24     | DRB1*11:82+DRB1*13:53        |                               |                           |
| DRB1*11:02:01+DRB1*14:25     | DRB1*11:48+DRB1*14:53        |                               |                           |
| DRB1*11:02:01+DRB1*14:27     | DRB1*11:03+DRB1*14:67        |                               |                           |
| DRB1*11:02:01+DRB1*14:28     | DRB1*11:21+DRB1*14:04        |                               |                           |
| DRB1*11:02:01+DRB1*14:29     | DRB1*11:21+DRB1*14:06:01     |                               |                           |
| DRB1*11:02:01+DRB1*14:30     | DRB1*11:14:01+DRB1*14:17     | DRB1*11:20+DRB1*13:44         | DRB1*11:26+DRB1*13:01:01G |
|                              | DRB1*11:34+DRB1*13:02:01     |                               |                           |
| DRB1*11:02:01+DRB1*14:38     | DRB1*11:124+DRB1*14:01:02    |                               |                           |
| DRB1*11:02:01+DRB1*14:40     | DRB1*11:64+DRB1*13:19        |                               |                           |
| DRB1*11:02:01+DRB1*14:44:01  | DRB1*11:14:01+DRB1*14:05:01  | DRB1*11:68+DRB1*14:45         |                           |
| DRB1*11:02:01+DRB1*14:44:02  | DRB1*11:14:01+DRB1*14:05:03  |                               |                           |
| DRB1*11:02:01+DRB1*14:44:03  | DRB1*11:14:02+DRB1*14:05:01  |                               |                           |
| DRB1*11:02:01+DRB1*14:47     | DRB1*11:124+DRB1*14:02       |                               |                           |
| DRB1*11:02:01+DRB1*14:51     | DRB1*11:14:01+DRB1*14:106    |                               |                           |
| DRB1*11:02:01+DRB1*14:63     | DRB1*11:14:01+DRB1*14:78     |                               |                           |
| DRB1*11:02:01+DRB1*14:65     | DRB1*11:13:01G+DRB1*13:04    |                               |                           |
| DRB1*11:02:01+DRB1*14:67     | DRB1*11:45+DRB1*13:53        |                               |                           |
| DRB1*11:02:01+DRB1*14:68     | DRB1*11:14:01+DRB1*14:04     | DRB1*11:68+DRB1*14:120        |                           |
| DRB1*11:02:01+DRB1*14:74     | DRB1*11:42+DRB1*14:16        |                               |                           |
| DRB1*11:02:01+DRB1*14:80     | DRB1*11:34+DRB1*13:40        | DRB1*11:48+DRB1*14:17         |                           |

|                             |                              |                               |                           |
|-----------------------------|------------------------------|-------------------------------|---------------------------|
| DRB1*11:02:01+DRB1*14:85    | DRB1*11:36+DRB1*14:63        | DRB1*11:68+DRB1*14:78         |                           |
| DRB1*11:02:01+DRB1*14:98    | DRB1*11:124+DRB1*14:03:01    |                               |                           |
| DRB1*11:02:01+DRB1*14:99    | DRB1*11:21+DRB1*14:01:01G    |                               |                           |
| DRB1*11:02:01+DRB1*14:105   | DRB1*11:04:03+DRB1*14:16     |                               |                           |
| DRB1*11:02:01+DRB1*14:116   | DRB1*11:64+DRB1*13:70        |                               |                           |
| DRB1*11:02:01+DRB1*14:119   | DRB1*11:26+DRB1*14:16        |                               |                           |
| DRB1*11:02:01+DRB1*14:123   | DRB1*11:13:01G+DRB1*13:70    |                               |                           |
| DRB1*11:02:01+DRB1*14:126   | DRB1*11:17+DRB1*13:17        | DRB1*13:22+DRB1*14:11         |                           |
| DRB1*11:02:01+DRB1*14:127   | DRB1*11:124+DRB1*14:05:03    |                               |                           |
| DRB1*11:02:01+DRB1*15:02:01 | DRB1*11:14:01+DRB1*15:01:01G | DRB1*11:82+DRB1*15:10         |                           |
| DRB1*11:02:01+DRB1*15:02:02 | DRB1*11:14:01+DRB1*15:01:04  |                               |                           |
| DRB1*11:02:01+DRB1*15:02:04 | DRB1*11:14:01+DRB1*15:01:09  |                               |                           |
| DRB1*11:02:01+DRB1*15:02:05 | DRB1*11:14:02+DRB1*15:01:04  |                               |                           |
| DRB1*11:02:01+DRB1*15:02:06 | DRB1*11:14:01+DRB1*15:01:03  |                               |                           |
| DRB1*11:02:01+DRB1*15:02:08 | DRB1*11:14:01+DRB1*15:01:10  |                               |                           |
| DRB1*11:02:01+DRB1*15:02:09 | DRB1*11:14:02+DRB1*15:01:01G |                               |                           |
| DRB1*11:02:01+DRB1*15:04    | DRB1*11:03+DRB1*15:01:01G    |                               |                           |
| DRB1*11:02:01+DRB1*15:05    | DRB1*11:36+DRB1*15:01:01G    |                               |                           |
| DRB1*11:02:01+DRB1*15:07:01 | DRB1*11:48+DRB1*15:01:01G    |                               |                           |
| DRB1*11:02:01+DRB1*15:07:02 | DRB1*11:48+DRB1*15:01:04     |                               |                           |
| DRB1*11:02:01+DRB1*15:11    | DRB1*11:14:01+DRB1*15:07:01  | DRB1*11:48+DRB1*15:02:01      |                           |
| DRB1*11:02:01+DRB1*15:15    | DRB1*11:03+DRB1*15:02:01     | DRB1*11:11:01G+DRB1*15:01:01G | DRB1*11:14:01+DRB1*15:04  |
|                             | DRB1*11:69+DRB1*15:10        |                               |                           |
| DRB1*11:02:01+DRB1*15:21    | DRB1*11:119+DRB1*15:10       |                               |                           |
| DRB1*11:02:01+DRB1*15:23    | DRB1*11:36+DRB1*15:03:01G    |                               |                           |
| DRB1*11:02:01+DRB1*15:25    | DRB1*11:07+DRB1*15:10        |                               |                           |
| DRB1*11:02:01+DRB1*15:27    | DRB1*11:14:01+DRB1*15:66     | DRB1*11:26+DRB1*15:10         |                           |
| DRB1*11:02:01+DRB1*15:31    | DRB1*11:14:01+DRB1*15:05     | DRB1*11:36+DRB1*15:02:01      | DRB1*11:68+DRB1*15:01:01G |
| DRB1*11:02:01+DRB1*15:34    | DRB1*11:48+DRB1*15:27        |                               |                           |
| DRB1*11:02:01+DRB1*15:35    | DRB1*11:21+DRB1*15:01:01G    |                               |                           |
| DRB1*11:02:01+DRB1*15:47    | DRB1*11:14:01+DRB1*15:65     |                               |                           |
| DRB1*11:02:01+DRB1*15:48    | DRB1*11:48+DRB1*15:09        |                               |                           |
| DRB1*11:02:01+DRB1*15:57    | DRB1*11:124+DRB1*15:03:01G   |                               |                           |
| DRB1*11:02:01+DRB1*15:63    | DRB1*11:36+DRB1*15:38        |                               |                           |
| DRB1*11:02:01+DRB1*15:66    | DRB1*11:34+DRB1*15:10        |                               |                           |
| DRB1*11:02:01+DRB1*15:73    | DRB1*11:36+DRB1*15:06:01     |                               |                           |
| DRB1*11:02:01+DRB1*16:01:01 | DRB1*11:03+DRB1*16:05:01     | DRB1*11:14:01+DRB1*16:15      | DRB1*11:48+DRB1*16:09     |
| DRB1*11:02:01+DRB1*16:01:02 | DRB1*11:37:01+DRB1*15:10     |                               |                           |
| DRB1*11:02:01+DRB1*16:02:01 | DRB1*11:36+DRB1*16:05:01     | DRB1*11:48+DRB1*16:10         |                           |
| DRB1*11:02:02+DRB1*13:12:02 | DRB1*11:98+DRB1*13:03:03     |                               |                           |
| DRB1*11:02:02+DRB1*13:33:03 | DRB1*11:124+DRB1*13:03:03    |                               |                           |
| DRB1*11:02:02+DRB1*13:88    | DRB1*11:36+DRB1*13:03:03     |                               |                           |
| DRB1*11:02:02+DRB1*13:120   | DRB1*11:16+DRB1*13:03:03     |                               |                           |
| DRB1*11:03+DRB1*11:25       | DRB1*11:04:01+DRB1*11:55     |                               |                           |
| DRB1*11:03+DRB1*11:26       | DRB1*11:11:01G+DRB1*11:34    |                               |                           |
| DRB1*11:03+DRB1*11:27:01    | DRB1*11:11:01G+DRB1*11:84:01 |                               |                           |
| DRB1*11:03+DRB1*11:27:02    | DRB1*11:11:01G+DRB1*11:84:02 |                               |                           |
| DRB1*11:03+DRB1*11:28:01    | DRB1*11:11:01G+DRB1*11:58:02 |                               |                           |
| DRB1*11:03+DRB1*11:28:02    | DRB1*11:11:01G+DRB1*11:58:01 |                               |                           |
| DRB1*11:03+DRB1*11:33       | DRB1*11:11:01G+DRB1*11:35    |                               |                           |
| DRB1*11:03+DRB1*11:39       | DRB1*11:11:01G+DRB1*11:43    |                               |                           |
| DRB1*11:03+DRB1*11:42       | DRB1*11:04:01+DRB1*11:36     |                               |                           |
| DRB1*11:03+DRB1*11:44       | DRB1*11:04:01+DRB1*11:85     |                               |                           |
| DRB1*11:03+DRB1*11:45       | DRB1*11:11:01G+DRB1*11:119   | DRB1*11:14:01+DRB1*11:25      | DRB1*11:19:01+DRB1*11:55  |
| DRB1*11:03+DRB1*11:47       | DRB1*11:06:01G+DRB1*11:63    |                               |                           |
| DRB1*11:03+DRB1*11:56       | DRB1*11:04:01+DRB1*11:41     |                               |                           |
| DRB1*11:03+DRB1*11:57       | DRB1*11:06:01G+DRB1*11:36    |                               |                           |
| DRB1*11:03+DRB1*11:62       | DRB1*11:11:01G+DRB1*11:46:02 |                               |                           |
| DRB1*11:03+DRB1*11:64       | DRB1*11:08:01+DRB1*11:55     | DRB1*11:25+DRB1*11:68         |                           |
| DRB1*11:03+DRB1*11:68       | DRB1*11:11:01G+DRB1*11:36    |                               |                           |
| DRB1*11:03+DRB1*11:83       | DRB1*11:56+DRB1*11:59        |                               |                           |
| DRB1*11:03+DRB1*11:103      | DRB1*11:07+DRB1*11:11:01G    | DRB1*11:36+DRB1*11:125        |                           |
| DRB1*11:03+DRB1*11:107      | DRB1*11:41+DRB1*11:103       |                               |                           |
| DRB1*11:03+DRB1*11:109      | DRB1*11:11:01G+DRB1*11:60    |                               |                           |
| DRB1*11:03+DRB1*11:113      | DRB1*11:04:01+DRB1*11:40     |                               |                           |
| DRB1*11:03+DRB1*11:114      | DRB1*11:12:01+DRB1*11:76     |                               |                           |
| DRB1*11:03+DRB1*11:120      | DRB1*11:11:01G+DRB1*11:116   |                               |                           |
| DRB1*11:03+DRB1*11:122      | DRB1*11:11:01G+DRB1*11:40    |                               |                           |
| DRB1*11:03+DRB1*12:09       | DRB1*12:04+DRB1*13:24        |                               |                           |
| DRB1*11:03+DRB1*12:12       | DRB1*11:36+DRB1*12:02:01     |                               |                           |
| DRB1*11:03+DRB1*12:21       | DRB1*11:41+DRB1*12:02:01     |                               |                           |
| DRB1*11:03+DRB1*13:02:03    | DRB1*11:11:01G+DRB1*13:01:05 |                               |                           |
| DRB1*11:03+DRB1*13:03:01    | DRB1*11:11:01G+DRB1*13:89    | DRB1*11:41+DRB1*13:66:02      | DRB1*11:93+DRB1*13:48     |
| DRB1*11:03+DRB1*13:03:02    | DRB1*11:41+DRB1*13:66:01     |                               |                           |
| DRB1*11:03+DRB1*13:07:01    | DRB1*11:37:01+DRB1*13:24     | DRB1*11:41+DRB1*13:14:01      |                           |
| DRB1*11:03+DRB1*13:07:02    | DRB1*11:41+DRB1*13:14:02     |                               |                           |
| DRB1*11:03+DRB1*13:08       | DRB1*11:41+DRB1*13:83        |                               |                           |
| DRB1*11:03+DRB1*13:11:01    | DRB1*11:04:01+DRB1*13:24     |                               |                           |
| DRB1*11:03+DRB1*13:13       | DRB1*11:55+DRB1*13:12:01     |                               |                           |
| DRB1*11:03+DRB1*13:14:02    | DRB1*11:11:01G+DRB1*13:11:02 |                               |                           |
| DRB1*11:03+DRB1*13:16       | DRB1*11:86+DRB1*13:111       |                               |                           |
| DRB1*11:03+DRB1*13:18       | DRB1*11:25+DRB1*13:111       | DRB1*11:55+DRB1*13:42         |                           |
| DRB1*11:03+DRB1*13:19       | DRB1*11:41+DRB1*13:57        |                               |                           |
| DRB1*11:03+DRB1*13:20       | DRB1*11:36+DRB1*13:111       |                               |                           |
| DRB1*11:03+DRB1*13:23:01    | DRB1*11:14:02+DRB1*13:24     |                               |                           |
| DRB1*11:03+DRB1*13:23:02    | DRB1*11:11:01G+DRB1*13:22    | DRB1*11:14:01+DRB1*13:24      |                           |
| DRB1*11:03+DRB1*13:25       | DRB1*11:08:01+DRB1*13:24     | DRB1*11:36+DRB1*13:14:01      | DRB1*11:68+DRB1*13:11:01  |
| DRB1*11:03+DRB1*13:27       | DRB1*11:59+DRB1*13:22        |                               |                           |
| DRB1*11:03+DRB1*13:29       | DRB1*11:11:01G+DRB1*13:20    | DRB1*11:36+DRB1*13:63         | DRB1*11:68+DRB1*13:111    |
| DRB1*11:03+DRB1*13:32       | DRB1*11:40+DRB1*13:48        | DRB1*11:41+DRB1*13:93         |                           |
| DRB1*11:03+DRB1*13:34       | DRB1*11:76+DRB1*13:02:01     |                               |                           |
| DRB1*11:03+DRB1*13:36       | DRB1*11:11:01G+DRB1*13:40    | DRB1*11:41+DRB1*13:02:01      | DRB1*11:48+DRB1*13:63     |
|                             | DRB1*11:122+DRB1*13:70       |                               |                           |
| DRB1*11:03+DRB1*13:37       | DRB1*11:93+DRB1*13:70        |                               |                           |
| DRB1*11:03+DRB1*13:39       | DRB1*11:11:01G+DRB1*13:79    |                               |                           |
| DRB1*11:03+DRB1*13:40       | DRB1*11:40+DRB1*13:70        | DRB1*11:41+DRB1*13:01:01G     | DRB1*11:48+DRB1*13:111    |
| DRB1*11:03+DRB1*13:41       | DRB1*11:11:01G+DRB1*13:27    | DRB1*11:59+DRB1*13:23:02      |                           |
| DRB1*11:03+DRB1*13:42       | DRB1*11:04:01+DRB1*13:111    | DRB1*11:40+DRB1*13:11:01      | DRB1*11:113+DRB1*13:24    |
| DRB1*11:03+DRB1*13:44       | DRB1*11:34+DRB1*13:24        |                               |                           |
| DRB1*11:03+DRB1*13:48       | DRB1*11:41+DRB1*13:04        | DRB1*11:48+DRB1*13:75         |                           |
| DRB1*11:03+DRB1*13:49       | DRB1*11:11:01G+DRB1*13:108   | DRB1*11:37:01+DRB1*13:75      | DRB1*11:41+DRB1*13:21:01  |
| DRB1*11:03+DRB1*13:50:01    | DRB1*11:28:01+DRB1*13:24     |                               |                           |
| DRB1*11:03+DRB1*13:50:02    | DRB1*11:28:02+DRB1*13:24     |                               |                           |
| DRB1*11:03+DRB1*13:52       | DRB1*11:118+DRB1*13:24       |                               |                           |
| DRB1*11:03+DRB1*13:53       | DRB1*11:41+DRB1*13:15        |                               |                           |

|                              |                               |                              |                             |
|------------------------------|-------------------------------|------------------------------|-----------------------------|
| DRB1*11:03+DRB1*13:58        | DRB1*11:06:01G+DRB1*13:48     | DRB1*11:21+DRB1*13:108       |                             |
| DRB1*11:03+DRB1*13:61:01     | DRB1*11:124+DRB1*13:111       |                              |                             |
| DRB1*11:03+DRB1*13:62        | DRB1*11:15+DRB1*13:24         |                              |                             |
| DRB1*11:03+DRB1*13:63        | DRB1*11:11:01G+DRB1*13:111    | DRB1*11:122+DRB1*13:24       |                             |
| DRB1*11:03+DRB1*13:64        | DRB1*11:76+DRB1*13:83         |                              |                             |
| DRB1*11:03+DRB1*13:65        | DRB1*11:11:01G+DRB1*13:32     | DRB1*11:41+DRB1*13:139       | DRB1*11:122+DRB1*13:48      |
| DRB1*11:03+DRB1*13:66:02     | DRB1*11:73+DRB1*13:75         | DRB1*11:93+DRB1*13:04        |                             |
| DRB1*11:03+DRB1*13:70        | DRB1*11:41+DRB1*13:22         | DRB1*11:48+DRB1*13:24        |                             |
| DRB1*11:03+DRB1*13:93        | DRB1*11:16+DRB1*13:75         | DRB1*11:40+DRB1*13:04        |                             |
| DRB1*11:03+DRB1*13:96:01     | DRB1*11:11:01G+DRB1*13:61:02  |                              |                             |
| DRB1*11:03+DRB1*13:96:02     | DRB1*11:11:01G+DRB1*13:61:01  | DRB1*11:124+DRB1*13:63       |                             |
| DRB1*11:03+DRB1*13:97:01     | DRB1*11:11:01G+DRB1*13:52     |                              |                             |
| DRB1*11:03+DRB1*13:104       | DRB1*11:11:01G+DRB1*13:15     |                              |                             |
| DRB1*11:03+DRB1*13:106       | DRB1*11:85+DRB1*13:52         |                              |                             |
| DRB1*11:03+DRB1*13:107       | DRB1*11:11:01G+DRB1*13:83     |                              |                             |
| DRB1*11:03+DRB1*13:108       | DRB1*11:56+DRB1*13:75         |                              |                             |
| DRB1*11:03+DRB1*13:111       | DRB1*11:40+DRB1*13:24         |                              |                             |
| DRB1*11:03+DRB1*13:116       | DRB1*11:41+DRB1*13:17         |                              |                             |
| DRB1*11:03+DRB1*13:118       | DRB1*11:39+DRB1*13:48         |                              |                             |
| DRB1*11:03+DRB1*13:119       | DRB1*11:25+DRB1*13:29         | DRB1*11:55+DRB1*13:56        | DRB1*11:64+DRB1*13:111      |
|                              | DRB1*11:68+DRB1*13:18         |                              |                             |
| DRB1*11:03+DRB1*13:120       | DRB1*11:40+DRB1*13:03:01      | DRB1*11:93+DRB1*13:32        | DRB1*11:122+DRB1*13:89      |
| DRB1*11:03+DRB1*13:128       | DRB1*11:11:01G+DRB1*13:112    |                              |                             |
| DRB1*11:03+DRB1*13:134       | DRB1*11:36+DRB1*13:49         | DRB1*11:68+DRB1*13:108       |                             |
| DRB1*11:03+DRB1*13:136       | DRB1*11:76+DRB1*13:05:01      |                              |                             |
| DRB1*11:03+DRB1*13:139       | DRB1*11:11:01G+DRB1*13:93     | DRB1*11:20+DRB1*13:75        | DRB1*11:122+DRB1*13:04      |
| DRB1*11:03+DRB1*14:01:01G    | DRB1*11:41+DRB1*14:35         |                              |                             |
| DRB1*11:03+DRB1*14:02        | DRB1*11:11:01G+DRB1*14:06:01  | DRB1*11:68+DRB1*14:108       |                             |
| DRB1*11:03+DRB1*14:03:01     | DRB1*11:11:01G+DRB1*14:12:01  | DRB1*11:36+DRB1*14:27        | DRB1*11:40+DRB1*14:102      |
| DRB1*11:03+DRB1*14:06:01     | DRB1*11:36+DRB1*14:108        |                              |                             |
| DRB1*11:03+DRB1*14:07:01     | DRB1*11:11:01G+DRB1*14:01:01G |                              |                             |
| DRB1*11:03+DRB1*14:09        | DRB1*11:11:01G+DRB1*14:80     | DRB1*11:41+DRB1*14:30        |                             |
| DRB1*11:03+DRB1*14:14        | DRB1*11:11:01G+DRB1*14:23:01  |                              |                             |
| DRB1*11:03+DRB1*14:17        | DRB1*11:34+DRB1*13:111        | DRB1*11:40+DRB1*13:44        |                             |
| DRB1*11:03+DRB1*14:23:01     | DRB1*11:17+DRB1*13:24         |                              |                             |
| DRB1*11:03+DRB1*14:24        | DRB1*11:69+DRB1*13:53         |                              |                             |
| DRB1*11:03+DRB1*14:25        | DRB1*11:41+DRB1*14:53         |                              |                             |
| DRB1*11:03+DRB1*14:27        | DRB1*11:55+DRB1*13:26:02      |                              |                             |
| DRB1*11:03+DRB1*14:30        | DRB1*11:11:01G+DRB1*14:17     | DRB1*11:26+DRB1*13:111       | DRB1*11:34+DRB1*13:63       |
|                              | DRB1*11:122+DRB1*13:44        |                              |                             |
| DRB1*11:03+DRB1*14:44:01     | DRB1*11:11:01G+DRB1*14:05:01  |                              |                             |
| DRB1*11:03+DRB1*14:44:02     | DRB1*11:11:01G+DRB1*14:05:03  |                              |                             |
| DRB1*11:03+DRB1*14:51        | DRB1*11:11:01G+DRB1*14:106    |                              |                             |
| DRB1*11:03+DRB1*14:55        | DRB1*11:55+DRB1*14:32:02      |                              |                             |
| DRB1*11:03+DRB1*14:63        | DRB1*11:11:01G+DRB1*14:78     |                              |                             |
| DRB1*11:03+DRB1*14:65        | DRB1*11:13:01G+DRB1*13:75     |                              |                             |
| DRB1*11:03+DRB1*14:68        | DRB1*11:11:01G+DRB1*14:04     |                              |                             |
| DRB1*11:03+DRB1*14:69        | DRB1*11:36+DRB1*14:25         |                              |                             |
| DRB1*11:03+DRB1*14:77        | DRB1*11:76+DRB1*14:40         |                              |                             |
| DRB1*11:03+DRB1*14:80        | DRB1*11:41+DRB1*14:17         |                              |                             |
| DRB1*11:03+DRB1*14:89        | DRB1*11:55+DRB1*14:02         |                              |                             |
| DRB1*11:03+DRB1*14:110       | DRB1*11:76+DRB1*14:01:01G     |                              |                             |
| DRB1*11:03+DRB1*14:126       | DRB1*13:24+DRB1*14:11         |                              |                             |
| DRB1*11:03+DRB1*15:02:02     | DRB1*11:11:01G+DRB1*15:01:04  |                              |                             |
| DRB1*11:03+DRB1*15:02:04     | DRB1*11:11:01G+DRB1*15:01:09  |                              |                             |
| DRB1*11:03+DRB1*15:02:06     | DRB1*11:11:01G+DRB1*15:01:03  |                              |                             |
| DRB1*11:03+DRB1*15:02:08     | DRB1*11:11:01G+DRB1*15:01:10  |                              |                             |
| DRB1*11:03+DRB1*15:02:09     | DRB1*11:14:02+DRB1*15:04      |                              |                             |
| DRB1*11:03+DRB1*15:05        | DRB1*11:36+DRB1*15:04         |                              |                             |
| DRB1*11:03+DRB1*15:07:01     | DRB1*11:41+DRB1*15:01:01G     | DRB1*11:48+DRB1*15:04        |                             |
| DRB1*11:03+DRB1*15:07:02     | DRB1*11:41+DRB1*15:01:04      |                              |                             |
| DRB1*11:03+DRB1*15:11        | DRB1*11:11:01G+DRB1*15:07:01  | DRB1*11:41+DRB1*15:02:01     | DRB1*11:48+DRB1*15:15       |
| DRB1*11:03+DRB1*15:15        | DRB1*11:11:01G+DRB1*15:04     |                              |                             |
| DRB1*11:03+DRB1*15:21        | DRB1*11:25+DRB1*15:10         |                              |                             |
| DRB1*11:03+DRB1*15:27        | DRB1*11:11:01G+DRB1*15:66     |                              |                             |
| DRB1*11:03+DRB1*15:31        | DRB1*11:11:01G+DRB1*15:05     | DRB1*11:36+DRB1*15:15        | DRB1*11:68+DRB1*15:04       |
| DRB1*11:03+DRB1*15:34        | DRB1*11:41+DRB1*15:27         |                              |                             |
| DRB1*11:03+DRB1*15:35        | DRB1*11:21+DRB1*15:04         |                              |                             |
| DRB1*11:03+DRB1*15:47        | DRB1*11:11:01G+DRB1*15:65     |                              |                             |
| DRB1*11:03+DRB1*15:48        | DRB1*11:41+DRB1*15:09         |                              |                             |
| DRB1*11:03+DRB1*16:01:01     | DRB1*11:11:01G+DRB1*16:15     | DRB1*11:41+DRB1*16:09        |                             |
| DRB1*11:03+DRB1*16:02:01     | DRB1*11:36+DRB1*16:01:01      | DRB1*11:41+DRB1*16:10        | DRB1*11:68+DRB1*16:15       |
| DRB1*11:03+DRB1*16:02:02     | DRB1*11:36+DRB1*16:01:02      |                              |                             |
| DRB1*11:03+DRB1*16:10        | DRB1*11:36+DRB1*16:09         |                              |                             |
| DRB1*11:03+DRB1*16:18        | DRB1*11:55+DRB1*16:02:02      |                              |                             |
| DRB1*11:04:01+DRB1*11:06:02  | DRB1*11:04:03+DRB1*11:06:01G  |                              |                             |
| DRB1*11:04:01+DRB1*11:06:03  | DRB1*11:04:05+DRB1*11:06:01G  |                              |                             |
| DRB1*11:04:01+DRB1*11:10:01  | DRB1*11:04:02+DRB1*11:10:02   |                              |                             |
| DRB1*11:04:01+DRB1*11:10:02  | DRB1*11:12:01+DRB1*11:46:01   | DRB1*11:12:02+DRB1*11:46:02  |                             |
| DRB1*11:04:01+DRB1*11:12:02  | DRB1*11:04:04+DRB1*11:12:01   |                              |                             |
| DRB1*11:04:01+DRB1*11:31     | DRB1*11:18+DRB1*11:96         |                              |                             |
| DRB1*11:04:01+DRB1*11:46:01  | DRB1*11:04:04+DRB1*11:46:02   |                              |                             |
| DRB1*11:04:01+DRB1*11:54:01  | DRB1*11:04:03+DRB1*11:54:02   |                              |                             |
| DRB1*11:04:01+DRB1*11:57     | DRB1*11:06:01G+DRB1*11:42     |                              |                             |
| DRB1*11:04:01+DRB1*11:58:01  | DRB1*11:04:04+DRB1*11:58:02   |                              |                             |
| DRB1*11:04:01+DRB1*11:64     | DRB1*11:08:01+DRB1*11:25      |                              |                             |
| DRB1*11:04:01+DRB1*11:65:02  | DRB1*11:04:06+DRB1*11:65:01   |                              |                             |
| DRB1*11:04:01+DRB1*11:73     | DRB1*11:18+DRB1*11:93         |                              |                             |
| DRB1*11:04:01+DRB1*11:74:02  | DRB1*11:04:02+DRB1*11:74:01   |                              |                             |
| DRB1*11:04:01+DRB1*11:82     | DRB1*11:18+DRB1*11:69         |                              |                             |
| DRB1*11:04:01+DRB1*11:87     | DRB1*11:58:01+DRB1*11:80      |                              |                             |
| DRB1*11:04:01+DRB1*11:102:02 | DRB1*11:04:05+DRB1*11:102:01  |                              |                             |
| DRB1*11:04:01+DRB1*11:107    | DRB1*11:07+DRB1*11:37:01      | DRB1*11:56+DRB1*11:103       |                             |
| DRB1*11:04:01+DRB1*11:113    | DRB1*11:46:01+DRB1*11:58:02   | DRB1*11:46:02+DRB1*11:58:01  |                             |
| DRB1*11:04:01+DRB1*11:115    | DRB1*11:43+DRB1*11:58:01      |                              |                             |
| DRB1*11:04:01+DRB1*11:119    | DRB1*11:18+DRB1*11:25         |                              |                             |
| DRB1*11:04:01+DRB1*12:01:01G | DRB1*11:04:03+DRB1*12:01:03   | DRB1*11:06:01G+DRB1*12:03:03 | DRB1*11:06:02+DRB1*12:03:02 |
|                              | DRB1*11:18+DRB1*12:02:01      |                              |                             |
| DRB1*11:04:01+DRB1*12:01:03  | DRB1*11:04:07+DRB1*12:01:02   | DRB1*11:06:01G+DRB1*12:03:02 | DRB1*11:18+DRB1*12:02:02    |
| DRB1*11:04:01+DRB1*12:02:01  | DRB1*11:04:03+DRB1*12:02:02   | DRB1*11:04:07+DRB1*12:02:04  | DRB1*11:06:01G+DRB1*12:19   |
| DRB1*11:04:01+DRB1*12:03:03  | DRB1*11:04:03+DRB1*12:03:02   | DRB1*11:18+DRB1*12:19        |                             |
| DRB1*11:04:01+DRB1*12:05     | DRB1*11:18+DRB1*12:15         |                              |                             |
| DRB1*11:04:01+DRB1*12:09     | DRB1*12:04+DRB1*13:11:01      |                              |                             |
| DRB1*11:04:01+DRB1*12:12     | DRB1*11:42+DRB1*12:02:01      | DRB1*11:57+DRB1*12:19        |                             |
| DRB1*11:04:01+DRB1*12:21     | DRB1*11:56+DRB1*12:02:01      |                              |                             |

|                              |                               |                             |                             |
|------------------------------|-------------------------------|-----------------------------|-----------------------------|
| DRB1*11:04:01+DRB1*12:22     | DRB1*11:27:01+DRB1*12:03:02   |                             |                             |
| DRB1*11:04:01+DRB1*12:34     | DRB1*11:43+DRB1*12:01:01G     |                             |                             |
| DRB1*11:04:01+DRB1*13:01:03  | DRB1*11:04:03+DRB1*13:01:01G  |                             |                             |
| DRB1*11:04:01+DRB1*13:01:05  | DRB1*11:16+DRB1*13:11:02      |                             |                             |
| DRB1*11:04:01+DRB1*13:01:08  | DRB1*11:04:02+DRB1*13:01:01G  |                             |                             |
| DRB1*11:04:01+DRB1*13:03:02  | DRB1*11:56+DRB1*13:66:01      |                             |                             |
| DRB1*11:04:01+DRB1*13:04     | DRB1*11:18+DRB1*13:75         |                             |                             |
| DRB1*11:04:01+DRB1*13:06     | DRB1*11:18+DRB1*13:42         |                             |                             |
| DRB1*11:04:01+DRB1*13:07:01  | DRB1*11:37:01+DRB1*13:11:01   | DRB1*11:56+DRB1*13:14:01    |                             |
| DRB1*11:04:01+DRB1*13:07:02  | DRB1*11:37:01+DRB1*13:11:02   | DRB1*11:56+DRB1*13:14:02    |                             |
| DRB1*11:04:01+DRB1*13:08     | DRB1*11:56+DRB1*13:83         |                             |                             |
| DRB1*11:04:01+DRB1*13:12:01  | DRB1*11:18+DRB1*13:49         | DRB1*11:19:01+DRB1*13:108   | DRB1*11:56+DRB1*13:30       |
| DRB1*11:04:01+DRB1*13:12:02  | DRB1*11:04:02+DRB1*13:12:01   | DRB1*11:19:03+DRB1*13:108   |                             |
| DRB1*11:04:01+DRB1*13:13     | DRB1*11:25+DRB1*13:12:01      | DRB1*11:45+DRB1*13:108      | DRB1*11:119+DRB1*13:49      |
| DRB1*11:04:01+DRB1*13:16     | DRB1*11:86+DRB1*13:42         |                             |                             |
| DRB1*11:04:01+DRB1*13:18     | DRB1*11:25+DRB1*13:42         |                             |                             |
| DRB1*11:04:01+DRB1*13:19     | DRB1*11:56+DRB1*13:57         |                             |                             |
| DRB1*11:04:01+DRB1*13:20     | DRB1*11:36+DRB1*13:42         | DRB1*11:42+DRB1*13:111      |                             |
| DRB1*11:04:01+DRB1*13:21:02  | DRB1*11:04:02+DRB1*13:21:01   |                             |                             |
| DRB1*11:04:01+DRB1*13:25     | DRB1*11:08:01+DRB1*13:11:01   | DRB1*11:42+DRB1*13:14:01    |                             |
| DRB1*11:04:01+DRB1*13:30     | DRB1*11:18+DRB1*13:21:01      |                             |                             |
| DRB1*11:04:01+DRB1*13:31     | DRB1*11:16+DRB1*13:46         |                             |                             |
| DRB1*11:04:01+DRB1*13:32     | DRB1*11:16+DRB1*13:108        | DRB1*11:56+DRB1*13:93       | DRB1*11:113+DRB1*13:48      |
| DRB1*11:04:01+DRB1*13:33:02  | DRB1*11:84:01+DRB1*13:03:02   |                             |                             |
| DRB1*11:04:01+DRB1*13:33:03  | DRB1*11:04:02+DRB1*13:33:02   | DRB1*11:27:01+DRB1*13:89    | DRB1*11:84:01+DRB1*13:03:01 |
| DRB1*11:04:01+DRB1*13:40     | DRB1*11:41+DRB1*13:06         | DRB1*11:48+DRB1*13:42       | DRB1*11:56+DRB1*13:01:01G   |
|                              | DRB1*11:113+DRB1*13:70        |                             |                             |
| DRB1*11:04:01+DRB1*13:42     | DRB1*11:113+DRB1*13:11:01     |                             |                             |
| DRB1*11:04:01+DRB1*13:44     | DRB1*11:34+DRB1*13:11:01      |                             |                             |
| DRB1*11:04:01+DRB1*13:50:01  | DRB1*11:28:01+DRB1*13:11:01   | DRB1*11:58:02+DRB1*13:14:01 |                             |
| DRB1*11:04:01+DRB1*13:50:02  | DRB1*11:04:04+DRB1*13:50:01   | DRB1*11:28:02+DRB1*13:11:01 | DRB1*11:58:01+DRB1*13:14:01 |
| DRB1*11:04:01+DRB1*13:52     | DRB1*11:46:01+DRB1*13:22      | DRB1*11:118+DRB1*13:11:01   |                             |
| DRB1*11:04:01+DRB1*13:53     | DRB1*11:56+DRB1*13:15         |                             |                             |
| DRB1*11:04:01+DRB1*13:55     | DRB1*11:23+DRB1*13:108        |                             |                             |
| DRB1*11:04:01+DRB1*13:56     | DRB1*11:08:01+DRB1*13:42      | DRB1*11:42+DRB1*13:05:01    | DRB1*11:113+DRB1*13:25      |
| DRB1*11:04:01+DRB1*13:61:01  | DRB1*11:84:01+DRB1*13:01:01G  | DRB1*11:124+DRB1*13:42      |                             |
| DRB1*11:04:01+DRB1*13:61:02  | DRB1*11:84:02+DRB1*13:01:01G  |                             |                             |
| DRB1*11:04:01+DRB1*13:62     | DRB1*11:15+DRB1*13:11:01      |                             |                             |
| DRB1*11:04:01+DRB1*13:66:02  | DRB1*11:04:02+DRB1*13:66:01   |                             |                             |
| DRB1*11:04:01+DRB1*13:67     | DRB1*11:30+DRB1*13:01:01G     |                             |                             |
| DRB1*11:04:01+DRB1*13:69     | DRB1*11:58:01+DRB1*13:22      |                             |                             |
| DRB1*11:04:01+DRB1*13:70     | DRB1*11:48+DRB1*13:11:01      | DRB1*11:56+DRB1*13:22       |                             |
| DRB1*11:04:01+DRB1*13:76     | DRB1*11:54:01+DRB1*13:08      |                             |                             |
| DRB1*11:04:01+DRB1*13:78     | DRB1*11:116+DRB1*13:20        |                             |                             |
| DRB1*11:04:01+DRB1*13:79     | DRB1*11:116+DRB1*13:01:01G    |                             |                             |
| DRB1*11:04:01+DRB1*13:82     | DRB1*11:18+DRB1*13:14:01      | DRB1*11:19:01+DRB1*13:11:01 |                             |
| DRB1*11:04:01+DRB1*13:87     | DRB1*11:58:02+DRB1*13:83      |                             |                             |
| DRB1*11:04:01+DRB1*13:93     | DRB1*11:113+DRB1*13:04        |                             |                             |
| DRB1*11:04:01+DRB1*13:97:02  | DRB1*11:46:02+DRB1*13:23:02   | DRB1*11:62+DRB1*13:22       |                             |
| DRB1*11:04:01+DRB1*13:100    | DRB1*11:116+DRB1*13:46        |                             |                             |
| DRB1*11:04:01+DRB1*13:106    | DRB1*11:44+DRB1*13:52         |                             |                             |
| DRB1*11:04:01+DRB1*13:115    | DRB1*11:28:01+DRB1*13:89      | DRB1*11:58:02+DRB1*13:03:01 |                             |
| DRB1*11:04:01+DRB1*13:118    | DRB1*11:43+DRB1*13:12:01      |                             |                             |
| DRB1*11:04:01+DRB1*13:119    | DRB1*11:08:01+DRB1*13:18      | DRB1*11:25+DRB1*13:56       | DRB1*11:64+DRB1*13:42       |
| DRB1*11:04:01+DRB1*13:120    | DRB1*11:09+DRB1*13:89         | DRB1*11:46:01+DRB1*13:115   | DRB1*11:113+DRB1*13:03:01   |
| DRB1*11:04:01+DRB1*13:122    | DRB1*11:38+DRB1*13:03:01      |                             |                             |
| DRB1*11:04:01+DRB1*13:131    | DRB1*11:43+DRB1*13:01:01G     |                             |                             |
| DRB1*11:04:01+DRB1*13:132    | DRB1*11:46:01+DRB1*13:14:01   |                             |                             |
| DRB1*11:04:01+DRB1*13:134    | DRB1*11:08:01+DRB1*13:108     | DRB1*11:42+DRB1*13:49       |                             |
| DRB1*11:04:01+DRB1*13:135    | DRB1*11:39+DRB1*13:08         |                             |                             |
| DRB1*11:04:01+DRB1*14:01:01G | DRB1*11:04:03+DRB1*14:01:02   | DRB1*11:54:01+DRB1*14:32:01 | DRB1*11:54:02+DRB1*14:32:02 |
|                              | DRB1*11:56+DRB1*14:35         |                             |                             |
| DRB1*11:04:01+DRB1*14:01:02  | DRB1*11:54:02+DRB1*14:32:01   | DRB1*11:89+DRB1*14:74       |                             |
| DRB1*11:04:01+DRB1*14:05:01  | DRB1*11:04:03+DRB1*14:05:03   | DRB1*11:54:02+DRB1*14:100   |                             |
| DRB1*11:04:01+DRB1*14:06:01  | DRB1*11:42+DRB1*14:108        |                             |                             |
| DRB1*11:04:01+DRB1*14:06:02  | DRB1*11:04:02+DRB1*14:06:01   |                             |                             |
| DRB1*11:04:01+DRB1*14:08     | DRB1*11:54:02+DRB1*14:34      |                             |                             |
| DRB1*11:04:01+DRB1*14:12:02  | DRB1*11:04:06+DRB1*14:12:01   |                             |                             |
| DRB1*11:04:01+DRB1*14:17     | DRB1*11:34+DRB1*13:42         | DRB1*11:113+DRB1*13:44      |                             |
| DRB1*11:04:01+DRB1*14:23:01  | DRB1*11:17+DRB1*13:11:01      | DRB1*11:54:02+DRB1*14:123   |                             |
| DRB1*11:04:01+DRB1*14:25     | DRB1*11:56+DRB1*14:53         |                             |                             |
| DRB1*11:04:01+DRB1*14:27     | DRB1*11:25+DRB1*13:26:02      |                             |                             |
| DRB1*11:04:01+DRB1*14:28     | DRB1*11:06:01G+DRB1*14:04     |                             |                             |
| DRB1*11:04:01+DRB1*14:29     | DRB1*11:06:01G+DRB1*14:06:01  | DRB1*11:57+DRB1*14:108      |                             |
| DRB1*11:04:01+DRB1*14:32:02  | DRB1*11:04:03+DRB1*14:32:01   |                             |                             |
| DRB1*11:04:01+DRB1*14:33     | DRB1*11:54:02+DRB1*14:17      |                             |                             |
| DRB1*11:04:01+DRB1*14:38     | DRB1*11:84:01+DRB1*14:01:02   |                             |                             |
| DRB1*11:04:01+DRB1*14:47     | DRB1*11:27:01+DRB1*14:06:01   | DRB1*11:84:01+DRB1*14:02    |                             |
| DRB1*11:04:01+DRB1*14:55     | DRB1*11:25+DRB1*14:32:02      |                             |                             |
| DRB1*11:04:01+DRB1*14:67     | DRB1*11:18+DRB1*14:27         | DRB1*11:119+DRB1*13:26:02   |                             |
| DRB1*11:04:01+DRB1*14:69     | DRB1*11:42+DRB1*14:25         |                             |                             |
| DRB1*11:04:01+DRB1*14:80     | DRB1*11:56+DRB1*14:17         |                             |                             |
| DRB1*11:04:01+DRB1*14:86     | DRB1*11:43+DRB1*14:01:01G     |                             |                             |
| DRB1*11:04:01+DRB1*14:89     | DRB1*11:25+DRB1*14:02         | DRB1*11:34+DRB1*14:27       | DRB1*11:64+DRB1*14:108      |
| DRB1*11:04:01+DRB1*14:96     | DRB1*11:43+DRB1*14:05:01      |                             |                             |
| DRB1*11:04:01+DRB1*14:98     | DRB1*11:27:01+DRB1*14:12:01   | DRB1*11:84:01+DRB1*14:03:01 |                             |
| DRB1*11:04:01+DRB1*14:99     | DRB1*11:06:01G+DRB1*14:01:01G | DRB1*11:06:02+DRB1*14:01:02 |                             |
| DRB1*11:04:01+DRB1*14:106    | DRB1*11:54:02+DRB1*14:06:01   |                             |                             |
| DRB1*11:04:01+DRB1*14:109    | DRB1*11:116+DRB1*14:19        |                             |                             |
| DRB1*11:04:01+DRB1*14:115    | DRB1*11:116+DRB1*14:03:01     | DRB1*11:120+DRB1*14:12:01   |                             |
| DRB1*11:04:01+DRB1*14:119    | DRB1*11:34+DRB1*14:22         |                             |                             |
| DRB1*11:04:01+DRB1*14:126    | DRB1*13:11:01+DRB1*14:11      |                             |                             |
| DRB1*11:04:01+DRB1*14:127    | DRB1*11:84:01+DRB1*14:05:03   |                             |                             |
| DRB1*11:04:01+DRB1*15:01:01G | DRB1*11:18+DRB1*15:04         |                             |                             |
| DRB1*11:04:01+DRB1*15:01:03  | DRB1*11:04:03+DRB1*15:01:01G  |                             |                             |
| DRB1*11:04:01+DRB1*15:01:11  | DRB1*11:04:08+DRB1*15:01:01G  |                             |                             |
| DRB1*11:04:01+DRB1*15:01:19  | DRB1*11:04:05+DRB1*15:01:01G  |                             |                             |
| DRB1*11:04:01+DRB1*15:05     | DRB1*11:42+DRB1*15:04         |                             |                             |
| DRB1*11:04:01+DRB1*15:07:01  | DRB1*11:56+DRB1*15:01:01G     |                             |                             |
| DRB1*11:04:01+DRB1*15:07:02  | DRB1*11:56+DRB1*15:01:04      |                             |                             |
| DRB1*11:04:01+DRB1*15:08     | DRB1*11:111+DRB1*15:01:01G    |                             |                             |
| DRB1*11:04:01+DRB1*15:32     | DRB1*11:58:02+DRB1*15:01:01G  |                             |                             |
| DRB1*11:04:01+DRB1*15:34     | DRB1*11:34+DRB1*16:01:02      | DRB1*11:37:01+DRB1*15:66    | DRB1*11:56+DRB1*15:27       |
| DRB1*11:04:01+DRB1*15:35     | DRB1*11:06:01G+DRB1*15:01:01G |                             |                             |
| DRB1*11:04:01+DRB1*15:37     | DRB1*11:84:02+DRB1*15:01:01G  |                             |                             |



|                              |                              |                              |
|------------------------------|------------------------------|------------------------------|
| DRB1*11:04:01+DRB1*15:38     | DRB1*11:116+DRB1*15:02:02    | DRB1*11:120+DRB1*15:01:04    |
| DRB1*11:04:01+DRB1*15:43     | DRB1*11:78+DRB1*15:01:01G    |                              |
| DRB1*11:04:01+DRB1*15:48     | DRB1*11:56+DRB1*15:09        | DRB1*11:88+DRB1*15:01:01G    |
| DRB1*11:04:01+DRB1*15:57     | DRB1*11:84:01+DRB1*15:03:01G |                              |
| DRB1*11:04:01+DRB1*15:60     | DRB1*11:108+DRB1*15:01:01G   |                              |
| DRB1*11:04:01+DRB1*15:62     | DRB1*11:46:02+DRB1*15:01:01G |                              |
| DRB1*11:04:01+DRB1*15:65     | DRB1*11:43+DRB1*15:01:01G    |                              |
| DRB1*11:04:01+DRB1*15:68     | DRB1*11:60+DRB1*15:02:01     | DRB1*11:109+DRB1*15:01:01G   |
| DRB1*11:04:01+DRB1*15:71     | DRB1*11:116+DRB1*15:01:01G   |                              |
| DRB1*11:04:01+DRB1*16:02:01  | DRB1*11:04:07+DRB1*16:02:02  | DRB1*11:08:01+DRB1*16:15     |
|                              | DRB1*11:56+DRB1*16:10        | DRB1*11:42+DRB1*16:01:01     |
| DRB1*11:04:01+DRB1*16:02:02  | DRB1*11:42+DRB1*16:01:02     |                              |
| DRB1*11:04:01+DRB1*16:05:01  | DRB1*11:18+DRB1*16:01:01     | DRB1*11:19:01+DRB1*16:15     |
| DRB1*11:04:01+DRB1*16:10     | DRB1*11:42+DRB1*16:09        |                              |
| DRB1*11:04:01+DRB1*16:18     | DRB1*11:25+DRB1*16:02:02     |                              |
| DRB1*11:04:02+DRB1*11:64     | DRB1*11:08:02+DRB1*11:25     | DRB1*11:23+DRB1*11:42        |
| DRB1*11:04:02+DRB1*11:79     | DRB1*11:34+DRB1*11:93        |                              |
| DRB1*11:04:02+DRB1*11:107    | DRB1*11:07+DRB1*11:37:02     |                              |
| DRB1*11:04:02+DRB1*13:01:03  | DRB1*11:04:03+DRB1*13:01:08  |                              |
| DRB1*11:04:02+DRB1*13:07:01  | DRB1*11:37:02+DRB1*13:11:01  | DRB1*11:56+DRB1*13:14:03     |
| DRB1*11:04:02+DRB1*13:07:02  | DRB1*11:37:02+DRB1*13:11:02  |                              |
| DRB1*11:04:02+DRB1*13:13     | DRB1*11:18+DRB1*13:55        | DRB1*11:25+DRB1*13:12:02     |
| DRB1*11:04:02+DRB1*13:25     | DRB1*11:08:02+DRB1*13:11:01  | DRB1*11:42+DRB1*13:14:03     |
| DRB1*11:04:02+DRB1*13:30     | DRB1*11:18+DRB1*13:21:02     |                              |
| DRB1*11:04:02+DRB1*13:33:01  | DRB1*11:27:03+DRB1*13:89     |                              |
| DRB1*11:04:02+DRB1*13:40     | DRB1*11:56+DRB1*13:01:08     |                              |
| DRB1*11:04:02+DRB1*13:50:01  | DRB1*11:58:02+DRB1*13:14:03  |                              |
| DRB1*11:04:02+DRB1*13:50:02  | DRB1*11:58:01+DRB1*13:14:03  |                              |
| DRB1*11:04:02+DRB1*13:56     | DRB1*11:08:02+DRB1*13:42     | DRB1*11:42+DRB1*13:05:02     |
| DRB1*11:04:02+DRB1*13:61:01  | DRB1*11:84:01+DRB1*13:01:08  |                              |
| DRB1*11:04:02+DRB1*13:61:02  | DRB1*11:84:02+DRB1*13:01:08  |                              |
| DRB1*11:04:02+DRB1*13:67     | DRB1*11:30+DRB1*13:01:08     |                              |
| DRB1*11:04:02+DRB1*13:79     | DRB1*11:116+DRB1*13:01:08    |                              |
| DRB1*11:04:02+DRB1*13:81     | DRB1*11:06:01G+DRB1*13:89    |                              |
| DRB1*11:04:02+DRB1*13:82     | DRB1*11:18+DRB1*13:14:03     | DRB1*11:19:03+DRB1*13:11:01  |
| DRB1*11:04:02+DRB1*13:94     | DRB1*11:84:02+DRB1*13:89     |                              |
| DRB1*11:04:02+DRB1*13:97:02  | DRB1*11:46:02+DRB1*13:23:01  |                              |
| DRB1*11:04:02+DRB1*13:118    | DRB1*11:43+DRB1*13:12:02     |                              |
| DRB1*11:04:02+DRB1*13:119    | DRB1*11:08:02+DRB1*13:18     |                              |
| DRB1*11:04:02+DRB1*13:131    | DRB1*11:43+DRB1*13:01:08     |                              |
| DRB1*11:04:02+DRB1*13:132    | DRB1*11:46:01+DRB1*13:14:03  |                              |
| DRB1*11:04:02+DRB1*13:134    | DRB1*11:08:02+DRB1*13:108    |                              |
| DRB1*11:04:02+DRB1*14:19     | DRB1*11:93+DRB1*14:06:01     |                              |
| DRB1*11:04:02+DRB1*14:29     | DRB1*11:06:01G+DRB1*14:06:02 |                              |
| DRB1*11:04:02+DRB1*14:47     | DRB1*11:27:01+DRB1*14:06:02  |                              |
| DRB1*11:04:02+DRB1*14:89     | DRB1*11:23+DRB1*14:06:01     |                              |
| DRB1*11:04:02+DRB1*14:106    | DRB1*11:54:02+DRB1*14:06:02  |                              |
| DRB1*11:04:02+DRB1*15:34     | DRB1*11:37:02+DRB1*15:66     |                              |
| DRB1*11:04:02+DRB1*15:38     | DRB1*11:116+DRB1*15:02:05    |                              |
| DRB1*11:04:02+DRB1*15:68     | DRB1*11:60+DRB1*15:02:09     |                              |
| DRB1*11:04:02+DRB1*16:02:01  | DRB1*11:08:02+DRB1*16:15     |                              |
| DRB1*11:04:02+DRB1*16:05:01  | DRB1*11:19:03+DRB1*16:15     |                              |
| DRB1*11:04:02+DRB1*16:18     | DRB1*11:42+DRB1*16:04        |                              |
| DRB1*11:04:03+DRB1*11:06:03  | DRB1*11:04:05+DRB1*11:06:02  |                              |
| DRB1*11:04:03+DRB1*11:57     | DRB1*11:06:02+DRB1*11:42     |                              |
| DRB1*11:04:03+DRB1*12:01:01G | DRB1*11:06:02+DRB1*12:03:03  |                              |
| DRB1*11:04:03+DRB1*12:01:02  | DRB1*11:18+DRB1*12:02:04     |                              |
| DRB1*11:04:03+DRB1*12:02:01  | DRB1*11:06:02+DRB1*12:19     |                              |
| DRB1*11:04:03+DRB1*12:22     | DRB1*11:27:01+DRB1*12:03:03  |                              |
| DRB1*11:04:03+DRB1*13:40     | DRB1*11:56+DRB1*13:01:03     |                              |
| DRB1*11:04:03+DRB1*13:61:01  | DRB1*11:84:01+DRB1*13:01:03  |                              |
| DRB1*11:04:03+DRB1*13:61:02  | DRB1*11:84:02+DRB1*13:01:03  |                              |
| DRB1*11:04:03+DRB1*13:67     | DRB1*11:30+DRB1*13:01:03     |                              |
| DRB1*11:04:03+DRB1*13:79     | DRB1*11:116+DRB1*13:01:03    |                              |
| DRB1*11:04:03+DRB1*13:131    | DRB1*11:43+DRB1*13:01:03     |                              |
| DRB1*11:04:03+DRB1*14:01:01G | DRB1*11:54:01+DRB1*14:32:02  |                              |
| DRB1*11:04:03+DRB1*14:04     | DRB1*11:54:01+DRB1*14:31     |                              |
| DRB1*11:04:03+DRB1*14:05:01  | DRB1*11:54:01+DRB1*14:100    |                              |
| DRB1*11:04:03+DRB1*14:08     | DRB1*11:54:01+DRB1*14:34     |                              |
| DRB1*11:04:03+DRB1*14:23:01  | DRB1*11:54:01+DRB1*14:123    |                              |
| DRB1*11:04:03+DRB1*14:28     | DRB1*11:06:02+DRB1*14:04     |                              |
| DRB1*11:04:03+DRB1*14:29     | DRB1*11:06:02+DRB1*14:06:01  |                              |
| DRB1*11:04:03+DRB1*14:33     | DRB1*11:54:01+DRB1*14:17     |                              |
| DRB1*11:04:03+DRB1*14:38     | DRB1*11:84:01+DRB1*14:01:01G |                              |
| DRB1*11:04:03+DRB1*14:50     | DRB1*11:84:01+DRB1*14:04     |                              |
| DRB1*11:04:03+DRB1*14:74     | DRB1*11:42+DRB1*14:105       |                              |
| DRB1*11:04:03+DRB1*14:79     | DRB1*11:84:02+DRB1*14:107    |                              |
| DRB1*11:04:03+DRB1*14:93     | DRB1*11:27:02+DRB1*14:04     | DRB1*11:84:02+DRB1*14:68     |
| DRB1*11:04:03+DRB1*14:99     | DRB1*11:06:02+DRB1*14:01:01G |                              |
| DRB1*11:04:03+DRB1*14:106    | DRB1*11:54:01+DRB1*14:06:01  |                              |
| DRB1*11:04:03+DRB1*14:119    | DRB1*11:26+DRB1*14:105       |                              |
| DRB1*11:04:03+DRB1*14:127    | DRB1*11:84:01+DRB1*14:05:01  |                              |
| DRB1*11:04:03+DRB1*15:01:11  | DRB1*11:04:08+DRB1*15:01:03  |                              |
| DRB1*11:04:03+DRB1*15:01:19  | DRB1*11:04:05+DRB1*15:01:03  |                              |
| DRB1*11:04:03+DRB1*15:07:01  | DRB1*11:56+DRB1*15:01:03     |                              |
| DRB1*11:04:03+DRB1*15:08     | DRB1*11:111+DRB1*15:01:03    |                              |
| DRB1*11:04:03+DRB1*15:32     | DRB1*11:58:02+DRB1*15:01:03  |                              |
| DRB1*11:04:03+DRB1*15:35     | DRB1*11:06:01G+DRB1*15:01:03 | DRB1*11:06:02+DRB1*15:01:01G |
| DRB1*11:04:03+DRB1*15:37     | DRB1*11:84:02+DRB1*15:01:03  |                              |
| DRB1*11:04:03+DRB1*15:43     | DRB1*11:78+DRB1*15:01:03     |                              |
| DRB1*11:04:03+DRB1*15:48     | DRB1*11:88+DRB1*15:01:03     |                              |
| DRB1*11:04:03+DRB1*15:60     | DRB1*11:108+DRB1*15:01:03    |                              |
| DRB1*11:04:03+DRB1*15:62     | DRB1*11:46:02+DRB1*15:01:03  |                              |
| DRB1*11:04:03+DRB1*15:65     | DRB1*11:43+DRB1*15:01:03     |                              |
| DRB1*11:04:03+DRB1*15:68     | DRB1*11:60+DRB1*15:02:06     | DRB1*11:109+DRB1*15:01:03    |
| DRB1*11:04:03+DRB1*15:71     | DRB1*11:116+DRB1*15:01:03    |                              |
| DRB1*11:04:04+DRB1*11:10:02  | DRB1*11:12:02+DRB1*11:46:01  |                              |
| DRB1*11:04:04+DRB1*11:16     | DRB1*11:58:01+DRB1*11:118    |                              |
| DRB1*11:04:04+DRB1*11:113    | DRB1*11:46:01+DRB1*11:58:01  |                              |
| DRB1*11:04:04+DRB1*13:01:01G | DRB1*11:46:01+DRB1*13:69     | DRB1*11:58:01+DRB1*13:52     |
| DRB1*11:04:04+DRB1*13:87     | DRB1*11:58:01+DRB1*13:83     |                              |
| DRB1*11:04:04+DRB1*13:115    | DRB1*11:28:02+DRB1*13:89     | DRB1*11:58:01+DRB1*13:03:01  |
| DRB1*11:04:04+DRB1*13:131    | DRB1*11:115+DRB1*13:52       |                              |
| DRB1*11:04:04+DRB1*15:32     | DRB1*11:58:01+DRB1*15:01:01G |                              |
| DRB1*11:04:04+DRB1*15:62     | DRB1*11:46:01+DRB1*15:01:01G |                              |

|                               |                              |                              |
|-------------------------------|------------------------------|------------------------------|
| DRB1*11:04:05+DRB1*11:57      | DRB1*11:06:03+DRB1*11:42     |                              |
| DRB1*11:04:05+DRB1*12:01:01G  | DRB1*11:06:03+DRB1*12:03:03  |                              |
| DRB1*11:04:05+DRB1*12:01:03   | DRB1*11:06:03+DRB1*12:03:02  |                              |
| DRB1*11:04:05+DRB1*12:02:01   | DRB1*11:06:03+DRB1*12:19     |                              |
| DRB1*11:04:05+DRB1*14:28      | DRB1*11:06:03+DRB1*14:04     |                              |
| DRB1*11:04:05+DRB1*14:29      | DRB1*11:06:03+DRB1*14:06:01  |                              |
| DRB1*11:04:05+DRB1*14:99      | DRB1*11:06:03+DRB1*14:01:01G |                              |
| DRB1*11:04:05+DRB1*15:01:11   | DRB1*11:04:08+DRB1*15:01:19  |                              |
| DRB1*11:04:05+DRB1*15:07:01   | DRB1*11:56+DRB1*15:01:19     |                              |
| DRB1*11:04:05+DRB1*15:08      | DRB1*11:111+DRB1*15:01:19    |                              |
| DRB1*11:04:05+DRB1*15:32      | DRB1*11:58:02+DRB1*15:01:19  |                              |
| DRB1*11:04:05+DRB1*15:35      | DRB1*11:06:01G+DRB1*15:01:19 | DRB1*11:06:03+DRB1*15:01:01G |
| DRB1*11:04:05+DRB1*15:37      | DRB1*11:84:02+DRB1*15:01:19  |                              |
| DRB1*11:04:05+DRB1*15:43      | DRB1*11:78+DRB1*15:01:19     |                              |
| DRB1*11:04:05+DRB1*15:48      | DRB1*11:88+DRB1*15:01:19     |                              |
| DRB1*11:04:05+DRB1*15:60      | DRB1*11:108+DRB1*15:01:19    |                              |
| DRB1*11:04:05+DRB1*15:62      | DRB1*11:46:02+DRB1*15:01:19  |                              |
| DRB1*11:04:05+DRB1*15:65      | DRB1*11:43+DRB1*15:01:19     |                              |
| DRB1*11:04:05+DRB1*15:68      | DRB1*11:109+DRB1*15:01:19    |                              |
| DRB1*11:04:05+DRB1*15:71      | DRB1*11:116+DRB1*15:01:19    |                              |
| DRB1*11:04:06+DRB1*14:98      | DRB1*11:27:01+DRB1*14:12:02  |                              |
| DRB1*11:04:06+DRB1*14:115     | DRB1*11:120+DRB1*14:12:02    |                              |
| DRB1*11:04:07+DRB1*13:12:01   | DRB1*11:19:02+DRB1*13:108    |                              |
| DRB1*11:04:07+DRB1*13:82      | DRB1*11:19:02+DRB1*13:11:01  |                              |
| DRB1*11:04:07+DRB1*15:34      | DRB1*11:26+DRB1*16:15        | DRB1*11:34+DRB1*16:01:01     |
| DRB1*11:04:07+DRB1*16:04      | DRB1*11:23+DRB1*16:15        |                              |
| DRB1*11:04:07+DRB1*16:05:01   | DRB1*11:19:02+DRB1*16:15     |                              |
| DRB1*11:04:07+DRB1*16:18      | DRB1*11:25+DRB1*16:02:01     | DRB1*11:64+DRB1*16:15        |
| DRB1*11:04:08+DRB1*15:07:01   | DRB1*11:56+DRB1*15:01:11     |                              |
| DRB1*11:04:08+DRB1*15:08      | DRB1*11:111+DRB1*15:01:11    |                              |
| DRB1*11:04:08+DRB1*15:11      | DRB1*11:37:01+DRB1*15:01:11  |                              |
| DRB1*11:04:08+DRB1*15:32      | DRB1*11:58:02+DRB1*15:01:11  |                              |
| DRB1*11:04:08+DRB1*15:35      | DRB1*11:06:01G+DRB1*15:01:11 |                              |
| DRB1*11:04:08+DRB1*15:37      | DRB1*11:84:02+DRB1*15:01:11  |                              |
| DRB1*11:04:08+DRB1*15:43      | DRB1*11:78+DRB1*15:01:11     |                              |
| DRB1*11:04:08+DRB1*15:47      | DRB1*11:39+DRB1*15:01:11     |                              |
| DRB1*11:04:08+DRB1*15:48      | DRB1*11:88+DRB1*15:01:11     |                              |
| DRB1*11:04:08+DRB1*15:60      | DRB1*11:108+DRB1*15:01:11    |                              |
| DRB1*11:04:08+DRB1*15:62      | DRB1*11:46:02+DRB1*15:01:11  |                              |
| DRB1*11:04:08+DRB1*15:65      | DRB1*11:43+DRB1*15:01:11     |                              |
| DRB1*11:04:08+DRB1*15:68      | DRB1*11:109+DRB1*15:01:11    |                              |
| DRB1*11:04:08+DRB1*15:71      | DRB1*11:116+DRB1*15:01:11    |                              |
| DRB1*11:05+DRB1*14:62         | DRB1*11:110+DRB1*14:61       |                              |
| DRB1*11:05+DRB1*14:86         | DRB1*11:39+DRB1*14:61        |                              |
| DRB1*11:05+DRB1*14:88         | DRB1*11:94+DRB1*14:61        |                              |
| DRB1*11:06:01G+DRB1*11:16     | DRB1*11:21+DRB1*11:113       |                              |
| DRB1*11:06:01G+DRB1*11:20     | DRB1*11:09+DRB1*11:21        |                              |
| DRB1*11:06:01G+DRB1*11:48     | DRB1*11:21+DRB1*11:56        |                              |
| DRB1*11:06:01G+DRB1*11:54:01  | DRB1*11:06:02+DRB1*11:54:02  |                              |
| DRB1*11:06:01G+DRB1*11:65:01  | DRB1*11:21+DRB1*11:35        |                              |
| DRB1*11:06:01G+DRB1*11:68     | DRB1*11:11:01G+DRB1*11:57    |                              |
| DRB1*11:06:01G+DRB1*11:102:02 | DRB1*11:06:03+DRB1*11:102:01 |                              |
| DRB1*11:06:01G+DRB1*11:103    | DRB1*11:57+DRB1*11:125       |                              |
| DRB1*11:06:01G+DRB1*11:118    | DRB1*11:21+DRB1*11:46:01     |                              |
| DRB1*11:06:01G+DRB1*11:124    | DRB1*11:21+DRB1*11:84:01     |                              |
| DRB1*11:06:01G+DRB1*11:127    | DRB1*11:21+DRB1*11:44        |                              |
| DRB1*11:06:01G+DRB1*12:01:01G | DRB1*11:06:02+DRB1*12:01:03  |                              |
| DRB1*11:06:01G+DRB1*12:02:01  | DRB1*11:06:02+DRB1*12:02:02  |                              |
| DRB1*11:06:01G+DRB1*12:12     | DRB1*11:57+DRB1*12:02:01     |                              |
| DRB1*11:06:01G+DRB1*12:22     | DRB1*11:27:01+DRB1*12:01:03  |                              |
| DRB1*11:06:01G+DRB1*13:01:01G | DRB1*11:21+DRB1*13:42        |                              |
| DRB1*11:06:01G+DRB1*13:01:03  | DRB1*11:06:02+DRB1*13:01:01G |                              |
| DRB1*11:06:01G+DRB1*13:02:01  | DRB1*11:21+DRB1*13:05:01     |                              |
| DRB1*11:06:01G+DRB1*13:20     | DRB1*11:57+DRB1*13:111       |                              |
| DRB1*11:06:01G+DRB1*13:22     | DRB1*11:21+DRB1*13:11:01     |                              |
| DRB1*11:06:01G+DRB1*13:23:01  | DRB1*11:21+DRB1*13:14:03     |                              |
| DRB1*11:06:01G+DRB1*13:23:02  | DRB1*11:21+DRB1*13:14:01     |                              |
| DRB1*11:06:01G+DRB1*13:25     | DRB1*11:57+DRB1*13:14:01     |                              |
| DRB1*11:06:01G+DRB1*13:29     | DRB1*11:57+DRB1*13:63        |                              |
| DRB1*11:06:01G+DRB1*13:32     | DRB1*11:40+DRB1*13:58        |                              |
| DRB1*11:06:01G+DRB1*13:33:01  | DRB1*11:27:03+DRB1*13:81     |                              |
| DRB1*11:06:01G+DRB1*13:33:02  | DRB1*11:27:01+DRB1*13:81     |                              |
| DRB1*11:06:01G+DRB1*13:34     | DRB1*11:21+DRB1*13:136       |                              |
| DRB1*11:06:01G+DRB1*13:56     | DRB1*11:57+DRB1*13:05:01     |                              |
| DRB1*11:06:01G+DRB1*13:65     | DRB1*11:122+DRB1*13:58       |                              |
| DRB1*11:06:01G+DRB1*13:94     | DRB1*11:84:02+DRB1*13:81     |                              |
| DRB1*11:06:01G+DRB1*13:97:01  | DRB1*11:21+DRB1*13:132       |                              |
| DRB1*11:06:01G+DRB1*13:118    | DRB1*11:39+DRB1*13:58        |                              |
| DRB1*11:06:01G+DRB1*13:134    | DRB1*11:57+DRB1*13:49        |                              |
| DRB1*11:06:01G+DRB1*14:03:01  | DRB1*11:57+DRB1*14:27        |                              |
| DRB1*11:06:01G+DRB1*14:05:01  | DRB1*11:06:02+DRB1*14:05:03  |                              |
| DRB1*11:06:01G+DRB1*14:32:02  | DRB1*11:06:02+DRB1*14:32:01  |                              |
| DRB1*11:06:01G+DRB1*14:44:01  | DRB1*11:06:02+DRB1*14:44:02  |                              |
| DRB1*11:06:01G+DRB1*14:47     | DRB1*11:27:01+DRB1*14:29     |                              |
| DRB1*11:06:01G+DRB1*14:69     | DRB1*11:57+DRB1*14:25        |                              |
| DRB1*11:06:01G+DRB1*14:86     | DRB1*11:43+DRB1*14:99        |                              |
| DRB1*11:06:01G+DRB1*14:106    | DRB1*11:54:02+DRB1*14:29     |                              |
| DRB1*11:06:01G+DRB1*15:05     | DRB1*11:57+DRB1*15:04        |                              |
| DRB1*11:06:01G+DRB1*15:07:01  | DRB1*11:56+DRB1*15:35        |                              |
| DRB1*11:06:01G+DRB1*15:08     | DRB1*11:111+DRB1*15:35       |                              |
| DRB1*11:06:01G+DRB1*15:11     | DRB1*11:37:01+DRB1*15:35     |                              |
| DRB1*11:06:01G+DRB1*15:31     | DRB1*11:57+DRB1*15:15        |                              |
| DRB1*11:06:01G+DRB1*15:32     | DRB1*11:58:02+DRB1*15:35     |                              |
| DRB1*11:06:01G+DRB1*15:37     | DRB1*11:84:02+DRB1*15:35     |                              |
| DRB1*11:06:01G+DRB1*15:43     | DRB1*11:78+DRB1*15:35        |                              |
| DRB1*11:06:01G+DRB1*15:47     | DRB1*11:39+DRB1*15:35        |                              |
| DRB1*11:06:01G+DRB1*15:48     | DRB1*11:88+DRB1*15:35        |                              |
| DRB1*11:06:01G+DRB1*15:60     | DRB1*11:108+DRB1*15:35       |                              |
| DRB1*11:06:01G+DRB1*15:62     | DRB1*11:46:02+DRB1*15:35     |                              |
| DRB1*11:06:01G+DRB1*15:65     | DRB1*11:43+DRB1*15:35        |                              |
| DRB1*11:06:01G+DRB1*15:68     | DRB1*11:109+DRB1*15:35       |                              |
| DRB1*11:06:01G+DRB1*15:71     | DRB1*11:116+DRB1*15:35       |                              |
| DRB1*11:06:01G+DRB1*16:02:01  | DRB1*11:57+DRB1*16:01:01     |                              |
| DRB1*11:06:01G+DRB1*16:02:02  | DRB1*11:57+DRB1*16:01:02     |                              |
| DRB1*11:06:01G+DRB1*16:10     | DRB1*11:57+DRB1*16:09        |                              |

|                              |                              |                            |                        |
|------------------------------|------------------------------|----------------------------|------------------------|
| DRB1*11:06:02+DRB1*12:22     | DRB1*11:27:01+DRB1*12:01:01G |                            |                        |
| DRB1*11:06:02+DRB1*14:16     | DRB1*11:21+DRB1*14:105       |                            |                        |
| DRB1*11:06:02+DRB1*14:38     | DRB1*11:84:01+DRB1*14:99     |                            |                        |
| DRB1*11:06:02+DRB1*14:50     | DRB1*11:84:01+DRB1*14:28     |                            |                        |
| DRB1*11:06:02+DRB1*14:74     | DRB1*11:57+DRB1*14:105       |                            |                        |
| DRB1*11:06:02+DRB1*14:93     | DRB1*11:27:02+DRB1*14:28     |                            |                        |
| DRB1*11:06:02+DRB1*14:106    | DRB1*11:54:01+DRB1*14:29     |                            |                        |
| DRB1*11:06:02+DRB1*15:01:19  | DRB1*11:06:03+DRB1*15:01:03  |                            |                        |
| DRB1*11:07+DRB1*11:08:01     | DRB1*11:42+DRB1*11:103       |                            |                        |
| DRB1*11:07+DRB1*11:09        | DRB1*11:103+DRB1*11:113      |                            |                        |
| DRB1*11:07+DRB1*11:19:01     | DRB1*11:18+DRB1*11:103       |                            |                        |
| DRB1*11:07+DRB1*11:20        | DRB1*11:16+DRB1*11:103       |                            |                        |
| DRB1*11:07+DRB1*11:26        | DRB1*11:34+DRB1*11:103       |                            |                        |
| DRB1*11:07+DRB1*11:27:01     | DRB1*11:84:01+DRB1*11:103    |                            |                        |
| DRB1*11:07+DRB1*11:27:02     | DRB1*11:84:02+DRB1*11:103    |                            |                        |
| DRB1*11:07+DRB1*11:28:01     | DRB1*11:58:02+DRB1*11:103    |                            |                        |
| DRB1*11:07+DRB1*11:28:02     | DRB1*11:58:01+DRB1*11:103    |                            |                        |
| DRB1*11:07+DRB1*11:33        | DRB1*11:35+DRB1*11:103       |                            |                        |
| DRB1*11:07+DRB1*11:39        | DRB1*11:43+DRB1*11:103       |                            |                        |
| DRB1*11:07+DRB1*11:45        | DRB1*11:103+DRB1*11:119      |                            |                        |
| DRB1*11:07+DRB1*11:49:01     | DRB1*11:44+DRB1*11:103       |                            |                        |
| DRB1*11:07+DRB1*11:62        | DRB1*11:46:02+DRB1*11:103    |                            |                        |
| DRB1*11:07+DRB1*11:68        | DRB1*11:36+DRB1*11:103       |                            |                        |
| DRB1*11:07+DRB1*11:109       | DRB1*11:60+DRB1*11:103       |                            |                        |
| DRB1*11:07+DRB1*11:120       | DRB1*11:103+DRB1*11:116      |                            |                        |
| DRB1*11:07+DRB1*11:122       | DRB1*11:40+DRB1*11:103       |                            |                        |
| DRB1*11:07+DRB1*13:02:03     | DRB1*11:103+DRB1*13:01:05    |                            |                        |
| DRB1*11:07+DRB1*13:03:01     | DRB1*11:103+DRB1*13:89       |                            |                        |
| DRB1*11:07+DRB1*13:03:02     | DRB1*11:105+DRB1*13:94       |                            |                        |
| DRB1*11:07+DRB1*13:07:02     | DRB1*11:107+DRB1*13:11:02    |                            |                        |
| DRB1*11:07+DRB1*13:14:02     | DRB1*11:103+DRB1*13:11:02    |                            |                        |
| DRB1*11:07+DRB1*13:39        | DRB1*11:103+DRB1*13:79       |                            |                        |
| DRB1*11:07+DRB1*13:49        | DRB1*11:103+DRB1*13:108      |                            |                        |
| DRB1*11:07+DRB1*13:65        | DRB1*11:103+DRB1*13:32       | DRB1*11:107+DRB1*13:93     |                        |
| DRB1*11:07+DRB1*13:96:01     | DRB1*11:103+DRB1*13:61:02    |                            |                        |
| DRB1*11:07+DRB1*13:96:02     | DRB1*11:103+DRB1*13:61:01    |                            |                        |
| DRB1*11:07+DRB1*13:128       | DRB1*11:103+DRB1*13:112      |                            |                        |
| DRB1*11:07+DRB1*13:139       | DRB1*11:103+DRB1*13:93       |                            |                        |
| DRB1*11:07+DRB1*14:07:01     | DRB1*11:103+DRB1*14:01:01G   | DRB1*11:107+DRB1*14:35     |                        |
| DRB1*11:07+DRB1*14:09        | DRB1*11:103+DRB1*14:80       | DRB1*11:107+DRB1*14:17     |                        |
| DRB1*11:07+DRB1*14:22        | DRB1*11:125+DRB1*14:74       |                            |                        |
| DRB1*11:07+DRB1*14:44:01     | DRB1*11:103+DRB1*14:05:01    |                            |                        |
| DRB1*11:07+DRB1*14:44:02     | DRB1*11:103+DRB1*14:05:03    |                            |                        |
| DRB1*11:07+DRB1*14:51        | DRB1*11:103+DRB1*14:106      |                            |                        |
| DRB1*11:07+DRB1*14:63        | DRB1*11:103+DRB1*14:78       |                            |                        |
| DRB1*11:07+DRB1*14:68        | DRB1*11:103+DRB1*14:04       |                            |                        |
| DRB1*11:07+DRB1*14:73        | DRB1*11:54:01+DRB1*14:79     |                            |                        |
| DRB1*11:07+DRB1*14:105       | DRB1*11:84:02+DRB1*14:111    |                            |                        |
| DRB1*11:07+DRB1*15:02:01     | DRB1*11:82+DRB1*15:25        | DRB1*11:103+DRB1*15:01:01G | DRB1*11:105+DRB1*15:37 |
| DRB1*11:07+DRB1*15:02:02     | DRB1*11:103+DRB1*15:01:04    |                            |                        |
| DRB1*11:07+DRB1*15:02:04     | DRB1*11:103+DRB1*15:01:09    |                            |                        |
| DRB1*11:07+DRB1*15:02:06     | DRB1*11:103+DRB1*15:01:03    |                            |                        |
| DRB1*11:07+DRB1*15:02:08     | DRB1*11:103+DRB1*15:01:10    |                            |                        |
| DRB1*11:07+DRB1*15:11        | DRB1*11:103+DRB1*15:07:01    | DRB1*11:107+DRB1*15:01:01G |                        |
| DRB1*11:07+DRB1*15:15        | DRB1*11:69+DRB1*15:25        | DRB1*11:103+DRB1*15:04     | DRB1*11:125+DRB1*15:05 |
| DRB1*11:07+DRB1*15:21        | DRB1*11:119+DRB1*15:25       |                            |                        |
| DRB1*11:07+DRB1*15:27        | DRB1*11:26+DRB1*15:25        | DRB1*11:103+DRB1*15:66     |                        |
| DRB1*11:07+DRB1*15:31        | DRB1*11:103+DRB1*15:05       |                            |                        |
| DRB1*11:07+DRB1*15:34        | DRB1*11:107+DRB1*15:66       |                            |                        |
| DRB1*11:07+DRB1*15:47        | DRB1*11:103+DRB1*15:65       |                            |                        |
| DRB1*11:07+DRB1*15:66        | DRB1*11:34+DRB1*15:25        |                            |                        |
| DRB1*11:07+DRB1*16:01:01     | DRB1*11:103+DRB1*16:15       |                            |                        |
| DRB1*11:07+DRB1*16:01:02     | DRB1*11:37:01+DRB1*15:25     |                            |                        |
| DRB1*11:08:01+DRB1*11:10:01  | DRB1*11:08:02+DRB1*11:10:02  |                            |                        |
| DRB1*11:08:01+DRB1*11:14:01  | DRB1*11:19:01+DRB1*11:68     |                            |                        |
| DRB1*11:08:01+DRB1*11:14:02  | DRB1*11:08:02+DRB1*11:14:01  | DRB1*11:19:03+DRB1*11:68   |                        |
| DRB1*11:08:01+DRB1*11:16     | DRB1*11:20+DRB1*11:42        |                            |                        |
| DRB1*11:08:01+DRB1*11:18     | DRB1*11:19:01+DRB1*11:42     |                            |                        |
| DRB1*11:08:01+DRB1*11:19:03  | DRB1*11:08:02+DRB1*11:19:01  |                            |                        |
| DRB1*11:08:01+DRB1*11:21     | DRB1*11:14:01+DRB1*11:57     |                            |                        |
| DRB1*11:08:01+DRB1*11:27:03  | DRB1*11:08:02+DRB1*11:27:02  |                            |                        |
| DRB1*11:08:01+DRB1*11:34     | DRB1*11:26+DRB1*11:42        |                            |                        |
| DRB1*11:08:01+DRB1*11:35     | DRB1*11:33+DRB1*11:42        |                            |                        |
| DRB1*11:08:01+DRB1*11:36     | DRB1*11:42+DRB1*11:68        |                            |                        |
| DRB1*11:08:01+DRB1*11:37:02  | DRB1*11:08:02+DRB1*11:37:01  |                            |                        |
| DRB1*11:08:01+DRB1*11:40     | DRB1*11:09+DRB1*11:36        | DRB1*11:42+DRB1*11:122     | DRB1*11:68+DRB1*11:113 |
| DRB1*11:08:01+DRB1*11:41     | DRB1*11:36+DRB1*11:37:01     | DRB1*11:56+DRB1*11:68      |                        |
| DRB1*11:08:01+DRB1*11:43     | DRB1*11:39+DRB1*11:42        |                            |                        |
| DRB1*11:08:01+DRB1*11:44     | DRB1*11:42+DRB1*11:49:01     |                            |                        |
| DRB1*11:08:01+DRB1*11:45     | DRB1*11:19:01+DRB1*11:64     |                            |                        |
| DRB1*11:08:01+DRB1*11:46:02  | DRB1*11:42+DRB1*11:62        |                            |                        |
| DRB1*11:08:01+DRB1*11:47     | DRB1*11:29+DRB1*11:57        |                            |                        |
| DRB1*11:08:01+DRB1*11:49:02  | DRB1*11:08:02+DRB1*11:49:01  |                            |                        |
| DRB1*11:08:01+DRB1*11:56     | DRB1*11:37:01+DRB1*11:42     |                            |                        |
| DRB1*11:08:01+DRB1*11:58:01  | DRB1*11:28:02+DRB1*11:42     |                            |                        |
| DRB1*11:08:01+DRB1*11:58:02  | DRB1*11:28:01+DRB1*11:42     |                            |                        |
| DRB1*11:08:01+DRB1*11:59     | DRB1*11:36+DRB1*11:87        |                            |                        |
| DRB1*11:08:01+DRB1*11:60     | DRB1*11:42+DRB1*11:109       |                            |                        |
| DRB1*11:08:01+DRB1*11:63     | DRB1*11:29+DRB1*11:36        |                            |                        |
| DRB1*11:08:01+DRB1*11:74:02  | DRB1*11:08:02+DRB1*11:74:01  |                            |                        |
| DRB1*11:08:01+DRB1*11:84:01  | DRB1*11:27:01+DRB1*11:42     |                            |                        |
| DRB1*11:08:01+DRB1*11:84:02  | DRB1*11:27:02+DRB1*11:42     |                            |                        |
| DRB1*11:08:01+DRB1*11:85     | DRB1*11:36+DRB1*11:49:01     | DRB1*11:44+DRB1*11:68      |                        |
| DRB1*11:08:01+DRB1*11:113    | DRB1*11:09+DRB1*11:42        |                            |                        |
| DRB1*11:08:01+DRB1*11:116    | DRB1*11:42+DRB1*11:120       |                            |                        |
| DRB1*11:08:01+DRB1*11:119    | DRB1*11:18+DRB1*11:64        | DRB1*11:42+DRB1*11:45      |                        |
| DRB1*11:08:01+DRB1*11:122    | DRB1*11:09+DRB1*11:68        |                            |                        |
| DRB1*11:08:01+DRB1*12:01:01G | DRB1*11:19:01+DRB1*12:12     |                            |                        |
| DRB1*11:08:01+DRB1*12:09     | DRB1*12:04+DRB1*13:25        |                            |                        |
| DRB1*11:08:01+DRB1*12:21     | DRB1*11:37:01+DRB1*12:12     |                            |                        |
| DRB1*11:08:01+DRB1*13:01:05  | DRB1*11:42+DRB1*13:02:03     |                            |                        |
| DRB1*11:08:01+DRB1*13:01:08  | DRB1*11:08:02+DRB1*13:01:01G | DRB1*11:19:03+DRB1*13:20   |                        |
| DRB1*11:08:01+DRB1*13:02:01  | DRB1*11:14:01+DRB1*13:56     | DRB1*11:19:01+DRB1*13:29   | DRB1*11:20+DRB1*13:25  |
| DRB1*11:08:01+DRB1*13:02:02  | DRB1*11:19:02+DRB1*13:29     |                            |                        |
| DRB1*11:08:01+DRB1*13:03:01  | DRB1*11:08:02+DRB1*13:03:02  | DRB1*11:19:01+DRB1*13:88   | DRB1*11:73+DRB1*13:134 |

|                              |                             |                              |                          |
|------------------------------|-----------------------------|------------------------------|--------------------------|
| DRB1*11:08:01+DRB1*13:04     | DRB1*11:36+DRB1*13:30       |                              |                          |
| DRB1*11:08:01+DRB1*13:06     | DRB1*11:18+DRB1*13:56       |                              |                          |
| DRB1*11:08:01+DRB1*13:07:01  | DRB1*11:37:01+DRB1*13:25    |                              |                          |
| DRB1*11:08:01+DRB1*13:11:02  | DRB1*11:42+DRB1*13:14:02    |                              |                          |
| DRB1*11:08:01+DRB1*13:12:01  | DRB1*11:19:01+DRB1*13:134   |                              |                          |
| DRB1*11:08:01+DRB1*13:12:02  | DRB1*11:08:02+DRB1*13:12:01 | DRB1*11:19:03+DRB1*13:134    |                          |
| DRB1*11:08:01+DRB1*13:13     | DRB1*11:45+DRB1*13:134      | DRB1*11:64+DRB1*13:12:01     |                          |
| DRB1*11:08:01+DRB1*13:15     | DRB1*11:42+DRB1*13:104      |                              |                          |
| DRB1*11:08:01+DRB1*13:16     | DRB1*11:86+DRB1*13:56       |                              |                          |
| DRB1*11:08:01+DRB1*13:20     | DRB1*11:36+DRB1*13:56       | DRB1*11:42+DRB1*13:29        |                          |
| DRB1*11:08:01+DRB1*13:21:02  | DRB1*11:08:02+DRB1*13:21:01 |                              |                          |
| DRB1*11:08:01+DRB1*13:23:01  | DRB1*11:08:02+DRB1*13:23:02 | DRB1*11:14:02+DRB1*13:25     |                          |
| DRB1*11:08:01+DRB1*13:23:02  | DRB1*11:14:01+DRB1*13:25    | DRB1*11:68+DRB1*13:82        |                          |
| DRB1*11:08:01+DRB1*13:27     | DRB1*11:19:01+DRB1*13:71    | DRB1*11:42+DRB1*13:41        |                          |
| DRB1*11:08:01+DRB1*13:29     | DRB1*11:68+DRB1*13:56       |                              |                          |
| DRB1*11:08:01+DRB1*13:32     | DRB1*11:16+DRB1*13:134      | DRB1*11:42+DRB1*13:65        |                          |
| DRB1*11:08:01+DRB1*13:33:03  | DRB1*11:08:02+DRB1*13:33:02 |                              |                          |
| DRB1*11:08:01+DRB1*13:38     | DRB1*11:14:02+DRB1*13:134   | DRB1*11:68+DRB1*13:12:02     |                          |
| DRB1*11:08:01+DRB1*13:40     | DRB1*11:42+DRB1*13:36       | DRB1*11:48+DRB1*13:56        |                          |
| DRB1*11:08:01+DRB1*13:44     | DRB1*11:34+DRB1*13:25       |                              |                          |
| DRB1*11:08:01+DRB1*13:50:01  | DRB1*11:28:01+DRB1*13:25    |                              |                          |
| DRB1*11:08:01+DRB1*13:50:02  | DRB1*11:28:02+DRB1*13:25    |                              |                          |
| DRB1*11:08:01+DRB1*13:52     | DRB1*11:42+DRB1*13:97:01    | DRB1*11:118+DRB1*13:25       |                          |
| DRB1*11:08:01+DRB1*13:54     | DRB1*11:36+DRB1*13:100      |                              |                          |
| DRB1*11:08:01+DRB1*13:55     | DRB1*11:23+DRB1*13:134      |                              |                          |
| DRB1*11:08:01+DRB1*13:58     | DRB1*11:57+DRB1*13:12:01    |                              |                          |
| DRB1*11:08:01+DRB1*13:61:01  | DRB1*11:42+DRB1*13:96:02    | DRB1*11:124+DRB1*13:56       |                          |
| DRB1*11:08:01+DRB1*13:61:02  | DRB1*11:42+DRB1*13:96:01    |                              |                          |
| DRB1*11:08:01+DRB1*13:62     | DRB1*11:15+DRB1*13:25       |                              |                          |
| DRB1*11:08:01+DRB1*13:65     | DRB1*11:20+DRB1*13:134      |                              |                          |
| DRB1*11:08:01+DRB1*13:66:02  | DRB1*11:08:02+DRB1*13:66:01 |                              |                          |
| DRB1*11:08:01+DRB1*13:70     | DRB1*11:48+DRB1*13:25       |                              |                          |
| DRB1*11:08:01+DRB1*13:75     | DRB1*11:36+DRB1*13:21:01    |                              |                          |
| DRB1*11:08:01+DRB1*13:79     | DRB1*11:19:01+DRB1*13:78    | DRB1*11:42+DRB1*13:39        |                          |
| DRB1*11:08:01+DRB1*13:81     | DRB1*11:57+DRB1*13:03:02    |                              |                          |
| DRB1*11:08:01+DRB1*13:82     | DRB1*11:19:01+DRB1*13:25    |                              |                          |
| DRB1*11:08:01+DRB1*13:83     | DRB1*11:42+DRB1*13:107      |                              |                          |
| DRB1*11:08:01+DRB1*13:89     | DRB1*11:18+DRB1*13:88       | DRB1*11:42+DRB1*13:03:01     |                          |
| DRB1*11:08:01+DRB1*13:93     | DRB1*11:42+DRB1*13:139      |                              |                          |
| DRB1*11:08:01+DRB1*13:112    | DRB1*11:42+DRB1*13:128      |                              |                          |
| DRB1*11:08:01+DRB1*13:119    | DRB1*11:64+DRB1*13:56       |                              |                          |
| DRB1*11:08:01+DRB1*14:01:01G | DRB1*11:42+DRB1*14:07:01    |                              |                          |
| DRB1*11:08:01+DRB1*14:04     | DRB1*11:42+DRB1*14:68       |                              |                          |
| DRB1*11:08:01+DRB1*14:05:01  | DRB1*11:42+DRB1*14:44:01    |                              |                          |
| DRB1*11:08:01+DRB1*14:05:03  | DRB1*11:42+DRB1*14:44:02    |                              |                          |
| DRB1*11:08:01+DRB1*14:06:01  | DRB1*11:42+DRB1*14:02       |                              |                          |
| DRB1*11:08:01+DRB1*14:06:02  | DRB1*11:08:02+DRB1*14:06:01 |                              |                          |
| DRB1*11:08:01+DRB1*14:07:02  | DRB1*11:08:02+DRB1*14:07:01 |                              |                          |
| DRB1*11:08:01+DRB1*14:12:01  | DRB1*11:42+DRB1*14:03:01    |                              |                          |
| DRB1*11:08:01+DRB1*14:16     | DRB1*11:14:01+DRB1*14:74    |                              |                          |
| DRB1*11:08:01+DRB1*14:17     | DRB1*11:34+DRB1*13:56       | DRB1*11:42+DRB1*14:30        |                          |
| DRB1*11:08:01+DRB1*14:22     | DRB1*11:10:02+DRB1*14:69    |                              |                          |
| DRB1*11:08:01+DRB1*14:23:01  | DRB1*11:17+DRB1*13:25       | DRB1*11:42+DRB1*14:14        |                          |
| DRB1*11:08:01+DRB1*14:28     | DRB1*11:57+DRB1*14:68       |                              |                          |
| DRB1*11:08:01+DRB1*14:29     | DRB1*11:57+DRB1*14:02       |                              |                          |
| DRB1*11:08:01+DRB1*14:30     | DRB1*11:26+DRB1*13:56       |                              |                          |
| DRB1*11:08:01+DRB1*14:32:02  | DRB1*11:13:01G+DRB1*14:69   |                              |                          |
| DRB1*11:08:01+DRB1*14:44:03  | DRB1*11:08:02+DRB1*14:44:01 |                              |                          |
| DRB1*11:08:01+DRB1*14:45     | DRB1*11:18+DRB1*14:44:01    | DRB1*11:19:01+DRB1*14:05:01  |                          |
| DRB1*11:08:01+DRB1*14:55     | DRB1*11:64+DRB1*14:32:02    |                              |                          |
| DRB1*11:08:01+DRB1*14:63     | DRB1*11:19:01+DRB1*14:85    |                              |                          |
| DRB1*11:08:01+DRB1*14:67     | DRB1*11:19:01+DRB1*14:03:01 |                              |                          |
| DRB1*11:08:01+DRB1*14:78     | DRB1*11:18+DRB1*14:85       | DRB1*11:42+DRB1*14:63        |                          |
| DRB1*11:08:01+DRB1*14:80     | DRB1*11:42+DRB1*14:09       |                              |                          |
| DRB1*11:08:01+DRB1*14:89     | DRB1*11:26+DRB1*14:03:01    | DRB1*11:64+DRB1*14:02        |                          |
| DRB1*11:08:01+DRB1*14:99     | DRB1*11:57+DRB1*14:07:01    |                              |                          |
| DRB1*11:08:01+DRB1*14:106    | DRB1*11:42+DRB1*14:51       |                              |                          |
| DRB1*11:08:01+DRB1*14:120    | DRB1*11:18+DRB1*14:68       | DRB1*11:19:01+DRB1*14:04     |                          |
| DRB1*11:08:01+DRB1*14:122    | DRB1*11:18+DRB1*14:07:01    | DRB1*11:19:01+DRB1*14:01:01G | DRB1*11:31+DRB1*14:101   |
| DRB1*11:08:01+DRB1*14:126    | DRB1*13:25+DRB1*14:11       |                              |                          |
| DRB1*11:08:01+DRB1*15:01:01G | DRB1*11:18+DRB1*15:31       | DRB1*11:19:01+DRB1*15:05     | DRB1*11:42+DRB1*15:02:01 |
| DRB1*11:08:01+DRB1*15:01:03  | DRB1*11:42+DRB1*15:02:06    |                              |                          |
| DRB1*11:08:01+DRB1*15:01:04  | DRB1*11:42+DRB1*15:02:02    |                              |                          |
| DRB1*11:08:01+DRB1*15:01:09  | DRB1*11:42+DRB1*15:02:04    |                              |                          |
| DRB1*11:08:01+DRB1*15:01:10  | DRB1*11:42+DRB1*15:02:08    |                              |                          |
| DRB1*11:08:01+DRB1*15:02:01  | DRB1*11:19:01+DRB1*15:31    |                              |                          |
| DRB1*11:08:01+DRB1*15:02:05  | DRB1*11:08:02+DRB1*15:02:02 |                              |                          |
| DRB1*11:08:01+DRB1*15:02:09  | DRB1*11:08:02+DRB1*15:02:01 | DRB1*11:19:03+DRB1*15:31     |                          |
| DRB1*11:08:01+DRB1*15:03:01G | DRB1*11:19:01+DRB1*15:23    |                              |                          |
| DRB1*11:08:01+DRB1*15:05     | DRB1*11:42+DRB1*15:31       |                              |                          |
| DRB1*11:08:01+DRB1*15:06:01  | DRB1*11:19:01+DRB1*15:73    |                              |                          |
| DRB1*11:08:01+DRB1*15:07:01  | DRB1*11:42+DRB1*15:11       |                              |                          |
| DRB1*11:08:01+DRB1*15:11     | DRB1*11:82+DRB1*16:02:02    |                              |                          |
| DRB1*11:08:01+DRB1*15:34     | DRB1*11:26+DRB1*16:02:02    |                              |                          |
| DRB1*11:08:01+DRB1*15:35     | DRB1*11:57+DRB1*15:02:01    |                              |                          |
| DRB1*11:08:01+DRB1*15:38     | DRB1*11:19:01+DRB1*15:63    |                              |                          |
| DRB1*11:08:01+DRB1*15:65     | DRB1*11:42+DRB1*15:47       |                              |                          |
| DRB1*11:08:01+DRB1*15:66     | DRB1*11:42+DRB1*15:27       |                              |                          |
| DRB1*11:08:01+DRB1*16:05:01  | DRB1*11:19:01+DRB1*16:02:01 | DRB1*11:19:02+DRB1*16:02:02  |                          |
| DRB1*11:08:01+DRB1*16:18     | DRB1*11:64+DRB1*16:02:02    |                              |                          |
| DRB1*11:08:02+DRB1*11:18     | DRB1*11:19:03+DRB1*11:42    |                              |                          |
| DRB1*11:08:02+DRB1*11:21     | DRB1*11:14:02+DRB1*11:57    |                              |                          |
| DRB1*11:08:02+DRB1*11:41     | DRB1*11:36+DRB1*11:37:02    |                              |                          |
| DRB1*11:08:02+DRB1*11:44     | DRB1*11:42+DRB1*11:49:02    |                              |                          |
| DRB1*11:08:02+DRB1*11:45     | DRB1*11:19:03+DRB1*11:64    |                              |                          |
| DRB1*11:08:02+DRB1*11:55     | DRB1*11:23+DRB1*11:36       |                              |                          |
| DRB1*11:08:02+DRB1*11:56     | DRB1*11:37:02+DRB1*11:42    |                              |                          |
| DRB1*11:08:02+DRB1*11:84:02  | DRB1*11:27:03+DRB1*11:42    |                              |                          |
| DRB1*11:08:02+DRB1*11:85     | DRB1*11:36+DRB1*11:49:02    |                              |                          |
| DRB1*11:08:02+DRB1*11:92     | DRB1*11:42+DRB1*11:72       |                              |                          |
| DRB1*11:08:02+DRB1*12:01:01G | DRB1*11:19:03+DRB1*12:12    |                              |                          |
| DRB1*11:08:02+DRB1*12:21     | DRB1*11:37:02+DRB1*12:12    |                              |                          |
| DRB1*11:08:02+DRB1*13:02:01  | DRB1*11:14:02+DRB1*13:56    | DRB1*11:19:03+DRB1*13:29     |                          |
| DRB1*11:08:02+DRB1*13:03:01  | DRB1*11:19:03+DRB1*13:88    |                              |                          |
| DRB1*11:08:02+DRB1*13:07:01  | DRB1*11:37:02+DRB1*13:25    |                              |                          |

|                              |                              |                              |                             |
|------------------------------|------------------------------|------------------------------|-----------------------------|
| DRB1*11:08:02+DRB1*13:13     | DRB1*11:64+DRB1*13:12:02     |                              |                             |
| DRB1*11:08:02+DRB1*13:22     | DRB1*11:42+DRB1*13:23:01     |                              |                             |
| DRB1*11:08:02+DRB1*13:24     | DRB1*11:36+DRB1*13:14:03     |                              |                             |
| DRB1*11:08:02+DRB1*13:27     | DRB1*11:19:03+DRB1*13:71     |                              |                             |
| DRB1*11:08:02+DRB1*13:48     | DRB1*11:36+DRB1*13:12:02     | DRB1*11:42+DRB1*13:38        | DRB1*11:98+DRB1*13:88       |
| DRB1*11:08:02+DRB1*13:58     | DRB1*11:57+DRB1*13:12:02     |                              |                             |
| DRB1*11:08:02+DRB1*13:75     | DRB1*11:36+DRB1*13:21:02     |                              |                             |
| DRB1*11:08:02+DRB1*13:79     | DRB1*11:19:03+DRB1*13:78     |                              |                             |
| DRB1*11:08:02+DRB1*13:81     | DRB1*11:57+DRB1*13:03:01     |                              |                             |
| DRB1*11:08:02+DRB1*13:82     | DRB1*11:19:03+DRB1*13:25     |                              |                             |
| DRB1*11:08:02+DRB1*13:94     | DRB1*11:42+DRB1*13:33:01     |                              |                             |
| DRB1*11:08:02+DRB1*14:01:01G | DRB1*11:42+DRB1*14:07:02     |                              |                             |
| DRB1*11:08:02+DRB1*14:05:01  | DRB1*11:42+DRB1*14:44:03     |                              |                             |
| DRB1*11:08:02+DRB1*14:16     | DRB1*11:14:02+DRB1*14:74     |                              |                             |
| DRB1*11:08:02+DRB1*14:22     | DRB1*11:10:01+DRB1*14:69     |                              |                             |
| DRB1*11:08:02+DRB1*14:45     | DRB1*11:18+DRB1*14:44:03     | DRB1*11:19:03+DRB1*14:05:01  |                             |
| DRB1*11:08:02+DRB1*14:63     | DRB1*11:19:03+DRB1*14:85     |                              |                             |
| DRB1*11:08:02+DRB1*14:67     | DRB1*11:19:03+DRB1*14:03:01  |                              |                             |
| DRB1*11:08:02+DRB1*14:99     | DRB1*11:57+DRB1*14:07:02     |                              |                             |
| DRB1*11:08:02+DRB1*14:120    | DRB1*11:19:03+DRB1*14:04     |                              |                             |
| DRB1*11:08:02+DRB1*14:122    | DRB1*11:18+DRB1*14:07:02     | DRB1*11:19:03+DRB1*14:01:01G |                             |
| DRB1*11:08:02+DRB1*15:01:01G | DRB1*11:19:03+DRB1*15:05     | DRB1*11:42+DRB1*15:02:09     |                             |
| DRB1*11:08:02+DRB1*15:01:04  | DRB1*11:42+DRB1*15:02:05     |                              |                             |
| DRB1*11:08:02+DRB1*15:03:01G | DRB1*11:19:03+DRB1*15:23     |                              |                             |
| DRB1*11:08:02+DRB1*15:06:01  | DRB1*11:19:03+DRB1*15:73     |                              |                             |
| DRB1*11:08:02+DRB1*15:35     | DRB1*11:57+DRB1*15:02:09     |                              |                             |
| DRB1*11:08:02+DRB1*15:38     | DRB1*11:19:03+DRB1*15:63     |                              |                             |
| DRB1*11:08:02+DRB1*16:05:01  | DRB1*11:19:03+DRB1*16:02:01  |                              |                             |
| DRB1*11:09+DRB1*11:12:01     | DRB1*11:10:02+DRB1*11:28:01  |                              |                             |
| DRB1*11:09+DRB1*11:12:02     | DRB1*11:10:02+DRB1*11:28:02  |                              |                             |
| DRB1*11:09+DRB1*11:16        | DRB1*11:20+DRB1*11:113       |                              |                             |
| DRB1*11:09+DRB1*11:18        | DRB1*11:19:01+DRB1*11:113    |                              |                             |
| DRB1*11:09+DRB1*11:34        | DRB1*11:26+DRB1*11:113       |                              |                             |
| DRB1*11:09+DRB1*11:35        | DRB1*11:33+DRB1*11:113       |                              |                             |
| DRB1*11:09+DRB1*11:40        | DRB1*11:113+DRB1*11:122      |                              |                             |
| DRB1*11:09+DRB1*11:41        | DRB1*11:37:01+DRB1*11:40     | DRB1*11:56+DRB1*11:122       |                             |
| DRB1*11:09+DRB1*11:43        | DRB1*11:39+DRB1*11:113       | DRB1*11:62+DRB1*11:115       |                             |
| DRB1*11:09+DRB1*11:44        | DRB1*11:49:01+DRB1*11:113    |                              |                             |
| DRB1*11:09+DRB1*11:46:02     | DRB1*11:62+DRB1*11:113       |                              |                             |
| DRB1*11:09+DRB1*11:48        | DRB1*11:16+DRB1*11:37:01     | DRB1*11:20+DRB1*11:56        |                             |
| DRB1*11:09+DRB1*11:55        | DRB1*11:25+DRB1*11:122       |                              |                             |
| DRB1*11:09+DRB1*11:56        | DRB1*11:37:01+DRB1*11:113    |                              |                             |
| DRB1*11:09+DRB1*11:58:01     | DRB1*11:28:02+DRB1*11:113    |                              |                             |
| DRB1*11:09+DRB1*11:58:02     | DRB1*11:28:01+DRB1*11:113    |                              |                             |
| DRB1*11:09+DRB1*11:59        | DRB1*11:40+DRB1*11:87        |                              |                             |
| DRB1*11:09+DRB1*11:60        | DRB1*11:109+DRB1*11:113      |                              |                             |
| DRB1*11:09+DRB1*11:63        | DRB1*11:29+DRB1*11:40        |                              |                             |
| DRB1*11:09+DRB1*11:65:01     | DRB1*11:16+DRB1*11:33        | DRB1*11:20+DRB1*11:35        |                             |
| DRB1*11:09+DRB1*11:70        | DRB1*11:16+DRB1*11:32        |                              |                             |
| DRB1*11:09+DRB1*11:80        | DRB1*11:62+DRB1*11:87        |                              |                             |
| DRB1*11:09+DRB1*11:84:01     | DRB1*11:27:01+DRB1*11:113    |                              |                             |
| DRB1*11:09+DRB1*11:84:02     | DRB1*11:27:02+DRB1*11:113    |                              |                             |
| DRB1*11:09+DRB1*11:85        | DRB1*11:40+DRB1*11:49:01     | DRB1*11:44+DRB1*11:122       |                             |
| DRB1*11:09+DRB1*11:116       | DRB1*11:113+DRB1*11:120      |                              |                             |
| DRB1*11:09+DRB1*11:118       | DRB1*11:20+DRB1*11:46:01     |                              |                             |
| DRB1*11:09+DRB1*11:119       | DRB1*11:45+DRB1*11:113       |                              |                             |
| DRB1*11:09+DRB1*11:124       | DRB1*11:16+DRB1*11:27:01     | DRB1*11:20+DRB1*11:84:01     |                             |
| DRB1*11:09+DRB1*11:127       | DRB1*11:16+DRB1*11:49:01     | DRB1*11:20+DRB1*11:44        |                             |
| DRB1*11:09+DRB1*12:09        | DRB1*12:04+DRB1*13:05:01     |                              |                             |
| DRB1*11:09+DRB1*13:01:01G    | DRB1*11:16+DRB1*13:05:01     | DRB1*11:20+DRB1*13:42        | DRB1*11:113+DRB1*13:02:01   |
|                              | DRB1*11:122+DRB1*13:06       |                              |                             |
| DRB1*11:09+DRB1*13:01:05     | DRB1*11:113+DRB1*13:02:03    |                              |                             |
| DRB1*11:09+DRB1*13:01:08     | DRB1*11:16+DRB1*13:05:02     |                              |                             |
| DRB1*11:09+DRB1*13:02:01     | DRB1*11:20+DRB1*13:05:01     |                              |                             |
| DRB1*11:09+DRB1*13:07:01     | DRB1*11:37:01+DRB1*13:05:01  |                              |                             |
| DRB1*11:09+DRB1*13:08        | DRB1*11:10:02+DRB1*13:40     |                              |                             |
| DRB1*11:09+DRB1*13:11:02     | DRB1*11:113+DRB1*13:14:02    |                              |                             |
| DRB1*11:09+DRB1*13:15        | DRB1*11:113+DRB1*13:104      |                              |                             |
| DRB1*11:09+DRB1*13:19        | DRB1*11:10:02+DRB1*13:53     |                              |                             |
| DRB1*11:09+DRB1*13:20        | DRB1*11:40+DRB1*13:56        | DRB1*11:113+DRB1*13:29       |                             |
| DRB1*11:09+DRB1*13:27        | DRB1*11:87+DRB1*13:01:01G    | DRB1*11:113+DRB1*13:41       |                             |
| DRB1*11:09+DRB1*13:29        | DRB1*11:122+DRB1*13:56       |                              |                             |
| DRB1*11:09+DRB1*13:32        | DRB1*11:113+DRB1*13:65       |                              |                             |
| DRB1*11:09+DRB1*13:33:01     | DRB1*11:27:02+DRB1*13:120    |                              |                             |
| DRB1*11:09+DRB1*13:33:03     | DRB1*11:27:01+DRB1*13:120    |                              |                             |
| DRB1*11:09+DRB1*13:34        | DRB1*11:20+DRB1*13:136       |                              |                             |
| DRB1*11:09+DRB1*13:40        | DRB1*11:113+DRB1*13:36       |                              |                             |
| DRB1*11:09+DRB1*13:41        | DRB1*11:87+DRB1*13:02:01     |                              |                             |
| DRB1*11:09+DRB1*13:42        | DRB1*11:113+DRB1*13:05:01    |                              |                             |
| DRB1*11:09+DRB1*13:50:01     | DRB1*11:28:01+DRB1*13:05:01  |                              |                             |
| DRB1*11:09+DRB1*13:50:02     | DRB1*11:28:02+DRB1*13:05:01  |                              |                             |
| DRB1*11:09+DRB1*13:52        | DRB1*11:16+DRB1*13:132       | DRB1*11:46:01+DRB1*13:02:01  | DRB1*11:113+DRB1*13:97:01   |
|                              | DRB1*11:118+DRB1*13:05:01    |                              |                             |
| DRB1*11:09+DRB1*13:53        | DRB1*11:16+DRB1*13:26:02     |                              |                             |
| DRB1*11:09+DRB1*13:54        | DRB1*11:40+DRB1*13:100       |                              |                             |
| DRB1*11:09+DRB1*13:57        | DRB1*11:10:02+DRB1*13:15     |                              |                             |
| DRB1*11:09+DRB1*13:61:01     | DRB1*11:113+DRB1*13:96:02    |                              |                             |
| DRB1*11:09+DRB1*13:61:02     | DRB1*11:113+DRB1*13:96:01    |                              |                             |
| DRB1*11:09+DRB1*13:62        | DRB1*11:15+DRB1*13:05:01     |                              |                             |
| DRB1*11:09+DRB1*13:63        | DRB1*11:122+DRB1*13:05:01    |                              |                             |
| DRB1*11:09+DRB1*13:69        | DRB1*11:16+DRB1*13:50:02     | DRB1*11:28:02+DRB1*13:01:01G | DRB1*11:58:01+DRB1*13:02:01 |
| DRB1*11:09+DRB1*13:71        | DRB1*11:59+DRB1*13:56        | DRB1*11:87+DRB1*13:20        |                             |
| DRB1*11:09+DRB1*13:75        | DRB1*11:40+DRB1*13:21:01     |                              |                             |
| DRB1*11:09+DRB1*13:79        | DRB1*11:113+DRB1*13:39       |                              |                             |
| DRB1*11:09+DRB1*13:82        | DRB1*11:19:01+DRB1*13:05:01  |                              |                             |
| DRB1*11:09+DRB1*13:83        | DRB1*11:10:02+DRB1*13:01:01G | DRB1*11:113+DRB1*13:107      |                             |
| DRB1*11:09+DRB1*13:93        | DRB1*11:113+DRB1*13:139      |                              |                             |
| DRB1*11:09+DRB1*13:97:01     | DRB1*11:20+DRB1*13:132       |                              |                             |
| DRB1*11:09+DRB1*13:97:02     | DRB1*11:62+DRB1*13:02:01     |                              |                             |
| DRB1*11:09+DRB1*13:107       | DRB1*11:10:02+DRB1*13:02:01  |                              |                             |
| DRB1*11:09+DRB1*13:108       | DRB1*11:113+DRB1*13:49       |                              |                             |
| DRB1*11:09+DRB1*13:111       | DRB1*11:40+DRB1*13:05:01     | DRB1*11:113+DRB1*13:63       | DRB1*11:122+DRB1*13:42      |
| DRB1*11:09+DRB1*13:112       | DRB1*11:113+DRB1*13:128      |                              |                             |
| DRB1*11:09+DRB1*13:115       | DRB1*11:28:01+DRB1*13:120    |                              |                             |
| DRB1*11:09+DRB1*13:129       | DRB1*11:87+DRB1*13:09        |                              |                             |

|                               |                             |                           |
|-------------------------------|-----------------------------|---------------------------|
| DRB1*11:09+DRB1*14:01:01G     | DRB1*11:113+DRB1*14:07:01   |                           |
| DRB1*11:09+DRB1*14:04         | DRB1*11:113+DRB1*14:68      |                           |
| DRB1*11:09+DRB1*14:05:01      | DRB1*11:113+DRB1*14:44:01   |                           |
| DRB1*11:09+DRB1*14:05:03      | DRB1*11:113+DRB1*14:44:02   |                           |
| DRB1*11:09+DRB1*14:06:01      | DRB1*11:113+DRB1*14:02      |                           |
| DRB1*11:09+DRB1*14:12:01      | DRB1*11:113+DRB1*14:03:01   |                           |
| DRB1*11:09+DRB1*14:16         | DRB1*11:16+DRB1*14:22       |                           |
| DRB1*11:09+DRB1*14:17         | DRB1*11:113+DRB1*14:30      |                           |
| DRB1*11:09+DRB1*14:20         | DRB1*11:10:02+DRB1*14:06:01 |                           |
| DRB1*11:09+DRB1*14:23:01      | DRB1*11:17+DRB1*13:05:01    | DRB1*11:113+DRB1*14:14    |
| DRB1*11:09+DRB1*14:40         | DRB1*11:10:02+DRB1*14:03:01 |                           |
| DRB1*11:09+DRB1*14:78         | DRB1*11:113+DRB1*14:63      |                           |
| DRB1*11:09+DRB1*14:80         | DRB1*11:113+DRB1*14:09      |                           |
| DRB1*11:09+DRB1*14:82         | DRB1*11:87+DRB1*14:01:01G   |                           |
| DRB1*11:09+DRB1*14:106        | DRB1*11:113+DRB1*14:51      |                           |
| DRB1*11:09+DRB1*14:116        | DRB1*11:37:01+DRB1*13:119   |                           |
| DRB1*11:09+DRB1*14:126        | DRB1*13:05:01+DRB1*14:11    |                           |
| DRB1*11:09+DRB1*15:01:01G     | DRB1*11:28:02+DRB1*15:62    | DRB1*11:113+DRB1*15:02:01 |
| DRB1*11:09+DRB1*15:01:03      | DRB1*11:113+DRB1*15:02:06   |                           |
| DRB1*11:09+DRB1*15:01:04      | DRB1*11:113+DRB1*15:02:02   |                           |
| DRB1*11:09+DRB1*15:01:09      | DRB1*11:113+DRB1*15:02:04   |                           |
| DRB1*11:09+DRB1*15:01:10      | DRB1*11:113+DRB1*15:02:08   |                           |
| DRB1*11:09+DRB1*15:04         | DRB1*11:113+DRB1*15:15      |                           |
| DRB1*11:09+DRB1*15:05         | DRB1*11:113+DRB1*15:31      |                           |
| DRB1*11:09+DRB1*15:07:01      | DRB1*11:113+DRB1*15:11      |                           |
| DRB1*11:09+DRB1*15:65         | DRB1*11:113+DRB1*15:47      |                           |
| DRB1*11:09+DRB1*15:66         | DRB1*11:113+DRB1*15:27      |                           |
| DRB1*11:09+DRB1*16:15         | DRB1*11:113+DRB1*16:01:01   |                           |
| DRB1*11:10:01+DRB1*11:14:01   | DRB1*11:10:02+DRB1*11:14:02 |                           |
| DRB1*11:10:01+DRB1*11:19:01   | DRB1*11:10:02+DRB1*11:19:03 |                           |
| DRB1*11:10:01+DRB1*11:27:02   | DRB1*11:10:02+DRB1*11:27:03 |                           |
| DRB1*11:10:01+DRB1*11:37:01   | DRB1*11:10:02+DRB1*11:37:02 |                           |
| DRB1*11:10:01+DRB1*11:49:01   | DRB1*11:10:02+DRB1*11:49:02 |                           |
| DRB1*11:10:01+DRB1*11:74:01   | DRB1*11:10:02+DRB1*11:74:02 |                           |
| DRB1*11:10:01+DRB1*13:01:01G  | DRB1*11:10:02+DRB1*13:01:08 |                           |
| DRB1*11:10:01+DRB1*13:03:02   | DRB1*11:10:02+DRB1*13:03:01 |                           |
| DRB1*11:10:01+DRB1*13:05:01   | DRB1*11:10:02+DRB1*13:05:02 |                           |
| DRB1*11:10:01+DRB1*13:12:01   | DRB1*11:10:02+DRB1*13:12:02 |                           |
| DRB1*11:10:01+DRB1*13:14:01   | DRB1*11:10:02+DRB1*13:14:03 |                           |
| DRB1*11:10:01+DRB1*13:21:01   | DRB1*11:10:02+DRB1*13:21:02 |                           |
| DRB1*11:10:01+DRB1*13:33:02   | DRB1*11:10:02+DRB1*13:33:03 |                           |
| DRB1*11:10:01+DRB1*13:50:01   | DRB1*11:12:01+DRB1*13:05:02 |                           |
| DRB1*11:10:01+DRB1*13:50:02   | DRB1*11:12:02+DRB1*13:05:02 |                           |
| DRB1*11:10:01+DRB1*13:66:01   | DRB1*11:10:02+DRB1*13:66:02 |                           |
| DRB1*11:10:01+DRB1*13:69      | DRB1*11:12:02+DRB1*13:01:08 |                           |
| DRB1*11:10:01+DRB1*14:06:01   | DRB1*11:10:02+DRB1*14:06:02 |                           |
| DRB1*11:10:01+DRB1*14:07:01   | DRB1*11:10:02+DRB1*14:07:02 |                           |
| DRB1*11:10:01+DRB1*14:44:01   | DRB1*11:10:02+DRB1*14:44:03 |                           |
| DRB1*11:10:01+DRB1*15:02:01   | DRB1*11:10:02+DRB1*15:02:09 |                           |
| DRB1*11:10:01+DRB1*15:02:02   | DRB1*11:10:02+DRB1*15:02:05 |                           |
| DRB1*11:10:02+DRB1*11:58:01   | DRB1*11:12:02+DRB1*11:113   |                           |
| DRB1*11:10:02+DRB1*11:58:02   | DRB1*11:12:01+DRB1*11:113   |                           |
| DRB1*11:10:02+DRB1*13:14:01   | DRB1*11:12:01+DRB1*13:132   |                           |
| DRB1*11:10:02+DRB1*13:27      | DRB1*11:87+DRB1*13:83       |                           |
| DRB1*11:10:02+DRB1*13:41      | DRB1*11:87+DRB1*13:107      |                           |
| DRB1*11:10:02+DRB1*13:50:01   | DRB1*11:12:01+DRB1*13:05:01 |                           |
| DRB1*11:10:02+DRB1*13:50:02   | DRB1*11:12:02+DRB1*13:05:01 |                           |
| DRB1*11:10:02+DRB1*13:52      | DRB1*11:46:01+DRB1*13:107   |                           |
| DRB1*11:10:02+DRB1*13:97:02   | DRB1*11:62+DRB1*13:107      |                           |
| DRB1*11:10:02+DRB1*13:115     | DRB1*11:12:01+DRB1*13:120   |                           |
| DRB1*11:10:02+DRB1*14:12:01   | DRB1*11:113+DRB1*14:40      |                           |
| DRB1*11:10:02+DRB1*14:32:02   | DRB1*11:13:01G+DRB1*14:22   |                           |
| DRB1*11:10:02+DRB1*15:01:01G  | DRB1*11:12:02+DRB1*15:62    |                           |
| DRB1*11:11:01G+DRB1*11:20     | DRB1*11:14:01+DRB1*11:122   |                           |
| DRB1*11:11:01G+DRB1*11:31     | DRB1*11:14:01+DRB1*11:96    |                           |
| DRB1*11:11:01G+DRB1*11:48     | DRB1*11:14:01+DRB1*11:41    |                           |
| DRB1*11:11:01G+DRB1*11:73     | DRB1*11:14:01+DRB1*11:93    |                           |
| DRB1*11:11:01G+DRB1*11:82     | DRB1*11:14:01+DRB1*11:69    |                           |
| DRB1*11:11:01G+DRB1*11:83     | DRB1*11:37:01+DRB1*11:59    | DRB1*11:41+DRB1*11:87     |
| DRB1*11:11:01G+DRB1*11:103    | DRB1*11:68+DRB1*11:125      |                           |
| DRB1*11:11:01G+DRB1*11:127    | DRB1*11:14:01+DRB1*11:85    |                           |
| DRB1*11:11:01G+DRB1*12:01:01G | DRB1*11:14:01+DRB1*12:02:01 |                           |
| DRB1*11:11:01G+DRB1*12:01:02  | DRB1*11:21+DRB1*12:16:01    |                           |
| DRB1*11:11:01G+DRB1*12:01:03  | DRB1*11:14:01+DRB1*12:02:02 |                           |
| DRB1*11:11:01G+DRB1*12:03:03  | DRB1*11:14:01+DRB1*12:19    |                           |
| DRB1*11:11:01G+DRB1*12:05     | DRB1*11:14:01+DRB1*12:15    |                           |
| DRB1*11:11:01G+DRB1*12:12     | DRB1*11:68+DRB1*12:02:01    |                           |
| DRB1*11:11:01G+DRB1*13:01:08  | DRB1*11:14:02+DRB1*13:111   | DRB1*11:40+DRB1*13:23:01  |
| DRB1*11:11:01G+DRB1*13:02:01  | DRB1*11:14:01+DRB1*13:63    | DRB1*11:122+DRB1*13:23:02 |
| DRB1*11:11:01G+DRB1*13:04     | DRB1*11:14:01+DRB1*13:75    |                           |
| DRB1*11:11:01G+DRB1*13:08     | DRB1*11:41+DRB1*13:107      |                           |
| DRB1*11:11:01G+DRB1*13:09     | DRB1*11:69+DRB1*13:01:01G   | DRB1*11:82+DRB1*13:111    |
| DRB1*11:11:01G+DRB1*13:12:01  | DRB1*11:14:01+DRB1*13:49    |                           |
| DRB1*11:11:01G+DRB1*13:16     | DRB1*11:86+DRB1*13:63       |                           |
| DRB1*11:11:01G+DRB1*13:18     | DRB1*11:25+DRB1*13:63       | DRB1*11:55+DRB1*13:05:01  |
| DRB1*11:11:01G+DRB1*13:25     | DRB1*11:68+DRB1*13:14:01    |                           |
| DRB1*11:11:01G+DRB1*13:29     | DRB1*11:68+DRB1*13:63       |                           |
| DRB1*11:11:01G+DRB1*13:30     | DRB1*11:14:01+DRB1*13:21:01 |                           |
| DRB1*11:11:01G+DRB1*13:44     | DRB1*11:26+DRB1*13:24       |                           |
| DRB1*11:11:01G+DRB1*13:53     | DRB1*11:41+DRB1*13:104      |                           |
| DRB1*11:11:01G+DRB1*13:58     | DRB1*11:21+DRB1*13:49       |                           |
| DRB1*11:11:01G+DRB1*13:64     | DRB1*11:76+DRB1*13:107      |                           |
| DRB1*11:11:01G+DRB1*13:70     | DRB1*11:41+DRB1*13:23:02    |                           |
| DRB1*11:11:01G+DRB1*13:106    | DRB1*11:85+DRB1*13:97:01    |                           |
| DRB1*11:11:01G+DRB1*13:119    | DRB1*11:64+DRB1*13:63       |                           |
| DRB1*11:11:01G+DRB1*13:120    | DRB1*11:93+DRB1*13:65       | DRB1*11:122+DRB1*13:03:01 |
| DRB1*11:11:01G+DRB1*13:129    | DRB1*11:69+DRB1*13:27       |                           |
| DRB1*11:11:01G+DRB1*13:134    | DRB1*11:68+DRB1*13:49       |                           |
| DRB1*11:11:01G+DRB1*14:03:01  | DRB1*11:68+DRB1*14:27       | DRB1*11:122+DRB1*14:102   |
| DRB1*11:11:01G+DRB1*14:21     | DRB1*11:79+DRB1*13:111      |                           |
| DRB1*11:11:01G+DRB1*14:30     | DRB1*11:26+DRB1*13:63       |                           |
| DRB1*11:11:01G+DRB1*14:37     | DRB1*11:69+DRB1*13:72       |                           |
| DRB1*11:11:01G+DRB1*14:67     | DRB1*11:14:01+DRB1*14:27    |                           |
| DRB1*11:11:01G+DRB1*14:69     | DRB1*11:68+DRB1*14:25       |                           |
| DRB1*11:11:01G+DRB1*14:74     | DRB1*11:36+DRB1*14:22       |                           |

|                              |                              |                              |                              |
|------------------------------|------------------------------|------------------------------|------------------------------|
| DRB1*11:11:01G+DRB1*14:95    | DRB1*11:59+DRB1*14:42        |                              |                              |
| DRB1*11:11:01G+DRB1*14:110   | DRB1*11:76+DRB1*14:07:01     |                              |                              |
| DRB1*11:11:01G+DRB1*15:02:01 | DRB1*11:14:01+DRB1*15:15     |                              |                              |
| DRB1*11:11:01G+DRB1*15:02:09 | DRB1*11:14:02+DRB1*15:15     |                              |                              |
| DRB1*11:11:01G+DRB1*15:07:02 | DRB1*11:41+DRB1*15:02:02     |                              |                              |
| DRB1*11:11:01G+DRB1*15:31    | DRB1*11:68+DRB1*15:15        |                              |                              |
| DRB1*11:11:01G+DRB1*15:35    | DRB1*11:21+DRB1*15:15        |                              |                              |
| DRB1*11:11:01G+DRB1*16:02:01 | DRB1*11:68+DRB1*16:01:01     |                              |                              |
| DRB1*11:11:01G+DRB1*16:02:02 | DRB1*11:68+DRB1*16:01:02     |                              |                              |
| DRB1*11:11:01G+DRB1*16:05:01 | DRB1*11:14:01+DRB1*16:01:01  |                              |                              |
| DRB1*11:11:01G+DRB1*16:10    | DRB1*11:68+DRB1*16:09        |                              |                              |
| DRB1*11:12:01+DRB1*11:28:02  | DRB1*11:12:02+DRB1*11:28:01  |                              |                              |
| DRB1*11:12:01+DRB1*11:58:01  | DRB1*11:12:02+DRB1*11:58:02  |                              |                              |
| DRB1*11:12:01+DRB1*12:05     | DRB1*11:114+DRB1*12:14       |                              |                              |
| DRB1*11:12:01+DRB1*13:02:01  | DRB1*11:28:01+DRB1*13:107    |                              |                              |
| DRB1*11:12:01+DRB1*13:15     | DRB1*11:28:01+DRB1*13:57     |                              |                              |
| DRB1*11:12:01+DRB1*13:34     | DRB1*11:114+DRB1*13:02:01    |                              |                              |
| DRB1*11:12:01+DRB1*13:40     | DRB1*11:28:01+DRB1*13:08     | DRB1*11:37:01+DRB1*13:87     |                              |
| DRB1*11:12:01+DRB1*13:50:02  | DRB1*11:12:02+DRB1*13:50:01  |                              |                              |
| DRB1*11:12:01+DRB1*13:53     | DRB1*11:28:01+DRB1*13:19     |                              |                              |
| DRB1*11:12:01+DRB1*13:61:01  | DRB1*11:27:01+DRB1*13:87     |                              |                              |
| DRB1*11:12:01+DRB1*13:61:02  | DRB1*11:27:02+DRB1*13:87     |                              |                              |
| DRB1*11:12:01+DRB1*13:64     | DRB1*11:114+DRB1*13:83       |                              |                              |
| DRB1*11:12:01+DRB1*13:68     | DRB1*11:24+DRB1*13:83        |                              |                              |
| DRB1*11:12:01+DRB1*13:79     | DRB1*11:120+DRB1*13:87       |                              |                              |
| DRB1*11:12:01+DRB1*13:84     | DRB1*11:29+DRB1*13:08        |                              |                              |
| DRB1*11:12:01+DRB1*13:105    | DRB1*11:100+DRB1*13:87       |                              |                              |
| DRB1*11:12:01+DRB1*13:106    | DRB1*11:44+DRB1*13:107       | DRB1*11:49:01+DRB1*13:83     |                              |
| DRB1*11:12:01+DRB1*13:131    | DRB1*11:39+DRB1*13:87        |                              |                              |
| DRB1*11:12:01+DRB1*13:136    | DRB1*11:114+DRB1*13:05:01    |                              |                              |
| DRB1*11:12:01+DRB1*14:03:01  | DRB1*11:28:01+DRB1*14:40     |                              |                              |
| DRB1*11:12:01+DRB1*14:06:01  | DRB1*11:28:01+DRB1*14:20     |                              |                              |
| DRB1*11:12:01+DRB1*14:12:01  | DRB1*11:58:02+DRB1*14:40     |                              |                              |
| DRB1*11:12:01+DRB1*14:77     | DRB1*11:114+DRB1*14:40       |                              |                              |
| DRB1*11:12:01+DRB1*14:91     | DRB1*11:29+DRB1*14:05:01     |                              |                              |
| DRB1*11:12:01+DRB1*14:97     | DRB1*11:44+DRB1*14:07:01     | DRB1*11:49:01+DRB1*14:01:01G |                              |
| DRB1*11:12:01+DRB1*14:110    | DRB1*11:114+DRB1*14:01:01G   |                              |                              |
| DRB1*11:12:02+DRB1*13:02:01  | DRB1*11:28:02+DRB1*13:107    |                              |                              |
| DRB1*11:12:02+DRB1*13:15     | DRB1*11:28:02+DRB1*13:57     |                              |                              |
| DRB1*11:12:02+DRB1*13:40     | DRB1*11:28:02+DRB1*13:08     |                              |                              |
| DRB1*11:12:02+DRB1*13:53     | DRB1*11:28:02+DRB1*13:19     |                              |                              |
| DRB1*11:12:02+DRB1*13:131    | DRB1*11:115+DRB1*13:107      |                              |                              |
| DRB1*11:12:02+DRB1*14:03:01  | DRB1*11:28:02+DRB1*14:40     |                              |                              |
| DRB1*11:12:02+DRB1*14:06:01  | DRB1*11:28:02+DRB1*14:20     |                              |                              |
| DRB1*11:12:02+DRB1*14:12:01  | DRB1*11:58:01+DRB1*14:40     |                              |                              |
| DRB1*11:12:02+DRB1*14:59     | DRB1*11:115+DRB1*14:14       |                              |                              |
| DRB1*11:13:01G+DRB1*13:30    | DRB1*11:19:01+DRB1*14:65     |                              |                              |
| DRB1*11:13:01G+DRB1*13:36    | DRB1*11:20+DRB1*14:123       |                              |                              |
| DRB1*11:13:01G+DRB1*13:37    | DRB1*11:73+DRB1*14:123       |                              |                              |
| DRB1*11:13:01G+DRB1*13:40    | DRB1*11:16+DRB1*14:123       |                              |                              |
| DRB1*11:13:01G+DRB1*13:47    | DRB1*11:23+DRB1*14:123       |                              |                              |
| DRB1*11:13:01G+DRB1*13:48    | DRB1*11:48+DRB1*14:65        |                              |                              |
| DRB1*11:13:01G+DRB1*13:49    | DRB1*11:37:01+DRB1*14:65     |                              |                              |
| DRB1*11:13:01G+DRB1*13:66:02 | DRB1*11:73+DRB1*14:65        |                              |                              |
| DRB1*11:13:01G+DRB1*13:93    | DRB1*11:16+DRB1*14:65        |                              |                              |
| DRB1*11:13:01G+DRB1*13:108   | DRB1*11:56+DRB1*14:65        |                              |                              |
| DRB1*11:13:01G+DRB1*13:139   | DRB1*11:20+DRB1*14:65        |                              |                              |
| DRB1*11:13:01G+DRB1*14:116   | DRB1*11:64+DRB1*14:123       |                              |                              |
| DRB1*11:14:01+DRB1*11:19:03  | DRB1*11:14:02+DRB1*11:19:01  |                              |                              |
| DRB1*11:14:01+DRB1*11:27:03  | DRB1*11:14:02+DRB1*11:27:02  |                              |                              |
| DRB1*11:14:01+DRB1*11:37:02  | DRB1*11:14:02+DRB1*11:37:01  |                              |                              |
| DRB1*11:14:01+DRB1*11:47     | DRB1*11:21+DRB1*11:29        |                              |                              |
| DRB1*11:14:01+DRB1*11:49:02  | DRB1*11:14:02+DRB1*11:49:01  |                              |                              |
| DRB1*11:14:01+DRB1*11:64     | DRB1*11:45+DRB1*11:68        |                              |                              |
| DRB1*11:14:01+DRB1*11:74:02  | DRB1*11:14:02+DRB1*11:74:01  |                              |                              |
| DRB1*11:14:01+DRB1*11:83     | DRB1*11:48+DRB1*11:87        |                              |                              |
| DRB1*11:14:01+DRB1*12:09     | DRB1*12:04+DRB1*13:23:02     |                              |                              |
| DRB1*11:14:01+DRB1*12:12     | DRB1*11:68+DRB1*12:01:01G    |                              |                              |
| DRB1*11:14:01+DRB1*13:01:08  | DRB1*11:14:02+DRB1*13:01:01G | DRB1*11:16+DRB1*13:23:01     |                              |
| DRB1*11:14:01+DRB1*13:02:01  | DRB1*11:20+DRB1*13:23:02     |                              |                              |
| DRB1*11:14:01+DRB1*13:03:01  | DRB1*11:14:02+DRB1*13:03:02  |                              |                              |
| DRB1*11:14:01+DRB1*13:06     | DRB1*11:116+DRB1*13:82       | DRB1*11:18+DRB1*13:02:01     | DRB1*11:19:01+DRB1*13:01:01G |
| DRB1*11:14:01+DRB1*13:07:01  | DRB1*11:37:01+DRB1*13:23:02  |                              |                              |
| DRB1*11:14:01+DRB1*13:08     | DRB1*11:48+DRB1*13:107       |                              |                              |
| DRB1*11:14:01+DRB1*13:09     | DRB1*11:82+DRB1*13:01:01G    |                              |                              |
| DRB1*11:14:01+DRB1*13:12:02  | DRB1*11:14:02+DRB1*13:12:01  | DRB1*11:19:01+DRB1*13:38     |                              |
| DRB1*11:14:01+DRB1*13:16     | DRB1*11:86+DRB1*13:02:01     |                              |                              |
| DRB1*11:14:01+DRB1*13:18     | DRB1*11:25+DRB1*13:02:01     | DRB1*11:45+DRB1*13:111       | DRB1*11:119+DRB1*13:63       |
| DRB1*11:14:01+DRB1*13:21:02  | DRB1*11:14:02+DRB1*13:21:01  |                              |                              |
| DRB1*11:14:01+DRB1*13:23:01  | DRB1*11:14:02+DRB1*13:23:02  |                              |                              |
| DRB1*11:14:01+DRB1*13:26:02  | DRB1*11:37:01+DRB1*13:104    |                              |                              |
| DRB1*11:14:01+DRB1*13:29     | DRB1*11:68+DRB1*13:02:01     |                              |                              |
| DRB1*11:14:01+DRB1*13:33:03  | DRB1*11:14:02+DRB1*13:33:02  |                              |                              |
| DRB1*11:14:01+DRB1*13:44     | DRB1*11:26+DRB1*13:22        | DRB1*11:34+DRB1*13:23:02     |                              |
| DRB1*11:14:01+DRB1*13:50:01  | DRB1*11:28:01+DRB1*13:23:02  |                              |                              |
| DRB1*11:14:01+DRB1*13:50:02  | DRB1*11:28:02+DRB1*13:23:02  |                              |                              |
| DRB1*11:14:01+DRB1*13:53     | DRB1*11:48+DRB1*13:104       |                              |                              |
| DRB1*11:14:01+DRB1*13:58     | DRB1*11:21+DRB1*13:12:01     |                              |                              |
| DRB1*11:14:01+DRB1*13:62     | DRB1*11:15+DRB1*13:23:02     |                              |                              |
| DRB1*11:14:01+DRB1*13:66:02  | DRB1*11:14:02+DRB1*13:66:01  |                              |                              |
| DRB1*11:14:01+DRB1*13:70     | DRB1*11:48+DRB1*13:23:02     |                              |                              |
| DRB1*11:14:01+DRB1*13:71     | DRB1*11:36+DRB1*13:41        | DRB1*11:68+DRB1*13:27        |                              |
| DRB1*11:14:01+DRB1*13:78     | DRB1*11:36+DRB1*13:39        | DRB1*11:68+DRB1*13:79        |                              |
| DRB1*11:14:01+DRB1*13:81     | DRB1*11:21+DRB1*13:03:02     |                              |                              |
| DRB1*11:14:01+DRB1*13:82     | DRB1*11:19:01+DRB1*13:23:02  |                              |                              |
| DRB1*11:14:01+DRB1*13:88     | DRB1*11:68+DRB1*13:03:01     |                              |                              |
| DRB1*11:14:01+DRB1*13:106    | DRB1*11:127+DRB1*13:97:01    |                              |                              |
| DRB1*11:14:01+DRB1*13:119    | DRB1*11:45+DRB1*13:29        | DRB1*11:64+DRB1*13:02:01     |                              |
| DRB1*11:14:01+DRB1*13:120    | DRB1*11:20+DRB1*13:03:01     | DRB1*11:73+DRB1*13:65        |                              |
| DRB1*11:14:01+DRB1*13:129    | DRB1*11:82+DRB1*13:27        |                              |                              |
| DRB1*11:14:01+DRB1*13:134    | DRB1*11:68+DRB1*13:12:01     |                              |                              |
| DRB1*11:14:01+DRB1*14:03:01  | DRB1*11:20+DRB1*14:102       | DRB1*11:68+DRB1*14:67        |                              |
| DRB1*11:14:01+DRB1*14:06:02  | DRB1*11:14:02+DRB1*14:06:01  |                              |                              |
| DRB1*11:14:01+DRB1*14:07:02  | DRB1*11:14:02+DRB1*14:07:01  |                              |                              |
| DRB1*11:14:01+DRB1*14:09     | DRB1*11:26+DRB1*13:36        |                              |                              |

|                             |                             |                              |
|-----------------------------|-----------------------------|------------------------------|
| DRB1*11:14:01+DRB1*14:20    | DRB1*11:26+DRB1*13:19       |                              |
| DRB1*11:14:01+DRB1*14:21    | DRB1*11:79+DRB1*13:01:01G   |                              |
| DRB1*11:14:01+DRB1*14:28    | DRB1*11:21+DRB1*14:68       |                              |
| DRB1*11:14:01+DRB1*14:29    | DRB1*11:21+DRB1*14:02       |                              |
| DRB1*11:14:01+DRB1*14:30    | DRB1*11:26+DRB1*13:02:01    |                              |
| DRB1*11:14:01+DRB1*14:37    | DRB1*11:82+DRB1*13:72       |                              |
| DRB1*11:14:01+DRB1*14:44:03 | DRB1*11:14:02+DRB1*14:44:01 |                              |
| DRB1*11:14:01+DRB1*14:85    | DRB1*11:68+DRB1*14:63       |                              |
| DRB1*11:14:01+DRB1*14:99    | DRB1*11:21+DRB1*14:07:01    |                              |
| DRB1*11:14:01+DRB1*14:126   | DRB1*13:23:02+DRB1*14:11    |                              |
| DRB1*11:14:01+DRB1*14:127   | DRB1*11:124+DRB1*14:44:02   |                              |
| DRB1*11:14:01+DRB1*15:02:05 | DRB1*11:14:02+DRB1*15:02:02 |                              |
| DRB1*11:14:01+DRB1*15:02:09 | DRB1*11:14:02+DRB1*15:02:01 |                              |
| DRB1*11:14:01+DRB1*15:07:02 | DRB1*11:48+DRB1*15:02:02    |                              |
| DRB1*11:14:01+DRB1*15:21    | DRB1*11:45+DRB1*15:10       |                              |
| DRB1*11:14:01+DRB1*15:23    | DRB1*11:68+DRB1*15:03:01G   |                              |
| DRB1*11:14:01+DRB1*15:25    | DRB1*11:103+DRB1*15:10      |                              |
| DRB1*11:14:01+DRB1*15:31    | DRB1*11:68+DRB1*15:02:01    |                              |
| DRB1*11:14:01+DRB1*15:35    | DRB1*11:21+DRB1*15:02:01    |                              |
| DRB1*11:14:01+DRB1*15:63    | DRB1*11:68+DRB1*15:38       |                              |
| DRB1*11:14:01+DRB1*15:73    | DRB1*11:68+DRB1*15:06:01    |                              |
| DRB1*11:14:01+DRB1*16:02:01 | DRB1*11:68+DRB1*16:05:01    |                              |
| DRB1*11:14:02+DRB1*12:09    | DRB1*12:04+DRB1*13:23:01    |                              |
| DRB1*11:14:02+DRB1*13:02:01 | DRB1*11:20+DRB1*13:23:01    |                              |
| DRB1*11:14:02+DRB1*13:03:01 | DRB1*11:73+DRB1*13:38       |                              |
| DRB1*11:14:02+DRB1*13:06    | DRB1*11:19:01+DRB1*13:01:08 | DRB1*11:19:03+DRB1*13:01:01G |
| DRB1*11:14:02+DRB1*13:07:01 | DRB1*11:37:01+DRB1*13:23:01 | DRB1*11:37:02+DRB1*13:23:02  |
| DRB1*11:14:02+DRB1*13:09    | DRB1*11:82+DRB1*13:01:08    |                              |
| DRB1*11:14:02+DRB1*13:10    | DRB1*11:73+DRB1*13:01:01G   |                              |
| DRB1*11:14:02+DRB1*13:12:02 | DRB1*11:19:03+DRB1*13:38    |                              |
| DRB1*11:14:02+DRB1*13:13    | DRB1*11:45+DRB1*13:38       |                              |
| DRB1*11:14:02+DRB1*13:18    | DRB1*11:23+DRB1*13:01:01G   |                              |
| DRB1*11:14:02+DRB1*13:20    | DRB1*11:68+DRB1*13:01:08    |                              |
| DRB1*11:14:02+DRB1*13:26:02 | DRB1*11:37:02+DRB1*13:104   |                              |
| DRB1*11:14:02+DRB1*13:32    | DRB1*11:16+DRB1*13:38       |                              |
| DRB1*11:14:02+DRB1*13:44    | DRB1*11:34+DRB1*13:23:01    |                              |
| DRB1*11:14:02+DRB1*13:50:01 | DRB1*11:28:01+DRB1*13:23:01 |                              |
| DRB1*11:14:02+DRB1*13:50:02 | DRB1*11:28:02+DRB1*13:23:01 |                              |
| DRB1*11:14:02+DRB1*13:52    | DRB1*11:118+DRB1*13:23:01   |                              |
| DRB1*11:14:02+DRB1*13:55    | DRB1*11:23+DRB1*13:38       |                              |
| DRB1*11:14:02+DRB1*13:58    | DRB1*11:21+DRB1*13:12:02    |                              |
| DRB1*11:14:02+DRB1*13:62    | DRB1*11:15+DRB1*13:23:01    |                              |
| DRB1*11:14:02+DRB1*13:63    | DRB1*11:122+DRB1*13:23:01   |                              |
| DRB1*11:14:02+DRB1*13:65    | DRB1*11:20+DRB1*13:38       |                              |
| DRB1*11:14:02+DRB1*13:70    | DRB1*11:48+DRB1*13:23:01    |                              |
| DRB1*11:14:02+DRB1*13:81    | DRB1*11:21+DRB1*13:03:01    |                              |
| DRB1*11:14:02+DRB1*13:82    | DRB1*11:19:01+DRB1*13:23:01 | DRB1*11:19:03+DRB1*13:23:02  |
| DRB1*11:14:02+DRB1*14:04    | DRB1*13:45+DRB1*14:11       |                              |
| DRB1*11:14:02+DRB1*14:17    | DRB1*11:26+DRB1*13:01:08    |                              |
| DRB1*11:14:02+DRB1*14:21    | DRB1*11:79+DRB1*13:01:08    |                              |
| DRB1*11:14:02+DRB1*14:23:01 | DRB1*11:17+DRB1*13:23:01    |                              |
| DRB1*11:14:02+DRB1*14:25    | DRB1*11:37:01+DRB1*13:45    |                              |
| DRB1*11:14:02+DRB1*14:99    | DRB1*11:21+DRB1*14:07:02    |                              |
| DRB1*11:14:02+DRB1*14:126   | DRB1*13:23:01+DRB1*14:11    |                              |
| DRB1*11:14:02+DRB1*15:05    | DRB1*11:36+DRB1*15:02:09    |                              |
| DRB1*11:14:02+DRB1*15:07:01 | DRB1*11:48+DRB1*15:02:09    |                              |
| DRB1*11:14:02+DRB1*15:07:02 | DRB1*11:48+DRB1*15:02:05    |                              |
| DRB1*11:14:02+DRB1*15:31    | DRB1*11:68+DRB1*15:02:09    |                              |
| DRB1*11:14:02+DRB1*15:35    | DRB1*11:21+DRB1*15:02:09    |                              |
| DRB1*11:15+DRB1*12:09       | DRB1*12:04+DRB1*13:62       |                              |
| DRB1*11:15+DRB1*13:01:01G   | DRB1*11:16+DRB1*13:62       |                              |
| DRB1*11:15+DRB1*13:02:01    | DRB1*11:20+DRB1*13:62       |                              |
| DRB1*11:15+DRB1*13:07:01    | DRB1*11:37:01+DRB1*13:62    |                              |
| DRB1*11:15+DRB1*13:42       | DRB1*11:113+DRB1*13:62      |                              |
| DRB1*11:15+DRB1*13:44       | DRB1*11:34+DRB1*13:62       |                              |
| DRB1*11:15+DRB1*13:50:01    | DRB1*11:28:01+DRB1*13:62    |                              |
| DRB1*11:15+DRB1*13:50:02    | DRB1*11:28:02+DRB1*13:62    |                              |
| DRB1*11:15+DRB1*13:52       | DRB1*11:118+DRB1*13:62      |                              |
| DRB1*11:15+DRB1*13:63       | DRB1*11:122+DRB1*13:62      |                              |
| DRB1*11:15+DRB1*13:70       | DRB1*11:48+DRB1*13:62       |                              |
| DRB1*11:15+DRB1*13:82       | DRB1*11:19:01+DRB1*13:62    |                              |
| DRB1*11:15+DRB1*13:111      | DRB1*11:40+DRB1*13:62       |                              |
| DRB1*11:15+DRB1*14:23:01    | DRB1*11:17+DRB1*13:62       |                              |
| DRB1*11:15+DRB1*14:126      | DRB1*13:62+DRB1*14:11       |                              |
| DRB1*11:16+DRB1*11:19:01    | DRB1*11:18+DRB1*11:20       |                              |
| DRB1*11:16+DRB1*11:25       | DRB1*11:40+DRB1*11:119      |                              |
| DRB1*11:16+DRB1*11:26       | DRB1*11:20+DRB1*11:34       |                              |
| DRB1*11:16+DRB1*11:27:02    | DRB1*11:20+DRB1*11:84:02    |                              |
| DRB1*11:16+DRB1*11:28:01    | DRB1*11:20+DRB1*11:58:02    |                              |
| DRB1*11:16+DRB1*11:28:02    | DRB1*11:20+DRB1*11:58:01    |                              |
| DRB1*11:16+DRB1*11:35       | DRB1*11:65:01+DRB1*11:113   |                              |
| DRB1*11:16+DRB1*11:39       | DRB1*11:20+DRB1*11:43       |                              |
| DRB1*11:16+DRB1*11:41       | DRB1*11:40+DRB1*11:48       |                              |
| DRB1*11:16+DRB1*11:44       | DRB1*11:113+DRB1*11:127     |                              |
| DRB1*11:16+DRB1*11:45       | DRB1*11:20+DRB1*11:119      |                              |
| DRB1*11:16+DRB1*11:46:01    | DRB1*11:113+DRB1*11:118     |                              |
| DRB1*11:16+DRB1*11:56       | DRB1*11:48+DRB1*11:113      |                              |
| DRB1*11:16+DRB1*11:62       | DRB1*11:20+DRB1*11:46:02    |                              |
| DRB1*11:16+DRB1*11:68       | DRB1*11:20+DRB1*11:36       |                              |
| DRB1*11:16+DRB1*11:69       | DRB1*11:40+DRB1*11:82       |                              |
| DRB1*11:16+DRB1*11:84:01    | DRB1*11:113+DRB1*11:124     |                              |
| DRB1*11:16+DRB1*11:85       | DRB1*11:40+DRB1*11:127      |                              |
| DRB1*11:16+DRB1*11:93       | DRB1*11:40+DRB1*11:73       |                              |
| DRB1*11:16+DRB1*11:96       | DRB1*11:31+DRB1*11:40       |                              |
| DRB1*11:16+DRB1*11:109      | DRB1*11:20+DRB1*11:60       |                              |
| DRB1*11:16+DRB1*11:120      | DRB1*11:20+DRB1*11:116      |                              |
| DRB1*11:16+DRB1*11:122      | DRB1*11:20+DRB1*11:40       |                              |
| DRB1*11:16+DRB1*12:02:01    | DRB1*11:40+DRB1*12:01:01G   |                              |
| DRB1*11:16+DRB1*12:02:02    | DRB1*11:40+DRB1*12:01:03    |                              |
| DRB1*11:16+DRB1*12:09       | DRB1*12:04+DRB1*13:01:01G   |                              |
| DRB1*11:16+DRB1*12:15       | DRB1*11:40+DRB1*12:05       |                              |
| DRB1*11:16+DRB1*12:19       | DRB1*11:40+DRB1*12:03:03    |                              |
| DRB1*11:16+DRB1*13:02:01    | DRB1*11:20+DRB1*13:01:01G   |                              |
| DRB1*11:16+DRB1*13:02:03    | DRB1*11:20+DRB1*13:01:05    |                              |
| DRB1*11:16+DRB1*13:07:02    | DRB1*11:37:01+DRB1*13:01:05 | DRB1*11:56+DRB1*13:02:03     |



|                           |                              |                             |
|---------------------------|------------------------------|-----------------------------|
| DRB1*11:16+DRB1*13:12:01  | DRB1*11:18+DRB1*13:65        | DRB1*11:19:01+DRB1*13:32    |
| DRB1*11:16+DRB1*13:12:02  | DRB1*11:19:03+DRB1*13:32     | DRB1*11:98+DRB1*13:120      |
| DRB1*11:16+DRB1*13:13     | DRB1*11:45+DRB1*13:32        | DRB1*11:119+DRB1*13:65      |
| DRB1*11:16+DRB1*13:29     | DRB1*11:20+DRB1*13:20        |                             |
| DRB1*11:16+DRB1*13:30     | DRB1*11:18+DRB1*13:139       | DRB1*11:19:01+DRB1*13:93    |
| DRB1*11:16+DRB1*13:33:03  | DRB1*11:124+DRB1*13:120      |                             |
| DRB1*11:16+DRB1*13:36     | DRB1*11:20+DRB1*13:40        |                             |
| DRB1*11:16+DRB1*13:37     | DRB1*11:73+DRB1*13:40        |                             |
| DRB1*11:16+DRB1*13:39     | DRB1*11:20+DRB1*13:79        |                             |
| DRB1*11:16+DRB1*13:41     | DRB1*11:20+DRB1*13:27        |                             |
| DRB1*11:16+DRB1*13:42     | DRB1*11:40+DRB1*13:06        | DRB1*11:113+DRB1*13:01:01G  |
| DRB1*11:16+DRB1*13:47     | DRB1*11:23+DRB1*13:40        |                             |
| DRB1*11:16+DRB1*13:50:01  | DRB1*11:28:01+DRB1*13:01:01G | DRB1*11:58:02+DRB1*13:02:01 |
| DRB1*11:16+DRB1*13:52     | DRB1*11:118+DRB1*13:01:01G   |                             |
| DRB1*11:16+DRB1*13:55     | DRB1*11:23+DRB1*13:32        |                             |
| DRB1*11:16+DRB1*13:63     | DRB1*11:20+DRB1*13:111       | DRB1*11:40+DRB1*13:02:01    |
| DRB1*11:16+DRB1*13:65     | DRB1*11:20+DRB1*13:32        | DRB1*11:122+DRB1*13:01:01G  |
| DRB1*11:16+DRB1*13:66:02  | DRB1*11:73+DRB1*13:93        |                             |
| DRB1*11:16+DRB1*13:83     | DRB1*11:118+DRB1*13:87       |                             |
| DRB1*11:16+DRB1*13:86     | DRB1*11:26+DRB1*13:15        | DRB1*11:34+DRB1*13:104      |
| DRB1*11:16+DRB1*13:88     | DRB1*11:36+DRB1*13:120       |                             |
| DRB1*11:16+DRB1*13:96:01  | DRB1*11:20+DRB1*13:61:02     |                             |
| DRB1*11:16+DRB1*13:96:02  | DRB1*11:20+DRB1*13:61:01     |                             |
| DRB1*11:16+DRB1*13:97:01  | DRB1*11:20+DRB1*13:52        | DRB1*11:118+DRB1*13:02:01   |
| DRB1*11:16+DRB1*13:100    | DRB1*11:116+DRB1*13:31       |                             |
| DRB1*11:16+DRB1*13:104    | DRB1*11:20+DRB1*13:15        |                             |
| DRB1*11:16+DRB1*13:107    | DRB1*11:20+DRB1*13:83        |                             |
| DRB1*11:16+DRB1*13:111    | DRB1*11:40+DRB1*13:01:01G    |                             |
| DRB1*11:16+DRB1*13:128    | DRB1*11:20+DRB1*13:112       |                             |
| DRB1*11:16+DRB1*13:136    | DRB1*11:113+DRB1*13:34       |                             |
| DRB1*11:16+DRB1*13:139    | DRB1*11:20+DRB1*13:93        |                             |
| DRB1*11:16+DRB1*14:02     | DRB1*11:20+DRB1*14:06:01     |                             |
| DRB1*11:16+DRB1*14:03:01  | DRB1*11:20+DRB1*14:12:01     |                             |
| DRB1*11:16+DRB1*14:07:01  | DRB1*11:20+DRB1*14:01:01G    |                             |
| DRB1*11:16+DRB1*14:09     | DRB1*11:20+DRB1*14:80        |                             |
| DRB1*11:16+DRB1*14:14     | DRB1*11:17+DRB1*13:02:01     | DRB1*11:20+DRB1*14:23:01    |
| DRB1*11:16+DRB1*14:23:01  | DRB1*11:17+DRB1*13:01:01G    |                             |
| DRB1*11:16+DRB1*14:23:03  | DRB1*11:17+DRB1*13:01:06     |                             |
| DRB1*11:16+DRB1*14:27     | DRB1*11:40+DRB1*14:67        |                             |
| DRB1*11:16+DRB1*14:30     | DRB1*11:20+DRB1*14:17        |                             |
| DRB1*11:16+DRB1*14:44:01  | DRB1*11:20+DRB1*14:05:01     |                             |
| DRB1*11:16+DRB1*14:44:02  | DRB1*11:20+DRB1*14:05:03     |                             |
| DRB1*11:16+DRB1*14:51     | DRB1*11:20+DRB1*14:106       |                             |
| DRB1*11:16+DRB1*14:63     | DRB1*11:20+DRB1*14:78        |                             |
| DRB1*11:16+DRB1*14:68     | DRB1*11:20+DRB1*14:04        |                             |
| DRB1*11:16+DRB1*14:116    | DRB1*11:48+DRB1*13:119       | DRB1*11:64+DRB1*13:40       |
| DRB1*11:16+DRB1*14:126    | DRB1*13:01:01G+DRB1*14:11    |                             |
| DRB1*11:16+DRB1*15:01:01G | DRB1*11:118+DRB1*15:32       |                             |
| DRB1*11:16+DRB1*15:02:01  | DRB1*11:20+DRB1*15:01:01G    |                             |
| DRB1*11:16+DRB1*15:02:02  | DRB1*11:20+DRB1*15:01:04     |                             |
| DRB1*11:16+DRB1*15:02:04  | DRB1*11:20+DRB1*15:01:09     |                             |
| DRB1*11:16+DRB1*15:02:06  | DRB1*11:20+DRB1*15:01:03     |                             |
| DRB1*11:16+DRB1*15:02:08  | DRB1*11:20+DRB1*15:01:10     |                             |
| DRB1*11:16+DRB1*15:04     | DRB1*11:40+DRB1*15:01:01G    |                             |
| DRB1*11:16+DRB1*15:11     | DRB1*11:20+DRB1*15:07:01     |                             |
| DRB1*11:16+DRB1*15:15     | DRB1*11:20+DRB1*15:04        | DRB1*11:40+DRB1*15:02:01    |
| DRB1*11:16+DRB1*15:27     | DRB1*11:20+DRB1*15:66        | DRB1*11:122+DRB1*15:01:01G  |
| DRB1*11:16+DRB1*15:31     | DRB1*11:20+DRB1*15:05        |                             |
| DRB1*11:16+DRB1*15:47     | DRB1*11:20+DRB1*15:65        |                             |
| DRB1*11:16+DRB1*16:01:01  | DRB1*11:20+DRB1*16:15        | DRB1*11:40+DRB1*16:05:01    |
| DRB1*11:16+DRB1*16:02:01  | DRB1*13:01:05+DRB1*16:16     |                             |
| DRB1*11:17+DRB1*11:31     | DRB1*11:19:01+DRB1*11:52     |                             |
| DRB1*11:17+DRB1*11:67     | DRB1*11:25+DRB1*14:11        |                             |
| DRB1*11:17+DRB1*12:09     | DRB1*12:04+DRB1*14:23:01     |                             |
| DRB1*11:17+DRB1*13:07:01  | DRB1*11:37:01+DRB1*14:23:01  | DRB1*11:56+DRB1*14:14       |
| DRB1*11:17+DRB1*13:42     | DRB1*11:113+DRB1*14:23:01    |                             |
| DRB1*11:17+DRB1*13:44     | DRB1*11:34+DRB1*14:23:01     |                             |
| DRB1*11:17+DRB1*13:50:01  | DRB1*11:28:01+DRB1*14:23:01  | DRB1*11:58:02+DRB1*14:14    |
| DRB1*11:17+DRB1*13:50:02  | DRB1*11:28:02+DRB1*14:23:01  | DRB1*11:58:01+DRB1*14:14    |
| DRB1*11:17+DRB1*13:52     | DRB1*11:118+DRB1*14:23:01    |                             |
| DRB1*11:17+DRB1*13:63     | DRB1*11:40+DRB1*14:14        | DRB1*11:122+DRB1*14:23:01   |
| DRB1*11:17+DRB1*13:70     | DRB1*11:48+DRB1*14:23:01     |                             |
| DRB1*11:17+DRB1*13:82     | DRB1*11:18+DRB1*14:14        | DRB1*11:19:01+DRB1*14:23:01 |
| DRB1*11:17+DRB1*13:97:01  | DRB1*11:118+DRB1*14:14       |                             |
| DRB1*11:17+DRB1*13:111    | DRB1*11:40+DRB1*14:23:01     |                             |
| DRB1*11:17+DRB1*13:116    | DRB1*11:48+DRB1*14:126       | DRB1*13:70+DRB1*14:11       |
| DRB1*11:17+DRB1*13:132    | DRB1*11:46:01+DRB1*14:14     |                             |
| DRB1*11:17+DRB1*14:01:01G | DRB1*11:52+DRB1*14:101       |                             |
| DRB1*11:17+DRB1*14:04     | DRB1*14:01:01G+DRB1*14:11    |                             |
| DRB1*11:17+DRB1*14:08     | DRB1*11:52+DRB1*14:23:02     | DRB1*11:56+DRB1*14:07:01    |
| DRB1*11:17+DRB1*14:25     | DRB1*11:37:01+DRB1*14:01:01G |                             |
| DRB1*11:17+DRB1*14:28     | DRB1*14:11+DRB1*14:99        |                             |
| DRB1*11:17+DRB1*14:31     | DRB1*14:11+DRB1*14:32:02     |                             |
| DRB1*11:17+DRB1*14:50     | DRB1*14:11+DRB1*14:38        |                             |
| DRB1*11:17+DRB1*14:52     | DRB1*14:06:01+DRB1*14:11     |                             |
| DRB1*11:17+DRB1*14:68     | DRB1*14:07:01+DRB1*14:11     |                             |
| DRB1*11:17+DRB1*14:79     | DRB1*11:52+DRB1*14:76        |                             |
| DRB1*11:17+DRB1*14:107    | DRB1*14:11+DRB1*14:111       |                             |
| DRB1*11:17+DRB1*14:120    | DRB1*14:11+DRB1*14:122       |                             |
| DRB1*11:17+DRB1*14:126    | DRB1*14:11+DRB1*14:23:01     |                             |
| DRB1*11:18+DRB1*11:26     | DRB1*11:19:01+DRB1*11:34     |                             |
| DRB1*11:18+DRB1*11:27:01  | DRB1*11:19:01+DRB1*11:84:01  |                             |
| DRB1*11:18+DRB1*11:27:02  | DRB1*11:19:01+DRB1*11:84:02  |                             |
| DRB1*11:18+DRB1*11:27:03  | DRB1*11:19:03+DRB1*11:84:02  |                             |
| DRB1*11:18+DRB1*11:28:01  | DRB1*11:19:01+DRB1*11:58:02  |                             |
| DRB1*11:18+DRB1*11:28:02  | DRB1*11:19:01+DRB1*11:58:01  |                             |
| DRB1*11:18+DRB1*11:33     | DRB1*11:19:01+DRB1*11:35     |                             |
| DRB1*11:18+DRB1*11:37:01  | DRB1*11:19:01+DRB1*11:56     |                             |
| DRB1*11:18+DRB1*11:37:02  | DRB1*11:19:03+DRB1*11:56     |                             |
| DRB1*11:18+DRB1*11:39     | DRB1*11:19:01+DRB1*11:43     |                             |
| DRB1*11:18+DRB1*11:45     | DRB1*11:19:01+DRB1*11:119    |                             |
| DRB1*11:18+DRB1*11:49:01  | DRB1*11:19:01+DRB1*11:44     |                             |
| DRB1*11:18+DRB1*11:49:02  | DRB1*11:19:03+DRB1*11:44     |                             |
| DRB1*11:18+DRB1*11:62     | DRB1*11:19:01+DRB1*11:46:02  |                             |
| DRB1*11:18+DRB1*11:72     | DRB1*11:19:03+DRB1*11:92     |                             |

|                             |                              |                           |                        |
|-----------------------------|------------------------------|---------------------------|------------------------|
| DRB1*11:18+DRB1*11:109      | DRB1*11:19:01+DRB1*11:60     |                           |                        |
| DRB1*11:18+DRB1*11:120      | DRB1*11:19:01+DRB1*11:116    |                           |                        |
| DRB1*11:18+DRB1*12:12       | DRB1*11:42+DRB1*12:01:01G    | DRB1*11:57+DRB1*12:03:03  |                        |
| DRB1*11:18+DRB1*12:21       | DRB1*11:56+DRB1*12:01:01G    |                           |                        |
| DRB1*11:18+DRB1*13:02:02    | DRB1*11:19:02+DRB1*13:01:01G |                           |                        |
| DRB1*11:18+DRB1*13:02:03    | DRB1*11:19:01+DRB1*13:01:05  |                           |                        |
| DRB1*11:18+DRB1*13:03:01    | DRB1*11:19:01+DRB1*13:89     |                           |                        |
| DRB1*11:18+DRB1*13:07:01    | DRB1*11:56+DRB1*13:82        |                           |                        |
| DRB1*11:18+DRB1*13:13       | DRB1*11:119+DRB1*13:12:01    |                           |                        |
| DRB1*11:18+DRB1*13:14:02    | DRB1*11:19:01+DRB1*13:11:02  |                           |                        |
| DRB1*11:18+DRB1*13:16       | DRB1*11:86+DRB1*13:06        |                           |                        |
| DRB1*11:18+DRB1*13:18       | DRB1*11:25+DRB1*13:06        | DRB1*11:119+DRB1*13:42    |                        |
| DRB1*11:18+DRB1*13:20       | DRB1*11:36+DRB1*13:06        | DRB1*11:42+DRB1*13:01:01G |                        |
| DRB1*11:18+DRB1*13:23:01    | DRB1*11:19:03+DRB1*13:22     |                           |                        |
| DRB1*11:18+DRB1*13:25       | DRB1*11:42+DRB1*13:82        |                           |                        |
| DRB1*11:18+DRB1*13:33:01    | DRB1*11:19:03+DRB1*13:94     |                           |                        |
| DRB1*11:18+DRB1*13:36       | DRB1*11:19:01+DRB1*13:40     |                           |                        |
| DRB1*11:18+DRB1*13:39       | DRB1*11:19:01+DRB1*13:79     |                           |                        |
| DRB1*11:18+DRB1*13:40       | DRB1*11:48+DRB1*13:06        |                           |                        |
| DRB1*11:18+DRB1*13:41       | DRB1*11:19:01+DRB1*13:27     |                           |                        |
| DRB1*11:18+DRB1*13:50:01    | DRB1*11:58:02+DRB1*13:82     |                           |                        |
| DRB1*11:18+DRB1*13:50:02    | DRB1*11:58:01+DRB1*13:82     |                           |                        |
| DRB1*11:18+DRB1*13:61:01    | DRB1*11:124+DRB1*13:06       |                           |                        |
| DRB1*11:18+DRB1*13:71       | DRB1*11:42+DRB1*13:27        |                           |                        |
| DRB1*11:18+DRB1*13:78       | DRB1*11:42+DRB1*13:79        |                           |                        |
| DRB1*11:18+DRB1*13:96:01    | DRB1*11:19:01+DRB1*13:61:02  |                           |                        |
| DRB1*11:18+DRB1*13:96:02    | DRB1*11:19:01+DRB1*13:61:01  |                           |                        |
| DRB1*11:18+DRB1*13:97:01    | DRB1*11:19:01+DRB1*13:52     | DRB1*11:118+DRB1*13:82    |                        |
| DRB1*11:18+DRB1*13:104      | DRB1*11:19:01+DRB1*13:15     |                           |                        |
| DRB1*11:18+DRB1*13:107      | DRB1*11:19:01+DRB1*13:83     |                           |                        |
| DRB1*11:18+DRB1*13:119      | DRB1*11:64+DRB1*13:06        | DRB1*11:119+DRB1*13:56    |                        |
| DRB1*11:18+DRB1*13:128      | DRB1*11:19:01+DRB1*13:112    |                           |                        |
| DRB1*11:18+DRB1*13:132      | DRB1*11:46:01+DRB1*13:82     |                           |                        |
| DRB1*11:18+DRB1*13:134      | DRB1*11:42+DRB1*13:12:01     |                           |                        |
| DRB1*11:18+DRB1*14:01:01G   | DRB1*11:42+DRB1*14:122       |                           |                        |
| DRB1*11:18+DRB1*14:02       | DRB1*11:19:01+DRB1*14:06:01  |                           |                        |
| DRB1*11:18+DRB1*14:03:01    | DRB1*11:19:01+DRB1*14:12:01  | DRB1*11:42+DRB1*14:67     |                        |
| DRB1*11:18+DRB1*14:04       | DRB1*11:42+DRB1*14:120       |                           |                        |
| DRB1*11:18+DRB1*14:05:01    | DRB1*11:42+DRB1*14:45        |                           |                        |
| DRB1*11:18+DRB1*14:09       | DRB1*11:19:01+DRB1*14:80     |                           |                        |
| DRB1*11:18+DRB1*14:17       | DRB1*11:34+DRB1*13:06        |                           |                        |
| DRB1*11:18+DRB1*14:19       | DRB1*11:34+DRB1*13:85        |                           |                        |
| DRB1*11:18+DRB1*14:21       | DRB1*11:34+DRB1*13:10        |                           |                        |
| DRB1*11:18+DRB1*14:28       | DRB1*11:57+DRB1*14:120       |                           |                        |
| DRB1*11:18+DRB1*14:30       | DRB1*11:19:01+DRB1*14:17     | DRB1*11:26+DRB1*13:06     |                        |
| DRB1*11:18+DRB1*14:44:02    | DRB1*11:19:01+DRB1*14:05:03  |                           |                        |
| DRB1*11:18+DRB1*14:51       | DRB1*11:19:01+DRB1*14:106    |                           |                        |
| DRB1*11:18+DRB1*14:55       | DRB1*11:119+DRB1*14:32:02    |                           |                        |
| DRB1*11:18+DRB1*14:63       | DRB1*11:19:01+DRB1*14:78     |                           |                        |
| DRB1*11:18+DRB1*14:89       | DRB1*11:34+DRB1*14:67        | DRB1*11:45+DRB1*14:06:01  | DRB1*11:119+DRB1*14:02 |
| DRB1*11:18+DRB1*14:99       | DRB1*11:57+DRB1*14:122       |                           |                        |
| DRB1*11:18+DRB1*15:02:01    | DRB1*11:19:01+DRB1*15:01:01G |                           |                        |
| DRB1*11:18+DRB1*15:02:02    | DRB1*11:19:01+DRB1*15:01:04  |                           |                        |
| DRB1*11:18+DRB1*15:02:04    | DRB1*11:19:01+DRB1*15:01:09  |                           |                        |
| DRB1*11:18+DRB1*15:02:05    | DRB1*11:19:03+DRB1*15:01:04  |                           |                        |
| DRB1*11:18+DRB1*15:02:06    | DRB1*11:19:01+DRB1*15:01:03  |                           |                        |
| DRB1*11:18+DRB1*15:02:08    | DRB1*11:19:01+DRB1*15:01:10  |                           |                        |
| DRB1*11:18+DRB1*15:02:09    | DRB1*11:19:03+DRB1*15:01:01G |                           |                        |
| DRB1*11:18+DRB1*15:05       | DRB1*11:42+DRB1*15:01:01G    |                           |                        |
| DRB1*11:18+DRB1*15:11       | DRB1*11:19:01+DRB1*15:07:01  |                           |                        |
| DRB1*11:18+DRB1*15:23       | DRB1*11:42+DRB1*15:03:01G    |                           |                        |
| DRB1*11:18+DRB1*15:27       | DRB1*11:19:01+DRB1*15:66     |                           |                        |
| DRB1*11:18+DRB1*15:47       | DRB1*11:19:01+DRB1*15:65     |                           |                        |
| DRB1*11:18+DRB1*15:63       | DRB1*11:42+DRB1*15:38        |                           |                        |
| DRB1*11:18+DRB1*15:73       | DRB1*11:42+DRB1*15:06:01     |                           |                        |
| DRB1*11:18+DRB1*16:02:01    | DRB1*11:42+DRB1*16:05:01     |                           |                        |
| DRB1*11:18+DRB1*16:04       | DRB1*11:37:02+DRB1*15:21     |                           |                        |
| DRB1*11:18+DRB1*16:18       | DRB1*11:119+DRB1*16:02:02    |                           |                        |
| DRB1*11:19:01+DRB1*11:27:03 | DRB1*11:19:03+DRB1*11:27:02  |                           |                        |
| DRB1*11:19:01+DRB1*11:37:02 | DRB1*11:19:03+DRB1*11:37:01  |                           |                        |
| DRB1*11:19:01+DRB1*11:49:02 | DRB1*11:19:03+DRB1*11:49:01  |                           |                        |
| DRB1*11:19:01+DRB1*11:74:02 | DRB1*11:19:03+DRB1*11:74:01  |                           |                        |
| DRB1*11:19:01+DRB1*12:01:03 | DRB1*11:19:02+DRB1*12:01:02  |                           |                        |
| DRB1*11:19:01+DRB1*12:09    | DRB1*12:04+DRB1*13:82        |                           |                        |
| DRB1*11:19:01+DRB1*12:21    | DRB1*11:37:01+DRB1*12:01:01G |                           |                        |
| DRB1*11:19:01+DRB1*13:02:01 | DRB1*11:20+DRB1*13:82        |                           |                        |
| DRB1*11:19:01+DRB1*13:02:02 | DRB1*11:19:02+DRB1*13:02:01  | DRB1*11:73+DRB1*13:12:01  |                        |
| DRB1*11:19:01+DRB1*13:03:01 | DRB1*11:19:03+DRB1*13:03:02  |                           |                        |
| DRB1*11:19:01+DRB1*13:05:02 | DRB1*11:19:03+DRB1*13:05:01  |                           |                        |
| DRB1*11:19:01+DRB1*13:07:01 | DRB1*11:37:01+DRB1*13:82     |                           |                        |
| DRB1*11:19:01+DRB1*13:09    | DRB1*11:82+DRB1*13:06        |                           |                        |
| DRB1*11:19:01+DRB1*13:12:02 | DRB1*11:19:03+DRB1*13:12:01  |                           |                        |
| DRB1*11:19:01+DRB1*13:13    | DRB1*11:45+DRB1*13:12:01     | DRB1*11:119+DRB1*13:05:01 |                        |
| DRB1*11:19:01+DRB1*13:18    | DRB1*11:45+DRB1*13:42        |                           |                        |
| DRB1*11:19:01+DRB1*13:33:03 | DRB1*11:19:03+DRB1*13:33:02  |                           |                        |
| DRB1*11:19:01+DRB1*13:44    | DRB1*11:34+DRB1*13:82        |                           |                        |
| DRB1*11:19:01+DRB1*13:50:01 | DRB1*11:28:01+DRB1*13:82     |                           |                        |
| DRB1*11:19:01+DRB1*13:50:02 | DRB1*11:28:02+DRB1*13:82     |                           |                        |
| DRB1*11:19:01+DRB1*13:53    | DRB1*11:98+DRB1*13:85        |                           |                        |
| DRB1*11:19:01+DRB1*13:65    | DRB1*11:20+DRB1*13:12:01     |                           |                        |
| DRB1*11:19:01+DRB1*13:66:02 | DRB1*11:19:03+DRB1*13:66:01  | DRB1*11:73+DRB1*13:30     |                        |
| DRB1*11:19:01+DRB1*13:70    | DRB1*11:48+DRB1*13:82        |                           |                        |
| DRB1*11:19:01+DRB1*13:119   | DRB1*11:45+DRB1*13:56        |                           |                        |
| DRB1*11:19:01+DRB1*13:139   | DRB1*11:20+DRB1*13:30        |                           |                        |
| DRB1*11:19:01+DRB1*14:06:02 | DRB1*11:19:03+DRB1*14:06:01  |                           |                        |
| DRB1*11:19:01+DRB1*14:07:02 | DRB1*11:19:03+DRB1*14:07:01  |                           |                        |
| DRB1*11:19:01+DRB1*14:08    | DRB1*11:31+DRB1*14:23:02     |                           |                        |
| DRB1*11:19:01+DRB1*14:19    | DRB1*11:26+DRB1*13:85        |                           |                        |
| DRB1*11:19:01+DRB1*14:21    | DRB1*11:26+DRB1*13:10        | DRB1*11:79+DRB1*13:06     |                        |
| DRB1*11:19:01+DRB1*14:44:03 | DRB1*11:19:03+DRB1*14:44:01  |                           |                        |
| DRB1*11:19:01+DRB1*14:55    | DRB1*11:45+DRB1*14:32:02     |                           |                        |
| DRB1*11:19:01+DRB1*14:79    | DRB1*11:31+DRB1*14:76        |                           |                        |
| DRB1*11:19:01+DRB1*14:89    | DRB1*11:26+DRB1*14:67        | DRB1*11:45+DRB1*14:02     |                        |
| DRB1*11:19:01+DRB1*14:126   | DRB1*13:82+DRB1*14:11        |                           |                        |
| DRB1*11:19:01+DRB1*15:02:05 | DRB1*11:19:03+DRB1*15:02:02  |                           |                        |

|                             |                              |                           |
|-----------------------------|------------------------------|---------------------------|
| DRB1*11:19:01+DRB1*15:02:09 | DRB1*11:19:03+DRB1*15:02:01  |                           |
| DRB1*11:19:01+DRB1*16:18    | DRB1*11:45+DRB1*16:02:02     |                           |
| DRB1*11:19:02+DRB1*13:20    | DRB1*11:42+DRB1*13:02:02     |                           |
| DRB1*11:19:02+DRB1*15:11    | DRB1*11:82+DRB1*16:05:01     |                           |
| DRB1*11:19:02+DRB1*15:31    | DRB1*11:82+DRB1*16:10        |                           |
| DRB1*11:19:02+DRB1*15:34    | DRB1*11:26+DRB1*16:05:01     |                           |
| DRB1*11:19:02+DRB1*16:04    | DRB1*11:23+DRB1*16:05:01     |                           |
| DRB1*11:19:02+DRB1*16:18    | DRB1*11:45+DRB1*16:02:01     | DRB1*11:64+DRB1*16:05:01  |
| DRB1*11:19:03+DRB1*11:79    | DRB1*11:26+DRB1*11:73        |                           |
| DRB1*11:19:03+DRB1*12:21    | DRB1*11:37:02+DRB1*12:01:01G |                           |
| DRB1*11:19:03+DRB1*13:03:01 | DRB1*11:73+DRB1*13:12:02     |                           |
| DRB1*11:19:03+DRB1*13:04    | DRB1*11:98+DRB1*13:66:02     |                           |
| DRB1*11:19:03+DRB1*13:07:01 | DRB1*11:37:02+DRB1*13:82     |                           |
| DRB1*11:19:03+DRB1*13:10    | DRB1*11:73+DRB1*13:06        |                           |
| DRB1*11:19:03+DRB1*13:13    | DRB1*11:45+DRB1*13:12:02     |                           |
| DRB1*11:19:03+DRB1*13:18    | DRB1*11:23+DRB1*13:06        | DRB1*11:119+DRB1*13:05:02 |
| DRB1*11:19:03+DRB1*13:55    | DRB1*11:23+DRB1*13:12:02     |                           |
| DRB1*11:19:03+DRB1*13:65    | DRB1*11:20+DRB1*13:12:02     |                           |
| DRB1*11:19:03+DRB1*13:70    | DRB1*11:98+DRB1*13:37        |                           |
| DRB1*11:19:03+DRB1*13:81    | DRB1*11:73+DRB1*13:58        |                           |
| DRB1*11:19:03+DRB1*14:19    | DRB1*11:73+DRB1*14:02        |                           |
| DRB1*11:19:03+DRB1*14:21    | DRB1*11:73+DRB1*14:17        |                           |
| DRB1*11:20+DRB1*11:25       | DRB1*11:40+DRB1*11:45        | DRB1*11:119+DRB1*11:122   |
| DRB1*11:20+DRB1*11:41       | DRB1*11:48+DRB1*11:122       |                           |
| DRB1*11:20+DRB1*11:69       | DRB1*11:82+DRB1*11:122       |                           |
| DRB1*11:20+DRB1*11:85       | DRB1*11:122+DRB1*11:127      |                           |
| DRB1*11:20+DRB1*11:93       | DRB1*11:73+DRB1*11:122       |                           |
| DRB1*11:20+DRB1*11:96       | DRB1*11:31+DRB1*11:122       |                           |
| DRB1*11:20+DRB1*12:02:01    | DRB1*11:122+DRB1*12:01:01G   |                           |
| DRB1*11:20+DRB1*12:02:02    | DRB1*11:122+DRB1*12:01:03    |                           |
| DRB1*11:20+DRB1*12:09       | DRB1*12:04+DRB1*13:02:01     |                           |
| DRB1*11:20+DRB1*12:15       | DRB1*11:122+DRB1*12:05       |                           |
| DRB1*11:20+DRB1*12:19       | DRB1*11:122+DRB1*12:03:03    |                           |
| DRB1*11:20+DRB1*13:07:02    | DRB1*11:37:01+DRB1*13:02:03  |                           |
| DRB1*11:20+DRB1*13:13       | DRB1*11:45+DRB1*13:65        |                           |
| DRB1*11:20+DRB1*13:37       | DRB1*11:73+DRB1*13:36        |                           |
| DRB1*11:20+DRB1*13:47       | DRB1*11:23+DRB1*13:36        |                           |
| DRB1*11:20+DRB1*13:50:01    | DRB1*11:28:01+DRB1*13:02:01  |                           |
| DRB1*11:20+DRB1*13:50:02    | DRB1*11:28:02+DRB1*13:02:01  |                           |
| DRB1*11:20+DRB1*13:55       | DRB1*11:23+DRB1*13:65        |                           |
| DRB1*11:20+DRB1*13:63       | DRB1*11:122+DRB1*13:02:01    |                           |
| DRB1*11:20+DRB1*13:66:02    | DRB1*11:73+DRB1*13:139       |                           |
| DRB1*11:20+DRB1*13:86       | DRB1*11:26+DRB1*13:104       |                           |
| DRB1*11:20+DRB1*13:88       | DRB1*11:68+DRB1*13:120       |                           |
| DRB1*11:20+DRB1*13:100      | DRB1*11:120+DRB1*13:31       |                           |
| DRB1*11:20+DRB1*14:27       | DRB1*11:122+DRB1*14:67       |                           |
| DRB1*11:20+DRB1*14:116      | DRB1*11:64+DRB1*13:36        |                           |
| DRB1*11:20+DRB1*14:126      | DRB1*13:02:01+DRB1*14:11     |                           |
| DRB1*11:20+DRB1*15:15       | DRB1*11:122+DRB1*15:02:01    |                           |
| DRB1*11:20+DRB1*16:01:01    | DRB1*11:122+DRB1*16:05:01    |                           |
| DRB1*11:20+DRB1*16:02:01    | DRB1*13:02:03+DRB1*16:16     |                           |
| DRB1*11:21+DRB1*13:25       | DRB1*11:57+DRB1*13:23:02     |                           |
| DRB1*11:21+DRB1*13:56       | DRB1*11:57+DRB1*13:02:01     |                           |
| DRB1*11:21+DRB1*13:134      | DRB1*11:68+DRB1*13:58        |                           |
| DRB1*11:21+DRB1*14:74       | DRB1*11:57+DRB1*14:16        |                           |
| DRB1*11:21+DRB1*15:05       | DRB1*11:36+DRB1*15:35        |                           |
| DRB1*11:21+DRB1*15:07:01    | DRB1*11:48+DRB1*15:35        |                           |
| DRB1*11:21+DRB1*15:31       | DRB1*11:68+DRB1*15:35        |                           |
| DRB1*11:23+DRB1*11:41       | DRB1*11:37:02+DRB1*11:55     |                           |
| DRB1*11:23+DRB1*11:44       | DRB1*11:25+DRB1*11:49:02     |                           |
| DRB1*11:23+DRB1*11:56       | DRB1*11:25+DRB1*11:37:02     |                           |
| DRB1*11:23+DRB1*11:84:02    | DRB1*11:25+DRB1*11:27:03     |                           |
| DRB1*11:23+DRB1*11:85       | DRB1*11:49:02+DRB1*11:55     |                           |
| DRB1*11:23+DRB1*11:92       | DRB1*11:25+DRB1*11:72        |                           |
| DRB1*11:23+DRB1*13:03:01    | DRB1*11:73+DRB1*13:55        |                           |
| DRB1*11:23+DRB1*13:03:02    | DRB1*11:93+DRB1*13:13        |                           |
| DRB1*11:23+DRB1*13:10       | DRB1*11:73+DRB1*13:18        |                           |
| DRB1*11:23+DRB1*13:11:01    | DRB1*11:25+DRB1*13:14:03     |                           |
| DRB1*11:23+DRB1*13:13       | DRB1*11:45+DRB1*13:55        |                           |
| DRB1*11:23+DRB1*13:22       | DRB1*11:25+DRB1*13:23:01     |                           |
| DRB1*11:23+DRB1*13:24       | DRB1*11:55+DRB1*13:14:03     |                           |
| DRB1*11:23+DRB1*13:25       | DRB1*11:64+DRB1*13:14:03     |                           |
| DRB1*11:23+DRB1*13:30       | DRB1*11:45+DRB1*13:21:02     |                           |
| DRB1*11:23+DRB1*13:37       | DRB1*11:73+DRB1*13:47        |                           |
| DRB1*11:23+DRB1*13:75       | DRB1*11:55+DRB1*13:21:02     |                           |
| DRB1*11:23+DRB1*13:82       | DRB1*11:45+DRB1*13:14:03     |                           |
| DRB1*11:23+DRB1*13:85       | DRB1*11:73+DRB1*14:27        | DRB1*11:93+DRB1*14:67     |
| DRB1*11:23+DRB1*13:94       | DRB1*11:25+DRB1*13:33:01     |                           |
| DRB1*11:23+DRB1*13:111      | DRB1*11:55+DRB1*13:05:02     |                           |
| DRB1*11:23+DRB1*14:01:01G   | DRB1*11:25+DRB1*14:07:02     |                           |
| DRB1*11:23+DRB1*14:04       | DRB1*11:67+DRB1*14:07:02     |                           |
| DRB1*11:23+DRB1*14:05:01    | DRB1*11:25+DRB1*14:44:03     |                           |
| DRB1*11:23+DRB1*14:19       | DRB1*11:93+DRB1*14:89        |                           |
| DRB1*11:23+DRB1*14:116      | DRB1*11:64+DRB1*13:47        |                           |
| DRB1*11:23+DRB1*15:01:01G   | DRB1*11:25+DRB1*15:02:09     |                           |
| DRB1*11:23+DRB1*15:01:04    | DRB1*11:25+DRB1*15:02:05     |                           |
| DRB1*11:23+DRB1*15:11       | DRB1*11:82+DRB1*16:04        |                           |
| DRB1*11:23+DRB1*15:34       | DRB1*11:26+DRB1*16:04        |                           |
| DRB1*11:23+DRB1*16:18       | DRB1*11:64+DRB1*16:04        |                           |
| DRB1*11:24+DRB1*13:01:01G   | DRB1*11:28:01+DRB1*13:68     |                           |
| DRB1*11:24+DRB1*13:64       | DRB1*11:114+DRB1*13:68       |                           |
| DRB1*11:24+DRB1*13:106      | DRB1*11:49:01+DRB1*13:68     |                           |
| DRB1*11:25+DRB1*11:31       | DRB1*11:96+DRB1*11:119       |                           |
| DRB1*11:25+DRB1*11:36       | DRB1*11:42+DRB1*11:55        |                           |
| DRB1*11:25+DRB1*11:40       | DRB1*11:55+DRB1*11:113       |                           |
| DRB1*11:25+DRB1*11:41       | DRB1*11:55+DRB1*11:56        |                           |
| DRB1*11:25+DRB1*11:48       | DRB1*11:41+DRB1*11:119       |                           |
| DRB1*11:25+DRB1*11:73       | DRB1*11:93+DRB1*11:119       |                           |
| DRB1*11:25+DRB1*11:82       | DRB1*11:69+DRB1*11:119       |                           |
| DRB1*11:25+DRB1*11:85       | DRB1*11:44+DRB1*11:55        |                           |
| DRB1*11:25+DRB1*11:127      | DRB1*11:85+DRB1*11:119       |                           |
| DRB1*11:25+DRB1*12:01:01G   | DRB1*11:119+DRB1*12:02:01    |                           |
| DRB1*11:25+DRB1*12:01:03    | DRB1*11:119+DRB1*12:02:02    |                           |
| DRB1*11:25+DRB1*12:03:03    | DRB1*11:119+DRB1*12:19       |                           |
| DRB1*11:25+DRB1*12:05       | DRB1*11:119+DRB1*12:15       |                           |

|                           |                           |                           |                          |
|---------------------------|---------------------------|---------------------------|--------------------------|
| DRB1*11:25+DRB1*13:04     | DRB1*11:119+DRB1*13:75    |                           |                          |
| DRB1*11:25+DRB1*13:16     | DRB1*11:86+DRB1*13:18     |                           |                          |
| DRB1*11:25+DRB1*13:20     | DRB1*11:36+DRB1*13:18     |                           |                          |
| DRB1*11:25+DRB1*13:22     | DRB1*11:119+DRB1*13:24    |                           |                          |
| DRB1*11:25+DRB1*13:23:02  | DRB1*11:45+DRB1*13:24     | DRB1*11:55+DRB1*13:82     |                          |
| DRB1*11:25+DRB1*13:24     | DRB1*11:55+DRB1*13:11:01  |                           |                          |
| DRB1*11:25+DRB1*13:25     | DRB1*11:64+DRB1*13:11:01  |                           |                          |
| DRB1*11:25+DRB1*13:30     | DRB1*11:119+DRB1*13:21:01 |                           |                          |
| DRB1*11:25+DRB1*13:61:01  | DRB1*11:124+DRB1*13:18    |                           |                          |
| DRB1*11:25+DRB1*13:65     | DRB1*11:40+DRB1*13:13     |                           |                          |
| DRB1*11:25+DRB1*13:82     | DRB1*11:45+DRB1*13:11:01  | DRB1*11:119+DRB1*13:14:01 |                          |
| DRB1*11:25+DRB1*13:118    | DRB1*11:43+DRB1*13:13     |                           |                          |
| DRB1*11:25+DRB1*13:119    | DRB1*11:64+DRB1*13:18     |                           |                          |
| DRB1*11:25+DRB1*13:134    | DRB1*11:64+DRB1*13:108    |                           |                          |
| DRB1*11:25+DRB1*14:01:01G | DRB1*11:54:02+DRB1*14:55  |                           |                          |
| DRB1*11:25+DRB1*14:04     | DRB1*11:67+DRB1*14:01:01G |                           |                          |
| DRB1*11:25+DRB1*14:17     | DRB1*11:34+DRB1*13:18     |                           |                          |
| DRB1*11:25+DRB1*14:28     | DRB1*11:67+DRB1*14:99     |                           |                          |
| DRB1*11:25+DRB1*14:30     | DRB1*11:26+DRB1*13:18     |                           |                          |
| DRB1*11:25+DRB1*14:31     | DRB1*11:67+DRB1*14:32:02  |                           |                          |
| DRB1*11:25+DRB1*14:47     | DRB1*11:84:01+DRB1*14:89  |                           |                          |
| DRB1*11:25+DRB1*14:50     | DRB1*11:67+DRB1*14:38     |                           |                          |
| DRB1*11:25+DRB1*14:51     | DRB1*11:54:02+DRB1*14:89  |                           |                          |
| DRB1*11:25+DRB1*14:52     | DRB1*11:67+DRB1*14:06:01  |                           |                          |
| DRB1*11:25+DRB1*14:67     | DRB1*11:119+DRB1*14:27    |                           |                          |
| DRB1*11:25+DRB1*14:68     | DRB1*11:67+DRB1*14:07:01  |                           |                          |
| DRB1*11:25+DRB1*14:107    | DRB1*11:67+DRB1*14:111    |                           |                          |
| DRB1*11:25+DRB1*14:120    | DRB1*11:67+DRB1*14:122    |                           |                          |
| DRB1*11:25+DRB1*15:01:01G | DRB1*11:119+DRB1*15:04    |                           |                          |
| DRB1*11:25+DRB1*15:02:01  | DRB1*11:45+DRB1*15:04     | DRB1*11:69+DRB1*15:21     | DRB1*11:119+DRB1*15:15   |
| DRB1*11:25+DRB1*15:31     | DRB1*11:64+DRB1*15:04     |                           |                          |
| DRB1*11:25+DRB1*16:05:01  | DRB1*11:45+DRB1*16:15     | DRB1*11:119+DRB1*16:01:01 |                          |
| DRB1*11:26+DRB1*11:35     | DRB1*11:33+DRB1*11:34     |                           |                          |
| DRB1*11:26+DRB1*11:36     | DRB1*11:34+DRB1*11:68     |                           |                          |
| DRB1*11:26+DRB1*11:40     | DRB1*11:34+DRB1*11:122    |                           |                          |
| DRB1*11:26+DRB1*11:43     | DRB1*11:34+DRB1*11:39     |                           |                          |
| DRB1*11:26+DRB1*11:44     | DRB1*11:34+DRB1*11:49:01  |                           |                          |
| DRB1*11:26+DRB1*11:46:02  | DRB1*11:34+DRB1*11:62     |                           |                          |
| DRB1*11:26+DRB1*11:56     | DRB1*11:34+DRB1*11:37:01  |                           |                          |
| DRB1*11:26+DRB1*11:58:01  | DRB1*11:28:02+DRB1*11:34  |                           |                          |
| DRB1*11:26+DRB1*11:58:02  | DRB1*11:28:01+DRB1*11:34  |                           |                          |
| DRB1*11:26+DRB1*11:60     | DRB1*11:34+DRB1*11:109    |                           |                          |
| DRB1*11:26+DRB1*11:84:01  | DRB1*11:27:01+DRB1*11:34  |                           |                          |
| DRB1*11:26+DRB1*11:84:02  | DRB1*11:27:02+DRB1*11:34  |                           |                          |
| DRB1*11:26+DRB1*11:116    | DRB1*11:34+DRB1*11:120    |                           |                          |
| DRB1*11:26+DRB1*11:119    | DRB1*11:34+DRB1*11:45     |                           |                          |
| DRB1*11:26+DRB1*13:01:05  | DRB1*11:34+DRB1*13:02:03  |                           |                          |
| DRB1*11:26+DRB1*13:03:01  | DRB1*11:79+DRB1*13:12:02  |                           |                          |
| DRB1*11:26+DRB1*13:03:02  | DRB1*11:79+DRB1*13:12:01  |                           |                          |
| DRB1*11:26+DRB1*13:09     | DRB1*11:82+DRB1*14:17     |                           |                          |
| DRB1*11:26+DRB1*13:11:02  | DRB1*11:34+DRB1*13:14:02  |                           |                          |
| DRB1*11:26+DRB1*13:16     | DRB1*11:86+DRB1*14:30     |                           |                          |
| DRB1*11:26+DRB1*13:20     | DRB1*11:34+DRB1*13:29     | DRB1*11:36+DRB1*14:30     | DRB1*11:68+DRB1*14:17    |
| DRB1*11:26+DRB1*13:27     | DRB1*11:34+DRB1*13:41     |                           |                          |
| DRB1*11:26+DRB1*13:29     | DRB1*11:68+DRB1*14:30     |                           |                          |
| DRB1*11:26+DRB1*13:32     | DRB1*11:34+DRB1*13:65     |                           |                          |
| DRB1*11:26+DRB1*13:52     | DRB1*11:34+DRB1*13:97:01  |                           |                          |
| DRB1*11:26+DRB1*13:61:01  | DRB1*11:34+DRB1*13:96:02  | DRB1*11:124+DRB1*14:30    |                          |
| DRB1*11:26+DRB1*13:61:02  | DRB1*11:34+DRB1*13:96:01  |                           |                          |
| DRB1*11:26+DRB1*13:66:01  | DRB1*11:79+DRB1*13:30     |                           |                          |
| DRB1*11:26+DRB1*13:79     | DRB1*11:34+DRB1*13:39     |                           |                          |
| DRB1*11:26+DRB1*13:81     | DRB1*11:79+DRB1*13:58     |                           |                          |
| DRB1*11:26+DRB1*13:83     | DRB1*11:34+DRB1*13:107    |                           |                          |
| DRB1*11:26+DRB1*13:89     | DRB1*11:34+DRB1*13:03:01  |                           |                          |
| DRB1*11:26+DRB1*13:93     | DRB1*11:34+DRB1*13:139    |                           |                          |
| DRB1*11:26+DRB1*13:108    | DRB1*11:34+DRB1*13:49     |                           |                          |
| DRB1*11:26+DRB1*13:112    | DRB1*11:34+DRB1*13:128    |                           |                          |
| DRB1*11:26+DRB1*13:119    | DRB1*11:64+DRB1*14:30     |                           |                          |
| DRB1*11:26+DRB1*14:01:01G | DRB1*11:34+DRB1*14:07:01  |                           |                          |
| DRB1*11:26+DRB1*14:04     | DRB1*11:34+DRB1*14:68     |                           |                          |
| DRB1*11:26+DRB1*14:05:01  | DRB1*11:34+DRB1*14:44:01  |                           |                          |
| DRB1*11:26+DRB1*14:05:03  | DRB1*11:34+DRB1*14:44:02  |                           |                          |
| DRB1*11:26+DRB1*14:06:01  | DRB1*11:34+DRB1*14:02     |                           |                          |
| DRB1*11:26+DRB1*14:12:01  | DRB1*11:34+DRB1*14:03:01  | DRB1*11:42+DRB1*14:89     | DRB1*11:64+DRB1*14:06:01 |
| DRB1*11:26+DRB1*14:17     | DRB1*11:34+DRB1*14:30     |                           |                          |
| DRB1*11:26+DRB1*14:19     | DRB1*11:79+DRB1*14:02     |                           |                          |
| DRB1*11:26+DRB1*14:21     | DRB1*11:79+DRB1*14:17     |                           |                          |
| DRB1*11:26+DRB1*14:23:01  | DRB1*11:34+DRB1*14:14     |                           |                          |
| DRB1*11:26+DRB1*14:24     | DRB1*11:82+DRB1*14:02     |                           |                          |
| DRB1*11:26+DRB1*14:63     | DRB1*11:45+DRB1*14:13     |                           |                          |
| DRB1*11:26+DRB1*14:74     | DRB1*11:42+DRB1*14:119    |                           |                          |
| DRB1*11:26+DRB1*14:77     | DRB1*11:64+DRB1*14:41     |                           |                          |
| DRB1*11:26+DRB1*14:78     | DRB1*11:34+DRB1*14:63     | DRB1*11:119+DRB1*14:13    |                          |
| DRB1*11:26+DRB1*14:80     | DRB1*11:34+DRB1*14:09     |                           |                          |
| DRB1*11:26+DRB1*14:85     | DRB1*11:64+DRB1*14:13     |                           |                          |
| DRB1*11:26+DRB1*14:98     | DRB1*11:64+DRB1*14:47     |                           |                          |
| DRB1*11:26+DRB1*14:106    | DRB1*11:34+DRB1*14:51     |                           |                          |
| DRB1*11:26+DRB1*15:01:01G | DRB1*11:34+DRB1*15:02:01  | DRB1*11:82+DRB1*15:66     |                          |
| DRB1*11:26+DRB1*15:01:03  | DRB1*11:34+DRB1*15:02:06  |                           |                          |
| DRB1*11:26+DRB1*15:01:04  | DRB1*11:34+DRB1*15:02:02  |                           |                          |
| DRB1*11:26+DRB1*15:01:09  | DRB1*11:34+DRB1*15:02:04  |                           |                          |
| DRB1*11:26+DRB1*15:01:10  | DRB1*11:34+DRB1*15:02:08  |                           |                          |
| DRB1*11:26+DRB1*15:02:01  | DRB1*11:82+DRB1*15:27     |                           |                          |
| DRB1*11:26+DRB1*15:03:01G | DRB1*11:82+DRB1*15:54     |                           |                          |
| DRB1*11:26+DRB1*15:04     | DRB1*11:34+DRB1*15:15     | DRB1*11:69+DRB1*15:66     |                          |
| DRB1*11:26+DRB1*15:05     | DRB1*11:34+DRB1*15:31     |                           |                          |
| DRB1*11:26+DRB1*15:07:01  | DRB1*11:34+DRB1*15:11     |                           |                          |
| DRB1*11:26+DRB1*15:11     | DRB1*11:82+DRB1*15:34     |                           |                          |
| DRB1*11:26+DRB1*15:15     | DRB1*11:69+DRB1*15:27     |                           |                          |
| DRB1*11:26+DRB1*15:21     | DRB1*11:45+DRB1*15:66     | DRB1*11:119+DRB1*15:27    |                          |
| DRB1*11:26+DRB1*15:65     | DRB1*11:34+DRB1*15:47     |                           |                          |
| DRB1*11:26+DRB1*15:66     | DRB1*11:34+DRB1*15:27     |                           |                          |
| DRB1*11:26+DRB1*16:18     | DRB1*11:64+DRB1*15:34     |                           |                          |
| DRB1*11:27:01+DRB1*11:35  | DRB1*11:33+DRB1*11:84:01  |                           |                          |
| DRB1*11:27:01+DRB1*11:36  | DRB1*11:68+DRB1*11:84:01  |                           |                          |

|                              |                             |                             |                             |
|------------------------------|-----------------------------|-----------------------------|-----------------------------|
| DRB1*11:27:01+DRB1*11:40     | DRB1*11:84:01+DRB1*11:122   |                             |                             |
| DRB1*11:27:01+DRB1*11:43     | DRB1*11:39+DRB1*11:84:01    |                             |                             |
| DRB1*11:27:01+DRB1*11:44     | DRB1*11:49:01+DRB1*11:84:01 |                             |                             |
| DRB1*11:27:01+DRB1*11:46:02  | DRB1*11:62+DRB1*11:84:01    |                             |                             |
| DRB1*11:27:01+DRB1*11:48     | DRB1*11:37:01+DRB1*11:124   |                             |                             |
| DRB1*11:27:01+DRB1*11:56     | DRB1*11:37:01+DRB1*11:84:01 |                             |                             |
| DRB1*11:27:01+DRB1*11:58:01  | DRB1*11:28:02+DRB1*11:84:01 |                             |                             |
| DRB1*11:27:01+DRB1*11:58:02  | DRB1*11:28:01+DRB1*11:84:01 |                             |                             |
| DRB1*11:27:01+DRB1*11:60     | DRB1*11:84:01+DRB1*11:109   |                             |                             |
| DRB1*11:27:01+DRB1*11:65:01  | DRB1*11:33+DRB1*11:124      |                             |                             |
| DRB1*11:27:01+DRB1*11:70     | DRB1*11:32+DRB1*11:124      |                             |                             |
| DRB1*11:27:01+DRB1*11:84:02  | DRB1*11:27:02+DRB1*11:84:01 |                             |                             |
| DRB1*11:27:01+DRB1*11:116    | DRB1*11:84:01+DRB1*11:120   |                             |                             |
| DRB1*11:27:01+DRB1*11:119    | DRB1*11:45+DRB1*11:84:01    |                             |                             |
| DRB1*11:27:01+DRB1*11:127    | DRB1*11:49:01+DRB1*11:124   |                             |                             |
| DRB1*11:27:01+DRB1*13:01:05  | DRB1*11:84:01+DRB1*13:02:03 |                             |                             |
| DRB1*11:27:01+DRB1*13:04     | DRB1*11:124+DRB1*13:21:01   |                             |                             |
| DRB1*11:27:01+DRB1*13:11:01  | DRB1*11:84:01+DRB1*13:14:01 |                             |                             |
| DRB1*11:27:01+DRB1*13:11:02  | DRB1*11:84:01+DRB1*13:14:02 |                             |                             |
| DRB1*11:27:01+DRB1*13:15     | DRB1*11:84:01+DRB1*13:104   |                             |                             |
| DRB1*11:27:01+DRB1*13:20     | DRB1*11:84:01+DRB1*13:29    |                             |                             |
| DRB1*11:27:01+DRB1*13:22     | DRB1*11:84:01+DRB1*13:23:02 | DRB1*11:124+DRB1*13:14:01   |                             |
| DRB1*11:27:01+DRB1*13:27     | DRB1*11:84:01+DRB1*13:41    |                             |                             |
| DRB1*11:27:01+DRB1*13:32     | DRB1*11:84:01+DRB1*13:65    |                             |                             |
| DRB1*11:27:01+DRB1*13:33:01  | DRB1*11:27:02+DRB1*13:33:03 | DRB1*11:27:03+DRB1*13:33:02 |                             |
| DRB1*11:27:01+DRB1*13:36     | DRB1*11:37:01+DRB1*13:96:02 |                             |                             |
| DRB1*11:27:01+DRB1*13:39     | DRB1*11:120+DRB1*13:96:02   |                             |                             |
| DRB1*11:27:01+DRB1*13:40     | DRB1*11:37:01+DRB1*13:61:01 | DRB1*11:56+DRB1*13:96:02    | DRB1*11:84:01+DRB1*13:36    |
| DRB1*11:27:01+DRB1*13:42     | DRB1*11:84:01+DRB1*13:05:01 |                             |                             |
| DRB1*11:27:01+DRB1*13:48     | DRB1*11:124+DRB1*13:49      |                             |                             |
| DRB1*11:27:01+DRB1*13:52     | DRB1*11:84:01+DRB1*13:97:01 | DRB1*11:124+DRB1*13:132     |                             |
| DRB1*11:27:01+DRB1*13:53     | DRB1*11:124+DRB1*13:26:02   |                             |                             |
| DRB1*11:27:01+DRB1*13:61:01  | DRB1*11:84:01+DRB1*13:96:02 |                             |                             |
| DRB1*11:27:01+DRB1*13:61:02  | DRB1*11:27:02+DRB1*13:61:01 | DRB1*11:84:01+DRB1*13:96:01 | DRB1*11:84:02+DRB1*13:96:02 |
| DRB1*11:27:01+DRB1*13:67     | DRB1*11:30+DRB1*13:96:02    |                             |                             |
| DRB1*11:27:01+DRB1*13:69     | DRB1*11:124+DRB1*13:50:02   |                             |                             |
| DRB1*11:27:01+DRB1*13:70     | DRB1*11:124+DRB1*13:07:01   |                             |                             |
| DRB1*11:27:01+DRB1*13:79     | DRB1*11:84:01+DRB1*13:39    | DRB1*11:116+DRB1*13:96:02   | DRB1*11:120+DRB1*13:61:01   |
| DRB1*11:27:01+DRB1*13:83     | DRB1*11:84:01+DRB1*13:107   |                             |                             |
| DRB1*11:27:01+DRB1*13:93     | DRB1*11:84:01+DRB1*13:139   |                             |                             |
| DRB1*11:27:01+DRB1*13:94     | DRB1*11:84:02+DRB1*13:33:02 |                             |                             |
| DRB1*11:27:01+DRB1*13:96:01  | DRB1*11:27:02+DRB1*13:96:02 |                             |                             |
| DRB1*11:27:01+DRB1*13:105    | DRB1*11:100+DRB1*13:61:01   |                             |                             |
| DRB1*11:27:01+DRB1*13:108    | DRB1*11:84:01+DRB1*13:49    |                             |                             |
| DRB1*11:27:01+DRB1*13:111    | DRB1*11:84:01+DRB1*13:63    |                             |                             |
| DRB1*11:27:01+DRB1*13:112    | DRB1*11:84:01+DRB1*13:128   |                             |                             |
| DRB1*11:27:01+DRB1*13:115    | DRB1*11:28:01+DRB1*13:33:03 |                             |                             |
| DRB1*11:27:01+DRB1*13:131    | DRB1*11:39+DRB1*13:61:01    | DRB1*11:43+DRB1*13:96:02    |                             |
| DRB1*11:27:01+DRB1*14:16     | DRB1*11:124+DRB1*14:22      |                             |                             |
| DRB1*11:27:01+DRB1*14:17     | DRB1*11:84:01+DRB1*14:30    |                             |                             |
| DRB1*11:27:01+DRB1*14:23:01  | DRB1*11:84:01+DRB1*14:14    |                             |                             |
| DRB1*11:27:01+DRB1*14:75     | DRB1*11:108+DRB1*14:38      |                             |                             |
| DRB1*11:27:01+DRB1*14:78     | DRB1*11:84:01+DRB1*14:63    |                             |                             |
| DRB1*11:27:01+DRB1*14:80     | DRB1*11:84:01+DRB1*14:09    |                             |                             |
| DRB1*11:27:01+DRB1*14:103    | DRB1*11:108+DRB1*14:127     |                             |                             |
| DRB1*11:27:01+DRB1*14:106    | DRB1*11:54:02+DRB1*14:47    | DRB1*11:84:01+DRB1*14:51    |                             |
| DRB1*11:27:01+DRB1*14:115    | DRB1*11:120+DRB1*14:98      |                             |                             |
| DRB1*11:27:01+DRB1*15:01:01G | DRB1*11:84:01+DRB1*15:02:01 |                             |                             |
| DRB1*11:27:01+DRB1*15:01:03  | DRB1*11:84:01+DRB1*15:02:06 |                             |                             |
| DRB1*11:27:01+DRB1*15:01:04  | DRB1*11:84:01+DRB1*15:02:02 |                             |                             |
| DRB1*11:27:01+DRB1*15:01:09  | DRB1*11:84:01+DRB1*15:02:04 |                             |                             |
| DRB1*11:27:01+DRB1*15:01:10  | DRB1*11:84:01+DRB1*15:02:08 |                             |                             |
| DRB1*11:27:01+DRB1*15:04     | DRB1*11:84:01+DRB1*15:15    |                             |                             |
| DRB1*11:27:01+DRB1*15:05     | DRB1*11:84:01+DRB1*15:31    |                             |                             |
| DRB1*11:27:01+DRB1*15:07:01  | DRB1*11:84:01+DRB1*15:11    |                             |                             |
| DRB1*11:27:01+DRB1*15:65     | DRB1*11:84:01+DRB1*15:47    |                             |                             |
| DRB1*11:27:01+DRB1*15:66     | DRB1*11:84:01+DRB1*15:27    |                             |                             |
| DRB1*11:27:01+DRB1*16:15     | DRB1*11:84:01+DRB1*16:01:01 |                             |                             |
| DRB1*11:27:02+DRB1*11:35     | DRB1*11:33+DRB1*11:84:02    |                             |                             |
| DRB1*11:27:02+DRB1*11:36     | DRB1*11:68+DRB1*11:84:02    |                             |                             |
| DRB1*11:27:02+DRB1*11:37:02  | DRB1*11:27:03+DRB1*11:37:01 |                             |                             |
| DRB1*11:27:02+DRB1*11:40     | DRB1*11:84:02+DRB1*11:122   |                             |                             |
| DRB1*11:27:02+DRB1*11:43     | DRB1*11:39+DRB1*11:84:02    |                             |                             |
| DRB1*11:27:02+DRB1*11:44     | DRB1*11:49:01+DRB1*11:84:02 |                             |                             |
| DRB1*11:27:02+DRB1*11:46:02  | DRB1*11:62+DRB1*11:84:02    |                             |                             |
| DRB1*11:27:02+DRB1*11:49:02  | DRB1*11:27:03+DRB1*11:49:01 |                             |                             |
| DRB1*11:27:02+DRB1*11:56     | DRB1*11:37:01+DRB1*11:84:02 |                             |                             |
| DRB1*11:27:02+DRB1*11:58:01  | DRB1*11:28:02+DRB1*11:84:02 |                             |                             |
| DRB1*11:27:02+DRB1*11:58:02  | DRB1*11:28:01+DRB1*11:84:02 |                             |                             |
| DRB1*11:27:02+DRB1*11:60     | DRB1*11:84:02+DRB1*11:109   |                             |                             |
| DRB1*11:27:02+DRB1*11:74:02  | DRB1*11:27:03+DRB1*11:74:01 |                             |                             |
| DRB1*11:27:02+DRB1*11:116    | DRB1*11:84:02+DRB1*11:120   |                             |                             |
| DRB1*11:27:02+DRB1*11:119    | DRB1*11:45+DRB1*11:84:02    |                             |                             |
| DRB1*11:27:02+DRB1*13:01:05  | DRB1*11:84:02+DRB1*13:02:03 |                             |                             |
| DRB1*11:27:02+DRB1*13:05:02  | DRB1*11:27:03+DRB1*13:05:01 |                             |                             |
| DRB1*11:27:02+DRB1*13:11:01  | DRB1*11:84:02+DRB1*13:14:01 |                             |                             |
| DRB1*11:27:02+DRB1*13:11:02  | DRB1*11:84:02+DRB1*13:14:02 |                             |                             |
| DRB1*11:27:02+DRB1*13:12:02  | DRB1*11:27:03+DRB1*13:12:01 |                             |                             |
| DRB1*11:27:02+DRB1*13:14:03  | DRB1*11:27:03+DRB1*13:14:01 |                             |                             |
| DRB1*11:27:02+DRB1*13:15     | DRB1*11:84:02+DRB1*13:104   |                             |                             |
| DRB1*11:27:02+DRB1*13:20     | DRB1*11:84:02+DRB1*13:29    |                             |                             |
| DRB1*11:27:02+DRB1*13:21:02  | DRB1*11:27:03+DRB1*13:21:01 |                             |                             |
| DRB1*11:27:02+DRB1*13:22     | DRB1*11:84:02+DRB1*13:23:02 |                             |                             |
| DRB1*11:27:02+DRB1*13:23:01  | DRB1*11:27:03+DRB1*13:23:02 |                             |                             |
| DRB1*11:27:02+DRB1*13:27     | DRB1*11:84:02+DRB1*13:41    |                             |                             |
| DRB1*11:27:02+DRB1*13:32     | DRB1*11:84:02+DRB1*13:65    |                             |                             |
| DRB1*11:27:02+DRB1*13:36     | DRB1*11:37:01+DRB1*13:96:01 |                             |                             |
| DRB1*11:27:02+DRB1*13:39     | DRB1*11:120+DRB1*13:96:01   |                             |                             |
| DRB1*11:27:02+DRB1*13:40     | DRB1*11:37:01+DRB1*13:61:02 | DRB1*11:56+DRB1*13:96:01    | DRB1*11:84:02+DRB1*13:36    |
| DRB1*11:27:02+DRB1*13:42     | DRB1*11:84:02+DRB1*13:05:01 |                             |                             |
| DRB1*11:27:02+DRB1*13:52     | DRB1*11:84:02+DRB1*13:97:01 |                             |                             |
| DRB1*11:27:02+DRB1*13:61:02  | DRB1*11:84:02+DRB1*13:96:01 |                             |                             |
| DRB1*11:27:02+DRB1*13:66:02  | DRB1*11:27:03+DRB1*13:66:01 |                             |                             |
| DRB1*11:27:02+DRB1*13:67     | DRB1*11:30+DRB1*13:96:01    |                             |                             |
| DRB1*11:27:02+DRB1*13:79     | DRB1*11:84:02+DRB1*13:39    | DRB1*11:116+DRB1*13:96:01   | DRB1*11:120+DRB1*13:61:02   |

|                              |                             |                              |
|------------------------------|-----------------------------|------------------------------|
| DRB1*11:27:02+DRB1*13:83     | DRB1*11:84:02+DRB1*13:107   |                              |
| DRB1*11:27:02+DRB1*13:93     | DRB1*11:84:02+DRB1*13:139   |                              |
| DRB1*11:27:02+DRB1*13:105    | DRB1*11:100+DRB1*13:61:02   |                              |
| DRB1*11:27:02+DRB1*13:108    | DRB1*11:84:02+DRB1*13:49    |                              |
| DRB1*11:27:02+DRB1*13:111    | DRB1*11:84:02+DRB1*13:63    |                              |
| DRB1*11:27:02+DRB1*13:112    | DRB1*11:84:02+DRB1*13:128   |                              |
| DRB1*11:27:02+DRB1*13:115    | DRB1*11:28:01+DRB1*13:33:01 |                              |
| DRB1*11:27:02+DRB1*13:131    | DRB1*11:39+DRB1*13:61:02    | DRB1*11:43+DRB1*13:96:01     |
| DRB1*11:27:02+DRB1*14:01:01G | DRB1*11:84:02+DRB1*14:07:01 |                              |
| DRB1*11:27:02+DRB1*14:05:01  | DRB1*11:84:02+DRB1*14:44:01 |                              |
| DRB1*11:27:02+DRB1*14:05:03  | DRB1*11:84:02+DRB1*14:44:02 |                              |
| DRB1*11:27:02+DRB1*14:06:01  | DRB1*11:84:02+DRB1*14:02    |                              |
| DRB1*11:27:02+DRB1*14:06:02  | DRB1*11:27:03+DRB1*14:06:01 |                              |
| DRB1*11:27:02+DRB1*14:07:02  | DRB1*11:27:03+DRB1*14:07:01 |                              |
| DRB1*11:27:02+DRB1*14:12:01  | DRB1*11:84:02+DRB1*14:03:01 |                              |
| DRB1*11:27:02+DRB1*14:17     | DRB1*11:84:02+DRB1*14:30    |                              |
| DRB1*11:27:02+DRB1*14:23:01  | DRB1*11:84:02+DRB1*14:14    |                              |
| DRB1*11:27:02+DRB1*14:44:03  | DRB1*11:27:03+DRB1*14:44:01 |                              |
| DRB1*11:27:02+DRB1*14:50     | DRB1*11:84:01+DRB1*14:93    |                              |
| DRB1*11:27:02+DRB1*14:78     | DRB1*11:84:02+DRB1*14:63    |                              |
| DRB1*11:27:02+DRB1*14:80     | DRB1*11:84:02+DRB1*14:09    |                              |
| DRB1*11:27:02+DRB1*14:106    | DRB1*11:84:02+DRB1*14:51    |                              |
| DRB1*11:27:02+DRB1*14:111    | DRB1*11:103+DRB1*14:105     |                              |
| DRB1*11:27:02+DRB1*15:01:04  | DRB1*11:84:02+DRB1*15:02:02 |                              |
| DRB1*11:27:02+DRB1*15:01:09  | DRB1*11:84:02+DRB1*15:02:04 |                              |
| DRB1*11:27:02+DRB1*15:01:10  | DRB1*11:84:02+DRB1*15:02:08 |                              |
| DRB1*11:27:02+DRB1*15:02:05  | DRB1*11:27:03+DRB1*15:02:02 |                              |
| DRB1*11:27:02+DRB1*15:02:09  | DRB1*11:27:03+DRB1*15:02:01 |                              |
| DRB1*11:27:02+DRB1*15:04     | DRB1*11:84:02+DRB1*15:15    |                              |
| DRB1*11:27:02+DRB1*15:05     | DRB1*11:84:02+DRB1*15:31    |                              |
| DRB1*11:27:02+DRB1*15:07:01  | DRB1*11:37:01+DRB1*15:37    | DRB1*11:84:02+DRB1*15:11     |
| DRB1*11:27:02+DRB1*15:32     | DRB1*11:28:01+DRB1*15:37    |                              |
| DRB1*11:27:02+DRB1*15:42     | DRB1*11:106+DRB1*15:37      |                              |
| DRB1*11:27:02+DRB1*15:51     | DRB1*11:90+DRB1*15:37       |                              |
| DRB1*11:27:02+DRB1*15:62     | DRB1*11:62+DRB1*15:37       |                              |
| DRB1*11:27:02+DRB1*15:64     | DRB1*11:126+DRB1*15:37      |                              |
| DRB1*11:27:02+DRB1*15:65     | DRB1*11:39+DRB1*15:37       | DRB1*11:84:02+DRB1*15:47     |
| DRB1*11:27:02+DRB1*15:66     | DRB1*11:84:02+DRB1*15:27    |                              |
| DRB1*11:27:02+DRB1*15:71     | DRB1*11:120+DRB1*15:37      |                              |
| DRB1*11:27:02+DRB1*16:15     | DRB1*11:84:02+DRB1*16:01:01 |                              |
| DRB1*11:27:03+DRB1*11:44     | DRB1*11:49:02+DRB1*11:84:02 |                              |
| DRB1*11:27:03+DRB1*11:56     | DRB1*11:37:02+DRB1*11:84:02 |                              |
| DRB1*11:27:03+DRB1*11:92     | DRB1*11:72+DRB1*11:84:02    |                              |
| DRB1*11:27:03+DRB1*13:11:01  | DRB1*11:84:02+DRB1*13:14:03 |                              |
| DRB1*11:27:03+DRB1*13:22     | DRB1*11:84:02+DRB1*13:23:01 |                              |
| DRB1*11:27:03+DRB1*13:36     | DRB1*11:37:02+DRB1*13:96:01 |                              |
| DRB1*11:27:03+DRB1*13:40     | DRB1*11:37:02+DRB1*13:61:02 |                              |
| DRB1*11:27:03+DRB1*13:42     | DRB1*11:84:02+DRB1*13:05:02 |                              |
| DRB1*11:27:03+DRB1*13:48     | DRB1*11:84:02+DRB1*13:38    |                              |
| DRB1*11:27:03+DRB1*13:94     | DRB1*11:84:02+DRB1*13:33:01 |                              |
| DRB1*11:27:03+DRB1*14:01:01G | DRB1*11:84:02+DRB1*14:07:02 |                              |
| DRB1*11:27:03+DRB1*14:05:01  | DRB1*11:84:02+DRB1*14:44:03 |                              |
| DRB1*11:27:03+DRB1*15:01:04  | DRB1*11:84:02+DRB1*15:02:05 |                              |
| DRB1*11:27:03+DRB1*15:07:01  | DRB1*11:37:02+DRB1*15:37    |                              |
| DRB1*11:28:01+DRB1*11:35     | DRB1*11:33+DRB1*11:58:02    |                              |
| DRB1*11:28:01+DRB1*11:36     | DRB1*11:58:02+DRB1*11:68    |                              |
| DRB1*11:28:01+DRB1*11:40     | DRB1*11:58:02+DRB1*11:122   |                              |
| DRB1*11:28:01+DRB1*11:43     | DRB1*11:39+DRB1*11:58:02    |                              |
| DRB1*11:28:01+DRB1*11:44     | DRB1*11:49:01+DRB1*11:58:02 |                              |
| DRB1*11:28:01+DRB1*11:46:02  | DRB1*11:58:02+DRB1*11:62    |                              |
| DRB1*11:28:01+DRB1*11:56     | DRB1*11:37:01+DRB1*11:58:02 |                              |
| DRB1*11:28:01+DRB1*11:58:01  | DRB1*11:28:02+DRB1*11:58:02 |                              |
| DRB1*11:28:01+DRB1*11:60     | DRB1*11:58:02+DRB1*11:109   |                              |
| DRB1*11:28:01+DRB1*11:116    | DRB1*11:58:02+DRB1*11:120   |                              |
| DRB1*11:28:01+DRB1*11:119    | DRB1*11:45+DRB1*11:58:02    |                              |
| DRB1*11:28:01+DRB1*12:09     | DRB1*12:04+DRB1*13:50:01    |                              |
| DRB1*11:28:01+DRB1*13:01:05  | DRB1*11:58:02+DRB1*13:02:03 |                              |
| DRB1*11:28:01+DRB1*13:07:01  | DRB1*11:37:01+DRB1*13:50:01 |                              |
| DRB1*11:28:01+DRB1*13:11:02  | DRB1*11:58:02+DRB1*13:14:02 |                              |
| DRB1*11:28:01+DRB1*13:15     | DRB1*11:58:02+DRB1*13:104   |                              |
| DRB1*11:28:01+DRB1*13:20     | DRB1*11:58:02+DRB1*13:29    |                              |
| DRB1*11:28:01+DRB1*13:27     | DRB1*11:58:02+DRB1*13:41    |                              |
| DRB1*11:28:01+DRB1*13:32     | DRB1*11:58:02+DRB1*13:65    |                              |
| DRB1*11:28:01+DRB1*13:40     | DRB1*11:58:02+DRB1*13:36    |                              |
| DRB1*11:28:01+DRB1*13:42     | DRB1*11:58:02+DRB1*13:05:01 | DRB1*11:113+DRB1*13:50:01    |
| DRB1*11:28:01+DRB1*13:44     | DRB1*11:34+DRB1*13:50:01    |                              |
| DRB1*11:28:01+DRB1*13:50:02  | DRB1*11:28:02+DRB1*13:50:01 |                              |
| DRB1*11:28:01+DRB1*13:61:01  | DRB1*11:58:02+DRB1*13:96:02 |                              |
| DRB1*11:28:01+DRB1*13:61:02  | DRB1*11:58:02+DRB1*13:96:01 |                              |
| DRB1*11:28:01+DRB1*13:63     | DRB1*11:122+DRB1*13:50:01   |                              |
| DRB1*11:28:01+DRB1*13:64     | DRB1*11:114+DRB1*13:01:01G  |                              |
| DRB1*11:28:01+DRB1*13:70     | DRB1*11:48+DRB1*13:50:01    |                              |
| DRB1*11:28:01+DRB1*13:79     | DRB1*11:58:02+DRB1*13:39    |                              |
| DRB1*11:28:01+DRB1*13:84     | DRB1*11:29+DRB1*13:40       |                              |
| DRB1*11:28:01+DRB1*13:93     | DRB1*11:58:02+DRB1*13:139   |                              |
| DRB1*11:28:01+DRB1*13:106    | DRB1*11:44+DRB1*13:02:01    | DRB1*11:49:01+DRB1*13:01:01G |
| DRB1*11:28:01+DRB1*13:108    | DRB1*11:58:02+DRB1*13:49    | DRB1*11:127+DRB1*13:05:01    |
| DRB1*11:28:01+DRB1*13:111    | DRB1*11:40+DRB1*13:50:01    |                              |
| DRB1*11:28:01+DRB1*13:112    | DRB1*11:58:02+DRB1*13:128   | DRB1*11:58:02+DRB1*13:63     |
| DRB1*11:28:01+DRB1*14:01:01G | DRB1*11:58:02+DRB1*14:07:01 |                              |
| DRB1*11:28:01+DRB1*14:04     | DRB1*11:58:02+DRB1*14:68    |                              |
| DRB1*11:28:01+DRB1*14:05:01  | DRB1*11:58:02+DRB1*14:44:01 |                              |
| DRB1*11:28:01+DRB1*14:05:03  | DRB1*11:58:02+DRB1*14:44:02 |                              |
| DRB1*11:28:01+DRB1*14:06:01  | DRB1*11:58:02+DRB1*14:02    |                              |
| DRB1*11:28:01+DRB1*14:12:01  | DRB1*11:58:02+DRB1*14:03:01 |                              |
| DRB1*11:28:01+DRB1*14:17     | DRB1*11:58:02+DRB1*14:30    |                              |
| DRB1*11:28:01+DRB1*14:41     | DRB1*11:114+DRB1*14:02      |                              |
| DRB1*11:28:01+DRB1*14:77     | DRB1*11:114+DRB1*14:03:01   |                              |
| DRB1*11:28:01+DRB1*14:78     | DRB1*11:58:02+DRB1*14:63    |                              |
| DRB1*11:28:01+DRB1*14:80     | DRB1*11:58:02+DRB1*14:09    |                              |
| DRB1*11:28:01+DRB1*14:94     | DRB1*11:29+DRB1*14:02       |                              |
| DRB1*11:28:01+DRB1*14:106    | DRB1*11:58:02+DRB1*14:51    |                              |
| DRB1*11:28:01+DRB1*14:126    | DRB1*13:50:01+DRB1*14:11    |                              |
| DRB1*11:28:01+DRB1*15:01:04  | DRB1*11:58:02+DRB1*15:02:02 |                              |
| DRB1*11:28:01+DRB1*15:01:09  | DRB1*11:58:02+DRB1*15:02:04 |                              |

|                              |                             |                           |
|------------------------------|-----------------------------|---------------------------|
| DRB1*11:28:01+DRB1*15:01:10  | DRB1*11:58:02+DRB1*15:02:08 |                           |
| DRB1*11:28:01+DRB1*15:04     | DRB1*11:58:02+DRB1*15:15    |                           |
| DRB1*11:28:01+DRB1*15:05     | DRB1*11:58:02+DRB1*15:31    |                           |
| DRB1*11:28:01+DRB1*15:07:01  | DRB1*11:37:01+DRB1*15:32    | DRB1*11:58:02+DRB1*15:11  |
| DRB1*11:28:01+DRB1*15:42     | DRB1*11:106+DRB1*15:32      |                           |
| DRB1*11:28:01+DRB1*15:51     | DRB1*11:90+DRB1*15:32       |                           |
| DRB1*11:28:01+DRB1*15:62     | DRB1*11:62+DRB1*15:32       |                           |
| DRB1*11:28:01+DRB1*15:64     | DRB1*11:126+DRB1*15:32      |                           |
| DRB1*11:28:01+DRB1*15:65     | DRB1*11:39+DRB1*15:32       | DRB1*11:58:02+DRB1*15:47  |
| DRB1*11:28:01+DRB1*15:66     | DRB1*11:58:02+DRB1*15:27    |                           |
| DRB1*11:28:01+DRB1*15:71     | DRB1*11:120+DRB1*15:32      |                           |
| DRB1*11:28:01+DRB1*16:01:01  | DRB1*11:29+DRB1*16:08       |                           |
| DRB1*11:28:01+DRB1*16:15     | DRB1*11:58:02+DRB1*16:01:01 |                           |
| DRB1*11:28:02+DRB1*11:35     | DRB1*11:33+DRB1*11:58:01    |                           |
| DRB1*11:28:02+DRB1*11:36     | DRB1*11:58:01+DRB1*11:68    |                           |
| DRB1*11:28:02+DRB1*11:40     | DRB1*11:58:01+DRB1*11:122   |                           |
| DRB1*11:28:02+DRB1*11:44     | DRB1*11:49:01+DRB1*11:58:01 |                           |
| DRB1*11:28:02+DRB1*11:56     | DRB1*11:37:01+DRB1*11:58:01 |                           |
| DRB1*11:28:02+DRB1*11:60     | DRB1*11:58:01+DRB1*11:109   |                           |
| DRB1*11:28:02+DRB1*11:116    | DRB1*11:58:01+DRB1*11:120   |                           |
| DRB1*11:28:02+DRB1*11:119    | DRB1*11:45+DRB1*11:58:01    |                           |
| DRB1*11:28:02+DRB1*12:09     | DRB1*12:04+DRB1*13:50:02    |                           |
| DRB1*11:28:02+DRB1*13:01:05  | DRB1*11:58:01+DRB1*13:02:03 |                           |
| DRB1*11:28:02+DRB1*13:07:01  | DRB1*11:37:01+DRB1*13:50:02 |                           |
| DRB1*11:28:02+DRB1*13:11:02  | DRB1*11:58:01+DRB1*13:14:02 |                           |
| DRB1*11:28:02+DRB1*13:15     | DRB1*11:58:01+DRB1*13:104   |                           |
| DRB1*11:28:02+DRB1*13:20     | DRB1*11:58:01+DRB1*13:29    |                           |
| DRB1*11:28:02+DRB1*13:27     | DRB1*11:58:01+DRB1*13:41    | DRB1*11:87+DRB1*13:69     |
| DRB1*11:28:02+DRB1*13:32     | DRB1*11:58:01+DRB1*13:65    |                           |
| DRB1*11:28:02+DRB1*13:40     | DRB1*11:58:01+DRB1*13:36    |                           |
| DRB1*11:28:02+DRB1*13:42     | DRB1*11:58:01+DRB1*13:05:01 | DRB1*11:113+DRB1*13:50:02 |
| DRB1*11:28:02+DRB1*13:44     | DRB1*11:34+DRB1*13:50:02    |                           |
| DRB1*11:28:02+DRB1*13:61:01  | DRB1*11:58:01+DRB1*13:96:02 |                           |
| DRB1*11:28:02+DRB1*13:61:02  | DRB1*11:58:01+DRB1*13:96:01 |                           |
| DRB1*11:28:02+DRB1*13:63     | DRB1*11:122+DRB1*13:50:02   |                           |
| DRB1*11:28:02+DRB1*13:70     | DRB1*11:37:01+DRB1*13:69    | DRB1*11:48+DRB1*13:50:02  |
| DRB1*11:28:02+DRB1*13:79     | DRB1*11:58:01+DRB1*13:39    |                           |
| DRB1*11:28:02+DRB1*13:93     | DRB1*11:58:01+DRB1*13:139   |                           |
| DRB1*11:28:02+DRB1*13:108    | DRB1*11:58:01+DRB1*13:49    |                           |
| DRB1*11:28:02+DRB1*13:111    | DRB1*11:40+DRB1*13:50:02    | DRB1*11:58:01+DRB1*13:63  |
| DRB1*11:28:02+DRB1*13:112    | DRB1*11:58:01+DRB1*13:128   |                           |
| DRB1*11:28:02+DRB1*13:131    | DRB1*11:115+DRB1*13:02:01   |                           |
| DRB1*11:28:02+DRB1*14:01:01G | DRB1*11:58:01+DRB1*14:07:01 |                           |
| DRB1*11:28:02+DRB1*14:04     | DRB1*11:58:01+DRB1*14:68    |                           |
| DRB1*11:28:02+DRB1*14:05:01  | DRB1*11:58:01+DRB1*14:44:01 |                           |
| DRB1*11:28:02+DRB1*14:05:03  | DRB1*11:58:01+DRB1*14:44:02 |                           |
| DRB1*11:28:02+DRB1*14:06:01  | DRB1*11:58:01+DRB1*14:02    |                           |
| DRB1*11:28:02+DRB1*14:12:01  | DRB1*11:58:01+DRB1*14:03:01 |                           |
| DRB1*11:28:02+DRB1*14:17     | DRB1*11:58:01+DRB1*14:30    |                           |
| DRB1*11:28:02+DRB1*14:78     | DRB1*11:58:01+DRB1*14:63    |                           |
| DRB1*11:28:02+DRB1*14:80     | DRB1*11:58:01+DRB1*14:09    |                           |
| DRB1*11:28:02+DRB1*14:86     | DRB1*11:115+DRB1*14:07:01   |                           |
| DRB1*11:28:02+DRB1*14:96     | DRB1*11:115+DRB1*14:44:01   |                           |
| DRB1*11:28:02+DRB1*14:106    | DRB1*11:58:01+DRB1*14:51    |                           |
| DRB1*11:28:02+DRB1*14:126    | DRB1*13:50:02+DRB1*14:11    |                           |
| DRB1*11:28:02+DRB1*15:01:03  | DRB1*11:58:01+DRB1*15:02:06 |                           |
| DRB1*11:28:02+DRB1*15:01:04  | DRB1*11:58:01+DRB1*15:02:02 |                           |
| DRB1*11:28:02+DRB1*15:01:09  | DRB1*11:58:01+DRB1*15:02:04 |                           |
| DRB1*11:28:02+DRB1*15:01:10  | DRB1*11:58:01+DRB1*15:02:08 |                           |
| DRB1*11:28:02+DRB1*15:04     | DRB1*11:58:01+DRB1*15:15    |                           |
| DRB1*11:28:02+DRB1*15:05     | DRB1*11:58:01+DRB1*15:31    |                           |
| DRB1*11:28:02+DRB1*15:07:01  | DRB1*11:58:01+DRB1*15:11    |                           |
| DRB1*11:28:02+DRB1*15:65     | DRB1*11:58:01+DRB1*15:47    | DRB1*11:115+DRB1*15:02:01 |
| DRB1*11:28:02+DRB1*15:66     | DRB1*11:58:01+DRB1*15:27    |                           |
| DRB1*11:28:02+DRB1*16:15     | DRB1*11:58:01+DRB1*16:01:01 |                           |
| DRB1*11:29+DRB1*11:41        | DRB1*11:37:01+DRB1*11:63    |                           |
| DRB1*11:29+DRB1*11:59        | DRB1*11:63+DRB1*11:87       |                           |
| DRB1*11:29+DRB1*11:85        | DRB1*11:49:01+DRB1*11:63    |                           |
| DRB1*11:29+DRB1*13:04        | DRB1*11:63+DRB1*13:30       |                           |
| DRB1*11:29+DRB1*13:20        | DRB1*11:63+DRB1*13:56       |                           |
| DRB1*11:29+DRB1*13:22        | DRB1*11:63+DRB1*13:82       |                           |
| DRB1*11:29+DRB1*13:24        | DRB1*11:63+DRB1*13:14:01    |                           |
| DRB1*11:29+DRB1*13:48        | DRB1*11:63+DRB1*13:12:01    |                           |
| DRB1*11:29+DRB1*13:54        | DRB1*11:63+DRB1*13:100      |                           |
| DRB1*11:29+DRB1*13:58        | DRB1*11:47+DRB1*13:12:01    |                           |
| DRB1*11:29+DRB1*13:75        | DRB1*11:63+DRB1*13:21:01    |                           |
| DRB1*11:29+DRB1*13:81        | DRB1*11:47+DRB1*13:03:02    |                           |
| DRB1*11:29+DRB1*13:111       | DRB1*11:63+DRB1*13:05:01    |                           |
| DRB1*11:29+DRB1*14:06:01     | DRB1*11:58:02+DRB1*14:94    |                           |
| DRB1*11:29+DRB1*14:28        | DRB1*11:47+DRB1*14:68       |                           |
| DRB1*11:29+DRB1*14:29        | DRB1*11:47+DRB1*14:02       |                           |
| DRB1*11:29+DRB1*14:41        | DRB1*11:114+DRB1*14:94      |                           |
| DRB1*11:29+DRB1*14:99        | DRB1*11:47+DRB1*14:07:01    |                           |
| DRB1*11:29+DRB1*15:35        | DRB1*11:47+DRB1*15:02:01    |                           |
| DRB1*11:30+DRB1*13:36        | DRB1*11:37:01+DRB1*13:67    |                           |
| DRB1*11:30+DRB1*13:39        | DRB1*11:120+DRB1*13:67      |                           |
| DRB1*11:30+DRB1*13:40        | DRB1*11:56+DRB1*13:67       |                           |
| DRB1*11:30+DRB1*13:61:01     | DRB1*11:84:01+DRB1*13:67    |                           |
| DRB1*11:30+DRB1*13:61:02     | DRB1*11:84:02+DRB1*13:67    |                           |
| DRB1*11:30+DRB1*13:79        | DRB1*11:116+DRB1*13:67      |                           |
| DRB1*11:30+DRB1*13:131       | DRB1*11:43+DRB1*13:67       |                           |
| DRB1*11:31+DRB1*11:41        | DRB1*11:48+DRB1*11:96       |                           |
| DRB1*11:31+DRB1*11:69        | DRB1*11:82+DRB1*11:96       |                           |
| DRB1*11:31+DRB1*11:85        | DRB1*11:96+DRB1*11:127      |                           |
| DRB1*11:31+DRB1*11:93        | DRB1*11:73+DRB1*11:96       |                           |
| DRB1*11:31+DRB1*12:02:01     | DRB1*11:96+DRB1*12:01:01G   |                           |
| DRB1*11:31+DRB1*12:02:02     | DRB1*11:96+DRB1*12:01:03    |                           |
| DRB1*11:31+DRB1*12:15        | DRB1*11:96+DRB1*12:05       |                           |
| DRB1*11:31+DRB1*12:19        | DRB1*11:96+DRB1*12:03:03    |                           |
| DRB1*11:31+DRB1*13:14:01     | DRB1*11:96+DRB1*13:82       |                           |
| DRB1*11:31+DRB1*13:21:01     | DRB1*11:96+DRB1*13:30       |                           |
| DRB1*11:31+DRB1*13:24        | DRB1*11:96+DRB1*13:22       |                           |
| DRB1*11:31+DRB1*13:42        | DRB1*11:96+DRB1*13:06       |                           |
| DRB1*11:31+DRB1*13:49        | DRB1*11:96+DRB1*13:12:01    |                           |
| DRB1*11:31+DRB1*13:63        | DRB1*11:96+DRB1*13:02:01    |                           |

|                           |                             |                             |
|---------------------------|-----------------------------|-----------------------------|
| DRB1*11:31+DRB1*13:75     | DRB1*11:96+DRB1*13:04       |                             |
| DRB1*11:31+DRB1*13:111    | DRB1*11:96+DRB1*13:01:01G   |                             |
| DRB1*11:31+DRB1*14:23:01  | DRB1*11:52+DRB1*13:82       |                             |
| DRB1*11:31+DRB1*14:27     | DRB1*11:96+DRB1*14:67       |                             |
| DRB1*11:31+DRB1*15:04     | DRB1*11:96+DRB1*15:01:01G   |                             |
| DRB1*11:31+DRB1*15:15     | DRB1*11:96+DRB1*15:02:01    |                             |
| DRB1*11:31+DRB1*16:01:01  | DRB1*11:96+DRB1*16:05:01    |                             |
| DRB1*11:32+DRB1*11:48     | DRB1*11:37:01+DRB1*11:70    |                             |
| DRB1*11:32+DRB1*11:65:01  | DRB1*11:33+DRB1*11:70       |                             |
| DRB1*11:32+DRB1*11:127    | DRB1*11:49:01+DRB1*11:70    |                             |
| DRB1*11:32+DRB1*13:01:01G | DRB1*11:70+DRB1*13:05:01    |                             |
| DRB1*11:32+DRB1*13:01:08  | DRB1*11:70+DRB1*13:05:02    |                             |
| DRB1*11:32+DRB1*13:04     | DRB1*11:70+DRB1*13:21:01    |                             |
| DRB1*11:32+DRB1*13:22     | DRB1*11:70+DRB1*13:14:01    |                             |
| DRB1*11:32+DRB1*13:48     | DRB1*11:70+DRB1*13:49       |                             |
| DRB1*11:32+DRB1*13:52     | DRB1*11:70+DRB1*13:132      |                             |
| DRB1*11:32+DRB1*13:53     | DRB1*11:70+DRB1*13:26:02    |                             |
| DRB1*11:32+DRB1*13:69     | DRB1*11:70+DRB1*13:50:02    |                             |
| DRB1*11:32+DRB1*13:70     | DRB1*11:70+DRB1*13:07:01    |                             |
| DRB1*11:32+DRB1*14:16     | DRB1*11:70+DRB1*14:22       |                             |
| DRB1*11:33+DRB1*11:36     | DRB1*11:35+DRB1*11:68       |                             |
| DRB1*11:33+DRB1*11:40     | DRB1*11:35+DRB1*11:122      |                             |
| DRB1*11:33+DRB1*11:43     | DRB1*11:35+DRB1*11:39       |                             |
| DRB1*11:33+DRB1*11:44     | DRB1*11:35+DRB1*11:49:01    |                             |
| DRB1*11:33+DRB1*11:46:02  | DRB1*11:35+DRB1*11:62       |                             |
| DRB1*11:33+DRB1*11:48     | DRB1*11:37:01+DRB1*11:65:01 |                             |
| DRB1*11:33+DRB1*11:56     | DRB1*11:35+DRB1*11:37:01    |                             |
| DRB1*11:33+DRB1*11:60     | DRB1*11:35+DRB1*11:109      |                             |
| DRB1*11:33+DRB1*11:116    | DRB1*11:35+DRB1*11:120      |                             |
| DRB1*11:33+DRB1*11:119    | DRB1*11:35+DRB1*11:45       |                             |
| DRB1*11:33+DRB1*11:127    | DRB1*11:49:01+DRB1*11:65:01 |                             |
| DRB1*11:33+DRB1*13:01:01G | DRB1*11:35+DRB1*13:02:01    | DRB1*11:65:01+DRB1*13:05:01 |
| DRB1*11:33+DRB1*13:01:05  | DRB1*11:35+DRB1*13:02:03    |                             |
| DRB1*11:33+DRB1*13:01:08  | DRB1*11:65:01+DRB1*13:05:02 |                             |
| DRB1*11:33+DRB1*13:04     | DRB1*11:65:01+DRB1*13:21:01 |                             |
| DRB1*11:33+DRB1*13:11:01  | DRB1*11:35+DRB1*13:14:01    |                             |
| DRB1*11:33+DRB1*13:11:02  | DRB1*11:35+DRB1*13:14:02    |                             |
| DRB1*11:33+DRB1*13:15     | DRB1*11:35+DRB1*13:104      |                             |
| DRB1*11:33+DRB1*13:20     | DRB1*11:35+DRB1*13:29       |                             |
| DRB1*11:33+DRB1*13:22     | DRB1*11:35+DRB1*13:23:02    | DRB1*11:65:01+DRB1*13:14:01 |
| DRB1*11:33+DRB1*13:27     | DRB1*11:35+DRB1*13:41       |                             |
| DRB1*11:33+DRB1*13:32     | DRB1*11:35+DRB1*13:65       |                             |
| DRB1*11:33+DRB1*13:40     | DRB1*11:35+DRB1*13:36       |                             |
| DRB1*11:33+DRB1*13:42     | DRB1*11:35+DRB1*13:05:01    |                             |
| DRB1*11:33+DRB1*13:48     | DRB1*11:65:01+DRB1*13:49    |                             |
| DRB1*11:33+DRB1*13:52     | DRB1*11:35+DRB1*13:97:01    | DRB1*11:65:01+DRB1*13:132   |
| DRB1*11:33+DRB1*13:53     | DRB1*11:65:01+DRB1*13:26:02 |                             |
| DRB1*11:33+DRB1*13:61:01  | DRB1*11:35+DRB1*13:96:02    |                             |
| DRB1*11:33+DRB1*13:61:02  | DRB1*11:35+DRB1*13:96:01    |                             |
| DRB1*11:33+DRB1*13:69     | DRB1*11:65:01+DRB1*13:50:02 |                             |
| DRB1*11:33+DRB1*13:70     | DRB1*11:65:01+DRB1*13:07:01 |                             |
| DRB1*11:33+DRB1*13:79     | DRB1*11:35+DRB1*13:39       |                             |
| DRB1*11:33+DRB1*13:83     | DRB1*11:35+DRB1*13:107      |                             |
| DRB1*11:33+DRB1*13:89     | DRB1*11:35+DRB1*13:03:01    |                             |
| DRB1*11:33+DRB1*13:93     | DRB1*11:35+DRB1*13:139      |                             |
| DRB1*11:33+DRB1*13:108    | DRB1*11:35+DRB1*13:49       |                             |
| DRB1*11:33+DRB1*13:111    | DRB1*11:35+DRB1*13:63       |                             |
| DRB1*11:33+DRB1*13:112    | DRB1*11:35+DRB1*13:128      |                             |
| DRB1*11:33+DRB1*14:01:01G | DRB1*11:35+DRB1*14:07:01    |                             |
| DRB1*11:33+DRB1*14:04     | DRB1*11:35+DRB1*14:68       |                             |
| DRB1*11:33+DRB1*14:05:01  | DRB1*11:35+DRB1*14:44:01    |                             |
| DRB1*11:33+DRB1*14:05:03  | DRB1*11:35+DRB1*14:44:02    |                             |
| DRB1*11:33+DRB1*14:06:01  | DRB1*11:35+DRB1*14:02       |                             |
| DRB1*11:33+DRB1*14:12:01  | DRB1*11:35+DRB1*14:03:01    |                             |
| DRB1*11:33+DRB1*14:16     | DRB1*11:65:01+DRB1*14:22    |                             |
| DRB1*11:33+DRB1*14:17     | DRB1*11:35+DRB1*14:30       |                             |
| DRB1*11:33+DRB1*14:23:01  | DRB1*11:35+DRB1*14:14       |                             |
| DRB1*11:33+DRB1*14:78     | DRB1*11:35+DRB1*14:63       |                             |
| DRB1*11:33+DRB1*14:80     | DRB1*11:35+DRB1*14:09       |                             |
| DRB1*11:33+DRB1*14:106    | DRB1*11:35+DRB1*14:51       |                             |
| DRB1*11:33+DRB1*15:01:01G | DRB1*11:35+DRB1*15:02:01    |                             |
| DRB1*11:33+DRB1*15:01:03  | DRB1*11:35+DRB1*15:02:06    |                             |
| DRB1*11:33+DRB1*15:01:04  | DRB1*11:35+DRB1*15:02:02    |                             |
| DRB1*11:33+DRB1*15:01:09  | DRB1*11:35+DRB1*15:02:04    |                             |
| DRB1*11:33+DRB1*15:01:10  | DRB1*11:35+DRB1*15:02:08    |                             |
| DRB1*11:33+DRB1*15:04     | DRB1*11:35+DRB1*15:15       |                             |
| DRB1*11:33+DRB1*15:05     | DRB1*11:35+DRB1*15:31       |                             |
| DRB1*11:33+DRB1*15:07:01  | DRB1*11:35+DRB1*15:11       |                             |
| DRB1*11:33+DRB1*15:65     | DRB1*11:35+DRB1*15:47       |                             |
| DRB1*11:33+DRB1*15:66     | DRB1*11:35+DRB1*15:27       |                             |
| DRB1*11:33+DRB1*16:15     | DRB1*11:35+DRB1*16:01:01    |                             |
| DRB1*11:34+DRB1*12:09     | DRB1*12:04+DRB1*13:44       |                             |
| DRB1*11:34+DRB1*13:07:01  | DRB1*11:37:01+DRB1*13:44    |                             |
| DRB1*11:34+DRB1*13:16     | DRB1*11:86+DRB1*14:17       |                             |
| DRB1*11:34+DRB1*13:20     | DRB1*11:36+DRB1*14:17       |                             |
| DRB1*11:34+DRB1*13:52     | DRB1*11:118+DRB1*13:44      |                             |
| DRB1*11:34+DRB1*13:61:01  | DRB1*11:124+DRB1*14:17      |                             |
| DRB1*11:34+DRB1*13:70     | DRB1*11:48+DRB1*13:44       |                             |
| DRB1*11:34+DRB1*13:119    | DRB1*11:64+DRB1*14:17       |                             |
| DRB1*11:34+DRB1*14:19     | DRB1*11:79+DRB1*14:06:01    |                             |
| DRB1*11:34+DRB1*14:24     | DRB1*11:82+DRB1*14:06:01    |                             |
| DRB1*11:34+DRB1*14:40     | DRB1*11:64+DRB1*14:20       |                             |
| DRB1*11:34+DRB1*14:126    | DRB1*13:44+DRB1*14:11       |                             |
| DRB1*11:34+DRB1*15:21     | DRB1*11:119+DRB1*15:66      |                             |
| DRB1*11:34+DRB1*16:02:02  | DRB1*11:42+DRB1*15:34       |                             |
| DRB1*11:35+DRB1*11:48     | DRB1*11:56+DRB1*11:65:01    |                             |
| DRB1*11:35+DRB1*11:118    | DRB1*11:46:01+DRB1*11:65:01 |                             |
| DRB1*11:35+DRB1*11:124    | DRB1*11:65:01+DRB1*11:84:01 |                             |
| DRB1*11:35+DRB1*11:127    | DRB1*11:44+DRB1*11:65:01    |                             |
| DRB1*11:35+DRB1*13:01:01G | DRB1*11:65:01+DRB1*13:42    |                             |
| DRB1*11:35+DRB1*13:22     | DRB1*11:65:01+DRB1*13:11:01 |                             |
| DRB1*11:35+DRB1*13:23:01  | DRB1*11:65:01+DRB1*13:14:03 |                             |
| DRB1*11:35+DRB1*13:34     | DRB1*11:65:01+DRB1*13:136   |                             |
| DRB1*11:35+DRB1*13:48     | DRB1*11:65:01+DRB1*13:108   |                             |
| DRB1*11:36+DRB1*11:39     | DRB1*11:43+DRB1*11:68       |                             |



|                             |                             |                           |                           |
|-----------------------------|-----------------------------|---------------------------|---------------------------|
| DRB1*11:36+DRB1*11:44       | DRB1*11:42+DRB1*11:85       |                           |                           |
| DRB1*11:36+DRB1*11:47       | DRB1*11:57+DRB1*11:63       |                           |                           |
| DRB1*11:36+DRB1*11:56       | DRB1*11:41+DRB1*11:42       |                           |                           |
| DRB1*11:36+DRB1*11:62       | DRB1*11:46:02+DRB1*11:68    |                           |                           |
| DRB1*11:36+DRB1*11:109      | DRB1*11:60+DRB1*11:68       |                           |                           |
| DRB1*11:36+DRB1*11:113      | DRB1*11:40+DRB1*11:42       |                           |                           |
| DRB1*11:36+DRB1*11:120      | DRB1*11:68+DRB1*11:116      |                           |                           |
| DRB1*11:36+DRB1*11:122      | DRB1*11:40+DRB1*11:68       |                           |                           |
| DRB1*11:36+DRB1*12:21       | DRB1*11:41+DRB1*12:12       |                           |                           |
| DRB1*11:36+DRB1*13:02:03    | DRB1*11:68+DRB1*13:01:05    |                           |                           |
| DRB1*11:36+DRB1*13:07:01    | DRB1*11:41+DRB1*13:25       |                           |                           |
| DRB1*11:36+DRB1*13:11:01    | DRB1*11:42+DRB1*13:24       |                           |                           |
| DRB1*11:36+DRB1*13:13       | DRB1*11:64+DRB1*13:48       |                           |                           |
| DRB1*11:36+DRB1*13:14:02    | DRB1*11:68+DRB1*13:11:02    |                           |                           |
| DRB1*11:36+DRB1*13:16       | DRB1*11:86+DRB1*13:20       |                           |                           |
| DRB1*11:36+DRB1*13:23:02    | DRB1*11:68+DRB1*13:22       |                           |                           |
| DRB1*11:36+DRB1*13:29       | DRB1*11:68+DRB1*13:20       |                           |                           |
| DRB1*11:36+DRB1*13:33:03    | DRB1*11:124+DRB1*13:88      |                           |                           |
| DRB1*11:36+DRB1*13:36       | DRB1*11:48+DRB1*13:29       | DRB1*11:68+DRB1*13:40     |                           |
| DRB1*11:36+DRB1*13:40       | DRB1*11:48+DRB1*13:20       |                           |                           |
| DRB1*11:36+DRB1*13:58       | DRB1*11:57+DRB1*13:48       |                           |                           |
| DRB1*11:36+DRB1*13:61:01    | DRB1*11:124+DRB1*13:20      |                           |                           |
| DRB1*11:36+DRB1*13:65       | DRB1*11:68+DRB1*13:32       |                           |                           |
| DRB1*11:36+DRB1*13:96:01    | DRB1*11:68+DRB1*13:61:02    |                           |                           |
| DRB1*11:36+DRB1*13:96:02    | DRB1*11:68+DRB1*13:61:01    | DRB1*11:124+DRB1*13:29    |                           |
| DRB1*11:36+DRB1*13:97:01    | DRB1*11:68+DRB1*13:52       |                           |                           |
| DRB1*11:36+DRB1*13:104      | DRB1*11:68+DRB1*13:15       |                           |                           |
| DRB1*11:36+DRB1*13:107      | DRB1*11:68+DRB1*13:83       |                           |                           |
| DRB1*11:36+DRB1*13:119      | DRB1*11:64+DRB1*13:20       |                           |                           |
| DRB1*11:36+DRB1*13:128      | DRB1*11:68+DRB1*13:112      |                           |                           |
| DRB1*11:36+DRB1*13:136      | DRB1*11:76+DRB1*13:56       |                           |                           |
| DRB1*11:36+DRB1*13:139      | DRB1*11:68+DRB1*13:93       |                           |                           |
| DRB1*11:36+DRB1*14:02       | DRB1*11:68+DRB1*14:06:01    |                           |                           |
| DRB1*11:36+DRB1*14:03:01    | DRB1*11:68+DRB1*14:12:01    |                           |                           |
| DRB1*11:36+DRB1*14:07:01    | DRB1*11:68+DRB1*14:01:01G   |                           |                           |
| DRB1*11:36+DRB1*14:09       | DRB1*11:68+DRB1*14:80       |                           |                           |
| DRB1*11:36+DRB1*14:14       | DRB1*11:68+DRB1*14:23:01    |                           |                           |
| DRB1*11:36+DRB1*14:44:01    | DRB1*11:68+DRB1*14:05:01    |                           |                           |
| DRB1*11:36+DRB1*14:44:02    | DRB1*11:68+DRB1*14:05:03    |                           |                           |
| DRB1*11:36+DRB1*14:51       | DRB1*11:68+DRB1*14:106      |                           |                           |
| DRB1*11:36+DRB1*14:68       | DRB1*11:68+DRB1*14:04       |                           |                           |
| DRB1*11:36+DRB1*15:02:02    | DRB1*11:68+DRB1*15:01:04    |                           |                           |
| DRB1*11:36+DRB1*15:02:04    | DRB1*11:68+DRB1*15:01:09    |                           |                           |
| DRB1*11:36+DRB1*15:02:06    | DRB1*11:68+DRB1*15:01:03    |                           |                           |
| DRB1*11:36+DRB1*15:02:08    | DRB1*11:68+DRB1*15:01:10    |                           |                           |
| DRB1*11:36+DRB1*15:07:01    | DRB1*11:48+DRB1*15:05       |                           |                           |
| DRB1*11:36+DRB1*15:11       | DRB1*11:48+DRB1*15:31       | DRB1*11:68+DRB1*15:07:01  |                           |
| DRB1*11:36+DRB1*15:27       | DRB1*11:68+DRB1*15:66       |                           |                           |
| DRB1*11:36+DRB1*15:31       | DRB1*11:68+DRB1*15:05       |                           |                           |
| DRB1*11:36+DRB1*15:47       | DRB1*11:68+DRB1*15:65       |                           |                           |
| DRB1*11:36+DRB1*15:57       | DRB1*11:124+DRB1*15:23      |                           |                           |
| DRB1*11:37:01+DRB1*11:43    | DRB1*11:39+DRB1*11:56       |                           |                           |
| DRB1*11:37:01+DRB1*11:44    | DRB1*11:49:01+DRB1*11:56    |                           |                           |
| DRB1*11:37:01+DRB1*11:46:02 | DRB1*11:56+DRB1*11:62       |                           |                           |
| DRB1*11:37:01+DRB1*11:49:02 | DRB1*11:37:02+DRB1*11:49:01 |                           |                           |
| DRB1*11:37:01+DRB1*11:60    | DRB1*11:56+DRB1*11:109      |                           |                           |
| DRB1*11:37:01+DRB1*11:74:02 | DRB1*11:37:02+DRB1*11:74:01 |                           |                           |
| DRB1*11:37:01+DRB1*11:85    | DRB1*11:41+DRB1*11:49:01    |                           |                           |
| DRB1*11:37:01+DRB1*11:116   | DRB1*11:56+DRB1*11:120      |                           |                           |
| DRB1*11:37:01+DRB1*11:119   | DRB1*11:45+DRB1*11:56       |                           |                           |
| DRB1*11:37:01+DRB1*11:127   | DRB1*11:48+DRB1*11:49:01    |                           |                           |
| DRB1*11:37:01+DRB1*12:09    | DRB1*12:04+DRB1*13:07:01    |                           |                           |
| DRB1*11:37:01+DRB1*13:03:01 | DRB1*11:37:02+DRB1*13:03:02 |                           |                           |
| DRB1*11:37:01+DRB1*13:05:02 | DRB1*11:37:02+DRB1*13:05:01 |                           |                           |
| DRB1*11:37:01+DRB1*13:12:02 | DRB1*11:37:02+DRB1*13:12:01 |                           |                           |
| DRB1*11:37:01+DRB1*13:20    | DRB1*11:41+DRB1*13:56       | DRB1*11:56+DRB1*13:29     |                           |
| DRB1*11:37:01+DRB1*13:27    | DRB1*11:56+DRB1*13:41       | DRB1*11:83+DRB1*13:23:02  | DRB1*11:87+DRB1*13:70     |
| DRB1*11:37:01+DRB1*13:32    | DRB1*11:56+DRB1*13:65       |                           |                           |
| DRB1*11:37:01+DRB1*13:33:03 | DRB1*11:37:02+DRB1*13:33:02 |                           |                           |
| DRB1*11:37:01+DRB1*13:39    | DRB1*11:120+DRB1*13:36      |                           |                           |
| DRB1*11:37:01+DRB1*13:40    | DRB1*11:56+DRB1*13:36       |                           |                           |
| DRB1*11:37:01+DRB1*13:42    | DRB1*11:56+DRB1*13:05:01    | DRB1*11:113+DRB1*13:07:01 |                           |
| DRB1*11:37:01+DRB1*13:43    | DRB1*11:40+DRB1*14:69       |                           |                           |
| DRB1*11:37:01+DRB1*13:48    | DRB1*11:41+DRB1*13:12:01    | DRB1*11:48+DRB1*13:49     |                           |
| DRB1*11:37:01+DRB1*13:52    | DRB1*11:48+DRB1*13:132      | DRB1*11:56+DRB1*13:97:01  | DRB1*11:118+DRB1*13:07:01 |
| DRB1*11:37:01+DRB1*13:53    | DRB1*11:48+DRB1*13:26:02    |                           |                           |
| DRB1*11:37:01+DRB1*13:54    | DRB1*11:41+DRB1*13:100      |                           |                           |
| DRB1*11:37:01+DRB1*13:63    | DRB1*11:122+DRB1*13:07:01   |                           |                           |
| DRB1*11:37:01+DRB1*13:70    | DRB1*11:48+DRB1*13:07:01    |                           |                           |
| DRB1*11:37:01+DRB1*13:79    | DRB1*11:56+DRB1*13:39       | DRB1*11:116+DRB1*13:36    | DRB1*11:120+DRB1*13:40    |
| DRB1*11:37:01+DRB1*13:89    | DRB1*11:56+DRB1*13:03:01    |                           |                           |
| DRB1*11:37:01+DRB1*13:105   | DRB1*11:100+DRB1*13:40      |                           |                           |
| DRB1*11:37:01+DRB1*13:108   | DRB1*11:56+DRB1*13:49       |                           |                           |
| DRB1*11:37:01+DRB1*13:111   | DRB1*11:40+DRB1*13:07:01    | DRB1*11:41+DRB1*13:05:01  | DRB1*11:56+DRB1*13:63     |
| DRB1*11:37:01+DRB1*13:112   | DRB1*11:56+DRB1*13:128      |                           |                           |
| DRB1*11:37:01+DRB1*13:131   | DRB1*11:39+DRB1*13:40       | DRB1*11:43+DRB1*13:36     |                           |
| DRB1*11:37:01+DRB1*14:05:01 | DRB1*11:56+DRB1*14:44:01    |                           |                           |
| DRB1*11:37:01+DRB1*14:05:03 | DRB1*11:56+DRB1*14:44:02    |                           |                           |
| DRB1*11:37:01+DRB1*14:06:01 | DRB1*11:56+DRB1*14:02       |                           |                           |
| DRB1*11:37:01+DRB1*14:06:02 | DRB1*11:37:02+DRB1*14:06:01 |                           |                           |
| DRB1*11:37:01+DRB1*14:07:02 | DRB1*11:37:02+DRB1*14:07:01 |                           |                           |
| DRB1*11:37:01+DRB1*14:12:01 | DRB1*11:56+DRB1*14:03:01    |                           |                           |
| DRB1*11:37:01+DRB1*14:16    | DRB1*11:48+DRB1*14:22       |                           |                           |
| DRB1*11:37:01+DRB1*14:33    | DRB1*11:54:02+DRB1*14:09    |                           |                           |
| DRB1*11:37:01+DRB1*14:44:03 | DRB1*11:37:02+DRB1*14:44:01 |                           |                           |
| DRB1*11:37:01+DRB1*14:72    | DRB1*11:52+DRB1*13:14:01    | DRB1*11:96+DRB1*14:23:01  |                           |
| DRB1*11:37:01+DRB1*14:78    | DRB1*11:56+DRB1*14:63       |                           |                           |
| DRB1*11:37:01+DRB1*14:80    | DRB1*11:56+DRB1*14:09       |                           |                           |
| DRB1*11:37:01+DRB1*14:95    | DRB1*11:83+DRB1*14:42       |                           |                           |
| DRB1*11:37:01+DRB1*14:106   | DRB1*11:56+DRB1*14:51       |                           |                           |
| DRB1*11:37:01+DRB1*15:01:09 | DRB1*11:56+DRB1*15:02:04    |                           |                           |
| DRB1*11:37:01+DRB1*15:01:10 | DRB1*11:56+DRB1*15:02:08    |                           |                           |
| DRB1*11:37:01+DRB1*15:02:05 | DRB1*11:37:02+DRB1*15:02:02 |                           |                           |
| DRB1*11:37:01+DRB1*15:04    | DRB1*11:56+DRB1*15:15       |                           |                           |
| DRB1*11:37:01+DRB1*15:05    | DRB1*11:56+DRB1*15:31       |                           |                           |

|                              |                           |                           |                       |
|------------------------------|---------------------------|---------------------------|-----------------------|
| DRB1*11:37:01+DRB1*15:07:01  | DRB1*11:56+DRB1*15:11     |                           |                       |
| DRB1*11:37:01+DRB1*15:08     | DRB1*11:111+DRB1*15:11    |                           |                       |
| DRB1*11:37:01+DRB1*15:15     | DRB1*11:69+DRB1*16:01:02  |                           |                       |
| DRB1*11:37:01+DRB1*15:21     | DRB1*11:119+DRB1*16:01:02 |                           |                       |
| DRB1*11:37:01+DRB1*15:31     | DRB1*11:69+DRB1*16:02:02  |                           |                       |
| DRB1*11:37:01+DRB1*15:42     | DRB1*11:106+DRB1*15:07:01 |                           |                       |
| DRB1*11:37:01+DRB1*15:43     | DRB1*11:78+DRB1*15:11     |                           |                       |
| DRB1*11:37:01+DRB1*15:47     | DRB1*11:39+DRB1*15:11     |                           |                       |
| DRB1*11:37:01+DRB1*15:48     | DRB1*11:88+DRB1*15:11     |                           |                       |
| DRB1*11:37:01+DRB1*15:51     | DRB1*11:90+DRB1*15:07:01  |                           |                       |
| DRB1*11:37:01+DRB1*15:60     | DRB1*11:108+DRB1*15:11    |                           |                       |
| DRB1*11:37:01+DRB1*15:62     | DRB1*11:46:02+DRB1*15:11  | DRB1*11:62+DRB1*15:07:01  |                       |
| DRB1*11:37:01+DRB1*15:64     | DRB1*11:126+DRB1*15:07:01 |                           |                       |
| DRB1*11:37:01+DRB1*15:65     | DRB1*11:39+DRB1*15:07:01  | DRB1*11:43+DRB1*15:11     | DRB1*11:56+DRB1*15:47 |
| DRB1*11:37:01+DRB1*15:68     | DRB1*11:109+DRB1*15:11    |                           |                       |
| DRB1*11:37:01+DRB1*15:71     | DRB1*11:116+DRB1*15:11    | DRB1*11:120+DRB1*15:07:01 |                       |
| DRB1*11:37:01+DRB1*16:02:01  | DRB1*13:07:02+DRB1*16:16  |                           |                       |
| DRB1*11:37:01+DRB1*16:15     | DRB1*11:56+DRB1*16:01:01  |                           |                       |
| DRB1*11:37:02+DRB1*11:44     | DRB1*11:49:02+DRB1*11:56  |                           |                       |
| DRB1*11:37:02+DRB1*11:85     | DRB1*11:41+DRB1*11:49:02  |                           |                       |
| DRB1*11:37:02+DRB1*11:92     | DRB1*11:56+DRB1*11:72     |                           |                       |
| DRB1*11:37:02+DRB1*11:127    | DRB1*11:48+DRB1*11:49:02  |                           |                       |
| DRB1*11:37:02+DRB1*13:10     | DRB1*11:113+DRB1*13:37    |                           |                       |
| DRB1*11:37:02+DRB1*13:18     | DRB1*11:113+DRB1*13:47    |                           |                       |
| DRB1*11:37:02+DRB1*13:24     | DRB1*11:41+DRB1*13:14:03  |                           |                       |
| DRB1*11:37:02+DRB1*13:27     | DRB1*11:83+DRB1*13:23:01  |                           |                       |
| DRB1*11:37:02+DRB1*13:42     | DRB1*11:56+DRB1*13:05:02  |                           |                       |
| DRB1*11:37:02+DRB1*13:48     | DRB1*11:41+DRB1*13:12:02  | DRB1*11:56+DRB1*13:38     |                       |
| DRB1*11:37:02+DRB1*13:75     | DRB1*11:41+DRB1*13:21:02  |                           |                       |
| DRB1*11:37:02+DRB1*13:94     | DRB1*11:56+DRB1*13:33:01  |                           |                       |
| DRB1*11:37:02+DRB1*13:111    | DRB1*11:41+DRB1*13:05:02  |                           |                       |
| DRB1*11:37:02+DRB1*14:01:01G | DRB1*11:56+DRB1*14:07:02  |                           |                       |
| DRB1*11:37:02+DRB1*14:05:01  | DRB1*11:56+DRB1*14:44:03  |                           |                       |
| DRB1*11:37:02+DRB1*14:21     | DRB1*11:93+DRB1*14:80     |                           |                       |
| DRB1*11:37:02+DRB1*14:72     | DRB1*11:52+DRB1*13:14:03  |                           |                       |
| DRB1*11:38+DRB1*13:33:01     | DRB1*11:84:02+DRB1*13:122 |                           |                       |
| DRB1*11:38+DRB1*13:33:03     | DRB1*11:84:01+DRB1*13:122 |                           |                       |
| DRB1*11:38+DRB1*13:115       | DRB1*11:58:02+DRB1*13:122 |                           |                       |
| DRB1*11:38+DRB1*13:120       | DRB1*11:113+DRB1*13:122   |                           |                       |
| DRB1*11:39+DRB1*11:40        | DRB1*11:43+DRB1*11:122    |                           |                       |
| DRB1*11:39+DRB1*11:44        | DRB1*11:43+DRB1*11:49:01  |                           |                       |
| DRB1*11:39+DRB1*11:46:02     | DRB1*11:43+DRB1*11:62     |                           |                       |
| DRB1*11:39+DRB1*11:60        | DRB1*11:43+DRB1*11:109    |                           |                       |
| DRB1*11:39+DRB1*11:116       | DRB1*11:43+DRB1*11:120    |                           |                       |
| DRB1*11:39+DRB1*11:119       | DRB1*11:43+DRB1*11:45     |                           |                       |
| DRB1*11:39+DRB1*13:01:05     | DRB1*11:43+DRB1*13:02:03  |                           |                       |
| DRB1*11:39+DRB1*13:03:01     | DRB1*11:93+DRB1*13:118    |                           |                       |
| DRB1*11:39+DRB1*13:11:01     | DRB1*11:43+DRB1*13:14:01  |                           |                       |
| DRB1*11:39+DRB1*13:11:02     | DRB1*11:43+DRB1*13:14:02  |                           |                       |
| DRB1*11:39+DRB1*13:15        | DRB1*11:43+DRB1*13:104    |                           |                       |
| DRB1*11:39+DRB1*13:20        | DRB1*11:43+DRB1*13:29     |                           |                       |
| DRB1*11:39+DRB1*13:22        | DRB1*11:43+DRB1*13:23:02  |                           |                       |
| DRB1*11:39+DRB1*13:27        | DRB1*11:43+DRB1*13:41     | DRB1*11:43+DRB1*13:65     |                       |
| DRB1*11:39+DRB1*13:32        | DRB1*11:40+DRB1*13:118    |                           |                       |
| DRB1*11:39+DRB1*13:42        | DRB1*11:43+DRB1*13:05:01  |                           |                       |
| DRB1*11:39+DRB1*13:52        | DRB1*11:43+DRB1*13:97:01  |                           |                       |
| DRB1*11:39+DRB1*13:65        | DRB1*11:122+DRB1*13:118   |                           |                       |
| DRB1*11:39+DRB1*13:69        | DRB1*11:115+DRB1*13:23:02 |                           |                       |
| DRB1*11:39+DRB1*13:76        | DRB1*11:54:01+DRB1*13:135 |                           |                       |
| DRB1*11:39+DRB1*13:79        | DRB1*11:43+DRB1*13:39     | DRB1*11:120+DRB1*13:131   |                       |
| DRB1*11:39+DRB1*13:83        | DRB1*11:43+DRB1*13:107    |                           |                       |
| DRB1*11:39+DRB1*13:89        | DRB1*11:43+DRB1*13:03:01  |                           |                       |
| DRB1*11:39+DRB1*13:93        | DRB1*11:43+DRB1*13:139    |                           |                       |
| DRB1*11:39+DRB1*13:105       | DRB1*11:100+DRB1*13:131   |                           |                       |
| DRB1*11:39+DRB1*13:108       | DRB1*11:43+DRB1*13:49     |                           |                       |
| DRB1*11:39+DRB1*13:111       | DRB1*11:43+DRB1*13:63     |                           |                       |
| DRB1*11:39+DRB1*13:112       | DRB1*11:43+DRB1*13:128    |                           |                       |
| DRB1*11:39+DRB1*14:04        | DRB1*11:43+DRB1*14:68     |                           |                       |
| DRB1*11:39+DRB1*14:05:03     | DRB1*11:43+DRB1*14:44:02  |                           |                       |
| DRB1*11:39+DRB1*14:06:01     | DRB1*11:43+DRB1*14:02     |                           |                       |
| DRB1*11:39+DRB1*14:12:01     | DRB1*11:43+DRB1*14:03:01  |                           |                       |
| DRB1*11:39+DRB1*14:17        | DRB1*11:43+DRB1*14:30     |                           |                       |
| DRB1*11:39+DRB1*14:23:01     | DRB1*11:43+DRB1*14:14     |                           |                       |
| DRB1*11:39+DRB1*14:62        | DRB1*11:110+DRB1*14:86    |                           |                       |
| DRB1*11:39+DRB1*14:78        | DRB1*11:43+DRB1*14:63     |                           |                       |
| DRB1*11:39+DRB1*14:80        | DRB1*11:43+DRB1*14:09     |                           |                       |
| DRB1*11:39+DRB1*14:88        | DRB1*11:94+DRB1*14:86     |                           |                       |
| DRB1*11:39+DRB1*14:106       | DRB1*11:43+DRB1*14:51     |                           |                       |
| DRB1*11:39+DRB1*15:01:04     | DRB1*11:43+DRB1*15:02:02  |                           |                       |
| DRB1*11:39+DRB1*15:01:09     | DRB1*11:43+DRB1*15:02:04  |                           |                       |
| DRB1*11:39+DRB1*15:01:10     | DRB1*11:43+DRB1*15:02:08  |                           |                       |
| DRB1*11:39+DRB1*15:04        | DRB1*11:43+DRB1*15:15     |                           |                       |
| DRB1*11:39+DRB1*15:05        | DRB1*11:43+DRB1*15:31     |                           |                       |
| DRB1*11:39+DRB1*15:08        | DRB1*11:111+DRB1*15:47    |                           |                       |
| DRB1*11:39+DRB1*15:42        | DRB1*11:106+DRB1*15:65    |                           |                       |
| DRB1*11:39+DRB1*15:43        | DRB1*11:78+DRB1*15:47     |                           |                       |
| DRB1*11:39+DRB1*15:48        | DRB1*11:88+DRB1*15:47     |                           |                       |
| DRB1*11:39+DRB1*15:51        | DRB1*11:90+DRB1*15:65     |                           |                       |
| DRB1*11:39+DRB1*15:60        | DRB1*11:108+DRB1*15:47    |                           |                       |
| DRB1*11:39+DRB1*15:62        | DRB1*11:46:02+DRB1*15:47  | DRB1*11:62+DRB1*15:65     |                       |
| DRB1*11:39+DRB1*15:64        | DRB1*11:126+DRB1*15:65    |                           |                       |
| DRB1*11:39+DRB1*15:65        | DRB1*11:43+DRB1*15:47     |                           |                       |
| DRB1*11:39+DRB1*15:66        | DRB1*11:43+DRB1*15:27     |                           |                       |
| DRB1*11:39+DRB1*15:68        | DRB1*11:109+DRB1*15:47    |                           |                       |
| DRB1*11:39+DRB1*15:71        | DRB1*11:116+DRB1*15:47    | DRB1*11:120+DRB1*15:65    |                       |
| DRB1*11:40+DRB1*16:15        | DRB1*11:43+DRB1*16:01:01  |                           |                       |
| DRB1*11:40+DRB1*11:44        | DRB1*11:85+DRB1*11:113    |                           |                       |
| DRB1*11:40+DRB1*11:56        | DRB1*11:41+DRB1*11:113    |                           |                       |
| DRB1*11:40+DRB1*11:62        | DRB1*11:46:02+DRB1*11:122 |                           |                       |
| DRB1*11:40+DRB1*11:80        | DRB1*11:59+DRB1*11:62     |                           |                       |
| DRB1*11:40+DRB1*11:109       | DRB1*11:60+DRB1*11:122    |                           |                       |
| DRB1*11:40+DRB1*11:120       | DRB1*11:116+DRB1*11:122   |                           |                       |
| DRB1*11:40+DRB1*12:09        | DRB1*12:04+DRB1*13:111    |                           |                       |
| DRB1*11:40+DRB1*13:02:03     | DRB1*11:122+DRB1*13:01:05 |                           |                       |
| DRB1*11:40+DRB1*13:14:02     | DRB1*11:122+DRB1*13:11:02 |                           |                       |

|                           |                             |                        |
|---------------------------|-----------------------------|------------------------|
| DRB1*11:40+DRB1*13:27     | DRB1*11:59+DRB1*13:01:01G   |                        |
| DRB1*11:40+DRB1*13:29     | DRB1*11:122+DRB1*13:20      |                        |
| DRB1*11:40+DRB1*13:36     | DRB1*11:122+DRB1*13:40      |                        |
| DRB1*11:40+DRB1*13:37     | DRB1*11:93+DRB1*13:40       |                        |
| DRB1*11:40+DRB1*13:39     | DRB1*11:122+DRB1*13:79      |                        |
| DRB1*11:40+DRB1*13:41     | DRB1*11:59+DRB1*13:02:01    | DRB1*11:122+DRB1*13:27 |
| DRB1*11:40+DRB1*13:42     | DRB1*11:113+DRB1*13:111     |                        |
| DRB1*11:40+DRB1*13:49     | DRB1*11:122+DRB1*13:108     |                        |
| DRB1*11:40+DRB1*13:52     | DRB1*11:118+DRB1*13:111     |                        |
| DRB1*11:40+DRB1*13:63     | DRB1*11:122+DRB1*13:111     |                        |
| DRB1*11:40+DRB1*13:65     | DRB1*11:122+DRB1*13:32      |                        |
| DRB1*11:40+DRB1*13:66:02  | DRB1*11:93+DRB1*13:93       |                        |
| DRB1*11:40+DRB1*13:71     | DRB1*11:59+DRB1*13:20       |                        |
| DRB1*11:40+DRB1*13:96:01  | DRB1*11:122+DRB1*13:61:02   |                        |
| DRB1*11:40+DRB1*13:96:02  | DRB1*11:122+DRB1*13:61:01   |                        |
| DRB1*11:40+DRB1*13:97:01  | DRB1*11:118+DRB1*13:63      | DRB1*11:122+DRB1*13:52 |
| DRB1*11:40+DRB1*13:104    | DRB1*11:122+DRB1*13:15      |                        |
| DRB1*11:40+DRB1*13:107    | DRB1*11:122+DRB1*13:83      |                        |
| DRB1*11:40+DRB1*13:128    | DRB1*11:122+DRB1*13:112     |                        |
| DRB1*11:40+DRB1*13:129    | DRB1*11:59+DRB1*13:09       |                        |
| DRB1*11:40+DRB1*13:132    | DRB1*11:46:01+DRB1*13:63    |                        |
| DRB1*11:40+DRB1*13:139    | DRB1*11:122+DRB1*13:93      |                        |
| DRB1*11:40+DRB1*14:02     | DRB1*11:122+DRB1*14:06:01   |                        |
| DRB1*11:40+DRB1*14:03:01  | DRB1*11:122+DRB1*14:12:01   |                        |
| DRB1*11:40+DRB1*14:07:01  | DRB1*11:122+DRB1*14:01:01G  |                        |
| DRB1*11:40+DRB1*14:09     | DRB1*11:122+DRB1*14:80      |                        |
| DRB1*11:40+DRB1*14:30     | DRB1*11:122+DRB1*14:17      |                        |
| DRB1*11:40+DRB1*14:44:01  | DRB1*11:122+DRB1*14:05:01   |                        |
| DRB1*11:40+DRB1*14:44:02  | DRB1*11:122+DRB1*14:05:03   |                        |
| DRB1*11:40+DRB1*14:51     | DRB1*11:122+DRB1*14:106     |                        |
| DRB1*11:40+DRB1*14:63     | DRB1*11:122+DRB1*14:78      |                        |
| DRB1*11:40+DRB1*14:68     | DRB1*11:122+DRB1*14:04      |                        |
| DRB1*11:40+DRB1*14:82     | DRB1*11:59+DRB1*14:01:01G   |                        |
| DRB1*11:40+DRB1*14:116    | DRB1*11:41+DRB1*13:119      |                        |
| DRB1*11:40+DRB1*14:126    | DRB1*13:111+DRB1*14:11      |                        |
| DRB1*11:40+DRB1*15:02:02  | DRB1*11:122+DRB1*15:01:04   |                        |
| DRB1*11:40+DRB1*15:02:04  | DRB1*11:122+DRB1*15:01:09   |                        |
| DRB1*11:40+DRB1*15:02:06  | DRB1*11:122+DRB1*15:01:03   |                        |
| DRB1*11:40+DRB1*15:02:08  | DRB1*11:122+DRB1*15:01:10   |                        |
| DRB1*11:40+DRB1*15:11     | DRB1*11:122+DRB1*15:07:01   |                        |
| DRB1*11:40+DRB1*15:15     | DRB1*11:122+DRB1*15:04      |                        |
| DRB1*11:40+DRB1*15:27     | DRB1*11:122+DRB1*15:66      |                        |
| DRB1*11:40+DRB1*15:31     | DRB1*11:122+DRB1*15:05      |                        |
| DRB1*11:40+DRB1*15:47     | DRB1*11:122+DRB1*15:65      |                        |
| DRB1*11:40+DRB1*16:01:01  | DRB1*11:122+DRB1*16:15      |                        |
| DRB1*11:41+DRB1*11:44     | DRB1*11:56+DRB1*11:85       |                        |
| DRB1*11:41+DRB1*11:73     | DRB1*11:48+DRB1*11:93       |                        |
| DRB1*11:41+DRB1*11:82     | DRB1*11:48+DRB1*11:69       |                        |
| DRB1*11:41+DRB1*11:127    | DRB1*11:48+DRB1*11:85       |                        |
| DRB1*11:41+DRB1*12:01:03  | DRB1*11:48+DRB1*12:02:02    |                        |
| DRB1*11:41+DRB1*12:03:03  | DRB1*11:48+DRB1*12:19       |                        |
| DRB1*11:41+DRB1*12:05     | DRB1*11:48+DRB1*12:15       |                        |
| DRB1*11:41+DRB1*13:11:01  | DRB1*11:56+DRB1*13:24       |                        |
| DRB1*11:41+DRB1*13:27     | DRB1*11:59+DRB1*13:70       |                        |
| DRB1*11:41+DRB1*13:34     | DRB1*11:76+DRB1*13:36       |                        |
| DRB1*11:41+DRB1*13:42     | DRB1*11:56+DRB1*13:111      |                        |
| DRB1*11:41+DRB1*13:64     | DRB1*11:76+DRB1*13:08       |                        |
| DRB1*11:41+DRB1*14:67     | DRB1*11:48+DRB1*14:27       |                        |
| DRB1*11:41+DRB1*14:72     | DRB1*11:52+DRB1*13:24       |                        |
| DRB1*11:41+DRB1*16:05:01  | DRB1*11:48+DRB1*16:01:01    |                        |
| DRB1*11:42+DRB1*12:01:03  | DRB1*11:57+DRB1*12:03:02    |                        |
| DRB1*11:42+DRB1*12:21     | DRB1*11:56+DRB1*12:12       |                        |
| DRB1*11:42+DRB1*13:07:01  | DRB1*11:56+DRB1*13:25       |                        |
| DRB1*11:42+DRB1*13:13     | DRB1*11:119+DRB1*13:134     |                        |
| DRB1*11:42+DRB1*13:50:01  | DRB1*11:58:02+DRB1*13:25    |                        |
| DRB1*11:42+DRB1*13:50:02  | DRB1*11:58:01+DRB1*13:25    |                        |
| DRB1*11:42+DRB1*13:132    | DRB1*11:46:01+DRB1*13:25    |                        |
| DRB1*11:42+DRB1*14:28     | DRB1*11:57+DRB1*14:04       |                        |
| DRB1*11:42+DRB1*14:29     | DRB1*11:57+DRB1*14:06:01    |                        |
| DRB1*11:42+DRB1*14:99     | DRB1*11:57+DRB1*14:01:01G   |                        |
| DRB1*11:42+DRB1*15:35     | DRB1*11:57+DRB1*15:01:01G   |                        |
| DRB1*11:43+DRB1*11:87     | DRB1*11:80+DRB1*11:115      |                        |
| DRB1*11:43+DRB1*11:113    | DRB1*11:46:02+DRB1*11:115   |                        |
| DRB1*11:43+DRB1*13:40     | DRB1*11:56+DRB1*13:131      |                        |
| DRB1*11:43+DRB1*13:50:02  | DRB1*11:115+DRB1*13:14:01   |                        |
| DRB1*11:43+DRB1*13:61:01  | DRB1*11:84:01+DRB1*13:131   |                        |
| DRB1*11:43+DRB1*13:61:02  | DRB1*11:84:02+DRB1*13:131   |                        |
| DRB1*11:43+DRB1*13:69     | DRB1*11:115+DRB1*13:22      |                        |
| DRB1*11:43+DRB1*13:79     | DRB1*11:116+DRB1*13:131     |                        |
| DRB1*11:43+DRB1*15:07:01  | DRB1*11:56+DRB1*15:65       |                        |
| DRB1*11:43+DRB1*15:08     | DRB1*11:111+DRB1*15:65      |                        |
| DRB1*11:43+DRB1*15:32     | DRB1*11:58:02+DRB1*15:65    |                        |
| DRB1*11:43+DRB1*15:37     | DRB1*11:84:02+DRB1*15:65    |                        |
| DRB1*11:43+DRB1*15:43     | DRB1*11:78+DRB1*15:65       |                        |
| DRB1*11:43+DRB1*15:48     | DRB1*11:88+DRB1*15:65       |                        |
| DRB1*11:43+DRB1*15:60     | DRB1*11:108+DRB1*15:65      |                        |
| DRB1*11:43+DRB1*15:62     | DRB1*11:46:02+DRB1*15:65    |                        |
| DRB1*11:43+DRB1*15:68     | DRB1*11:60+DRB1*15:47       | DRB1*11:109+DRB1*15:65 |
| DRB1*11:43+DRB1*15:71     | DRB1*11:116+DRB1*15:65      |                        |
| DRB1*11:44+DRB1*11:45     | DRB1*11:49:01+DRB1*11:119   |                        |
| DRB1*11:44+DRB1*11:48     | DRB1*11:56+DRB1*11:127      |                        |
| DRB1*11:44+DRB1*11:62     | DRB1*11:46:02+DRB1*11:49:01 |                        |
| DRB1*11:44+DRB1*11:72     | DRB1*11:49:02+DRB1*11:92    |                        |
| DRB1*11:44+DRB1*11:109    | DRB1*11:49:01+DRB1*11:60    |                        |
| DRB1*11:44+DRB1*11:118    | DRB1*11:46:01+DRB1*11:127   |                        |
| DRB1*11:44+DRB1*11:120    | DRB1*11:49:01+DRB1*11:116   |                        |
| DRB1*11:44+DRB1*11:124    | DRB1*11:84:01+DRB1*11:127   |                        |
| DRB1*11:44+DRB1*13:01:01G | DRB1*11:58:02+DRB1*13:106   | DRB1*11:85+DRB1*13:06  |
| DRB1*11:44+DRB1*13:02:03  | DRB1*11:49:01+DRB1*13:01:05 | DRB1*11:127+DRB1*13:42 |
| DRB1*11:44+DRB1*13:03:01  | DRB1*11:49:01+DRB1*13:89    |                        |
| DRB1*11:44+DRB1*13:05:01  | DRB1*11:49:01+DRB1*13:42    |                        |
| DRB1*11:44+DRB1*13:05:02  | DRB1*11:49:02+DRB1*13:42    |                        |
| DRB1*11:44+DRB1*13:14:01  | DRB1*11:49:01+DRB1*13:11:01 |                        |
| DRB1*11:44+DRB1*13:14:02  | DRB1*11:49:01+DRB1*13:11:02 |                        |
| DRB1*11:44+DRB1*13:14:03  | DRB1*11:49:02+DRB1*13:11:01 |                        |

|                              |                              |                           |                           |
|------------------------------|------------------------------|---------------------------|---------------------------|
| DRB1*11:44+DRB1*13:22        | DRB1*11:127+DRB1*13:11:01    |                           |                           |
| DRB1*11:44+DRB1*13:23:01     | DRB1*11:49:02+DRB1*13:22     | DRB1*11:127+DRB1*13:14:03 |                           |
| DRB1*11:44+DRB1*13:23:02     | DRB1*11:49:01+DRB1*13:22     | DRB1*11:85+DRB1*13:82     | DRB1*11:127+DRB1*13:14:01 |
| DRB1*11:44+DRB1*13:24        | DRB1*11:85+DRB1*13:11:01     |                           |                           |
| DRB1*11:44+DRB1*13:29        | DRB1*11:49:01+DRB1*13:20     | DRB1*11:85+DRB1*13:56     |                           |
| DRB1*11:44+DRB1*13:33:01     | DRB1*11:49:02+DRB1*13:94     |                           |                           |
| DRB1*11:44+DRB1*13:34        | DRB1*11:127+DRB1*13:136      |                           |                           |
| DRB1*11:44+DRB1*13:36        | DRB1*11:49:01+DRB1*13:40     |                           |                           |
| DRB1*11:44+DRB1*13:38        | DRB1*11:49:02+DRB1*13:48     | DRB1*11:85+DRB1*13:12:02  |                           |
| DRB1*11:44+DRB1*13:39        | DRB1*11:49:01+DRB1*13:79     |                           |                           |
| DRB1*11:44+DRB1*13:41        | DRB1*11:49:01+DRB1*13:27     |                           |                           |
| DRB1*11:44+DRB1*13:48        | DRB1*11:127+DRB1*13:108      |                           |                           |
| DRB1*11:44+DRB1*13:49        | DRB1*11:49:01+DRB1*13:108    |                           |                           |
| DRB1*11:44+DRB1*13:63        | DRB1*11:49:01+DRB1*13:111    | DRB1*11:85+DRB1*13:05:01  |                           |
| DRB1*11:44+DRB1*13:65        | DRB1*11:49:01+DRB1*13:32     |                           |                           |
| DRB1*11:44+DRB1*13:96:01     | DRB1*11:49:01+DRB1*13:61:02  |                           |                           |
| DRB1*11:44+DRB1*13:96:02     | DRB1*11:49:01+DRB1*13:61:01  |                           |                           |
| DRB1*11:44+DRB1*13:104       | DRB1*11:49:01+DRB1*13:15     |                           |                           |
| DRB1*11:44+DRB1*13:111       | DRB1*11:85+DRB1*13:42        |                           |                           |
| DRB1*11:44+DRB1*13:118       | DRB1*11:50+DRB1*13:30        |                           |                           |
| DRB1*11:44+DRB1*13:128       | DRB1*11:49:01+DRB1*13:112    |                           |                           |
| DRB1*11:44+DRB1*13:135       | DRB1*11:50+DRB1*13:107       |                           |                           |
| DRB1*11:44+DRB1*13:139       | DRB1*11:49:01+DRB1*13:93     |                           |                           |
| DRB1*11:44+DRB1*14:02        | DRB1*11:49:01+DRB1*14:06:01  |                           |                           |
| DRB1*11:44+DRB1*14:03:01     | DRB1*11:49:01+DRB1*14:12:01  |                           |                           |
| DRB1*11:44+DRB1*14:07:02     | DRB1*11:49:02+DRB1*14:01:01G |                           |                           |
| DRB1*11:44+DRB1*14:09        | DRB1*11:49:01+DRB1*14:80     |                           |                           |
| DRB1*11:44+DRB1*14:14        | DRB1*11:49:01+DRB1*14:23:01  |                           |                           |
| DRB1*11:44+DRB1*14:30        | DRB1*11:49:01+DRB1*14:17     |                           |                           |
| DRB1*11:44+DRB1*14:44:01     | DRB1*11:49:01+DRB1*14:05:01  |                           |                           |
| DRB1*11:44+DRB1*14:44:02     | DRB1*11:49:01+DRB1*14:05:03  |                           |                           |
| DRB1*11:44+DRB1*14:44:03     | DRB1*11:49:02+DRB1*14:05:01  |                           |                           |
| DRB1*11:44+DRB1*14:51        | DRB1*11:49:01+DRB1*14:106    |                           |                           |
| DRB1*11:44+DRB1*14:63        | DRB1*11:49:01+DRB1*14:78     |                           |                           |
| DRB1*11:44+DRB1*14:68        | DRB1*11:49:01+DRB1*14:04     |                           |                           |
| DRB1*11:44+DRB1*14:86        | DRB1*11:50+DRB1*14:35        |                           |                           |
| DRB1*11:44+DRB1*15:02:01     | DRB1*11:49:01+DRB1*15:01:01G |                           |                           |
| DRB1*11:44+DRB1*15:02:02     | DRB1*11:49:01+DRB1*15:01:04  |                           |                           |
| DRB1*11:44+DRB1*15:02:04     | DRB1*11:49:01+DRB1*15:01:09  |                           |                           |
| DRB1*11:44+DRB1*15:02:05     | DRB1*11:49:02+DRB1*15:01:04  |                           |                           |
| DRB1*11:44+DRB1*15:02:06     | DRB1*11:49:01+DRB1*15:01:03  |                           |                           |
| DRB1*11:44+DRB1*15:02:08     | DRB1*11:49:01+DRB1*15:01:10  |                           |                           |
| DRB1*11:44+DRB1*15:02:09     | DRB1*11:49:02+DRB1*15:01:01G |                           |                           |
| DRB1*11:44+DRB1*15:11        | DRB1*11:49:01+DRB1*15:07:01  |                           |                           |
| DRB1*11:44+DRB1*15:15        | DRB1*11:49:01+DRB1*15:04     |                           |                           |
| DRB1*11:44+DRB1*15:27        | DRB1*11:49:01+DRB1*15:66     |                           |                           |
| DRB1*11:44+DRB1*15:31        | DRB1*11:49:01+DRB1*15:05     |                           |                           |
| DRB1*11:44+DRB1*15:47        | DRB1*11:49:01+DRB1*15:65     |                           |                           |
| DRB1*11:44+DRB1*16:01:01     | DRB1*11:49:01+DRB1*16:15     |                           |                           |
| DRB1*11:45+DRB1*11:46:02     | DRB1*11:62+DRB1*11:119       |                           |                           |
| DRB1*11:45+DRB1*11:60        | DRB1*11:109+DRB1*11:119      |                           |                           |
| DRB1*11:45+DRB1*11:116       | DRB1*11:119+DRB1*11:120      |                           |                           |
| DRB1*11:45+DRB1*12:12        | DRB1*11:64+DRB1*12:01:01G    |                           |                           |
| DRB1*11:45+DRB1*13:01:01G    | DRB1*11:119+DRB1*13:02:01    |                           |                           |
| DRB1*11:45+DRB1*13:01:05     | DRB1*11:119+DRB1*13:02:03    |                           |                           |
| DRB1*11:45+DRB1*13:03:01     | DRB1*11:73+DRB1*13:13        |                           |                           |
| DRB1*11:45+DRB1*13:11:02     | DRB1*11:119+DRB1*13:14:02    |                           |                           |
| DRB1*11:45+DRB1*13:15        | DRB1*11:119+DRB1*13:104      |                           |                           |
| DRB1*11:45+DRB1*13:22        | DRB1*11:119+DRB1*13:23:02    |                           |                           |
| DRB1*11:45+DRB1*13:25        | DRB1*11:64+DRB1*13:82        |                           |                           |
| DRB1*11:45+DRB1*13:27        | DRB1*11:119+DRB1*13:41       |                           |                           |
| DRB1*11:45+DRB1*13:40        | DRB1*11:119+DRB1*13:36       |                           |                           |
| DRB1*11:45+DRB1*13:52        | DRB1*11:119+DRB1*13:97:01    |                           |                           |
| DRB1*11:45+DRB1*13:61:01     | DRB1*11:119+DRB1*13:96:02    |                           |                           |
| DRB1*11:45+DRB1*13:61:02     | DRB1*11:119+DRB1*13:96:01    |                           |                           |
| DRB1*11:45+DRB1*13:71        | DRB1*11:64+DRB1*13:27        |                           |                           |
| DRB1*11:45+DRB1*13:75        | DRB1*11:55+DRB1*13:30        |                           |                           |
| DRB1*11:45+DRB1*13:78        | DRB1*11:64+DRB1*13:79        |                           |                           |
| DRB1*11:45+DRB1*13:79        | DRB1*11:119+DRB1*13:39       |                           |                           |
| DRB1*11:45+DRB1*13:83        | DRB1*11:119+DRB1*13:107      |                           |                           |
| DRB1*11:45+DRB1*13:88        | DRB1*11:64+DRB1*13:03:01     |                           |                           |
| DRB1*11:45+DRB1*13:89        | DRB1*11:119+DRB1*13:03:01    |                           |                           |
| DRB1*11:45+DRB1*13:93        | DRB1*11:119+DRB1*13:139      |                           |                           |
| DRB1*11:45+DRB1*13:112       | DRB1*11:119+DRB1*13:128      |                           |                           |
| DRB1*11:45+DRB1*14:01:01G    | DRB1*11:64+DRB1*14:122       | DRB1*11:119+DRB1*14:07:01 |                           |
| DRB1*11:45+DRB1*14:03:01     | DRB1*11:64+DRB1*14:67        |                           |                           |
| DRB1*11:45+DRB1*14:04        | DRB1*11:64+DRB1*14:120       | DRB1*11:119+DRB1*14:68    |                           |
| DRB1*11:45+DRB1*14:05:01     | DRB1*11:64+DRB1*14:45        | DRB1*11:119+DRB1*14:44:01 |                           |
| DRB1*11:45+DRB1*14:05:03     | DRB1*11:119+DRB1*14:44:02    |                           |                           |
| DRB1*11:45+DRB1*14:12:01     | DRB1*11:119+DRB1*14:03:01    |                           |                           |
| DRB1*11:45+DRB1*14:17        | DRB1*11:119+DRB1*14:30       |                           |                           |
| DRB1*11:45+DRB1*14:19        | DRB1*11:79+DRB1*14:67        |                           |                           |
| DRB1*11:45+DRB1*14:23:01     | DRB1*11:119+DRB1*14:14       |                           |                           |
| DRB1*11:45+DRB1*14:24        | DRB1*11:82+DRB1*14:67        |                           |                           |
| DRB1*11:45+DRB1*14:78        | DRB1*11:119+DRB1*14:63       |                           |                           |
| DRB1*11:45+DRB1*14:80        | DRB1*11:119+DRB1*14:09       |                           |                           |
| DRB1*11:45+DRB1*14:85        | DRB1*11:64+DRB1*14:63        |                           |                           |
| DRB1*11:45+DRB1*14:106       | DRB1*11:119+DRB1*14:51       |                           |                           |
| DRB1*11:45+DRB1*15:01:01G    | DRB1*11:82+DRB1*15:21        | DRB1*11:119+DRB1*15:02:01 |                           |
| DRB1*11:45+DRB1*15:01:03     | DRB1*11:119+DRB1*15:02:06    |                           |                           |
| DRB1*11:45+DRB1*15:01:04     | DRB1*11:119+DRB1*15:02:02    |                           |                           |
| DRB1*11:45+DRB1*15:01:09     | DRB1*11:119+DRB1*15:02:04    |                           |                           |
| DRB1*11:45+DRB1*15:01:10     | DRB1*11:119+DRB1*15:02:08    |                           |                           |
| DRB1*11:45+DRB1*15:05        | DRB1*11:64+DRB1*15:01:01G    | DRB1*11:119+DRB1*15:31    |                           |
| DRB1*11:45+DRB1*15:07:01     | DRB1*11:119+DRB1*15:11       |                           |                           |
| DRB1*11:45+DRB1*15:23        | DRB1*11:64+DRB1*15:03:01G    |                           |                           |
| DRB1*11:45+DRB1*15:25        | DRB1*11:103+DRB1*15:21       |                           |                           |
| DRB1*11:45+DRB1*15:31        | DRB1*11:64+DRB1*15:02:01     |                           |                           |
| DRB1*11:45+DRB1*15:63        | DRB1*11:64+DRB1*15:38        |                           |                           |
| DRB1*11:45+DRB1*15:65        | DRB1*11:119+DRB1*15:47       |                           |                           |
| DRB1*11:45+DRB1*15:73        | DRB1*11:64+DRB1*15:06:01     |                           |                           |
| DRB1*11:46:01+DRB1*11:48     | DRB1*11:56+DRB1*11:118       |                           |                           |
| DRB1*11:46:01+DRB1*11:124    | DRB1*11:84:01+DRB1*11:118    |                           |                           |
| DRB1*11:46:01+DRB1*13:01:01G | DRB1*11:113+DRB1*13:52       | DRB1*11:118+DRB1*13:42    |                           |
| DRB1*11:46:01+DRB1*13:05:01  | DRB1*11:113+DRB1*13:132      |                           |                           |

|                              |                              |                            |
|------------------------------|------------------------------|----------------------------|
| DRB1*11:46:01+DRB1*13:07:01  | DRB1*11:56+DRB1*13:132       |                            |
| DRB1*11:46:01+DRB1*13:34     | DRB1*11:118+DRB1*13:136      |                            |
| DRB1*11:46:01+DRB1*13:41     | DRB1*11:87+DRB1*13:52        |                            |
| DRB1*11:46:01+DRB1*13:48     | DRB1*11:118+DRB1*13:108      |                            |
| DRB1*11:46:01+DRB1*13:70     | DRB1*11:56+DRB1*13:52        |                            |
| DRB1*11:46:01+DRB1*13:87     | DRB1*11:113+DRB1*13:83       |                            |
| DRB1*11:46:01+DRB1*13:97:01  | DRB1*11:118+DRB1*13:132      |                            |
| DRB1*11:46:01+DRB1*13:97:02  | DRB1*11:46:02+DRB1*13:97:01  | DRB1*11:62+DRB1*13:52      |
| DRB1*11:46:01+DRB1*15:32     | DRB1*11:58:01+DRB1*15:62     | DRB1*11:113+DRB1*15:01:01G |
| DRB1*11:46:02+DRB1*11:87     | DRB1*11:80+DRB1*11:113       |                            |
| DRB1*11:46:02+DRB1*11:109    | DRB1*11:60+DRB1*11:62        |                            |
| DRB1*11:46:02+DRB1*11:120    | DRB1*11:62+DRB1*11:116       |                            |
| DRB1*11:46:02+DRB1*13:02:01  | DRB1*11:62+DRB1*13:01:01G    | DRB1*11:113+DRB1*13:97:02  |
| DRB1*11:46:02+DRB1*13:02:03  | DRB1*11:62+DRB1*13:01:05     |                            |
| DRB1*11:46:02+DRB1*13:03:01  | DRB1*11:62+DRB1*13:89        |                            |
| DRB1*11:46:02+DRB1*13:05:01  | DRB1*11:62+DRB1*13:42        |                            |
| DRB1*11:46:02+DRB1*13:14:01  | DRB1*11:62+DRB1*13:11:01     |                            |
| DRB1*11:46:02+DRB1*13:14:02  | DRB1*11:62+DRB1*13:11:02     |                            |
| DRB1*11:46:02+DRB1*13:29     | DRB1*11:62+DRB1*13:20        |                            |
| DRB1*11:46:02+DRB1*13:36     | DRB1*11:62+DRB1*13:40        |                            |
| DRB1*11:46:02+DRB1*13:39     | DRB1*11:62+DRB1*13:79        |                            |
| DRB1*11:46:02+DRB1*13:41     | DRB1*11:62+DRB1*13:27        | DRB1*11:80+DRB1*13:01:01G  |
| DRB1*11:46:02+DRB1*13:49     | DRB1*11:62+DRB1*13:108       |                            |
| DRB1*11:46:02+DRB1*13:63     | DRB1*11:62+DRB1*13:111       |                            |
| DRB1*11:46:02+DRB1*13:65     | DRB1*11:62+DRB1*13:32        |                            |
| DRB1*11:46:02+DRB1*13:96:01  | DRB1*11:62+DRB1*13:61:02     |                            |
| DRB1*11:46:02+DRB1*13:96:02  | DRB1*11:62+DRB1*13:61:01     |                            |
| DRB1*11:46:02+DRB1*13:104    | DRB1*11:62+DRB1*13:15        |                            |
| DRB1*11:46:02+DRB1*13:107    | DRB1*11:62+DRB1*13:83        |                            |
| DRB1*11:46:02+DRB1*13:128    | DRB1*11:62+DRB1*13:112       |                            |
| DRB1*11:46:02+DRB1*13:139    | DRB1*11:62+DRB1*13:93        |                            |
| DRB1*11:46:02+DRB1*14:02     | DRB1*11:62+DRB1*14:06:01     |                            |
| DRB1*11:46:02+DRB1*14:03:01  | DRB1*11:62+DRB1*14:12:01     |                            |
| DRB1*11:46:02+DRB1*14:07:01  | DRB1*11:62+DRB1*14:01:01G    |                            |
| DRB1*11:46:02+DRB1*14:09     | DRB1*11:62+DRB1*14:80        |                            |
| DRB1*11:46:02+DRB1*14:14     | DRB1*11:62+DRB1*14:23:01     |                            |
| DRB1*11:46:02+DRB1*14:30     | DRB1*11:62+DRB1*14:17        |                            |
| DRB1*11:46:02+DRB1*14:44:01  | DRB1*11:62+DRB1*14:05:01     |                            |
| DRB1*11:46:02+DRB1*14:44:02  | DRB1*11:62+DRB1*14:05:03     |                            |
| DRB1*11:46:02+DRB1*14:51     | DRB1*11:62+DRB1*14:106       |                            |
| DRB1*11:46:02+DRB1*14:63     | DRB1*11:62+DRB1*14:78        |                            |
| DRB1*11:46:02+DRB1*14:68     | DRB1*11:62+DRB1*14:04        |                            |
| DRB1*11:46:02+DRB1*15:02:02  | DRB1*11:62+DRB1*15:01:04     |                            |
| DRB1*11:46:02+DRB1*15:02:04  | DRB1*11:62+DRB1*15:01:09     |                            |
| DRB1*11:46:02+DRB1*15:02:08  | DRB1*11:62+DRB1*15:01:10     |                            |
| DRB1*11:46:02+DRB1*15:07:01  | DRB1*11:56+DRB1*15:62        |                            |
| DRB1*11:46:02+DRB1*15:08     | DRB1*11:111+DRB1*15:62       |                            |
| DRB1*11:46:02+DRB1*15:15     | DRB1*11:62+DRB1*15:04        |                            |
| DRB1*11:46:02+DRB1*15:27     | DRB1*11:62+DRB1*15:66        |                            |
| DRB1*11:46:02+DRB1*15:31     | DRB1*11:62+DRB1*15:05        |                            |
| DRB1*11:46:02+DRB1*15:32     | DRB1*11:58:02+DRB1*15:62     |                            |
| DRB1*11:46:02+DRB1*15:37     | DRB1*11:84:02+DRB1*15:62     |                            |
| DRB1*11:46:02+DRB1*15:43     | DRB1*11:78+DRB1*15:62        |                            |
| DRB1*11:46:02+DRB1*15:48     | DRB1*11:88+DRB1*15:62        |                            |
| DRB1*11:46:02+DRB1*15:60     | DRB1*11:108+DRB1*15:62       |                            |
| DRB1*11:46:02+DRB1*15:68     | DRB1*11:109+DRB1*15:62       |                            |
| DRB1*11:46:02+DRB1*15:71     | DRB1*11:116+DRB1*15:62       |                            |
| DRB1*11:46:02+DRB1*16:01:01  | DRB1*11:62+DRB1*16:15        |                            |
| DRB1*11:47+DRB1*13:48        | DRB1*11:63+DRB1*13:58        |                            |
| DRB1*11:48+DRB1*11:84:01     | DRB1*11:56+DRB1*11:124       |                            |
| DRB1*11:48+DRB1*12:09        | DRB1*12:04+DRB1*13:70        |                            |
| DRB1*11:48+DRB1*13:16        | DRB1*11:86+DRB1*13:40        |                            |
| DRB1*11:48+DRB1*13:52        | DRB1*11:118+DRB1*13:70       |                            |
| DRB1*11:48+DRB1*13:61:01     | DRB1*11:124+DRB1*13:40       |                            |
| DRB1*11:48+DRB1*13:96:02     | DRB1*11:124+DRB1*13:36       |                            |
| DRB1*11:48+DRB1*13:108       | DRB1*11:56+DRB1*13:48        |                            |
| DRB1*11:48+DRB1*13:136       | DRB1*11:56+DRB1*13:34        |                            |
| DRB1*11:48+DRB1*14:72        | DRB1*11:52+DRB1*13:22        |                            |
| DRB1*11:49:01+DRB1*11:59     | DRB1*11:85+DRB1*11:87        |                            |
| DRB1*11:49:01+DRB1*11:74:02  | DRB1*11:49:02+DRB1*11:74:01  |                            |
| DRB1*11:49:01+DRB1*13:01:08  | DRB1*11:49:02+DRB1*13:01:01G | DRB1*11:127+DRB1*13:05:02  |
| DRB1*11:49:01+DRB1*13:03:01  | DRB1*11:49:02+DRB1*13:03:02  |                            |
| DRB1*11:49:01+DRB1*13:04     | DRB1*11:85+DRB1*13:30        | DRB1*11:127+DRB1*13:21:01  |
| DRB1*11:49:01+DRB1*13:05:02  | DRB1*11:49:02+DRB1*13:05:01  |                            |
| DRB1*11:49:01+DRB1*13:12:02  | DRB1*11:49:02+DRB1*13:12:01  |                            |
| DRB1*11:49:01+DRB1*13:14:03  | DRB1*11:49:02+DRB1*13:14:01  |                            |
| DRB1*11:49:01+DRB1*13:21:02  | DRB1*11:49:02+DRB1*13:21:01  |                            |
| DRB1*11:49:01+DRB1*13:23:01  | DRB1*11:49:02+DRB1*13:23:02  |                            |
| DRB1*11:49:01+DRB1*13:24     | DRB1*11:85+DRB1*13:14:01     |                            |
| DRB1*11:49:01+DRB1*13:33:03  | DRB1*11:49:02+DRB1*13:33:02  |                            |
| DRB1*11:49:01+DRB1*13:48     | DRB1*11:85+DRB1*13:12:01     | DRB1*11:127+DRB1*13:49     |
| DRB1*11:49:01+DRB1*13:53     | DRB1*11:127+DRB1*13:26:02    |                            |
| DRB1*11:49:01+DRB1*13:54     | DRB1*11:85+DRB1*13:100       |                            |
| DRB1*11:49:01+DRB1*13:64     | DRB1*11:114+DRB1*13:106      |                            |
| DRB1*11:49:01+DRB1*13:66:02  | DRB1*11:49:02+DRB1*13:66:01  |                            |
| DRB1*11:49:01+DRB1*13:69     | DRB1*11:127+DRB1*13:50:02    |                            |
| DRB1*11:49:01+DRB1*13:70     | DRB1*11:127+DRB1*13:07:01    |                            |
| DRB1*11:49:01+DRB1*13:75     | DRB1*11:85+DRB1*13:21:01     |                            |
| DRB1*11:49:01+DRB1*14:06:02  | DRB1*11:49:02+DRB1*14:06:01  |                            |
| DRB1*11:49:01+DRB1*14:07:02  | DRB1*11:49:02+DRB1*14:07:01  |                            |
| DRB1*11:49:01+DRB1*14:16     | DRB1*11:127+DRB1*14:22       |                            |
| DRB1*11:49:01+DRB1*14:44:03  | DRB1*11:49:02+DRB1*14:44:01  |                            |
| DRB1*11:49:01+DRB1*14:110    | DRB1*11:114+DRB1*14:97       |                            |
| DRB1*11:49:01+DRB1*15:02:05  | DRB1*11:49:02+DRB1*15:02:02  |                            |
| DRB1*11:49:01+DRB1*15:02:09  | DRB1*11:49:02+DRB1*15:02:01  |                            |
| DRB1*11:49:02+DRB1*13:04     | DRB1*11:127+DRB1*13:21:02    |                            |
| DRB1*11:49:02+DRB1*13:24     | DRB1*11:85+DRB1*13:14:03     |                            |
| DRB1*11:49:02+DRB1*13:75     | DRB1*11:85+DRB1*13:21:02     |                            |
| DRB1*11:49:02+DRB1*13:111    | DRB1*11:85+DRB1*13:05:02     |                            |
| DRB1*11:52+DRB1*13:11:01     | DRB1*11:56+DRB1*14:72        |                            |
| DRB1*11:52+DRB1*14:53        | DRB1*11:96+DRB1*14:01:01G    |                            |
| DRB1*11:54:01+DRB1*12:01:03  | DRB1*11:54:02+DRB1*12:01:01G |                            |
| DRB1*11:54:01+DRB1*12:02:02  | DRB1*11:54:02+DRB1*12:02:01  |                            |
| DRB1*11:54:01+DRB1*12:03:02  | DRB1*11:54:02+DRB1*12:03:03  |                            |
| DRB1*11:54:01+DRB1*13:01:01G | DRB1*11:54:02+DRB1*13:01:03  |                            |

|                              |                              |
|------------------------------|------------------------------|
| DRB1*11:54:01+DRB1*14:01:02  | DRB1*11:54:02+DRB1*14:01:01G |
| DRB1*11:54:01+DRB1*14:05:03  | DRB1*11:54:02+DRB1*14:05:01  |
| DRB1*11:54:01+DRB1*14:44:02  | DRB1*11:54:02+DRB1*14:44:01  |
| DRB1*11:54:01+DRB1*15:01:01G | DRB1*11:54:02+DRB1*15:01:03  |
| DRB1*11:54:01+DRB1*15:02:01  | DRB1*11:54:02+DRB1*15:02:06  |
| DRB1*11:54:02+DRB1*14:80     | DRB1*11:56+DRB1*14:33        |
| DRB1*11:55+DRB1*13:25        | DRB1*11:64+DRB1*13:24        |
| DRB1*11:56+DRB1*13:27        | DRB1*11:83+DRB1*13:22        |
| DRB1*11:56+DRB1*13:50:01     | DRB1*11:58:02+DRB1*13:07:01  |
| DRB1*11:56+DRB1*13:50:02     | DRB1*11:58:01+DRB1*13:07:01  |
| DRB1*11:56+DRB1*13:61:01     | DRB1*11:84:01+DRB1*13:40     |
| DRB1*11:56+DRB1*13:61:02     | DRB1*11:84:02+DRB1*13:40     |
| DRB1*11:56+DRB1*13:69        | DRB1*11:58:01+DRB1*13:70     |
| DRB1*11:56+DRB1*13:79        | DRB1*11:116+DRB1*13:40       |
| DRB1*11:56+DRB1*13:87        | DRB1*11:58:02+DRB1*13:08     |
| DRB1*11:56+DRB1*13:97:02     | DRB1*11:62+DRB1*13:70        |
| DRB1*11:56+DRB1*13:119       | DRB1*11:113+DRB1*14:116      |
| DRB1*11:56+DRB1*15:08        | DRB1*11:111+DRB1*15:07:01    |
| DRB1*11:56+DRB1*15:32        | DRB1*11:58:02+DRB1*15:07:01  |
| DRB1*11:56+DRB1*15:37        | DRB1*11:84:02+DRB1*15:07:01  |
| DRB1*11:56+DRB1*15:38        | DRB1*11:120+DRB1*15:07:02    |
| DRB1*11:56+DRB1*15:43        | DRB1*11:78+DRB1*15:07:01     |
| DRB1*11:56+DRB1*15:48        | DRB1*11:88+DRB1*15:07:01     |
| DRB1*11:56+DRB1*15:60        | DRB1*11:108+DRB1*15:07:01    |
| DRB1*11:56+DRB1*15:68        | DRB1*11:60+DRB1*15:11        |
| DRB1*11:56+DRB1*15:71        | DRB1*11:116+DRB1*15:07:01    |
| DRB1*11:57+DRB1*13:13        | DRB1*11:64+DRB1*13:58        |
| DRB1*11:57+DRB1*14:89        | DRB1*11:64+DRB1*14:29        |
| DRB1*11:58:01+DRB1*12:34     | DRB1*11:115+DRB1*12:01:01G   |
| DRB1*11:58:01+DRB1*13:01:01G | DRB1*11:113+DRB1*13:69       |
| DRB1*11:58:01+DRB1*13:50:01  | DRB1*11:58:02+DRB1*13:50:02  |
| DRB1*11:58:01+DRB1*13:118    | DRB1*11:115+DRB1*13:12:01    |
| DRB1*11:58:01+DRB1*13:131    | DRB1*11:115+DRB1*13:01:01G   |
| DRB1*11:58:01+DRB1*14:86     | DRB1*11:115+DRB1*14:01:01G   |
| DRB1*11:58:01+DRB1*14:96     | DRB1*11:115+DRB1*14:05:01    |
| DRB1*11:58:01+DRB1*15:65     | DRB1*11:115+DRB1*15:01:01G   |
| DRB1*11:58:02+DRB1*13:33:01  | DRB1*11:84:02+DRB1*13:115    |
| DRB1*11:58:02+DRB1*13:33:03  | DRB1*11:84:01+DRB1*13:115    |
| DRB1*11:58:02+DRB1*13:120    | DRB1*11:113+DRB1*13:115      |
| DRB1*11:58:02+DRB1*14:41     | DRB1*11:114+DRB1*14:06:01    |
| DRB1*11:58:02+DRB1*14:77     | DRB1*11:114+DRB1*14:12:01    |
| DRB1*11:58:02+DRB1*15:08     | DRB1*11:111+DRB1*15:32       |
| DRB1*11:58:02+DRB1*15:37     | DRB1*11:84:02+DRB1*15:32     |
| DRB1*11:58:02+DRB1*15:43     | DRB1*11:78+DRB1*15:32        |
| DRB1*11:58:02+DRB1*15:48     | DRB1*11:88+DRB1*15:32        |
| DRB1*11:58:02+DRB1*15:60     | DRB1*11:108+DRB1*15:32       |
| DRB1*11:58:02+DRB1*15:68     | DRB1*11:109+DRB1*15:32       |
| DRB1*11:58:02+DRB1*15:71     | DRB1*11:116+DRB1*15:32       |
| DRB1*11:59+DRB1*13:05:01     | DRB1*11:87+DRB1*13:111       |
| DRB1*11:59+DRB1*13:06        | DRB1*11:113+DRB1*13:27       |
| DRB1*11:59+DRB1*13:12:01     | DRB1*11:87+DRB1*13:48        |
| DRB1*11:59+DRB1*13:14:01     | DRB1*11:87+DRB1*13:24        |
| DRB1*11:59+DRB1*13:21:01     | DRB1*11:87+DRB1*13:75        |
| DRB1*11:59+DRB1*13:29        | DRB1*11:122+DRB1*13:71       |
| DRB1*11:59+DRB1*13:30        | DRB1*11:87+DRB1*13:04        |
| DRB1*11:59+DRB1*13:100       | DRB1*11:87+DRB1*13:54        |
| DRB1*11:59+DRB1*13:108       | DRB1*11:83+DRB1*13:75        |
| DRB1*11:59+DRB1*14:07:01     | DRB1*11:122+DRB1*14:82       |
| DRB1*11:60+DRB1*11:120       | DRB1*11:109+DRB1*11:116      |
| DRB1*11:60+DRB1*13:02:01     | DRB1*11:109+DRB1*13:01:01G   |
| DRB1*11:60+DRB1*13:02:03     | DRB1*11:109+DRB1*13:01:05    |
| DRB1*11:60+DRB1*13:03:01     | DRB1*11:109+DRB1*13:89       |
| DRB1*11:60+DRB1*13:05:01     | DRB1*11:109+DRB1*13:42       |
| DRB1*11:60+DRB1*13:14:01     | DRB1*11:109+DRB1*13:11:01    |
| DRB1*11:60+DRB1*13:14:02     | DRB1*11:109+DRB1*13:11:02    |
| DRB1*11:60+DRB1*13:23:02     | DRB1*11:109+DRB1*13:22       |
| DRB1*11:60+DRB1*13:29        | DRB1*11:109+DRB1*13:20       |
| DRB1*11:60+DRB1*13:36        | DRB1*11:109+DRB1*13:40       |
| DRB1*11:60+DRB1*13:39        | DRB1*11:109+DRB1*13:79       |
| DRB1*11:60+DRB1*13:41        | DRB1*11:109+DRB1*13:27       |
| DRB1*11:60+DRB1*13:49        | DRB1*11:109+DRB1*13:108      |
| DRB1*11:60+DRB1*13:63        | DRB1*11:109+DRB1*13:111      |
| DRB1*11:60+DRB1*13:65        | DRB1*11:109+DRB1*13:32       |
| DRB1*11:60+DRB1*13:96:01     | DRB1*11:109+DRB1*13:61:02    |
| DRB1*11:60+DRB1*13:96:02     | DRB1*11:109+DRB1*13:61:01    |
| DRB1*11:60+DRB1*13:97:01     | DRB1*11:109+DRB1*13:52       |
| DRB1*11:60+DRB1*13:104       | DRB1*11:109+DRB1*13:15       |
| DRB1*11:60+DRB1*13:107       | DRB1*11:109+DRB1*13:83       |
| DRB1*11:60+DRB1*13:128       | DRB1*11:109+DRB1*13:112      |
| DRB1*11:60+DRB1*13:139       | DRB1*11:109+DRB1*13:93       |
| DRB1*11:60+DRB1*14:02        | DRB1*11:109+DRB1*14:06:01    |
| DRB1*11:60+DRB1*14:03:01     | DRB1*11:109+DRB1*14:12:01    |
| DRB1*11:60+DRB1*14:07:01     | DRB1*11:109+DRB1*14:01:01G   |
| DRB1*11:60+DRB1*14:09        | DRB1*11:109+DRB1*14:80       |
| DRB1*11:60+DRB1*14:14        | DRB1*11:109+DRB1*14:23:01    |
| DRB1*11:60+DRB1*14:30        | DRB1*11:109+DRB1*14:17       |
| DRB1*11:60+DRB1*14:44:01     | DRB1*11:109+DRB1*14:05:01    |
| DRB1*11:60+DRB1*14:44:02     | DRB1*11:109+DRB1*14:05:03    |
| DRB1*11:60+DRB1*14:51        | DRB1*11:109+DRB1*14:106      |
| DRB1*11:60+DRB1*14:63        | DRB1*11:109+DRB1*14:78       |
| DRB1*11:60+DRB1*14:68        | DRB1*11:109+DRB1*14:04       |
| DRB1*11:60+DRB1*15:02:02     | DRB1*11:109+DRB1*15:01:04    |
| DRB1*11:60+DRB1*15:02:04     | DRB1*11:109+DRB1*15:01:09    |
| DRB1*11:60+DRB1*15:02:08     | DRB1*11:109+DRB1*15:01:10    |
| DRB1*11:60+DRB1*15:15        | DRB1*11:109+DRB1*15:04       |
| DRB1*11:60+DRB1*15:27        | DRB1*11:109+DRB1*15:66       |
| DRB1*11:60+DRB1*15:31        | DRB1*11:109+DRB1*15:05       |
| DRB1*11:60+DRB1*16:01:01     | DRB1*11:109+DRB1*16:15       |
| DRB1*11:62+DRB1*13:41        | DRB1*11:80+DRB1*13:02:01     |
| DRB1*11:62+DRB1*13:71        | DRB1*11:80+DRB1*13:20        |
| DRB1*11:62+DRB1*13:129       | DRB1*11:80+DRB1*13:09        |
| DRB1*11:62+DRB1*14:82        | DRB1*11:80+DRB1*14:01:01G    |
| DRB1*11:62+DRB1*15:42        | DRB1*11:106+DRB1*15:62       |
| DRB1*11:62+DRB1*15:51        | DRB1*11:90+DRB1*15:62        |
| DRB1*11:62+DRB1*15:64        | DRB1*11:126+DRB1*15:62       |

DRB1\*11:109+DRB1\*15:07:01

DRB1\*11:87+DRB1\*13:97:02

---

|                             |                              |
|-----------------------------|------------------------------|
| DRB1*11:62+DRB1*15:71       | DRB1*11:120+DRB1*15:62       |
| DRB1*11:64+DRB1*13:16       | DRB1*11:86+DRB1*13:119       |
| DRB1*11:64+DRB1*13:29       | DRB1*11:68+DRB1*13:119       |
| DRB1*11:64+DRB1*13:37       | DRB1*11:73+DRB1*14:116       |
| DRB1*11:64+DRB1*13:61:01    | DRB1*11:124+DRB1*13:119      |
| DRB1*11:64+DRB1*13:89       | DRB1*11:119+DRB1*13:88       |
| DRB1*11:64+DRB1*14:19       | DRB1*11:79+DRB1*14:03:01     |
| DRB1*11:64+DRB1*14:24       | DRB1*11:82+DRB1*14:03:01     |
| DRB1*11:64+DRB1*14:78       | DRB1*11:119+DRB1*14:85       |
| DRB1*11:64+DRB1*14:109      | DRB1*11:79+DRB1*14:115       |
| DRB1*11:64+DRB1*15:10       | DRB1*11:68+DRB1*15:21        |
| DRB1*11:64+DRB1*15:11       | DRB1*11:82+DRB1*16:18        |
| DRB1*11:65:01+DRB1*14:12:02 | DRB1*11:65:02+DRB1*14:12:01  |
| DRB1*11:68+DRB1*13:09       | DRB1*11:82+DRB1*13:20        |
| DRB1*11:68+DRB1*13:16       | DRB1*11:86+DRB1*13:29        |
| DRB1*11:68+DRB1*13:129      | DRB1*11:82+DRB1*13:71        |
| DRB1*11:68+DRB1*14:21       | DRB1*11:79+DRB1*13:20        |
| DRB1*11:69+DRB1*11:73       | DRB1*11:82+DRB1*11:93        |
| DRB1*11:69+DRB1*11:127      | DRB1*11:82+DRB1*11:85        |
| DRB1*11:69+DRB1*12:01:01G   | DRB1*11:82+DRB1*12:02:01     |
| DRB1*11:69+DRB1*12:01:03    | DRB1*11:82+DRB1*12:02:02     |
| DRB1*11:69+DRB1*12:03:03    | DRB1*11:82+DRB1*12:19        |
| DRB1*11:69+DRB1*12:05       | DRB1*11:82+DRB1*12:15        |
| DRB1*11:69+DRB1*13:02:01    | DRB1*11:82+DRB1*13:63        |
| DRB1*11:69+DRB1*13:04       | DRB1*11:82+DRB1*13:75        |
| DRB1*11:69+DRB1*13:12:01    | DRB1*11:82+DRB1*13:49        |
| DRB1*11:69+DRB1*13:22       | DRB1*11:82+DRB1*13:24        |
| DRB1*11:69+DRB1*13:30       | DRB1*11:82+DRB1*13:21:01     |
| DRB1*11:69+DRB1*13:82       | DRB1*11:82+DRB1*13:14:01     |
| DRB1*11:69+DRB1*14:67       | DRB1*11:82+DRB1*14:27        |
| DRB1*11:69+DRB1*15:01:01G   | DRB1*11:82+DRB1*15:04        |
| DRB1*11:69+DRB1*15:02:01    | DRB1*11:82+DRB1*15:15        |
| DRB1*11:72+DRB1*13:11:01    | DRB1*11:92+DRB1*13:14:03     |
| DRB1*11:72+DRB1*13:22       | DRB1*11:92+DRB1*13:23:01     |
| DRB1*11:72+DRB1*13:42       | DRB1*11:92+DRB1*13:05:02     |
| DRB1*11:72+DRB1*13:48       | DRB1*11:92+DRB1*13:38        |
| DRB1*11:72+DRB1*13:94       | DRB1*11:92+DRB1*13:33:01     |
| DRB1*11:72+DRB1*14:01:01G   | DRB1*11:92+DRB1*14:07:02     |
| DRB1*11:72+DRB1*14:05:01    | DRB1*11:92+DRB1*14:44:03     |
| DRB1*11:72+DRB1*15:01:01G   | DRB1*11:92+DRB1*15:02:09     |
| DRB1*11:72+DRB1*15:01:04    | DRB1*11:92+DRB1*15:02:05     |
| DRB1*11:73+DRB1*11:85       | DRB1*11:93+DRB1*11:127       |
| DRB1*11:73+DRB1*12:02:01    | DRB1*11:93+DRB1*12:01:01G    |
| DRB1*11:73+DRB1*12:02:02    | DRB1*11:93+DRB1*12:01:03     |
| DRB1*11:73+DRB1*12:15       | DRB1*11:93+DRB1*12:05        |
| DRB1*11:73+DRB1*12:19       | DRB1*11:93+DRB1*12:03:03     |
| DRB1*11:73+DRB1*13:14:01    | DRB1*11:93+DRB1*13:82        |
| DRB1*11:73+DRB1*13:24       | DRB1*11:93+DRB1*13:22        |
| DRB1*11:73+DRB1*13:63       | DRB1*11:93+DRB1*13:02:01     |
| DRB1*11:73+DRB1*13:111      | DRB1*11:93+DRB1*13:01:01G    |
| DRB1*11:73+DRB1*15:04       | DRB1*11:93+DRB1*15:01:01G    |
| DRB1*11:73+DRB1*15:15       | DRB1*11:93+DRB1*15:02:01     |
| DRB1*11:73+DRB1*16:01:01    | DRB1*11:93+DRB1*16:05:01     |
| DRB1*11:74:01+DRB1*13:01:08 | DRB1*11:74:02+DRB1*13:01:01G |
| DRB1*11:74:01+DRB1*13:03:01 | DRB1*11:74:02+DRB1*13:03:02  |
| DRB1*11:74:01+DRB1*13:05:02 | DRB1*11:74:02+DRB1*13:05:01  |
| DRB1*11:74:01+DRB1*13:12:02 | DRB1*11:74:02+DRB1*13:12:01  |
| DRB1*11:74:01+DRB1*13:14:03 | DRB1*11:74:02+DRB1*13:14:01  |
| DRB1*11:74:01+DRB1*13:21:02 | DRB1*11:74:02+DRB1*13:21:01  |
| DRB1*11:74:01+DRB1*13:23:01 | DRB1*11:74:02+DRB1*13:23:02  |
| DRB1*11:74:01+DRB1*13:33:03 | DRB1*11:74:02+DRB1*13:33:02  |
| DRB1*11:74:01+DRB1*13:66:02 | DRB1*11:74:02+DRB1*13:66:01  |
| DRB1*11:74:01+DRB1*14:06:02 | DRB1*11:74:02+DRB1*14:06:01  |
| DRB1*11:74:01+DRB1*14:07:02 | DRB1*11:74:02+DRB1*14:07:01  |
| DRB1*11:74:01+DRB1*14:44:03 | DRB1*11:74:02+DRB1*14:44:01  |
| DRB1*11:74:01+DRB1*15:02:05 | DRB1*11:74:02+DRB1*15:02:02  |
| DRB1*11:74:01+DRB1*15:02:09 | DRB1*11:74:02+DRB1*15:02:01  |
| DRB1*11:78+DRB1*15:08       | DRB1*11:111+DRB1*15:43       |
| DRB1*11:78+DRB1*15:37       | DRB1*11:84:02+DRB1*15:43     |
| DRB1*11:78+DRB1*15:48       | DRB1*11:88+DRB1*15:43        |
| DRB1*11:78+DRB1*15:60       | DRB1*11:108+DRB1*15:43       |
| DRB1*11:78+DRB1*15:68       | DRB1*11:109+DRB1*15:43       |
| DRB1*11:78+DRB1*15:71       | DRB1*11:116+DRB1*15:43       |
| DRB1*11:79+DRB1*13:05:02    | DRB1*11:93+DRB1*14:30        |
| DRB1*11:79+DRB1*13:09       | DRB1*11:82+DRB1*14:21        |
| DRB1*11:79+DRB1*14:24       | DRB1*11:82+DRB1*14:19        |
| DRB1*11:79+DRB1*14:104      | DRB1*11:105+DRB1*14:32:02    |
| DRB1*11:80+DRB1*13:40       | DRB1*11:83+DRB1*13:97:02     |
| DRB1*11:80+DRB1*13:50:02    | DRB1*11:87+DRB1*13:14:01     |
| DRB1*11:83+DRB1*13:02:01    | DRB1*11:87+DRB1*13:40        |
| DRB1*11:83+DRB1*13:21:01    | DRB1*11:87+DRB1*13:108       |
| DRB1*11:83+DRB1*13:66:02    | DRB1*11:87+DRB1*13:89        |
| DRB1*11:83+DRB1*13:104      | DRB1*11:87+DRB1*13:53        |
| DRB1*11:83+DRB1*13:107      | DRB1*11:87+DRB1*13:08        |
| DRB1*11:83+DRB1*13:139      | DRB1*11:87+DRB1*13:32        |
| DRB1*11:83+DRB1*14:30       | DRB1*11:87+DRB1*14:80        |
| DRB1*11:83+DRB1*14:35       | DRB1*11:113+DRB1*14:82       |
| DRB1*11:83+DRB1*15:02:01    | DRB1*11:87+DRB1*15:07:01     |
| DRB1*11:83+DRB1*15:02:02    | DRB1*11:87+DRB1*15:07:02     |
| DRB1*11:83+DRB1*16:09       | DRB1*11:87+DRB1*16:15        |
| DRB1*11:84:01+DRB1*13:22    | DRB1*11:124+DRB1*13:11:01    |
| DRB1*11:84:01+DRB1*13:23:01 | DRB1*11:124+DRB1*13:14:03    |
| DRB1*11:84:01+DRB1*13:33:01 | DRB1*11:84:02+DRB1*13:33:03  |
| DRB1*11:84:01+DRB1*13:34    | DRB1*11:124+DRB1*13:136      |
| DRB1*11:84:01+DRB1*13:48    | DRB1*11:124+DRB1*13:108      |
| DRB1*11:84:01+DRB1*13:61:02 | DRB1*11:84:02+DRB1*13:61:01  |
| DRB1*11:84:01+DRB1*13:79    | DRB1*11:116+DRB1*13:61:01    |
| DRB1*11:84:01+DRB1*13:120   | DRB1*11:113+DRB1*13:33:03    |
| DRB1*11:84:01+DRB1*14:115   | DRB1*11:116+DRB1*14:98       |
| DRB1*11:84:02+DRB1*13:79    | DRB1*11:116+DRB1*13:61:02    |
| DRB1*11:84:02+DRB1*13:120   | DRB1*11:113+DRB1*13:33:01    |
| DRB1*11:84:02+DRB1*15:08    | DRB1*11:111+DRB1*15:37       |
| DRB1*11:84:02+DRB1*15:48    | DRB1*11:88+DRB1*15:37        |
| DRB1*11:84:02+DRB1*15:60    | DRB1*11:108+DRB1*15:37       |
| DRB1*11:84:02+DRB1*15:68    | DRB1*11:109+DRB1*15:37       |

---

|                              |                               |                           |
|------------------------------|-------------------------------|---------------------------|
| DRB1*11:84:02+DRB1*15:71     | DRB1*11:116+DRB1*15:37        |                           |
| DRB1*11:85+DRB1*12:01:01G    | DRB1*11:127+DRB1*12:02:01     |                           |
| DRB1*11:85+DRB1*12:01:03     | DRB1*11:127+DRB1*12:02:02     |                           |
| DRB1*11:85+DRB1*12:03:03     | DRB1*11:127+DRB1*12:19        |                           |
| DRB1*11:85+DRB1*12:05        | DRB1*11:127+DRB1*12:15        |                           |
| DRB1*11:85+DRB1*13:01:01G    | DRB1*11:127+DRB1*13:111       |                           |
| DRB1*11:85+DRB1*13:02:01     | DRB1*11:127+DRB1*13:63        |                           |
| DRB1*11:85+DRB1*13:04        | DRB1*11:127+DRB1*13:75        |                           |
| DRB1*11:85+DRB1*13:22        | DRB1*11:127+DRB1*13:24        |                           |
| DRB1*11:85+DRB1*14:67        | DRB1*11:127+DRB1*14:27        |                           |
| DRB1*11:85+DRB1*15:01:01G    | DRB1*11:127+DRB1*15:04        |                           |
| DRB1*11:85+DRB1*15:02:01     | DRB1*11:127+DRB1*15:15        |                           |
| DRB1*11:85+DRB1*16:05:01     | DRB1*11:127+DRB1*16:01:01     |                           |
| DRB1*11:86+DRB1*13:61:01     | DRB1*11:124+DRB1*13:16        |                           |
| DRB1*11:88+DRB1*15:08        | DRB1*11:111+DRB1*15:48        |                           |
| DRB1*11:88+DRB1*15:60        | DRB1*11:108+DRB1*15:48        |                           |
| DRB1*11:88+DRB1*15:68        | DRB1*11:109+DRB1*15:48        |                           |
| DRB1*11:88+DRB1*15:71        | DRB1*11:116+DRB1*15:48        |                           |
| DRB1*11:90+DRB1*15:42        | DRB1*11:106+DRB1*15:51        |                           |
| DRB1*11:90+DRB1*15:64        | DRB1*11:126+DRB1*15:51        |                           |
| DRB1*11:90+DRB1*15:71        | DRB1*11:120+DRB1*15:51        |                           |
| DRB1*11:93+DRB1*13:36        | DRB1*11:122+DRB1*13:37        |                           |
| DRB1*11:93+DRB1*13:139       | DRB1*11:122+DRB1*13:66:02     |                           |
| DRB1*11:94+DRB1*14:62        | DRB1*11:110+DRB1*14:88        |                           |
| DRB1*11:98+DRB1*13:33:02     | DRB1*11:124+DRB1*13:12:01     |                           |
| DRB1*11:98+DRB1*13:33:03     | DRB1*11:124+DRB1*13:12:02     |                           |
| DRB1*11:100+DRB1*13:79       | DRB1*11:120+DRB1*13:105       |                           |
| DRB1*11:102:01+DRB1*15:01:19 | DRB1*11:102:02+DRB1*15:01:01G |                           |
| DRB1*11:103+DRB1*12:02:01    | DRB1*11:125+DRB1*12:12        |                           |
| DRB1*11:103+DRB1*12:21       | DRB1*11:107+DRB1*12:02:01     |                           |
| DRB1*11:103+DRB1*13:03:01    | DRB1*11:105+DRB1*13:33:01     | DRB1*11:107+DRB1*13:66:02 |
| DRB1*11:103+DRB1*13:03:02    | DRB1*11:107+DRB1*13:66:01     |                           |
| DRB1*11:103+DRB1*13:07:02    | DRB1*11:107+DRB1*13:14:02     |                           |
| DRB1*11:103+DRB1*13:08       | DRB1*11:107+DRB1*13:83        |                           |
| DRB1*11:103+DRB1*13:12:01    | DRB1*11:107+DRB1*13:30        |                           |
| DRB1*11:103+DRB1*13:19       | DRB1*11:107+DRB1*13:57        |                           |
| DRB1*11:103+DRB1*13:48       | DRB1*11:107+DRB1*13:04        |                           |
| DRB1*11:103+DRB1*13:49       | DRB1*11:107+DRB1*13:21:01     | DRB1*11:125+DRB1*13:134   |
| DRB1*11:103+DRB1*13:65       | DRB1*11:107+DRB1*13:139       |                           |
| DRB1*11:103+DRB1*13:116      | DRB1*11:107+DRB1*13:17        |                           |
| DRB1*11:103+DRB1*14:09       | DRB1*11:107+DRB1*14:30        |                           |
| DRB1*11:103+DRB1*14:25       | DRB1*11:107+DRB1*14:53        | DRB1*11:125+DRB1*14:69    |
| DRB1*11:103+DRB1*14:27       | DRB1*11:125+DRB1*14:03:01     |                           |
| DRB1*11:103+DRB1*14:108      | DRB1*11:125+DRB1*14:06:01     |                           |
| DRB1*11:103+DRB1*15:07:02    | DRB1*11:107+DRB1*15:01:04     |                           |
| DRB1*11:103+DRB1*15:11       | DRB1*11:107+DRB1*15:02:01     |                           |
| DRB1*11:103+DRB1*15:15       | DRB1*11:125+DRB1*15:31        |                           |
| DRB1*11:103+DRB1*15:34       | DRB1*11:107+DRB1*15:27        |                           |
| DRB1*11:103+DRB1*15:48       | DRB1*11:107+DRB1*15:09        |                           |
| DRB1*11:103+DRB1*16:01:01    | DRB1*11:107+DRB1*16:09        | DRB1*11:125+DRB1*16:02:01 |
| DRB1*11:103+DRB1*16:01:02    | DRB1*11:125+DRB1*16:02:02     |                           |
| DRB1*11:103+DRB1*16:02:01    | DRB1*11:107+DRB1*16:10        |                           |
| DRB1*11:103+DRB1*16:09       | DRB1*11:125+DRB1*16:10        |                           |
| DRB1*11:106+DRB1*15:64       | DRB1*11:126+DRB1*15:42        |                           |
| DRB1*11:106+DRB1*15:71       | DRB1*11:120+DRB1*15:42        |                           |
| DRB1*11:108+DRB1*15:08       | DRB1*11:111+DRB1*15:60        |                           |
| DRB1*11:108+DRB1*15:68       | DRB1*11:109+DRB1*15:60        |                           |
| DRB1*11:108+DRB1*15:71       | DRB1*11:116+DRB1*15:60        |                           |
| DRB1*11:109+DRB1*15:08       | DRB1*11:111+DRB1*15:68        |                           |
| DRB1*11:109+DRB1*15:71       | DRB1*11:116+DRB1*15:68        |                           |
| DRB1*11:111+DRB1*15:71       | DRB1*11:116+DRB1*15:08        |                           |
| DRB1*11:113+DRB1*12:09       | DRB1*12:04+DRB1*13:42         |                           |
| DRB1*11:113+DRB1*14:126      | DRB1*13:42+DRB1*14:11         |                           |
| DRB1*11:113+DRB1*15:65       | DRB1*11:115+DRB1*15:62        |                           |
| DRB1*11:116+DRB1*13:02:03    | DRB1*11:120+DRB1*13:01:05     |                           |
| DRB1*11:116+DRB1*13:03:01    | DRB1*11:120+DRB1*13:89        |                           |
| DRB1*11:116+DRB1*13:05:01    | DRB1*11:120+DRB1*13:42        |                           |
| DRB1*11:116+DRB1*13:14:01    | DRB1*11:120+DRB1*13:11:01     |                           |
| DRB1*11:116+DRB1*13:14:02    | DRB1*11:120+DRB1*13:11:02     |                           |
| DRB1*11:116+DRB1*13:23:02    | DRB1*11:120+DRB1*13:22        |                           |
| DRB1*11:116+DRB1*13:39       | DRB1*11:120+DRB1*13:79        |                           |
| DRB1*11:116+DRB1*13:41       | DRB1*11:120+DRB1*13:27        |                           |
| DRB1*11:116+DRB1*13:49       | DRB1*11:120+DRB1*13:108       |                           |
| DRB1*11:116+DRB1*13:63       | DRB1*11:120+DRB1*13:111       |                           |
| DRB1*11:116+DRB1*13:65       | DRB1*11:120+DRB1*13:32        |                           |
| DRB1*11:116+DRB1*13:97:01    | DRB1*11:120+DRB1*13:52        |                           |
| DRB1*11:116+DRB1*13:104      | DRB1*11:120+DRB1*13:15        |                           |
| DRB1*11:116+DRB1*13:107      | DRB1*11:120+DRB1*13:83        |                           |
| DRB1*11:116+DRB1*13:128      | DRB1*11:120+DRB1*13:112       |                           |
| DRB1*11:116+DRB1*13:139      | DRB1*11:120+DRB1*13:93        |                           |
| DRB1*11:116+DRB1*14:02       | DRB1*11:120+DRB1*14:06:01     |                           |
| DRB1*11:116+DRB1*14:07:01    | DRB1*11:120+DRB1*14:01:01G    |                           |
| DRB1*11:116+DRB1*14:09       | DRB1*11:120+DRB1*14:80        |                           |
| DRB1*11:116+DRB1*14:14       | DRB1*11:120+DRB1*14:23:01     |                           |
| DRB1*11:116+DRB1*14:30       | DRB1*11:120+DRB1*14:17        |                           |
| DRB1*11:116+DRB1*14:44:01    | DRB1*11:120+DRB1*14:05:01     |                           |
| DRB1*11:116+DRB1*14:44:02    | DRB1*11:120+DRB1*14:05:03     |                           |
| DRB1*11:116+DRB1*14:51       | DRB1*11:120+DRB1*14:106       |                           |
| DRB1*11:116+DRB1*14:63       | DRB1*11:120+DRB1*14:78        |                           |
| DRB1*11:116+DRB1*14:68       | DRB1*11:120+DRB1*14:04        |                           |
| DRB1*11:116+DRB1*15:02:04    | DRB1*11:120+DRB1*15:01:09     |                           |
| DRB1*11:116+DRB1*15:02:08    | DRB1*11:120+DRB1*15:01:10     |                           |
| DRB1*11:116+DRB1*15:15       | DRB1*11:120+DRB1*15:04        |                           |
| DRB1*11:116+DRB1*15:27       | DRB1*11:120+DRB1*15:66        |                           |
| DRB1*11:116+DRB1*15:31       | DRB1*11:120+DRB1*15:05        |                           |
| DRB1*11:116+DRB1*16:01:01    | DRB1*11:120+DRB1*16:15        |                           |
| DRB1*11:118+DRB1*12:09       | DRB1*12:04+DRB1*13:52         |                           |
| DRB1*11:118+DRB1*14:126      | DRB1*13:52+DRB1*14:11         |                           |
| DRB1*11:120+DRB1*15:64       | DRB1*11:126+DRB1*15:71        |                           |
| DRB1*11:122+DRB1*12:09       | DRB1*12:04+DRB1*13:63         |                           |
| DRB1*11:122+DRB1*14:126      | DRB1*13:63+DRB1*14:11         |                           |
| DRB1*12:01:01G+DRB1*12:02:02 | DRB1*12:01:03+DRB1*12:02:01   |                           |
| DRB1*12:01:01G+DRB1*12:03:02 | DRB1*12:01:03+DRB1*12:03:03   |                           |
| DRB1*12:01:01G+DRB1*12:15    | DRB1*12:02:01+DRB1*12:05      |                           |
| DRB1*12:01:01G+DRB1*12:19    | DRB1*12:02:01+DRB1*12:03:03   |                           |



|                               |                              |                             |                       |
|-------------------------------|------------------------------|-----------------------------|-----------------------|
| DRB1*12:01:01G+DRB1*13:01:01G | DRB1*12:01:03+DRB1*13:01:03  |                             |                       |
| DRB1*12:01:01G+DRB1*13:07:01  | DRB1*12:21+DRB1*13:82        |                             |                       |
| DRB1*12:01:01G+DRB1*13:14:01  | DRB1*12:02:01+DRB1*13:82     | DRB1*12:09+DRB1*13:100      |                       |
| DRB1*12:01:01G+DRB1*13:20     | DRB1*12:12+DRB1*13:01:01G    |                             |                       |
| DRB1*12:01:01G+DRB1*13:21:01  | DRB1*12:02:01+DRB1*13:30     |                             |                       |
| DRB1*12:01:01G+DRB1*13:24     | DRB1*12:02:01+DRB1*13:22     | DRB1*12:09+DRB1*13:54       |                       |
| DRB1*12:01:01G+DRB1*13:25     | DRB1*12:12+DRB1*13:82        |                             |                       |
| DRB1*12:01:01G+DRB1*13:29     | DRB1*12:12+DRB1*13:02:01     |                             |                       |
| DRB1*12:01:01G+DRB1*13:42     | DRB1*12:02:01+DRB1*13:06     |                             |                       |
| DRB1*12:01:01G+DRB1*13:49     | DRB1*12:02:01+DRB1*13:12:01  | DRB1*12:21+DRB1*13:30       |                       |
| DRB1*12:01:01G+DRB1*13:63     | DRB1*12:02:01+DRB1*13:02:01  | DRB1*12:02:04+DRB1*13:02:02 |                       |
| DRB1*12:01:01G+DRB1*13:71     | DRB1*12:12+DRB1*13:27        |                             |                       |
| DRB1*12:01:01G+DRB1*13:75     | DRB1*12:02:01+DRB1*13:04     |                             |                       |
| DRB1*12:01:01G+DRB1*13:78     | DRB1*12:12+DRB1*13:79        |                             |                       |
| DRB1*12:01:01G+DRB1*13:88     | DRB1*12:12+DRB1*13:03:01     |                             |                       |
| DRB1*12:01:01G+DRB1*13:108    | DRB1*12:19+DRB1*13:58        |                             |                       |
| DRB1*12:01:01G+DRB1*13:111    | DRB1*12:02:01+DRB1*13:01:01G | DRB1*12:02:02+DRB1*13:01:03 |                       |
| DRB1*12:01:01G+DRB1*13:118    | DRB1*12:34+DRB1*13:12:01     |                             |                       |
| DRB1*12:01:01G+DRB1*13:131    | DRB1*12:34+DRB1*13:01:01G    |                             |                       |
| DRB1*12:01:01G+DRB1*13:134    | DRB1*12:12+DRB1*13:12:01     |                             |                       |
| DRB1*12:01:01G+DRB1*14:01:01G | DRB1*12:03:03+DRB1*14:99     | DRB1*12:12+DRB1*14:122      |                       |
| DRB1*12:01:01G+DRB1*14:01:02  | DRB1*12:01:03+DRB1*14:01:01G | DRB1*12:03:02+DRB1*14:99    |                       |
| DRB1*12:01:01G+DRB1*14:02     | DRB1*12:09+DRB1*14:48        |                             |                       |
| DRB1*12:01:01G+DRB1*14:03:01  | DRB1*12:12+DRB1*14:67        |                             |                       |
| DRB1*12:01:01G+DRB1*14:04     | DRB1*12:03:03+DRB1*14:28     | DRB1*12:12+DRB1*14:120      |                       |
| DRB1*12:01:01G+DRB1*14:05:01  | DRB1*12:12+DRB1*14:45        |                             |                       |
| DRB1*12:01:01G+DRB1*14:05:03  | DRB1*12:01:03+DRB1*14:05:01  |                             |                       |
| DRB1*12:01:01G+DRB1*14:06:01  | DRB1*12:03:03+DRB1*14:29     |                             |                       |
| DRB1*12:01:01G+DRB1*14:27     | DRB1*12:02:01+DRB1*14:67     |                             |                       |
| DRB1*12:01:01G+DRB1*14:32:01  | DRB1*12:01:03+DRB1*14:32:02  |                             |                       |
| DRB1*12:01:01G+DRB1*14:44:02  | DRB1*12:01:03+DRB1*14:44:01  |                             |                       |
| DRB1*12:01:01G+DRB1*14:85     | DRB1*12:12+DRB1*14:63        |                             |                       |
| DRB1*12:01:01G+DRB1*14:86     | DRB1*12:34+DRB1*14:01:01G    |                             |                       |
| DRB1*12:01:01G+DRB1*14:96     | DRB1*12:34+DRB1*14:05:01     |                             |                       |
| DRB1*12:01:01G+DRB1*15:01:01G | DRB1*12:01:03+DRB1*15:01:03  | DRB1*12:03:03+DRB1*15:35    |                       |
| DRB1*12:01:01G+DRB1*15:02:01  | DRB1*12:01:03+DRB1*15:02:06  |                             |                       |
| DRB1*12:01:01G+DRB1*15:04     | DRB1*12:02:01+DRB1*15:01:01G | DRB1*12:02:02+DRB1*15:01:03 | DRB1*12:19+DRB1*15:35 |
| DRB1*12:01:01G+DRB1*15:05     | DRB1*12:12+DRB1*15:01:01G    |                             |                       |
| DRB1*12:01:01G+DRB1*15:15     | DRB1*12:02:01+DRB1*15:02:01  | DRB1*12:02:02+DRB1*15:02:06 |                       |
| DRB1*12:01:01G+DRB1*15:20     | DRB1*12:35+DRB1*15:01:01G    |                             |                       |
| DRB1*12:01:01G+DRB1*15:23     | DRB1*12:12+DRB1*15:03:01G    |                             |                       |
| DRB1*12:01:01G+DRB1*15:31     | DRB1*12:12+DRB1*15:02:01     |                             |                       |
| DRB1*12:01:01G+DRB1*15:47     | DRB1*12:34+DRB1*15:02:01     |                             |                       |
| DRB1*12:01:01G+DRB1*15:63     | DRB1*12:12+DRB1*15:38        |                             |                       |
| DRB1*12:01:01G+DRB1*15:65     | DRB1*12:34+DRB1*15:01:01G    |                             |                       |
| DRB1*12:01:01G+DRB1*15:73     | DRB1*12:12+DRB1*15:06:01     |                             |                       |
| DRB1*12:01:01G+DRB1*16:01:01  | DRB1*12:02:01+DRB1*16:05:01  |                             |                       |
| DRB1*12:01:01G+DRB1*16:01:02  | DRB1*12:02:04+DRB1*16:05:01  |                             |                       |
| DRB1*12:01:01G+DRB1*16:02:01  | DRB1*12:12+DRB1*16:05:01     |                             |                       |
| DRB1*12:01:02+DRB1*12:02:01   | DRB1*12:01:03+DRB1*12:02:04  |                             |                       |
| DRB1*12:01:02+DRB1*12:19      | DRB1*12:02:04+DRB1*12:03:02  |                             |                       |
| DRB1*12:01:02+DRB1*13:02:02   | DRB1*12:01:03+DRB1*13:02:01  |                             |                       |
| DRB1*12:01:02+DRB1*13:49      | DRB1*12:16:01+DRB1*13:58     |                             |                       |
| DRB1*12:01:02+DRB1*15:15      | DRB1*12:16:01+DRB1*15:35     |                             |                       |
| DRB1*12:01:02+DRB1*16:01:01   | DRB1*12:01:03+DRB1*16:01:02  |                             |                       |
| DRB1*12:01:02+DRB1*16:02:01   | DRB1*12:01:03+DRB1*16:02:02  |                             |                       |
| DRB1*12:01:03+DRB1*12:15      | DRB1*12:02:02+DRB1*12:05     |                             |                       |
| DRB1*12:01:03+DRB1*12:19      | DRB1*12:02:01+DRB1*12:03:02  | DRB1*12:02:02+DRB1*12:03:03 |                       |
| DRB1*12:01:03+DRB1*13:14:01   | DRB1*12:02:02+DRB1*13:82     |                             |                       |
| DRB1*12:01:03+DRB1*13:21:01   | DRB1*12:02:02+DRB1*13:30     |                             |                       |
| DRB1*12:01:03+DRB1*13:24      | DRB1*12:02:02+DRB1*13:22     |                             |                       |
| DRB1*12:01:03+DRB1*13:33:02   | DRB1*12:22+DRB1*13:81        |                             |                       |
| DRB1*12:01:03+DRB1*13:42      | DRB1*12:02:02+DRB1*13:06     |                             |                       |
| DRB1*12:01:03+DRB1*13:49      | DRB1*12:02:02+DRB1*13:12:01  |                             |                       |
| DRB1*12:01:03+DRB1*13:63      | DRB1*12:02:02+DRB1*13:02:01  |                             |                       |
| DRB1*12:01:03+DRB1*13:75      | DRB1*12:02:02+DRB1*13:04     |                             |                       |
| DRB1*12:01:03+DRB1*13:111     | DRB1*12:02:02+DRB1*13:01:01G |                             |                       |
| DRB1*12:01:03+DRB1*14:04      | DRB1*12:03:02+DRB1*14:28     |                             |                       |
| DRB1*12:01:03+DRB1*14:06:01   | DRB1*12:03:02+DRB1*14:29     |                             |                       |
| DRB1*12:01:03+DRB1*14:27      | DRB1*12:02:02+DRB1*14:67     |                             |                       |
| DRB1*12:01:03+DRB1*14:47      | DRB1*12:22+DRB1*14:29        |                             |                       |
| DRB1*12:01:03+DRB1*14:86      | DRB1*12:34+DRB1*14:01:02     |                             |                       |
| DRB1*12:01:03+DRB1*14:96      | DRB1*12:34+DRB1*14:05:03     |                             |                       |
| DRB1*12:01:03+DRB1*15:01:01G  | DRB1*12:03:02+DRB1*15:35     |                             |                       |
| DRB1*12:01:03+DRB1*15:04      | DRB1*12:02:02+DRB1*15:01:01G |                             |                       |
| DRB1*12:01:03+DRB1*15:15      | DRB1*12:02:02+DRB1*15:02:01  |                             |                       |
| DRB1*12:01:03+DRB1*16:01:01   | DRB1*12:02:02+DRB1*16:05:01  |                             |                       |
| DRB1*12:02:01+DRB1*13:01:12   | DRB1*12:02:05+DRB1*13:01:01G |                             |                       |
| DRB1*12:02:01+DRB1*13:02:06   | DRB1*12:02:03+DRB1*13:02:01  |                             |                       |
| DRB1*12:02:01+DRB1*13:03:01   | DRB1*12:21+DRB1*13:66:02     |                             |                       |
| DRB1*12:02:01+DRB1*13:03:02   | DRB1*12:21+DRB1*13:66:01     |                             |                       |
| DRB1*12:02:01+DRB1*13:03:05   | DRB1*12:02:05+DRB1*13:03:01  |                             |                       |
| DRB1*12:02:01+DRB1*13:07:01   | DRB1*12:21+DRB1*13:14:01     |                             |                       |
| DRB1*12:02:01+DRB1*13:07:02   | DRB1*12:21+DRB1*13:14:02     |                             |                       |
| DRB1*12:02:01+DRB1*13:08      | DRB1*12:21+DRB1*13:83        |                             |                       |
| DRB1*12:02:01+DRB1*13:19      | DRB1*12:21+DRB1*13:57        |                             |                       |
| DRB1*12:02:01+DRB1*13:20      | DRB1*12:12+DRB1*13:111       |                             |                       |
| DRB1*12:02:01+DRB1*13:25      | DRB1*12:12+DRB1*13:14:01     |                             |                       |
| DRB1*12:02:01+DRB1*13:29      | DRB1*12:12+DRB1*13:63        |                             |                       |
| DRB1*12:02:01+DRB1*13:32      | DRB1*12:21+DRB1*13:93        |                             |                       |
| DRB1*12:02:01+DRB1*13:36      | DRB1*12:21+DRB1*13:02:01     |                             |                       |
| DRB1*12:02:01+DRB1*13:40      | DRB1*12:21+DRB1*13:01:01G    |                             |                       |
| DRB1*12:02:01+DRB1*13:48      | DRB1*12:21+DRB1*13:04        |                             |                       |
| DRB1*12:02:01+DRB1*13:49      | DRB1*12:21+DRB1*13:21:01     |                             |                       |
| DRB1*12:02:01+DRB1*13:53      | DRB1*12:21+DRB1*13:15        |                             |                       |
| DRB1*12:02:01+DRB1*13:56      | DRB1*12:12+DRB1*13:05:01     |                             |                       |
| DRB1*12:02:01+DRB1*13:65      | DRB1*12:21+DRB1*13:139       |                             |                       |
| DRB1*12:02:01+DRB1*13:70      | DRB1*12:21+DRB1*13:22        |                             |                       |
| DRB1*12:02:01+DRB1*13:73      | DRB1*12:13+DRB1*13:02:01     |                             |                       |
| DRB1*12:02:01+DRB1*13:116     | DRB1*12:21+DRB1*13:17        |                             |                       |
| DRB1*12:02:01+DRB1*13:118     | DRB1*12:34+DRB1*13:49        |                             |                       |
| DRB1*12:02:01+DRB1*13:125     | DRB1*12:26+DRB1*13:01:01G    |                             |                       |
| DRB1*12:02:01+DRB1*13:131     | DRB1*12:34+DRB1*13:111       |                             |                       |
| DRB1*12:02:01+DRB1*13:134     | DRB1*12:12+DRB1*13:49        |                             |                       |
| DRB1*12:02:01+DRB1*13:138     | DRB1*12:23+DRB1*13:01:01G    |                             |                       |

|                              |                              |                          |                          |
|------------------------------|------------------------------|--------------------------|--------------------------|
| DRB1*12:02:01+DRB1*14:01:01G | DRB1*12:19+DRB1*14:99        | DRB1*12:21+DRB1*14:35    |                          |
| DRB1*12:02:01+DRB1*14:01:02  | DRB1*12:02:02+DRB1*14:01:01G |                          |                          |
| DRB1*12:02:01+DRB1*14:03:01  | DRB1*12:12+DRB1*14:27        |                          |                          |
| DRB1*12:02:01+DRB1*14:04     | DRB1*12:19+DRB1*14:28        |                          |                          |
| DRB1*12:02:01+DRB1*14:05:03  | DRB1*12:02:02+DRB1*14:05:01  |                          |                          |
| DRB1*12:02:01+DRB1*14:06:01  | DRB1*12:12+DRB1*14:108       | DRB1*12:19+DRB1*14:29    |                          |
| DRB1*12:02:01+DRB1*14:09     | DRB1*12:21+DRB1*14:30        |                          |                          |
| DRB1*12:02:01+DRB1*14:25     | DRB1*12:21+DRB1*14:53        |                          |                          |
| DRB1*12:02:01+DRB1*14:32:01  | DRB1*12:02:02+DRB1*14:32:02  |                          |                          |
| DRB1*12:02:01+DRB1*14:44:02  | DRB1*12:02:02+DRB1*14:44:01  |                          |                          |
| DRB1*12:02:01+DRB1*14:69     | DRB1*12:12+DRB1*14:25        |                          |                          |
| DRB1*12:02:01+DRB1*14:80     | DRB1*12:21+DRB1*14:17        |                          |                          |
| DRB1*12:02:01+DRB1*15:01:09  | DRB1*12:02:03+DRB1*15:01:01G |                          |                          |
| DRB1*12:02:01+DRB1*15:01:20  | DRB1*12:02:05+DRB1*15:01:01G |                          |                          |
| DRB1*12:02:01+DRB1*15:02:04  | DRB1*12:02:03+DRB1*15:02:01  |                          |                          |
| DRB1*12:02:01+DRB1*15:05     | DRB1*12:12+DRB1*15:04        |                          |                          |
| DRB1*12:02:01+DRB1*15:07:01  | DRB1*12:21+DRB1*15:01:01G    |                          |                          |
| DRB1*12:02:01+DRB1*15:07:02  | DRB1*12:21+DRB1*15:01:04     |                          |                          |
| DRB1*12:02:01+DRB1*15:11     | DRB1*12:21+DRB1*15:02:01     |                          |                          |
| DRB1*12:02:01+DRB1*15:20     | DRB1*12:35+DRB1*15:04        |                          |                          |
| DRB1*12:02:01+DRB1*15:31     | DRB1*12:12+DRB1*15:15        |                          |                          |
| DRB1*12:02:01+DRB1*15:34     | DRB1*12:21+DRB1*15:27        |                          |                          |
| DRB1*12:02:01+DRB1*15:47     | DRB1*12:34+DRB1*15:15        |                          |                          |
| DRB1*12:02:01+DRB1*15:48     | DRB1*12:21+DRB1*15:09        |                          |                          |
| DRB1*12:02:01+DRB1*15:65     | DRB1*12:34+DRB1*15:04        |                          |                          |
| DRB1*12:02:01+DRB1*16:01:01  | DRB1*12:21+DRB1*16:09        |                          |                          |
| DRB1*12:02:01+DRB1*16:01:02  | DRB1*12:02:04+DRB1*16:01:01  |                          |                          |
| DRB1*12:02:01+DRB1*16:02:01  | DRB1*12:12+DRB1*16:01:01     | DRB1*12:21+DRB1*16:10    |                          |
| DRB1*12:02:01+DRB1*16:02:02  | DRB1*12:02:04+DRB1*16:02:01  | DRB1*12:12+DRB1*16:01:02 |                          |
| DRB1*12:02:01+DRB1*16:10     | DRB1*12:12+DRB1*16:09        |                          |                          |
| DRB1*12:02:03+DRB1*13:36     | DRB1*12:21+DRB1*13:02:06     |                          |                          |
| DRB1*12:02:03+DRB1*13:73     | DRB1*12:13+DRB1*13:02:06     |                          |                          |
| DRB1*12:02:03+DRB1*15:01:20  | DRB1*12:02:05+DRB1*15:01:09  |                          |                          |
| DRB1*12:02:03+DRB1*15:07:01  | DRB1*12:21+DRB1*15:01:09     |                          |                          |
| DRB1*12:02:03+DRB1*15:11     | DRB1*12:21+DRB1*15:02:04     |                          |                          |
| DRB1*12:02:05+DRB1*13:40     | DRB1*12:21+DRB1*13:01:12     |                          |                          |
| DRB1*12:02:05+DRB1*13:125    | DRB1*12:26+DRB1*13:01:12     |                          |                          |
| DRB1*12:02:05+DRB1*13:138    | DRB1*12:23+DRB1*13:01:12     |                          |                          |
| DRB1*12:02:05+DRB1*15:07:01  | DRB1*12:21+DRB1*15:01:20     |                          |                          |
| DRB1*12:03:02+DRB1*13:01:03  | DRB1*12:03:03+DRB1*13:01:01G |                          |                          |
| DRB1*12:03:02+DRB1*13:33:03  | DRB1*12:22+DRB1*13:89        |                          |                          |
| DRB1*12:03:02+DRB1*13:96:02  | DRB1*12:22+DRB1*13:01:01G    |                          |                          |
| DRB1*12:03:02+DRB1*14:01:01G | DRB1*12:03:03+DRB1*14:01:02  |                          |                          |
| DRB1*12:03:02+DRB1*14:05:01  | DRB1*12:03:03+DRB1*14:05:03  |                          |                          |
| DRB1*12:03:02+DRB1*14:32:02  | DRB1*12:03:03+DRB1*14:32:01  |                          |                          |
| DRB1*12:03:02+DRB1*14:44:01  | DRB1*12:03:03+DRB1*14:44:02  |                          |                          |
| DRB1*12:03:02+DRB1*14:47     | DRB1*12:22+DRB1*14:06:01     |                          |                          |
| DRB1*12:03:02+DRB1*14:98     | DRB1*12:22+DRB1*14:12:01     |                          |                          |
| DRB1*12:03:02+DRB1*15:01:03  | DRB1*12:03:03+DRB1*15:01:01G |                          |                          |
| DRB1*12:03:02+DRB1*15:02:06  | DRB1*12:03:03+DRB1*15:02:01  |                          |                          |
| DRB1*12:03:03+DRB1*12:15     | DRB1*12:05+DRB1*12:19        |                          |                          |
| DRB1*12:03:03+DRB1*13:14:01  | DRB1*12:19+DRB1*13:82        |                          |                          |
| DRB1*12:03:03+DRB1*13:21:01  | DRB1*12:19+DRB1*13:30        |                          |                          |
| DRB1*12:03:03+DRB1*13:24     | DRB1*12:19+DRB1*13:22        |                          |                          |
| DRB1*12:03:03+DRB1*13:42     | DRB1*12:19+DRB1*13:06        |                          |                          |
| DRB1*12:03:03+DRB1*13:49     | DRB1*12:19+DRB1*13:12:01     |                          |                          |
| DRB1*12:03:03+DRB1*13:63     | DRB1*12:19+DRB1*13:02:01     |                          |                          |
| DRB1*12:03:03+DRB1*13:75     | DRB1*12:19+DRB1*13:04        |                          |                          |
| DRB1*12:03:03+DRB1*13:96:02  | DRB1*12:22+DRB1*13:01:03     |                          |                          |
| DRB1*12:03:03+DRB1*13:111    | DRB1*12:19+DRB1*13:01:01G    |                          |                          |
| DRB1*12:03:03+DRB1*14:27     | DRB1*12:19+DRB1*14:67        |                          |                          |
| DRB1*12:03:03+DRB1*15:04     | DRB1*12:19+DRB1*15:01:01G    |                          |                          |
| DRB1*12:03:03+DRB1*15:15     | DRB1*12:19+DRB1*15:02:01     |                          |                          |
| DRB1*12:03:03+DRB1*16:01:01  | DRB1*12:19+DRB1*16:05:01     |                          |                          |
| DRB1*12:04+DRB1*14:126       | DRB1*12:09+DRB1*14:11        |                          |                          |
| DRB1*12:05+DRB1*13:02:01     | DRB1*12:14+DRB1*13:34        |                          |                          |
| DRB1*12:05+DRB1*13:05:01     | DRB1*12:14+DRB1*13:136       |                          |                          |
| DRB1*12:05+DRB1*13:14:01     | DRB1*12:15+DRB1*13:82        |                          |                          |
| DRB1*12:05+DRB1*13:21:01     | DRB1*12:15+DRB1*13:30        |                          |                          |
| DRB1*12:05+DRB1*13:24        | DRB1*12:15+DRB1*13:22        |                          |                          |
| DRB1*12:05+DRB1*13:42        | DRB1*12:15+DRB1*13:06        |                          |                          |
| DRB1*12:05+DRB1*13:49        | DRB1*12:15+DRB1*13:12:01     |                          |                          |
| DRB1*12:05+DRB1*13:63        | DRB1*12:15+DRB1*13:02:01     |                          |                          |
| DRB1*12:05+DRB1*13:75        | DRB1*12:15+DRB1*13:04        |                          |                          |
| DRB1*12:05+DRB1*13:83        | DRB1*12:14+DRB1*13:64        |                          |                          |
| DRB1*12:05+DRB1*13:111       | DRB1*12:15+DRB1*13:01:01G    |                          |                          |
| DRB1*12:05+DRB1*14:01:01G    | DRB1*12:14+DRB1*14:110       |                          |                          |
| DRB1*12:05+DRB1*14:27        | DRB1*12:15+DRB1*14:67        |                          |                          |
| DRB1*12:05+DRB1*14:40        | DRB1*12:14+DRB1*14:77        |                          |                          |
| DRB1*12:05+DRB1*15:04        | DRB1*12:15+DRB1*15:01:01G    |                          |                          |
| DRB1*12:05+DRB1*15:15        | DRB1*12:15+DRB1*15:02:01     |                          |                          |
| DRB1*12:05+DRB1*16:01:01     | DRB1*12:15+DRB1*16:05:01     |                          |                          |
| DRB1*12:12+DRB1*13:07:01     | DRB1*12:21+DRB1*13:25        |                          |                          |
| DRB1*12:12+DRB1*13:118       | DRB1*12:34+DRB1*13:134       |                          |                          |
| DRB1*12:12+DRB1*13:131       | DRB1*12:34+DRB1*13:20        |                          |                          |
| DRB1*12:12+DRB1*15:20        | DRB1*12:35+DRB1*15:05        |                          |                          |
| DRB1*12:12+DRB1*15:47        | DRB1*12:34+DRB1*15:31        |                          |                          |
| DRB1*12:12+DRB1*15:65        | DRB1*12:34+DRB1*15:05        |                          |                          |
| DRB1*12:13+DRB1*13:36        | DRB1*12:21+DRB1*13:73        |                          |                          |
| DRB1*12:21+DRB1*13:125       | DRB1*12:26+DRB1*13:40        |                          |                          |
| DRB1*12:21+DRB1*13:138       | DRB1*12:23+DRB1*13:40        |                          |                          |
| DRB1*12:23+DRB1*13:125       | DRB1*12:26+DRB1*13:138       |                          |                          |
| DRB1*12:34+DRB1*15:20        | DRB1*12:35+DRB1*15:65        |                          |                          |
| DRB1*13:01:01G+DRB1*13:02:03 | DRB1*13:01:05+DRB1*13:02:01  |                          |                          |
| DRB1*13:01:01G+DRB1*13:03:01 | DRB1*13:01:08+DRB1*13:03:02  | DRB1*13:02:01+DRB1*13:89 | DRB1*13:10+DRB1*13:38    |
|                              | DRB1*13:22+DRB1*13:120       | DRB1*13:37+DRB1*13:93    | DRB1*13:40+DRB1*13:66:02 |
|                              | DRB1*13:52+DRB1*13:115       |                          |                          |
| DRB1*13:01:01G+DRB1*13:03:02 | DRB1*13:40+DRB1*13:66:01     |                          |                          |
| DRB1*13:01:01G+DRB1*13:03:04 | DRB1*13:01:11+DRB1*13:03:01  |                          |                          |
| DRB1*13:01:01G+DRB1*13:03:05 | DRB1*13:01:12+DRB1*13:03:01  |                          |                          |
| DRB1*13:01:01G+DRB1*13:04    | DRB1*13:22+DRB1*13:93        |                          |                          |
| DRB1*13:01:01G+DRB1*13:05:01 | DRB1*13:02:01+DRB1*13:42     | DRB1*13:06+DRB1*13:63    |                          |
| DRB1*13:01:01G+DRB1*13:05:02 | DRB1*13:01:08+DRB1*13:05:01  |                          |                          |
| DRB1*13:01:01G+DRB1*13:07:01 | DRB1*13:05:01+DRB1*13:70     | DRB1*13:11:01+DRB1*13:36 | DRB1*13:14:01+DRB1*13:40 |
| DRB1*13:01:01G+DRB1*13:07:02 | DRB1*13:01:05+DRB1*13:07:01  | DRB1*13:11:02+DRB1*13:36 | DRB1*13:14:02+DRB1*13:40 |

|                               |                              |                             |
|-------------------------------|------------------------------|-----------------------------|
| DRB1*13:01:01G+DRB1*13:08     | DRB1*13:40+DRB1*13:83        | DRB1*13:22+DRB1*13:42       |
| DRB1*13:01:01G+DRB1*13:11:01  | DRB1*13:06+DRB1*13:24        |                             |
| DRB1*13:01:01G+DRB1*13:11:02  | DRB1*13:01:05+DRB1*13:11:01  |                             |
| DRB1*13:01:01G+DRB1*13:12:01  | DRB1*13:30+DRB1*13:40        | DRB1*13:32+DRB1*13:82       |
| DRB1*13:01:01G+DRB1*13:12:02  | DRB1*13:01:08+DRB1*13:12:01  | DRB1*13:06+DRB1*13:38       |
| DRB1*13:01:01G+DRB1*13:14:01  | DRB1*13:02:01+DRB1*13:11:01  | DRB1*13:05:01+DRB1*13:22    |
|                               | DRB1*13:50:01+DRB1*13:52     | DRB1*13:82+DRB1*13:111      |
| DRB1*13:01:01G+DRB1*13:14:02  | DRB1*13:01:05+DRB1*13:14:01  | DRB1*13:02:01+DRB1*13:11:02 |
| DRB1*13:01:01G+DRB1*13:14:03  | DRB1*13:01:08+DRB1*13:14:01  | DRB1*13:05:02+DRB1*13:22    |
| DRB1*13:01:01G+DRB1*13:19     | DRB1*13:08+DRB1*13:15        | DRB1*13:40+DRB1*13:57       |
| DRB1*13:01:01G+DRB1*13:21:01  | DRB1*13:04+DRB1*13:05:01     | DRB1*13:11:01+DRB1*13:139   |
|                               | DRB1*13:30+DRB1*13:111       |                             |
| DRB1*13:01:01G+DRB1*13:21:02  | DRB1*13:01:08+DRB1*13:21:01  | DRB1*13:04+DRB1*13:05:02    |
| DRB1*13:01:01G+DRB1*13:23:01  | DRB1*13:01:08+DRB1*13:23:02  | DRB1*13:14:03+DRB1*13:93    |
| DRB1*13:01:01G+DRB1*13:23:02  | DRB1*13:02:01+DRB1*13:22     |                             |
| DRB1*13:01:01G+DRB1*13:24     | DRB1*13:22+DRB1*13:111       | DRB1*13:69+DRB1*13:97:02    |
| DRB1*13:01:01G+DRB1*13:25     | DRB1*13:20+DRB1*13:82        |                             |
| DRB1*13:01:01G+DRB1*13:26:02  | DRB1*13:05:01+DRB1*13:53     | DRB1*13:22+DRB1*13:56       |
| DRB1*13:01:01G+DRB1*13:29     | DRB1*13:02:01+DRB1*13:20     |                             |
| DRB1*13:01:01G+DRB1*13:30     | DRB1*13:82+DRB1*13:93        |                             |
| DRB1*13:01:01G+DRB1*13:32     | DRB1*13:40+DRB1*13:93        |                             |
| DRB1*13:01:01G+DRB1*13:33:01  | DRB1*13:03:01+DRB1*13:61:02  | DRB1*13:89+DRB1*13:96:01    |
| DRB1*13:01:01G+DRB1*13:33:02  | DRB1*13:03:02+DRB1*13:61:01  |                             |
| DRB1*13:01:01G+DRB1*13:33:03  | DRB1*13:01:08+DRB1*13:33:02  | DRB1*13:03:01+DRB1*13:61:01 |
| DRB1*13:01:01G+DRB1*13:36     | DRB1*13:02:01+DRB1*13:40     | DRB1*13:89+DRB1*13:96:02    |
| DRB1*13:01:01G+DRB1*13:38     | DRB1*13:23:01+DRB1*13:32     |                             |
| DRB1*13:01:01G+DRB1*13:39     | DRB1*13:02:01+DRB1*13:79     |                             |
| DRB1*13:01:01G+DRB1*13:41     | DRB1*13:02:01+DRB1*13:27     |                             |
| DRB1*13:01:01G+DRB1*13:42     | DRB1*13:06+DRB1*13:111       |                             |
| DRB1*13:01:01G+DRB1*13:44     | DRB1*13:22+DRB1*14:17        |                             |
| DRB1*13:01:01G+DRB1*13:46     | DRB1*13:11:01+DRB1*13:31     |                             |
| DRB1*13:01:01G+DRB1*13:48     | DRB1*13:04+DRB1*13:40        | DRB1*13:22+DRB1*13:32       |
| DRB1*13:01:01G+DRB1*13:49     | DRB1*13:02:01+DRB1*13:108    | DRB1*13:05:01+DRB1*13:48    |
|                               | DRB1*13:11:01+DRB1*13:65     | DRB1*13:12:01+DRB1*13:111   |
|                               | DRB1*13:21:01+DRB1*13:40     |                             |
| DRB1*13:01:01G+DRB1*13:50:02  | DRB1*13:05:01+DRB1*13:69     |                             |
| DRB1*13:01:01G+DRB1*13:53     | DRB1*13:15+DRB1*13:40        |                             |
| DRB1*13:01:01G+DRB1*13:55     | DRB1*13:18+DRB1*13:38        | DRB1*13:47+DRB1*13:93       |
| DRB1*13:01:01G+DRB1*13:56     | DRB1*13:06+DRB1*13:29        |                             |
| DRB1*13:01:01G+DRB1*13:57     | DRB1*13:15+DRB1*13:83        |                             |
| DRB1*13:01:01G+DRB1*13:63     | DRB1*13:02:01+DRB1*13:111    |                             |
| DRB1*13:01:01G+DRB1*13:65     | DRB1*13:02:01+DRB1*13:32     | DRB1*13:36+DRB1*13:93       |
| DRB1*13:01:01G+DRB1*13:66:02  | DRB1*13:01:08+DRB1*13:66:01  | DRB1*13:40+DRB1*13:139      |
| DRB1*13:01:01G+DRB1*13:70     | DRB1*13:22+DRB1*13:40        |                             |
| DRB1*13:01:01G+DRB1*13:71     | DRB1*13:20+DRB1*13:27        |                             |
| DRB1*13:01:01G+DRB1*13:75     | DRB1*13:04+DRB1*13:111       | DRB1*13:24+DRB1*13:93       |
| DRB1*13:01:01G+DRB1*13:78     | DRB1*13:20+DRB1*13:79        |                             |
| DRB1*13:01:01G+DRB1*13:82     | DRB1*13:06+DRB1*13:23:02     |                             |
| DRB1*13:01:01G+DRB1*13:83     | DRB1*13:52+DRB1*13:87        |                             |
| DRB1*13:01:01G+DRB1*13:86     | DRB1*13:44+DRB1*13:104       |                             |
| DRB1*13:01:01G+DRB1*13:88     | DRB1*13:03:01+DRB1*13:20     | DRB1*13:29+DRB1*13:89       |
| DRB1*13:01:01G+DRB1*13:96:01  | DRB1*13:02:01+DRB1*13:61:02  |                             |
| DRB1*13:01:01G+DRB1*13:96:02  | DRB1*13:02:01+DRB1*13:61:01  |                             |
| DRB1*13:01:01G+DRB1*13:97:01  | DRB1*13:02:01+DRB1*13:52     |                             |
| DRB1*13:01:01G+DRB1*13:100    | DRB1*13:46+DRB1*13:79        |                             |
| DRB1*13:01:01G+DRB1*13:104    | DRB1*13:02:01+DRB1*13:15     |                             |
| DRB1*13:01:01G+DRB1*13:107    | DRB1*13:02:01+DRB1*13:83     | DRB1*13:87+DRB1*13:97:01    |
| DRB1*13:01:01G+DRB1*13:108    | DRB1*13:11:01+DRB1*13:32     | DRB1*13:42+DRB1*13:48       |
| DRB1*13:01:01G+DRB1*13:116    | DRB1*13:17+DRB1*13:40        |                             |
| DRB1*13:01:01G+DRB1*13:118    | DRB1*13:12:01+DRB1*13:131    |                             |
| DRB1*13:01:01G+DRB1*13:128    | DRB1*13:02:01+DRB1*13:112    |                             |
| DRB1*13:01:01G+DRB1*13:129    | DRB1*13:09+DRB1*13:27        |                             |
| DRB1*13:01:01G+DRB1*13:132    | DRB1*13:05:01+DRB1*13:52     | DRB1*13:42+DRB1*13:97:01    |
| DRB1*13:01:01G+DRB1*13:134    | DRB1*13:12:01+DRB1*13:20     | DRB1*13:25+DRB1*13:32       |
| DRB1*13:01:01G+DRB1*13:136    | DRB1*13:34+DRB1*13:42        | DRB1*13:48+DRB1*13:56       |
| DRB1*13:01:01G+DRB1*13:139    | DRB1*13:02:01+DRB1*13:93     |                             |
| DRB1*13:01:01G+DRB1*14:01:01G | DRB1*13:01:03+DRB1*14:01:02  | DRB1*13:20+DRB1*14:122      |
| DRB1*13:01:01G+DRB1*14:02     | DRB1*13:02:01+DRB1*14:06:01  | DRB1*13:15+DRB1*14:09       |
|                               | DRB1*13:104+DRB1*14:80       |                             |
| DRB1*13:01:01G+DRB1*14:03:01  | DRB1*13:02:01+DRB1*14:12:01  | DRB1*13:20+DRB1*14:67       |
| DRB1*13:01:01G+DRB1*14:04     | DRB1*13:20+DRB1*14:120       |                             |
| DRB1*13:01:01G+DRB1*14:05:01  | DRB1*13:01:03+DRB1*14:05:03  | DRB1*13:01:06+DRB1*14:05:02 |
| DRB1*13:01:01G+DRB1*14:06:01  | DRB1*13:15+DRB1*14:80        | DRB1*13:53+DRB1*14:17       |
| DRB1*13:01:01G+DRB1*14:06:02  | DRB1*13:01:08+DRB1*14:06:01  |                             |
| DRB1*13:01:01G+DRB1*14:07:01  | DRB1*13:02:01+DRB1*14:01:01G | DRB1*13:29+DRB1*14:122      |
| DRB1*13:01:01G+DRB1*14:07:02  | DRB1*13:01:08+DRB1*14:07:01  |                             |
| DRB1*13:01:01G+DRB1*14:09     | DRB1*13:02:01+DRB1*14:80     | DRB1*13:36+DRB1*14:17       |
| DRB1*13:01:01G+DRB1*14:13     | DRB1*13:93+DRB1*14:02        | DRB1*13:40+DRB1*14:30       |
| DRB1*13:01:01G+DRB1*14:14     | DRB1*13:02:01+DRB1*14:23:01  |                             |
| DRB1*13:01:01G+DRB1*14:20     | DRB1*13:19+DRB1*14:17        | DRB1*13:57+DRB1*14:80       |
| DRB1*13:01:01G+DRB1*14:22     | DRB1*13:05:01+DRB1*14:16     | DRB1*13:83+DRB1*14:06:01    |
| DRB1*13:01:01G+DRB1*14:23:03  | DRB1*13:01:06+DRB1*14:23:01  |                             |
| DRB1*13:01:01G+DRB1*14:25     | DRB1*13:40+DRB1*14:53        |                             |
| DRB1*13:01:01G+DRB1*14:26     | DRB1*13:92+DRB1*14:01:01G    |                             |
| DRB1*13:01:01G+DRB1*14:27     | DRB1*13:111+DRB1*14:67       |                             |
| DRB1*13:01:01G+DRB1*14:30     | DRB1*13:02:01+DRB1*14:17     |                             |
| DRB1*13:01:01G+DRB1*14:32:02  | DRB1*13:01:03+DRB1*14:32:01  |                             |
| DRB1*13:01:01G+DRB1*14:37     | DRB1*13:09+DRB1*13:72        |                             |
| DRB1*13:01:01G+DRB1*14:38     | DRB1*13:61:01+DRB1*14:01:02  |                             |
| DRB1*13:01:01G+DRB1*14:40     | DRB1*13:19+DRB1*13:119       | DRB1*13:83+DRB1*14:03:01    |
| DRB1*13:01:01G+DRB1*14:41     | DRB1*13:34+DRB1*14:20        | DRB1*13:64+DRB1*14:02       |
| DRB1*13:01:01G+DRB1*14:44:01  | DRB1*13:01:03+DRB1*14:44:02  | DRB1*13:02:01+DRB1*14:05:01 |
| DRB1*13:01:01G+DRB1*14:44:02  | DRB1*13:02:01+DRB1*14:05:03  | DRB1*13:29+DRB1*14:45       |
| DRB1*13:01:01G+DRB1*14:44:03  | DRB1*13:01:08+DRB1*14:44:01  |                             |
| DRB1*13:01:01G+DRB1*14:47     | DRB1*13:61:01+DRB1*14:02     | DRB1*13:96:02+DRB1*14:06:01 |
| DRB1*13:01:01G+DRB1*14:49     | DRB1*13:15+DRB1*14:119       |                             |
| DRB1*13:01:01G+DRB1*14:51     | DRB1*13:02:01+DRB1*14:106    |                             |
| DRB1*13:01:01G+DRB1*14:63     | DRB1*13:02:01+DRB1*14:78     | DRB1*13:93+DRB1*14:67       |
| DRB1*13:01:01G+DRB1*14:68     | DRB1*13:02:01+DRB1*14:04     | DRB1*13:29+DRB1*14:120      |
| DRB1*13:01:01G+DRB1*14:71     | DRB1*13:98+DRB1*14:04        |                             |
| DRB1*13:01:01G+DRB1*14:77     | DRB1*13:64+DRB1*14:03:01     |                             |
| DRB1*13:01:01G+DRB1*14:80     | DRB1*13:40+DRB1*14:17        |                             |
| DRB1*13:01:01G+DRB1*14:82     | DRB1*13:27+DRB1*14:01:01G    | DRB1*13:71+DRB1*14:122      |
| DRB1*13:01:01G+DRB1*14:85     | DRB1*13:20+DRB1*14:63        | DRB1*13:29+DRB1*14:78       |
|                               | DRB1*13:139+DRB1*14:12:01    | DRB1*14:16+DRB1*14:95       |
|                               |                              | DRB1*13:93+DRB1*14:03:01    |

|                               |                              |                              |                             |
|-------------------------------|------------------------------|------------------------------|-----------------------------|
| DRB1*13:01:01G+DRB1*14:86     | DRB1*13:131+DRB1*14:01:01G   |                              |                             |
| DRB1*13:01:01G+DRB1*14:96     | DRB1*13:131+DRB1*14:05:01    |                              |                             |
| DRB1*13:01:01G+DRB1*14:98     | DRB1*13:61:01+DRB1*14:03:01  | DRB1*13:96:02+DRB1*14:12:01  |                             |
| DRB1*13:01:01G+DRB1*14:102    | DRB1*13:15+DRB1*14:116       | DRB1*13:22+DRB1*14:03:01     | DRB1*13:23:02+DRB1*14:12:01 |
| DRB1*13:01:01G+DRB1*14:106    | DRB1*13:53+DRB1*14:33        |                              |                             |
| DRB1*13:01:01G+DRB1*14:109    | DRB1*13:79+DRB1*14:19        |                              |                             |
| DRB1*13:01:01G+DRB1*14:115    | DRB1*13:39+DRB1*14:12:01     | DRB1*13:78+DRB1*14:67        | DRB1*13:79+DRB1*14:03:01    |
| DRB1*13:01:01G+DRB1*14:116    | DRB1*13:70+DRB1*13:119       |                              |                             |
| DRB1*13:01:01G+DRB1*14:119    | DRB1*14:16+DRB1*14:30        |                              |                             |
| DRB1*13:01:01G+DRB1*14:124    | DRB1*13:15+DRB1*14:70        |                              |                             |
| DRB1*13:01:01G+DRB1*14:127    | DRB1*13:61:01+DRB1*14:05:03  |                              |                             |
| DRB1*13:01:01G+DRB1*15:01:01G | DRB1*13:01:05+DRB1*15:01:04  | DRB1*13:09+DRB1*15:10        | DRB1*13:52+DRB1*15:32       |
|                               | DRB1*13:69+DRB1*15:62        |                              |                             |
| DRB1*13:01:01G+DRB1*15:01:03  | DRB1*13:01:03+DRB1*15:01:01G |                              |                             |
| DRB1*13:01:01G+DRB1*15:01:07  | DRB1*13:01:02+DRB1*15:01:01G |                              |                             |
| DRB1*13:01:01G+DRB1*15:01:10  | DRB1*13:01:10+DRB1*15:01:01G |                              |                             |
| DRB1*13:01:01G+DRB1*15:01:20  | DRB1*13:01:12+DRB1*15:01:01G |                              |                             |
| DRB1*13:01:01G+DRB1*15:02:01  | DRB1*13:01:05+DRB1*15:02:02  | DRB1*13:02:01+DRB1*15:01:01G | DRB1*13:02:03+DRB1*15:01:04 |
|                               | DRB1*13:97:01+DRB1*15:32     |                              |                             |
| DRB1*13:01:01G+DRB1*15:02:02  | DRB1*13:02:01+DRB1*15:01:04  |                              |                             |
| DRB1*13:01:01G+DRB1*15:02:04  | DRB1*13:02:01+DRB1*15:01:09  | DRB1*13:02:06+DRB1*15:01:01G |                             |
| DRB1*13:01:01G+DRB1*15:02:05  | DRB1*13:01:08+DRB1*15:02:02  |                              |                             |
| DRB1*13:01:01G+DRB1*15:02:06  | DRB1*13:01:03+DRB1*15:02:01  | DRB1*13:02:01+DRB1*15:01:03  |                             |
| DRB1*13:01:01G+DRB1*15:02:08  | DRB1*13:01:10+DRB1*15:02:01  | DRB1*13:02:01+DRB1*15:01:10  |                             |
| DRB1*13:01:01G+DRB1*15:02:09  | DRB1*13:01:05+DRB1*15:02:05  | DRB1*13:01:08+DRB1*15:02:01  |                             |
| DRB1*13:01:01G+DRB1*15:04     | DRB1*13:111+DRB1*15:01:01G   |                              |                             |
| DRB1*13:01:01G+DRB1*15:05     | DRB1*13:20+DRB1*15:01:01G    |                              |                             |
| DRB1*13:01:01G+DRB1*15:07:01  | DRB1*13:01:05+DRB1*15:07:02  | DRB1*13:40+DRB1*15:01:01G    |                             |
| DRB1*13:01:01G+DRB1*15:07:02  | DRB1*13:40+DRB1*15:01:04     |                              |                             |
| DRB1*13:01:01G+DRB1*15:11     | DRB1*13:02:01+DRB1*15:07:01  | DRB1*13:02:03+DRB1*15:07:02  | DRB1*13:36+DRB1*15:01:01G   |
|                               | DRB1*13:40+DRB1*15:02:01     |                              |                             |
| DRB1*13:01:01G+DRB1*15:12     | DRB1*13:93+DRB1*15:01:04     |                              |                             |
| DRB1*13:01:01G+DRB1*15:15     | DRB1*13:02:01+DRB1*15:04     | DRB1*13:63+DRB1*15:01:01G    | DRB1*13:111+DRB1*15:02:01   |
| DRB1*13:01:01G+DRB1*15:23     | DRB1*13:20+DRB1*15:03:01G    |                              |                             |
| DRB1*13:01:01G+DRB1*15:24     | DRB1*13:92+DRB1*15:01:01G    |                              |                             |
| DRB1*13:01:01G+DRB1*15:27     | DRB1*13:02:01+DRB1*15:66     | DRB1*14:30+DRB1*15:10        |                             |
| DRB1*13:01:01G+DRB1*15:31     | DRB1*13:02:01+DRB1*15:05     | DRB1*13:20+DRB1*15:02:01     | DRB1*13:29+DRB1*15:01:01G   |
| DRB1*13:01:01G+DRB1*15:34     | DRB1*13:36+DRB1*15:66        | DRB1*13:40+DRB1*15:27        | DRB1*14:09+DRB1*15:10       |
| DRB1*13:01:01G+DRB1*15:37     | DRB1*13:61:02+DRB1*15:01:01G |                              |                             |
| DRB1*13:01:01G+DRB1*15:38     | DRB1*13:39+DRB1*15:01:04     | DRB1*13:79+DRB1*15:02:02     |                             |
| DRB1*13:01:01G+DRB1*15:39     | DRB1*13:127+DRB1*15:02:01    |                              |                             |
| DRB1*13:01:01G+DRB1*15:47     | DRB1*13:02:01+DRB1*15:65     | DRB1*13:131+DRB1*15:02:01    |                             |
| DRB1*13:01:01G+DRB1*15:48     | DRB1*13:40+DRB1*15:09        |                              |                             |
| DRB1*13:01:01G+DRB1*15:57     | DRB1*13:61:01+DRB1*15:03:01G |                              |                             |
| DRB1*13:01:01G+DRB1*15:63     | DRB1*13:20+DRB1*15:38        | DRB1*13:78+DRB1*15:02:02     |                             |
| DRB1*13:01:01G+DRB1*15:65     | DRB1*13:131+DRB1*15:01:01G   |                              |                             |
| DRB1*13:01:01G+DRB1*15:66     | DRB1*14:17+DRB1*15:10        |                              |                             |
| DRB1*13:01:01G+DRB1*15:71     | DRB1*13:79+DRB1*15:01:01G    |                              |                             |
| DRB1*13:01:01G+DRB1*15:73     | DRB1*13:20+DRB1*15:06:01     |                              |                             |
| DRB1*13:01:01G+DRB1*16:01:01  | DRB1*13:02:01+DRB1*16:15     | DRB1*13:40+DRB1*16:09        | DRB1*13:111+DRB1*16:05:01   |
| DRB1*13:01:01G+DRB1*16:02:01  | DRB1*13:20+DRB1*16:05:01     | DRB1*13:40+DRB1*16:10        |                             |
| DRB1*13:01:02+DRB1*15:01:03   | DRB1*13:01:03+DRB1*15:01:07  |                              |                             |
| DRB1*13:01:02+DRB1*15:01:10   | DRB1*13:01:10+DRB1*15:01:07  |                              |                             |
| DRB1*13:01:02+DRB1*15:01:20   | DRB1*13:01:12+DRB1*15:01:07  |                              |                             |
| DRB1*13:01:02+DRB1*15:02:01   | DRB1*13:02:01+DRB1*15:01:07  |                              |                             |
| DRB1*13:01:02+DRB1*15:02:04   | DRB1*13:02:06+DRB1*15:01:07  |                              |                             |
| DRB1*13:01:02+DRB1*15:04      | DRB1*13:111+DRB1*15:01:07    |                              |                             |
| DRB1*13:01:02+DRB1*15:05      | DRB1*13:20+DRB1*15:01:07     |                              |                             |
| DRB1*13:01:02+DRB1*15:07:01   | DRB1*13:40+DRB1*15:01:07     |                              |                             |
| DRB1*13:01:02+DRB1*15:11      | DRB1*13:36+DRB1*15:01:07     |                              |                             |
| DRB1*13:01:02+DRB1*15:15      | DRB1*13:63+DRB1*15:01:07     |                              |                             |
| DRB1*13:01:02+DRB1*15:24      | DRB1*13:92+DRB1*15:01:07     |                              |                             |
| DRB1*13:01:02+DRB1*15:31      | DRB1*13:29+DRB1*15:01:07     |                              |                             |
| DRB1*13:01:02+DRB1*15:37      | DRB1*13:61:02+DRB1*15:01:07  |                              |                             |
| DRB1*13:01:02+DRB1*15:65      | DRB1*13:131+DRB1*15:01:07    |                              |                             |
| DRB1*13:01:02+DRB1*15:71      | DRB1*13:79+DRB1*15:01:07     |                              |                             |
| DRB1*13:01:03+DRB1*14:22      | DRB1*13:02:01+DRB1*14:105    |                              |                             |
| DRB1*13:01:03+DRB1*14:38      | DRB1*13:61:01+DRB1*14:01:01G |                              |                             |
| DRB1*13:01:03+DRB1*14:50      | DRB1*13:61:01+DRB1*14:04     |                              |                             |
| DRB1*13:01:03+DRB1*14:79      | DRB1*13:61:02+DRB1*14:107    |                              |                             |
| DRB1*13:01:03+DRB1*14:93      | DRB1*13:61:02+DRB1*14:68     | DRB1*13:96:01+DRB1*14:04     |                             |
| DRB1*13:01:03+DRB1*14:127     | DRB1*13:61:01+DRB1*14:05:01  |                              |                             |
| DRB1*13:01:03+DRB1*15:01:10   | DRB1*13:01:10+DRB1*15:01:03  |                              |                             |
| DRB1*13:01:03+DRB1*15:01:20   | DRB1*13:01:12+DRB1*15:01:03  |                              |                             |
| DRB1*13:01:03+DRB1*15:02:04   | DRB1*13:02:06+DRB1*15:01:03  |                              |                             |
| DRB1*13:01:03+DRB1*15:02:08   | DRB1*13:01:10+DRB1*15:02:06  |                              |                             |
| DRB1*13:01:03+DRB1*15:02:09   | DRB1*13:01:08+DRB1*15:02:06  |                              |                             |
| DRB1*13:01:03+DRB1*15:04      | DRB1*13:111+DRB1*15:01:03    |                              |                             |
| DRB1*13:01:03+DRB1*15:05      | DRB1*13:20+DRB1*15:01:03     |                              |                             |
| DRB1*13:01:03+DRB1*15:07:01   | DRB1*13:40+DRB1*15:01:03     |                              |                             |
| DRB1*13:01:03+DRB1*15:11      | DRB1*13:36+DRB1*15:01:03     | DRB1*13:40+DRB1*15:02:06     |                             |
| DRB1*13:01:03+DRB1*15:15      | DRB1*13:63+DRB1*15:01:03     | DRB1*13:111+DRB1*15:02:06    |                             |
| DRB1*13:01:03+DRB1*15:24      | DRB1*13:92+DRB1*15:01:03     |                              |                             |
| DRB1*13:01:03+DRB1*15:31      | DRB1*13:20+DRB1*15:02:06     | DRB1*13:29+DRB1*15:01:03     |                             |
| DRB1*13:01:03+DRB1*15:37      | DRB1*13:61:02+DRB1*15:01:03  |                              |                             |
| DRB1*13:01:03+DRB1*15:39      | DRB1*13:127+DRB1*15:02:06    |                              |                             |
| DRB1*13:01:03+DRB1*15:47      | DRB1*13:131+DRB1*15:02:06    |                              |                             |
| DRB1*13:01:03+DRB1*15:65      | DRB1*13:131+DRB1*15:01:03    |                              |                             |
| DRB1*13:01:03+DRB1*15:71      | DRB1*13:79+DRB1*15:01:03     |                              |                             |
| DRB1*13:01:05+DRB1*13:03:01   | DRB1*13:02:03+DRB1*13:89     |                              |                             |
| DRB1*13:01:05+DRB1*13:05:01   | DRB1*13:02:03+DRB1*13:42     |                              |                             |
| DRB1*13:01:05+DRB1*13:14:02   | DRB1*13:02:03+DRB1*13:11:02  |                              |                             |
| DRB1*13:01:05+DRB1*13:14:03   | DRB1*13:01:08+DRB1*13:14:02  |                              |                             |
| DRB1*13:01:05+DRB1*13:21:01   | DRB1*13:11:02+DRB1*13:139    | DRB1*13:14:02+DRB1*13:93     |                             |
| DRB1*13:01:05+DRB1*13:23:02   | DRB1*13:02:03+DRB1*13:22     |                              |                             |
| DRB1*13:01:05+DRB1*13:29      | DRB1*13:02:03+DRB1*13:20     |                              |                             |
| DRB1*13:01:05+DRB1*13:36      | DRB1*13:02:03+DRB1*13:40     |                              |                             |
| DRB1*13:01:05+DRB1*13:39      | DRB1*13:02:03+DRB1*13:79     |                              |                             |
| DRB1*13:01:05+DRB1*13:41      | DRB1*13:02:03+DRB1*13:27     |                              |                             |
| DRB1*13:01:05+DRB1*13:46      | DRB1*13:11:02+DRB1*13:31     |                              |                             |
| DRB1*13:01:05+DRB1*13:49      | DRB1*13:02:03+DRB1*13:108    | DRB1*13:07:02+DRB1*13:93     | DRB1*13:11:02+DRB1*13:65    |
|                               | DRB1*13:14:02+DRB1*13:32     |                              |                             |
| DRB1*13:01:05+DRB1*13:63      | DRB1*13:02:03+DRB1*13:111    |                              |                             |
| DRB1*13:01:05+DRB1*13:65      | DRB1*13:02:03+DRB1*13:32     |                              |                             |
| DRB1*13:01:05+DRB1*13:96:01   | DRB1*13:02:03+DRB1*13:61:02  |                              |                             |

|                              |                              |                             |                             |
|------------------------------|------------------------------|-----------------------------|-----------------------------|
| DRB1*13:01:05+DRB1*13:96:02  | DRB1*13:02:03+DRB1*13:61:01  |                             |                             |
| DRB1*13:01:05+DRB1*13:97:01  | DRB1*13:02:03+DRB1*13:52     |                             |                             |
| DRB1*13:01:05+DRB1*13:104    | DRB1*13:02:03+DRB1*13:15     |                             |                             |
| DRB1*13:01:05+DRB1*13:107    | DRB1*13:02:03+DRB1*13:83     |                             |                             |
| DRB1*13:01:05+DRB1*13:108    | DRB1*13:11:02+DRB1*13:32     |                             |                             |
| DRB1*13:01:05+DRB1*13:128    | DRB1*13:02:03+DRB1*13:112    |                             |                             |
| DRB1*13:01:05+DRB1*13:139    | DRB1*13:02:03+DRB1*13:93     |                             |                             |
| DRB1*13:01:05+DRB1*14:01:01G | DRB1*13:01:06+DRB1*14:54:02  |                             |                             |
| DRB1*13:01:05+DRB1*14:02     | DRB1*13:02:03+DRB1*14:06:01  |                             |                             |
| DRB1*13:01:05+DRB1*14:03:01  | DRB1*13:02:03+DRB1*14:12:01  |                             |                             |
| DRB1*13:01:05+DRB1*14:07:01  | DRB1*13:02:03+DRB1*14:01:01G |                             |                             |
| DRB1*13:01:05+DRB1*14:09     | DRB1*13:02:03+DRB1*14:80     |                             |                             |
| DRB1*13:01:05+DRB1*14:14     | DRB1*13:02:03+DRB1*14:23:01  |                             |                             |
| DRB1*13:01:05+DRB1*14:30     | DRB1*13:02:03+DRB1*14:17     |                             |                             |
| DRB1*13:01:05+DRB1*14:44:01  | DRB1*13:02:03+DRB1*14:05:01  |                             |                             |
| DRB1*13:01:05+DRB1*14:44:02  | DRB1*13:02:03+DRB1*14:05:03  |                             |                             |
| DRB1*13:01:05+DRB1*14:51     | DRB1*13:02:03+DRB1*14:106    |                             |                             |
| DRB1*13:01:05+DRB1*14:63     | DRB1*13:02:03+DRB1*14:78     |                             |                             |
| DRB1*13:01:05+DRB1*14:68     | DRB1*13:02:03+DRB1*14:04     |                             |                             |
| DRB1*13:01:05+DRB1*15:02:01  | DRB1*13:02:03+DRB1*15:01:01G |                             |                             |
| DRB1*13:01:05+DRB1*15:02:04  | DRB1*13:02:03+DRB1*15:01:09  |                             |                             |
| DRB1*13:01:05+DRB1*15:02:06  | DRB1*13:02:03+DRB1*15:01:03  |                             |                             |
| DRB1*13:01:05+DRB1*15:02:08  | DRB1*13:02:03+DRB1*15:01:10  |                             |                             |
| DRB1*13:01:05+DRB1*15:11     | DRB1*13:02:03+DRB1*15:07:01  |                             |                             |
| DRB1*13:01:05+DRB1*15:12     | DRB1*13:93+DRB1*15:01:01G    |                             |                             |
| DRB1*13:01:05+DRB1*15:15     | DRB1*13:02:03+DRB1*15:04     |                             |                             |
| DRB1*13:01:05+DRB1*15:27     | DRB1*13:02:03+DRB1*15:66     |                             |                             |
| DRB1*13:01:05+DRB1*15:31     | DRB1*13:02:03+DRB1*15:05     |                             |                             |
| DRB1*13:01:05+DRB1*15:38     | DRB1*13:02:01+DRB1*15:71     | DRB1*13:39+DRB1*15:01:01G   | DRB1*13:79+DRB1*15:02:01    |
| DRB1*13:01:05+DRB1*15:47     | DRB1*13:02:03+DRB1*15:65     |                             |                             |
| DRB1*13:01:05+DRB1*15:63     | DRB1*13:29+DRB1*15:71        | DRB1*13:39+DRB1*15:05       | DRB1*13:78+DRB1*15:02:01    |
|                              | DRB1*13:79+DRB1*15:31        |                             |                             |
| DRB1*13:01:05+DRB1*16:01:01  | DRB1*13:02:03+DRB1*16:15     |                             |                             |
| DRB1*13:01:06+DRB1*14:14     | DRB1*13:02:01+DRB1*14:23:03  |                             |                             |
| DRB1*13:01:08+DRB1*13:07:01  | DRB1*13:05:02+DRB1*13:70     | DRB1*13:14:03+DRB1*13:40    |                             |
| DRB1*13:01:08+DRB1*13:26:02  | DRB1*13:05:02+DRB1*13:53     |                             |                             |
| DRB1*13:01:08+DRB1*13:49     | DRB1*13:05:02+DRB1*13:48     | DRB1*13:12:02+DRB1*13:111   | DRB1*13:14:03+DRB1*13:32    |
|                              | DRB1*13:21:02+DRB1*13:40     | DRB1*13:38+DRB1*13:42       |                             |
| DRB1*13:01:08+DRB1*13:50:02  | DRB1*13:05:02+DRB1*13:69     |                             |                             |
| DRB1*13:01:08+DRB1*13:82     | DRB1*13:06+DRB1*13:23:01     |                             |                             |
| DRB1*13:01:08+DRB1*13:94     | DRB1*13:61:02+DRB1*13:89     |                             |                             |
| DRB1*13:01:08+DRB1*13:118    | DRB1*13:12:02+DRB1*13:131    |                             |                             |
| DRB1*13:01:08+DRB1*13:132    | DRB1*13:05:02+DRB1*13:52     |                             |                             |
| DRB1*13:01:08+DRB1*13:134    | DRB1*13:12:02+DRB1*13:20     |                             |                             |
| DRB1*13:01:08+DRB1*14:02     | DRB1*13:02:01+DRB1*14:06:02  |                             |                             |
| DRB1*13:01:08+DRB1*14:13     | DRB1*13:139+DRB1*14:06:02    |                             |                             |
| DRB1*13:01:08+DRB1*14:20     | DRB1*13:83+DRB1*14:06:02     |                             |                             |
| DRB1*13:01:08+DRB1*14:22     | DRB1*13:05:02+DRB1*14:16     |                             |                             |
| DRB1*13:01:08+DRB1*14:47     | DRB1*13:96:02+DRB1*14:06:02  |                             |                             |
| DRB1*13:01:08+DRB1*14:53     | DRB1*13:42+DRB1*13:45        |                             |                             |
| DRB1*13:01:08+DRB1*14:102    | DRB1*13:23:01+DRB1*14:12:01  |                             |                             |
| DRB1*13:01:08+DRB1*15:02:08  | DRB1*13:01:10+DRB1*15:02:09  |                             |                             |
| DRB1*13:01:08+DRB1*15:11     | DRB1*13:40+DRB1*15:02:09     |                             |                             |
| DRB1*13:01:08+DRB1*15:15     | DRB1*13:111+DRB1*15:02:09    |                             |                             |
| DRB1*13:01:08+DRB1*15:31     | DRB1*13:20+DRB1*15:02:09     |                             |                             |
| DRB1*13:01:08+DRB1*15:38     | DRB1*13:79+DRB1*15:02:05     |                             |                             |
| DRB1*13:01:08+DRB1*15:39     | DRB1*13:127+DRB1*15:02:09    |                             |                             |
| DRB1*13:01:08+DRB1*15:47     | DRB1*13:131+DRB1*15:02:09    |                             |                             |
| DRB1*13:01:08+DRB1*15:63     | DRB1*13:78+DRB1*15:02:05     |                             |                             |
| DRB1*13:01:10+DRB1*15:01:20  | DRB1*13:01:12+DRB1*15:01:10  |                             |                             |
| DRB1*13:01:10+DRB1*15:02:04  | DRB1*13:02:06+DRB1*15:01:10  |                             |                             |
| DRB1*13:01:10+DRB1*15:04     | DRB1*13:111+DRB1*15:01:10    |                             |                             |
| DRB1*13:01:10+DRB1*15:05     | DRB1*13:20+DRB1*15:01:10     |                             |                             |
| DRB1*13:01:10+DRB1*15:07:01  | DRB1*13:40+DRB1*15:01:10     |                             |                             |
| DRB1*13:01:10+DRB1*15:11     | DRB1*13:36+DRB1*15:01:10     | DRB1*13:40+DRB1*15:02:08    |                             |
| DRB1*13:01:10+DRB1*15:15     | DRB1*13:63+DRB1*15:01:10     | DRB1*13:111+DRB1*15:02:08   |                             |
| DRB1*13:01:10+DRB1*15:24     | DRB1*13:92+DRB1*15:01:10     |                             |                             |
| DRB1*13:01:10+DRB1*15:31     | DRB1*13:20+DRB1*15:02:08     | DRB1*13:29+DRB1*15:01:10    |                             |
| DRB1*13:01:10+DRB1*15:37     | DRB1*13:61:02+DRB1*15:01:10  |                             |                             |
| DRB1*13:01:10+DRB1*15:39     | DRB1*13:127+DRB1*15:02:08    |                             |                             |
| DRB1*13:01:10+DRB1*15:47     | DRB1*13:131+DRB1*15:02:08    |                             |                             |
| DRB1*13:01:10+DRB1*15:65     | DRB1*13:131+DRB1*15:01:10    |                             |                             |
| DRB1*13:01:10+DRB1*15:71     | DRB1*13:79+DRB1*15:01:10     |                             |                             |
| DRB1*13:01:11+DRB1*13:03:05  | DRB1*13:01:12+DRB1*13:03:04  |                             |                             |
| DRB1*13:01:11+DRB1*13:33:01  | DRB1*13:03:04+DRB1*13:61:02  |                             |                             |
| DRB1*13:01:11+DRB1*13:33:03  | DRB1*13:03:04+DRB1*13:61:01  |                             |                             |
| DRB1*13:01:11+DRB1*13:88     | DRB1*13:03:04+DRB1*13:20     |                             |                             |
| DRB1*13:01:12+DRB1*13:33:01  | DRB1*13:03:05+DRB1*13:61:02  |                             |                             |
| DRB1*13:01:12+DRB1*13:33:03  | DRB1*13:03:05+DRB1*13:61:01  |                             |                             |
| DRB1*13:01:12+DRB1*13:88     | DRB1*13:03:05+DRB1*13:20     |                             |                             |
| DRB1*13:01:12+DRB1*15:02:01  | DRB1*13:02:01+DRB1*15:01:20  |                             |                             |
| DRB1*13:01:12+DRB1*15:02:04  | DRB1*13:02:06+DRB1*15:01:20  |                             |                             |
| DRB1*13:01:12+DRB1*15:04     | DRB1*13:111+DRB1*15:01:20    |                             |                             |
| DRB1*13:01:12+DRB1*15:05     | DRB1*13:20+DRB1*15:01:20     |                             |                             |
| DRB1*13:01:12+DRB1*15:07:01  | DRB1*13:40+DRB1*15:01:20     |                             |                             |
| DRB1*13:01:12+DRB1*15:11     | DRB1*13:36+DRB1*15:01:20     |                             |                             |
| DRB1*13:01:12+DRB1*15:15     | DRB1*13:63+DRB1*15:01:20     |                             |                             |
| DRB1*13:01:12+DRB1*15:24     | DRB1*13:92+DRB1*15:01:20     |                             |                             |
| DRB1*13:01:12+DRB1*15:31     | DRB1*13:29+DRB1*15:01:20     |                             |                             |
| DRB1*13:01:12+DRB1*15:37     | DRB1*13:61:02+DRB1*15:01:20  |                             |                             |
| DRB1*13:01:12+DRB1*15:65     | DRB1*13:131+DRB1*15:01:20    |                             |                             |
| DRB1*13:01:12+DRB1*15:71     | DRB1*13:79+DRB1*15:01:20     |                             |                             |
| DRB1*13:02:01+DRB1*13:03:01  | DRB1*13:23:02+DRB1*13:120    | DRB1*13:36+DRB1*13:66:02    | DRB1*13:37+DRB1*13:139      |
|                              | DRB1*13:97:01+DRB1*13:115    |                             |                             |
| DRB1*13:02:01+DRB1*13:03:02  | DRB1*13:36+DRB1*13:66:01     |                             |                             |
| DRB1*13:02:01+DRB1*13:04     | DRB1*13:22+DRB1*13:139       | DRB1*13:23:02+DRB1*13:93    |                             |
| DRB1*13:02:01+DRB1*13:07:01  | DRB1*13:14:01+DRB1*13:36     |                             |                             |
| DRB1*13:02:01+DRB1*13:07:02  | DRB1*13:02:03+DRB1*13:07:01  | DRB1*13:14:02+DRB1*13:36    |                             |
| DRB1*13:02:01+DRB1*13:08     | DRB1*13:36+DRB1*13:83        | DRB1*13:40+DRB1*13:107      |                             |
| DRB1*13:02:01+DRB1*13:12:01  | DRB1*13:30+DRB1*13:36        | DRB1*13:65+DRB1*13:82       |                             |
| DRB1*13:02:01+DRB1*13:14:01  | DRB1*13:05:01+DRB1*13:23:02  | DRB1*13:50:01+DRB1*13:97:01 | DRB1*13:50:02+DRB1*13:97:02 |
|                              | DRB1*13:63+DRB1*13:82        |                             |                             |
| DRB1*13:02:01+DRB1*13:14:02  | DRB1*13:02:03+DRB1*13:14:01  |                             |                             |
| DRB1*13:02:01+DRB1*13:14:03  | DRB1*13:05:01+DRB1*13:23:01  | DRB1*13:05:02+DRB1*13:23:02 |                             |
| DRB1*13:02:01+DRB1*13:19     | DRB1*13:08+DRB1*13:104       | DRB1*13:36+DRB1*13:57       | DRB1*13:53+DRB1*13:107      |

|                             |                              |                              |                          |
|-----------------------------|------------------------------|------------------------------|--------------------------|
| DRB1*13:02:01+DRB1*13:21:01 | DRB1*13:14:01+DRB1*13:139    | DRB1*13:30+DRB1*13:63        |                          |
| DRB1*13:02:01+DRB1*13:21:02 | DRB1*13:14:03+DRB1*13:139    |                              |                          |
| DRB1*13:02:01+DRB1*13:24    | DRB1*13:22+DRB1*13:63        | DRB1*13:23:02+DRB1*13:111    |                          |
| DRB1*13:02:01+DRB1*13:25    | DRB1*13:23:02+DRB1*13:56     | DRB1*13:29+DRB1*13:82        |                          |
| DRB1*13:02:01+DRB1*13:30    | DRB1*13:82+DRB1*13:139       |                              |                          |
| DRB1*13:02:01+DRB1*13:33:01 | DRB1*13:03:01+DRB1*13:96:01  |                              |                          |
| DRB1*13:02:01+DRB1*13:33:02 | DRB1*13:03:02+DRB1*13:96:02  |                              |                          |
| DRB1*13:02:01+DRB1*13:33:03 | DRB1*13:03:01+DRB1*13:96:02  |                              |                          |
| DRB1*13:02:01+DRB1*13:38    | DRB1*13:23:01+DRB1*13:65     |                              |                          |
| DRB1*13:02:01+DRB1*13:44    | DRB1*13:22+DRB1*14:30        | DRB1*13:23:02+DRB1*14:17     |                          |
| DRB1*13:02:01+DRB1*13:46    | DRB1*13:14:01+DRB1*13:31     |                              |                          |
| DRB1*13:02:01+DRB1*13:48    | DRB1*13:04+DRB1*13:36        | DRB1*13:22+DRB1*13:65        | DRB1*13:23:02+DRB1*13:32 |
|                             | DRB1*13:70+DRB1*13:139       |                              |                          |
| DRB1*13:02:01+DRB1*13:49    | DRB1*13:07:01+DRB1*13:139    | DRB1*13:12:01+DRB1*13:63     | DRB1*13:14:01+DRB1*13:65 |
|                             | DRB1*13:21:01+DRB1*13:36     |                              |                          |
|                             | DRB1*13:15+DRB1*13:36        | DRB1*13:40+DRB1*13:104       |                          |
| DRB1*13:02:01+DRB1*13:53    | DRB1*13:47+DRB1*13:139       |                              |                          |
| DRB1*13:02:01+DRB1*13:55    | DRB1*13:15+DRB1*13:107       | DRB1*13:83+DRB1*13:104       |                          |
| DRB1*13:02:01+DRB1*13:57    | DRB1*13:34+DRB1*13:83        |                              |                          |
| DRB1*13:02:01+DRB1*13:64    | DRB1*13:36+DRB1*13:139       |                              |                          |
| DRB1*13:02:01+DRB1*13:65    | DRB1*13:22+DRB1*13:36        | DRB1*13:23:02+DRB1*13:40     |                          |
| DRB1*13:02:01+DRB1*13:70    | DRB1*13:20+DRB1*13:41        | DRB1*13:27+DRB1*13:29        |                          |
| DRB1*13:02:01+DRB1*13:71    | DRB1*13:04+DRB1*13:63        | DRB1*13:24+DRB1*13:139       |                          |
| DRB1*13:02:01+DRB1*13:75    | DRB1*13:20+DRB1*13:39        | DRB1*13:29+DRB1*13:79        |                          |
| DRB1*13:02:01+DRB1*13:78    | DRB1*13:03:01+DRB1*13:29     |                              |                          |
| DRB1*13:02:01+DRB1*13:88    | DRB1*13:03:02+DRB1*13:61:02  |                              |                          |
| DRB1*13:02:01+DRB1*13:94    | DRB1*13:39+DRB1*13:46        |                              |                          |
| DRB1*13:02:01+DRB1*13:100   | DRB1*13:17+DRB1*13:36        |                              |                          |
| DRB1*13:02:01+DRB1*13:116   | DRB1*13:09+DRB1*13:41        |                              |                          |
| DRB1*13:02:01+DRB1*13:129   | DRB1*13:05:01+DRB1*13:97:01  |                              |                          |
| DRB1*13:02:01+DRB1*13:132   | DRB1*13:12:01+DRB1*13:29     | DRB1*13:25+DRB1*13:65        |                          |
| DRB1*13:02:01+DRB1*13:134   | DRB1*13:05:01+DRB1*13:34     |                              |                          |
| DRB1*13:02:01+DRB1*13:136   | DRB1*13:104+DRB1*14:09       |                              |                          |
| DRB1*13:02:01+DRB1*14:02    | DRB1*13:29+DRB1*14:67        |                              |                          |
| DRB1*13:02:01+DRB1*14:03:01 | DRB1*13:36+DRB1*14:30        |                              |                          |
| DRB1*13:02:01+DRB1*14:09    | DRB1*13:139+DRB1*14:02       |                              |                          |
| DRB1*13:02:01+DRB1*14:13    | DRB1*13:19+DRB1*14:30        | DRB1*13:57+DRB1*14:09        | DRB1*13:83+DRB1*14:02    |
| DRB1*13:02:01+DRB1*14:20    | DRB1*13:107+DRB1*14:06:01    |                              |                          |
|                             | DRB1*13:36+DRB1*14:53        |                              |                          |
| DRB1*13:02:01+DRB1*14:25    | DRB1*13:92+DRB1*14:07:01     |                              |                          |
| DRB1*13:02:01+DRB1*14:26    | DRB1*13:63+DRB1*14:67        |                              |                          |
| DRB1*13:02:01+DRB1*14:27    | DRB1*13:96:02+DRB1*14:01:02  |                              |                          |
| DRB1*13:02:01+DRB1*14:38    | DRB1*13:107+DRB1*14:03:01    |                              |                          |
| DRB1*13:02:01+DRB1*14:40    | DRB1*13:96:02+DRB1*14:02     |                              |                          |
| DRB1*13:02:01+DRB1*14:47    | DRB1*13:104+DRB1*14:119      |                              |                          |
| DRB1*13:02:01+DRB1*14:49    | DRB1*13:139+DRB1*14:67       |                              |                          |
| DRB1*13:02:01+DRB1*14:63    | DRB1*13:98+DRB1*14:68        |                              |                          |
| DRB1*13:02:01+DRB1*14:71    | DRB1*13:56+DRB1*14:16        |                              |                          |
| DRB1*13:02:01+DRB1*14:74    | DRB1*13:34+DRB1*14:40        |                              |                          |
| DRB1*13:02:01+DRB1*14:77    | DRB1*13:27+DRB1*14:07:01     | DRB1*13:41+DRB1*14:01:01G    |                          |
| DRB1*13:02:01+DRB1*14:82    | DRB1*13:29+DRB1*14:63        | DRB1*13:139+DRB1*14:03:01    |                          |
| DRB1*13:02:01+DRB1*14:85    | DRB1*13:131+DRB1*14:07:01    |                              |                          |
| DRB1*13:02:01+DRB1*14:86    | DRB1*13:131+DRB1*14:44:01    |                              |                          |
| DRB1*13:02:01+DRB1*14:96    | DRB1*13:96:02+DRB1*14:03:01  |                              |                          |
| DRB1*13:02:01+DRB1*14:98    | DRB1*13:23:02+DRB1*14:03:01  | DRB1*13:104+DRB1*14:116      |                          |
| DRB1*13:02:01+DRB1*14:102   | DRB1*13:39+DRB1*14:19        |                              |                          |
| DRB1*13:02:01+DRB1*14:109   | DRB1*13:34+DRB1*14:01:01G    |                              |                          |
| DRB1*13:02:01+DRB1*14:110   | DRB1*13:39+DRB1*14:03:01     |                              |                          |
| DRB1*13:02:01+DRB1*14:115   | DRB1*13:99+DRB1*14:01:01G    |                              |                          |
| DRB1*13:02:01+DRB1*14:118   | DRB1*13:104+DRB1*14:70       |                              |                          |
| DRB1*13:02:01+DRB1*14:124   | DRB1*13:61:01+DRB1*14:44:02  | DRB1*13:96:02+DRB1*14:05:03  |                          |
| DRB1*13:02:01+DRB1*14:127   | DRB1*13:02:03+DRB1*15:02:02  |                              |                          |
| DRB1*13:02:01+DRB1*15:02:01 | DRB1*13:02:06+DRB1*15:02:01  |                              |                          |
| DRB1*13:02:01+DRB1*15:02:04 | DRB1*13:02:03+DRB1*15:02:05  |                              |                          |
| DRB1*13:02:01+DRB1*15:02:09 | DRB1*13:36+DRB1*15:01:04     | DRB1*13:40+DRB1*15:02:02     |                          |
| DRB1*13:02:01+DRB1*15:07:02 | DRB1*13:36+DRB1*15:02:01     |                              |                          |
| DRB1*13:02:01+DRB1*15:11    | DRB1*13:93+DRB1*15:02:02     | DRB1*13:139+DRB1*15:01:04    |                          |
| DRB1*13:02:01+DRB1*15:12    | DRB1*13:63+DRB1*15:02:01     |                              |                          |
| DRB1*13:02:01+DRB1*15:15    | DRB1*13:29+DRB1*15:03:01G    |                              |                          |
| DRB1*13:02:01+DRB1*15:23    | DRB1*13:92+DRB1*15:02:01     |                              |                          |
| DRB1*13:02:01+DRB1*15:24    | DRB1*13:29+DRB1*15:02:01     |                              |                          |
| DRB1*13:02:01+DRB1*15:31    | DRB1*13:36+DRB1*15:27        |                              |                          |
| DRB1*13:02:01+DRB1*15:34    | DRB1*13:61:02+DRB1*15:02:01  | DRB1*13:96:01+DRB1*15:01:01G |                          |
| DRB1*13:02:01+DRB1*15:37    | DRB1*13:39+DRB1*15:02:02     |                              |                          |
| DRB1*13:02:01+DRB1*15:38    | DRB1*13:36+DRB1*15:09        |                              |                          |
| DRB1*13:02:01+DRB1*15:48    | DRB1*13:96:02+DRB1*15:03:01G |                              |                          |
| DRB1*13:02:01+DRB1*15:57    | DRB1*13:124+DRB1*15:01:01G   |                              |                          |
| DRB1*13:02:01+DRB1*15:61    | DRB1*13:29+DRB1*15:38        |                              |                          |
| DRB1*13:02:01+DRB1*15:63    | DRB1*13:140+DRB1*15:01:01G   |                              |                          |
| DRB1*13:02:01+DRB1*15:70    | DRB1*13:29+DRB1*15:06:01     |                              |                          |
| DRB1*13:02:01+DRB1*15:73    | DRB1*13:02:02+DRB1*16:01:02  | DRB1*13:36+DRB1*16:09        | DRB1*13:63+DRB1*16:05:01 |
| DRB1*13:02:01+DRB1*16:01:01 | DRB1*13:02:02+DRB1*16:02:02  | DRB1*13:29+DRB1*16:05:01     | DRB1*13:36+DRB1*16:10    |
| DRB1*13:02:01+DRB1*16:02:01 | DRB1*13:14:02+DRB1*13:139    |                              |                          |
| DRB1*13:02:03+DRB1*13:21:01 | DRB1*13:14:02+DRB1*13:31     |                              |                          |
| DRB1*13:02:03+DRB1*13:46    | DRB1*13:07:02+DRB1*13:139    | DRB1*13:14:02+DRB1*13:65     |                          |
| DRB1*13:02:03+DRB1*13:49    | DRB1*13:93+DRB1*15:02:01     | DRB1*13:139+DRB1*15:01:01G   |                          |
| DRB1*13:02:03+DRB1*15:12    | DRB1*13:39+DRB1*15:02:01     |                              |                          |
| DRB1*13:02:03+DRB1*15:38    | DRB1*13:39+DRB1*15:31        |                              |                          |
| DRB1*13:02:03+DRB1*15:63    | DRB1*13:63+DRB1*15:01:09     | DRB1*13:111+DRB1*15:02:04    |                          |
| DRB1*13:02:06+DRB1*15:04    | DRB1*13:20+DRB1*15:02:04     | DRB1*13:29+DRB1*15:01:09     |                          |
| DRB1*13:02:06+DRB1*15:05    | DRB1*13:36+DRB1*15:01:09     | DRB1*13:40+DRB1*15:02:04     |                          |
| DRB1*13:02:06+DRB1*15:07:01 | DRB1*13:36+DRB1*15:02:04     |                              |                          |
| DRB1*13:02:06+DRB1*15:11    | DRB1*13:63+DRB1*15:02:04     |                              |                          |
| DRB1*13:02:06+DRB1*15:15    | DRB1*13:92+DRB1*15:02:04     |                              |                          |
| DRB1*13:02:06+DRB1*15:24    | DRB1*13:29+DRB1*15:02:04     |                              |                          |
| DRB1*13:02:06+DRB1*15:31    | DRB1*13:61:02+DRB1*15:02:04  | DRB1*13:96:01+DRB1*15:01:09  |                          |
| DRB1*13:02:06+DRB1*15:37    | DRB1*13:124+DRB1*15:01:09    |                              |                          |
| DRB1*13:02:06+DRB1*15:61    | DRB1*13:131+DRB1*15:02:04    |                              |                          |
| DRB1*13:02:06+DRB1*15:65    | DRB1*13:140+DRB1*15:01:09    |                              |                          |
| DRB1*13:02:06+DRB1*15:70    | DRB1*13:39+DRB1*15:01:09     | DRB1*13:79+DRB1*15:02:04     |                          |
| DRB1*13:02:06+DRB1*15:71    | DRB1*13:48+DRB1*13:66:02     |                              |                          |
| DRB1*13:03:01+DRB1*13:04    | DRB1*13:03:02+DRB1*13:05:02  | DRB1*13:14:01+DRB1*13:120    | DRB1*13:115+DRB1*13:132  |
| DRB1*13:03:01+DRB1*13:05:01 | DRB1*13:14:03+DRB1*13:120    |                              |                          |
| DRB1*13:03:01+DRB1*13:05:02 | DRB1*13:10+DRB1*13:12:02     |                              |                          |
| DRB1*13:03:01+DRB1*13:06    | DRB1*13:37+DRB1*13:49        |                              |                          |
| DRB1*13:03:01+DRB1*13:07:01 |                              |                              |                          |

|                              |                              |                             |                          |
|------------------------------|------------------------------|-----------------------------|--------------------------|
| DRB1*13:03:01+DRB1*13:11:01  | DRB1*13:14:01+DRB1*13:89     |                             |                          |
| DRB1*13:03:01+DRB1*13:11:02  | DRB1*13:14:02+DRB1*13:89     |                             |                          |
| DRB1*13:03:01+DRB1*13:12:01  | DRB1*13:03:02+DRB1*13:12:02  |                             |                          |
| DRB1*13:03:01+DRB1*13:14:01  | DRB1*13:03:02+DRB1*13:14:03  | DRB1*13:07:01+DRB1*13:66:02 | DRB1*13:21:01+DRB1*13:37 |
| DRB1*13:03:01+DRB1*13:14:02  | DRB1*13:07:02+DRB1*13:66:02  |                             |                          |
| DRB1*13:03:01+DRB1*13:14:03  | DRB1*13:21:02+DRB1*13:37     |                             |                          |
| DRB1*13:03:01+DRB1*13:15     | DRB1*13:53+DRB1*13:66:02     | DRB1*13:89+DRB1*13:104      |                          |
| DRB1*13:03:01+DRB1*13:18     | DRB1*13:10+DRB1*13:55        |                             |                          |
| DRB1*13:03:01+DRB1*13:21:01  | DRB1*13:03:02+DRB1*13:21:02  | DRB1*13:49+DRB1*13:66:02    |                          |
| DRB1*13:03:01+DRB1*13:22     | DRB1*13:04+DRB1*13:37        | DRB1*13:23:02+DRB1*13:89    | DRB1*13:66:02+DRB1*13:70 |
| DRB1*13:03:01+DRB1*13:23:02  | DRB1*13:03:02+DRB1*13:23:01  |                             |                          |
| DRB1*13:03:01+DRB1*13:24     | DRB1*13:37+DRB1*13:75        |                             |                          |
| DRB1*13:03:01+DRB1*13:25     | DRB1*13:82+DRB1*13:88        |                             |                          |
| DRB1*13:03:01+DRB1*13:27     | DRB1*13:41+DRB1*13:89        |                             |                          |
| DRB1*13:03:01+DRB1*13:30     | DRB1*13:12:01+DRB1*13:66:02  | DRB1*13:12:02+DRB1*13:66:01 |                          |
| DRB1*13:03:01+DRB1*13:32     | DRB1*13:48+DRB1*13:120       | DRB1*13:65+DRB1*13:89       |                          |
| DRB1*13:03:01+DRB1*13:33:02  | DRB1*13:03:02+DRB1*13:33:03  |                             |                          |
| DRB1*13:03:01+DRB1*13:36     | DRB1*13:37+DRB1*13:65        |                             |                          |
| DRB1*13:03:01+DRB1*13:40     | DRB1*13:32+DRB1*13:37        | DRB1*13:36+DRB1*13:89       | DRB1*13:70+DRB1*13:120   |
| DRB1*13:03:01+DRB1*13:42     | DRB1*13:05:01+DRB1*13:89     | DRB1*13:11:01+DRB1*13:120   |                          |
| DRB1*13:03:01+DRB1*13:47     | DRB1*13:37+DRB1*13:55        |                             |                          |
| DRB1*13:03:01+DRB1*13:50:01  | DRB1*13:14:01+DRB1*13:115    |                             |                          |
| DRB1*13:03:01+DRB1*13:52     | DRB1*13:89+DRB1*13:97:01     |                             |                          |
| DRB1*13:03:01+DRB1*13:56     | DRB1*13:25+DRB1*13:120       |                             |                          |
| DRB1*13:03:01+DRB1*13:57     | DRB1*13:19+DRB1*13:66:02     |                             |                          |
| DRB1*13:03:01+DRB1*13:58     | DRB1*13:12:02+DRB1*13:81     |                             |                          |
| DRB1*13:03:01+DRB1*13:66:01  | DRB1*13:03:02+DRB1*13:66:02  |                             |                          |
| DRB1*13:03:01+DRB1*13:70     | DRB1*13:37+DRB1*13:48        |                             |                          |
| DRB1*13:03:01+DRB1*13:71     | DRB1*13:27+DRB1*13:88        |                             |                          |
| DRB1*13:03:01+DRB1*13:78     | DRB1*13:79+DRB1*13:88        |                             |                          |
| DRB1*13:03:01+DRB1*13:79     | DRB1*13:39+DRB1*13:89        |                             |                          |
| DRB1*13:03:01+DRB1*13:82     | DRB1*13:30+DRB1*13:37        |                             |                          |
| DRB1*13:03:01+DRB1*13:83     | DRB1*13:08+DRB1*13:66:02     | DRB1*13:89+DRB1*13:107      |                          |
| DRB1*13:03:01+DRB1*13:87     | DRB1*13:83+DRB1*13:115       |                             |                          |
| DRB1*13:03:01+DRB1*13:93     | DRB1*13:04+DRB1*13:120       | DRB1*13:32+DRB1*13:66:02    | DRB1*13:89+DRB1*13:139   |
| DRB1*13:03:01+DRB1*13:108    | DRB1*13:49+DRB1*13:89        |                             |                          |
| DRB1*13:03:01+DRB1*13:111    | DRB1*13:24+DRB1*13:120       | DRB1*13:63+DRB1*13:89       |                          |
| DRB1*13:03:01+DRB1*13:112    | DRB1*13:89+DRB1*13:128       |                             |                          |
| DRB1*13:03:01+DRB1*13:134    | DRB1*13:12:01+DRB1*13:88     |                             |                          |
| DRB1*13:03:01+DRB1*13:139    | DRB1*13:65+DRB1*13:66:02     |                             |                          |
| DRB1*13:03:01+DRB1*14:01:01G | DRB1*13:88+DRB1*14:122       | DRB1*13:89+DRB1*14:07:01    |                          |
| DRB1*13:03:01+DRB1*14:02     | DRB1*13:12:02+DRB1*14:19     | DRB1*13:37+DRB1*14:13       |                          |
| DRB1*13:03:01+DRB1*14:03:01  | DRB1*13:37+DRB1*14:85        | DRB1*13:88+DRB1*14:67       | DRB1*13:120+DRB1*14:102  |
| DRB1*13:03:01+DRB1*14:05:01  | DRB1*13:88+DRB1*14:45        | DRB1*13:89+DRB1*14:44:01    |                          |
| DRB1*13:03:01+DRB1*14:05:03  | DRB1*13:89+DRB1*14:44:02     |                             |                          |
| DRB1*13:03:01+DRB1*14:06:01  | DRB1*13:03:02+DRB1*14:06:02  | DRB1*13:89+DRB1*14:02       |                          |
| DRB1*13:03:01+DRB1*14:07:01  | DRB1*13:03:02+DRB1*14:07:02  |                             |                          |
| DRB1*13:03:01+DRB1*14:12:01  | DRB1*13:89+DRB1*14:03:01     |                             |                          |
| DRB1*13:03:01+DRB1*14:17     | DRB1*13:12:02+DRB1*14:21     | DRB1*13:44+DRB1*13:120      | DRB1*13:66:02+DRB1*14:80 |
|                              | DRB1*13:89+DRB1*14:30        |                             |                          |
| DRB1*13:03:01+DRB1*14:23:01  | DRB1*13:89+DRB1*14:14        |                             |                          |
| DRB1*13:03:01+DRB1*14:27     | DRB1*13:55+DRB1*13:85        |                             |                          |
| DRB1*13:03:01+DRB1*14:30     | DRB1*13:66:02+DRB1*14:09     |                             |                          |
| DRB1*13:03:01+DRB1*14:35     | DRB1*13:66:02+DRB1*14:01:01G |                             |                          |
| DRB1*13:03:01+DRB1*14:38     | DRB1*13:33:03+DRB1*14:01:02  |                             |                          |
| DRB1*13:03:01+DRB1*14:44:01  | DRB1*13:03:02+DRB1*14:44:03  |                             |                          |
| DRB1*13:03:01+DRB1*14:47     | DRB1*13:33:03+DRB1*14:02     |                             |                          |
| DRB1*13:03:01+DRB1*14:53     | DRB1*13:66:02+DRB1*14:25     |                             |                          |
| DRB1*13:03:01+DRB1*14:67     | DRB1*13:37+DRB1*14:63        |                             |                          |
| DRB1*13:03:01+DRB1*14:78     | DRB1*13:89+DRB1*14:63        |                             |                          |
| DRB1*13:03:01+DRB1*14:80     | DRB1*13:89+DRB1*14:09        |                             |                          |
| DRB1*13:03:01+DRB1*14:85     | DRB1*13:88+DRB1*14:63        |                             |                          |
| DRB1*13:03:01+DRB1*14:98     | DRB1*13:33:03+DRB1*14:03:01  |                             |                          |
| DRB1*13:03:01+DRB1*14:99     | DRB1*13:81+DRB1*14:07:02     |                             |                          |
| DRB1*13:03:01+DRB1*14:106    | DRB1*13:89+DRB1*14:51        |                             |                          |
| DRB1*13:03:01+DRB1*14:127    | DRB1*13:33:03+DRB1*14:05:03  |                             |                          |
| DRB1*13:03:01+DRB1*15:01:01G | DRB1*13:66:02+DRB1*15:07:01  | DRB1*13:89+DRB1*15:02:01    |                          |
| DRB1*13:03:01+DRB1*15:01:03  | DRB1*13:89+DRB1*15:02:06     |                             |                          |
| DRB1*13:03:01+DRB1*15:01:04  | DRB1*13:37+DRB1*15:12        | DRB1*13:66:02+DRB1*15:07:02 | DRB1*13:89+DRB1*15:02:02 |
| DRB1*13:03:01+DRB1*15:01:09  | DRB1*13:89+DRB1*15:02:04     |                             |                          |
| DRB1*13:03:01+DRB1*15:01:10  | DRB1*13:89+DRB1*15:02:08     |                             |                          |
| DRB1*13:03:01+DRB1*15:01:20  | DRB1*13:03:05+DRB1*15:01:01G |                             |                          |
| DRB1*13:03:01+DRB1*15:02:01  | DRB1*13:03:02+DRB1*15:02:09  | DRB1*13:66:02+DRB1*15:11    |                          |
| DRB1*13:03:01+DRB1*15:02:02  | DRB1*13:03:02+DRB1*15:02:05  |                             |                          |
| DRB1*13:03:01+DRB1*15:04     | DRB1*13:89+DRB1*15:15        |                             |                          |
| DRB1*13:03:01+DRB1*15:05     | DRB1*13:88+DRB1*15:01:01G    | DRB1*13:89+DRB1*15:31       |                          |
| DRB1*13:03:01+DRB1*15:07:01  | DRB1*13:89+DRB1*15:11        |                             |                          |
| DRB1*13:03:01+DRB1*15:09     | DRB1*13:66:02+DRB1*15:48     |                             |                          |
| DRB1*13:03:01+DRB1*15:23     | DRB1*13:88+DRB1*15:03:01G    |                             |                          |
| DRB1*13:03:01+DRB1*15:27     | DRB1*13:66:02+DRB1*15:34     |                             |                          |
| DRB1*13:03:01+DRB1*15:31     | DRB1*13:88+DRB1*15:02:01     |                             |                          |
| DRB1*13:03:01+DRB1*15:32     | DRB1*13:115+DRB1*15:01:01G   |                             |                          |
| DRB1*13:03:01+DRB1*15:35     | DRB1*13:81+DRB1*15:02:09     |                             |                          |
| DRB1*13:03:01+DRB1*15:37     | DRB1*13:33:01+DRB1*15:01:01G | DRB1*13:94+DRB1*15:02:09    |                          |
| DRB1*13:03:01+DRB1*15:57     | DRB1*13:33:03+DRB1*15:03:01G |                             |                          |
| DRB1*13:03:01+DRB1*15:63     | DRB1*13:88+DRB1*15:38        |                             |                          |
| DRB1*13:03:01+DRB1*15:65     | DRB1*13:89+DRB1*15:47        |                             |                          |
| DRB1*13:03:01+DRB1*15:66     | DRB1*13:89+DRB1*15:27        |                             |                          |
| DRB1*13:03:01+DRB1*15:73     | DRB1*13:88+DRB1*15:06:01     |                             |                          |
| DRB1*13:03:01+DRB1*16:02:01  | DRB1*13:88+DRB1*16:05:01     |                             |                          |
| DRB1*13:03:01+DRB1*16:09     | DRB1*13:66:02+DRB1*16:01:01  |                             |                          |
| DRB1*13:03:01+DRB1*16:10     | DRB1*13:66:02+DRB1*16:02:01  |                             |                          |
| DRB1*13:03:01+DRB1*16:15     | DRB1*13:89+DRB1*16:01:01     |                             |                          |
| DRB1*13:03:02+DRB1*13:04     | DRB1*13:48+DRB1*13:66:01     |                             |                          |
| DRB1*13:03:02+DRB1*13:06     | DRB1*13:10+DRB1*13:12:01     |                             |                          |
| DRB1*13:03:02+DRB1*13:14:01  | DRB1*13:07:01+DRB1*13:66:01  |                             |                          |
| DRB1*13:03:02+DRB1*13:14:02  | DRB1*13:07:02+DRB1*13:66:01  |                             |                          |
| DRB1*13:03:02+DRB1*13:15     | DRB1*13:04+DRB1*13:85        | DRB1*13:53+DRB1*13:66:01    |                          |
| DRB1*13:03:02+DRB1*13:17     | DRB1*13:66:01+DRB1*13:116    |                             |                          |
| DRB1*13:03:02+DRB1*13:21:01  | DRB1*13:49+DRB1*13:66:01     |                             |                          |
| DRB1*13:03:02+DRB1*13:22     | DRB1*13:66:01+DRB1*13:70     |                             |                          |
| DRB1*13:03:02+DRB1*13:26:02  | DRB1*13:49+DRB1*13:85        |                             |                          |
| DRB1*13:03:02+DRB1*13:30     | DRB1*13:12:01+DRB1*13:66:01  |                             |                          |
| DRB1*13:03:02+DRB1*13:42     | DRB1*13:10+DRB1*13:49        |                             |                          |
| DRB1*13:03:02+DRB1*13:53     | DRB1*13:48+DRB1*13:85        |                             |                          |

|                              |                              |                           |                          |
|------------------------------|------------------------------|---------------------------|--------------------------|
| DRB1*13:03:02+DRB1*13:57     | DRB1*13:19+DRB1*13:66:01     |                           |                          |
| DRB1*13:03:02+DRB1*13:58     | DRB1*13:12:01+DRB1*13:81     |                           |                          |
| DRB1*13:03:02+DRB1*13:83     | DRB1*13:08+DRB1*13:66:01     |                           |                          |
| DRB1*13:03:02+DRB1*13:93     | DRB1*13:32+DRB1*13:66:01     |                           |                          |
| DRB1*13:03:02+DRB1*13:139    | DRB1*13:65+DRB1*13:66:01     |                           |                          |
| DRB1*13:03:02+DRB1*14:02     | DRB1*13:12:01+DRB1*14:19     |                           |                          |
| DRB1*13:03:02+DRB1*14:17     | DRB1*13:12:01+DRB1*14:21     | DRB1*13:66:01+DRB1*14:80  |                          |
| DRB1*13:03:02+DRB1*14:28     | DRB1*13:81+DRB1*14:68        |                           |                          |
| DRB1*13:03:02+DRB1*14:29     | DRB1*13:58+DRB1*14:19        | DRB1*13:81+DRB1*14:02     |                          |
| DRB1*13:03:02+DRB1*14:30     | DRB1*13:66:01+DRB1*14:09     |                           |                          |
| DRB1*13:03:02+DRB1*14:35     | DRB1*13:66:01+DRB1*14:01:01G |                           |                          |
| DRB1*13:03:02+DRB1*14:38     | DRB1*13:33:02+DRB1*14:01:02  |                           |                          |
| DRB1*13:03:02+DRB1*14:47     | DRB1*13:33:02+DRB1*14:02     |                           |                          |
| DRB1*13:03:02+DRB1*14:53     | DRB1*13:66:01+DRB1*14:25     |                           |                          |
| DRB1*13:03:02+DRB1*14:67     | DRB1*13:13+DRB1*13:85        |                           |                          |
| DRB1*13:03:02+DRB1*14:89     | DRB1*13:13+DRB1*14:19        |                           |                          |
| DRB1*13:03:02+DRB1*14:98     | DRB1*13:33:02+DRB1*14:03:01  |                           |                          |
| DRB1*13:03:02+DRB1*14:99     | DRB1*13:81+DRB1*14:07:01     |                           |                          |
| DRB1*13:03:02+DRB1*14:127    | DRB1*13:33:02+DRB1*14:05:03  |                           |                          |
| DRB1*13:03:02+DRB1*15:01:01G | DRB1*13:66:01+DRB1*15:07:01  |                           |                          |
| DRB1*13:03:02+DRB1*15:01:04  | DRB1*13:66:01+DRB1*15:07:02  |                           |                          |
| DRB1*13:03:02+DRB1*15:02:01  | DRB1*13:66:01+DRB1*15:11     |                           |                          |
| DRB1*13:03:02+DRB1*15:09     | DRB1*13:66:01+DRB1*15:48     |                           |                          |
| DRB1*13:03:02+DRB1*15:27     | DRB1*13:66:01+DRB1*15:34     |                           |                          |
| DRB1*13:03:02+DRB1*15:35     | DRB1*13:81+DRB1*15:02:01     |                           |                          |
| DRB1*13:03:02+DRB1*15:37     | DRB1*13:94+DRB1*15:02:01     |                           |                          |
| DRB1*13:03:02+DRB1*15:57     | DRB1*13:33:02+DRB1*15:03:01G |                           |                          |
| DRB1*13:03:02+DRB1*16:09     | DRB1*13:66:01+DRB1*16:01:01  |                           |                          |
| DRB1*13:03:02+DRB1*16:10     | DRB1*13:66:01+DRB1*16:02:01  |                           |                          |
| DRB1*13:03:05+DRB1*15:05     | DRB1*13:88+DRB1*15:01:20     |                           |                          |
| DRB1*13:03:05+DRB1*15:32     | DRB1*13:115+DRB1*15:01:20    |                           |                          |
| DRB1*13:03:05+DRB1*15:37     | DRB1*13:33:01+DRB1*15:01:20  |                           |                          |
| DRB1*13:04+DRB1*13:07:01     | DRB1*13:12:01+DRB1*13:24     | DRB1*13:14:01+DRB1*13:48  | DRB1*13:21:01+DRB1*13:70 |
|                              | DRB1*13:22+DRB1*13:49        | DRB1*13:23:02+DRB1*13:108 |                          |
| DRB1*13:04+DRB1*13:07:02     | DRB1*13:14:02+DRB1*13:48     |                           |                          |
| DRB1*13:04+DRB1*13:08        | DRB1*13:48+DRB1*13:83        |                           |                          |
| DRB1*13:04+DRB1*13:12:01     | DRB1*13:30+DRB1*13:48        |                           |                          |
| DRB1*13:04+DRB1*13:14:01     | DRB1*13:21:01+DRB1*13:22     | DRB1*13:24+DRB1*13:30     | DRB1*13:75+DRB1*13:82    |
| DRB1*13:04+DRB1*13:14:03     | DRB1*13:21:02+DRB1*13:22     |                           |                          |
| DRB1*13:04+DRB1*13:19        | DRB1*13:48+DRB1*13:57        |                           |                          |
| DRB1*13:04+DRB1*13:21:01     | DRB1*13:30+DRB1*13:75        |                           |                          |
| DRB1*13:04+DRB1*13:24        | DRB1*13:22+DRB1*13:75        |                           |                          |
| DRB1*13:04+DRB1*13:26:02     | DRB1*13:15+DRB1*13:49        | DRB1*13:21:01+DRB1*13:53  | DRB1*13:104+DRB1*13:108  |
| DRB1*13:04+DRB1*13:32        | DRB1*13:48+DRB1*13:93        |                           |                          |
| DRB1*13:04+DRB1*13:42        | DRB1*13:06+DRB1*13:75        | DRB1*13:11:01+DRB1*13:93  |                          |
| DRB1*13:04+DRB1*13:47        | DRB1*13:22+DRB1*13:55        |                           |                          |
| DRB1*13:04+DRB1*13:49        | DRB1*13:12:01+DRB1*13:75     | DRB1*13:21:01+DRB1*13:48  |                          |
| DRB1*13:04+DRB1*13:50:02     | DRB1*13:21:01+DRB1*13:69     |                           |                          |
| DRB1*13:04+DRB1*13:53        | DRB1*13:15+DRB1*13:48        |                           |                          |
| DRB1*13:04+DRB1*13:56        | DRB1*13:20+DRB1*13:30        | DRB1*13:25+DRB1*13:93     |                          |
| DRB1*13:04+DRB1*13:65        | DRB1*13:48+DRB1*13:139       |                           |                          |
| DRB1*13:04+DRB1*13:70        | DRB1*13:22+DRB1*13:48        |                           |                          |
| DRB1*13:04+DRB1*13:82        | DRB1*13:22+DRB1*13:30        |                           |                          |
| DRB1*13:04+DRB1*13:100       | DRB1*13:30+DRB1*13:54        |                           |                          |
| DRB1*13:04+DRB1*13:116       | DRB1*13:17+DRB1*13:48        |                           |                          |
| DRB1*13:04+DRB1*13:132       | DRB1*13:21:01+DRB1*13:52     |                           |                          |
| DRB1*13:04+DRB1*14:01:01G    | DRB1*13:48+DRB1*14:35        |                           |                          |
| DRB1*13:04+DRB1*14:02        | DRB1*13:22+DRB1*14:13        | DRB1*13:32+DRB1*13:86     |                          |
| DRB1*13:04+DRB1*14:03:01     | DRB1*13:22+DRB1*14:85        | DRB1*13:93+DRB1*14:102    |                          |
| DRB1*13:04+DRB1*14:07:02     | DRB1*13:38+DRB1*14:35        |                           |                          |
| DRB1*13:04+DRB1*14:09        | DRB1*13:44+DRB1*13:65        | DRB1*13:48+DRB1*14:30     |                          |
| DRB1*13:04+DRB1*14:17        | DRB1*13:44+DRB1*13:93        |                           |                          |
| DRB1*13:04+DRB1*14:22        | DRB1*13:21:01+DRB1*14:16     |                           |                          |
| DRB1*13:04+DRB1*14:25        | DRB1*13:48+DRB1*14:53        |                           |                          |
| DRB1*13:04+DRB1*14:27        | DRB1*13:24+DRB1*14:63        | DRB1*13:75+DRB1*14:67     |                          |
| DRB1*13:04+DRB1*14:30        | DRB1*13:44+DRB1*13:139       |                           |                          |
| DRB1*13:04+DRB1*14:67        | DRB1*13:13+DRB1*13:15        | DRB1*13:22+DRB1*14:63     | DRB1*13:23:02+DRB1*14:78 |
| DRB1*13:04+DRB1*14:80        | DRB1*13:32+DRB1*13:44        | DRB1*13:48+DRB1*14:17     |                          |
| DRB1*13:04+DRB1*14:123       | DRB1*13:70+DRB1*14:65        |                           |                          |
| DRB1*13:04+DRB1*15:01:04     | DRB1*13:22+DRB1*15:12        |                           |                          |
| DRB1*13:04+DRB1*15:02:02     | DRB1*13:23:02+DRB1*15:12     |                           |                          |
| DRB1*13:04+DRB1*15:02:05     | DRB1*13:23:01+DRB1*15:12     |                           |                          |
| DRB1*13:04+DRB1*15:04        | DRB1*13:75+DRB1*15:01:01G    |                           |                          |
| DRB1*13:04+DRB1*15:07:01     | DRB1*13:48+DRB1*15:01:01G    |                           |                          |
| DRB1*13:04+DRB1*15:07:02     | DRB1*13:48+DRB1*15:01:04     | DRB1*13:70+DRB1*15:12     |                          |
| DRB1*13:04+DRB1*15:11        | DRB1*13:48+DRB1*15:02:01     |                           |                          |
| DRB1*13:04+DRB1*15:15        | DRB1*13:75+DRB1*15:02:01     |                           |                          |
| DRB1*13:04+DRB1*15:34        | DRB1*13:48+DRB1*15:27        |                           |                          |
| DRB1*13:04+DRB1*15:48        | DRB1*13:48+DRB1*15:09        |                           |                          |
| DRB1*13:04+DRB1*16:01:01     | DRB1*13:48+DRB1*16:09        | DRB1*13:75+DRB1*16:05:01  |                          |
| DRB1*13:04+DRB1*16:01:02     | DRB1*13:49+DRB1*15:10        |                           |                          |
| DRB1*13:04+DRB1*16:02:01     | DRB1*13:48+DRB1*16:10        |                           |                          |
| DRB1*13:04+DRB1*16:02:02     | DRB1*13:134+DRB1*15:10       |                           |                          |
| DRB1*13:04+DRB1*16:04        | DRB1*13:55+DRB1*15:10        |                           |                          |
| DRB1*13:05:01+DRB1*13:11:01  | DRB1*13:14:01+DRB1*13:42     |                           |                          |
| DRB1*13:05:01+DRB1*13:11:02  | DRB1*13:14:02+DRB1*13:42     |                           |                          |
| DRB1*13:05:01+DRB1*13:12:02  | DRB1*13:05:02+DRB1*13:12:01  |                           |                          |
| DRB1*13:05:01+DRB1*13:14:01  | DRB1*13:50:01+DRB1*13:132    |                           |                          |
| DRB1*13:05:01+DRB1*13:14:03  | DRB1*13:05:02+DRB1*13:14:01  |                           |                          |
| DRB1*13:05:01+DRB1*13:15     | DRB1*13:42+DRB1*13:104       |                           |                          |
| DRB1*13:05:01+DRB1*13:19     | DRB1*13:26:02+DRB1*13:83     |                           |                          |
| DRB1*13:05:01+DRB1*13:20     | DRB1*13:29+DRB1*13:42        | DRB1*13:56+DRB1*13:111    |                          |
| DRB1*13:05:01+DRB1*13:21:02  | DRB1*13:05:02+DRB1*13:21:01  |                           |                          |
| DRB1*13:05:01+DRB1*13:24     | DRB1*13:11:01+DRB1*13:63     | DRB1*13:14:01+DRB1*13:111 |                          |
| DRB1*13:05:01+DRB1*13:25     | DRB1*13:14:01+DRB1*13:56     |                           |                          |
| DRB1*13:05:01+DRB1*13:27     | DRB1*13:41+DRB1*13:42        |                           |                          |
| DRB1*13:05:01+DRB1*13:29     | DRB1*13:56+DRB1*13:63        |                           |                          |
| DRB1*13:05:01+DRB1*13:32     | DRB1*13:42+DRB1*13:65        |                           |                          |
| DRB1*13:05:01+DRB1*13:33:03  | DRB1*13:05:02+DRB1*13:33:02  |                           |                          |
| DRB1*13:05:01+DRB1*13:38     | DRB1*13:12:02+DRB1*13:63     | DRB1*13:14:03+DRB1*13:65  | DRB1*13:21:02+DRB1*13:36 |
| DRB1*13:05:01+DRB1*13:40     | DRB1*13:36+DRB1*13:42        |                           |                          |
| DRB1*13:05:01+DRB1*13:44     | DRB1*13:11:01+DRB1*14:30     | DRB1*13:14:01+DRB1*14:17  |                          |
| DRB1*13:05:01+DRB1*13:54     | DRB1*13:100+DRB1*13:111      |                           |                          |
| DRB1*13:05:01+DRB1*13:61:01  | DRB1*13:42+DRB1*13:96:02     |                           |                          |
| DRB1*13:05:01+DRB1*13:61:02  | DRB1*13:42+DRB1*13:96:01     |                           |                          |



|                              |                             |                          |                          |
|------------------------------|-----------------------------|--------------------------|--------------------------|
| DRB1*13:05:01+DRB1*13:64     | DRB1*13:83+DRB1*13:136      |                          |                          |
| DRB1*13:05:01+DRB1*13:66:02  | DRB1*13:05:02+DRB1*13:66:01 |                          |                          |
| DRB1*13:05:01+DRB1*13:75     | DRB1*13:21:01+DRB1*13:111   |                          |                          |
| DRB1*13:05:01+DRB1*13:79     | DRB1*13:39+DRB1*13:42       |                          |                          |
| DRB1*13:05:01+DRB1*13:83     | DRB1*13:42+DRB1*13:107      | DRB1*13:87+DRB1*13:132   |                          |
| DRB1*13:05:01+DRB1*13:93     | DRB1*13:42+DRB1*13:139      |                          |                          |
| DRB1*13:05:01+DRB1*13:108    | DRB1*13:42+DRB1*13:49       |                          |                          |
| DRB1*13:05:01+DRB1*13:111    | DRB1*13:42+DRB1*13:63       |                          |                          |
| DRB1*13:05:01+DRB1*13:112    | DRB1*13:42+DRB1*13:128      |                          |                          |
| DRB1*13:05:01+DRB1*13:115    | DRB1*13:50:01+DRB1*13:120   |                          |                          |
| DRB1*13:05:01+DRB1*13:134    | DRB1*13:49+DRB1*13:56       |                          |                          |
| DRB1*13:05:01+DRB1*14:01:01G | DRB1*13:42+DRB1*14:07:01    |                          |                          |
| DRB1*13:05:01+DRB1*14:02     | DRB1*13:26:02+DRB1*14:30    |                          |                          |
| DRB1*13:05:01+DRB1*14:03:01  | DRB1*13:26:02+DRB1*13:119   | DRB1*13:56+DRB1*14:27    |                          |
| DRB1*13:05:01+DRB1*14:04     | DRB1*13:42+DRB1*14:68       |                          |                          |
| DRB1*13:05:01+DRB1*14:05:01  | DRB1*13:42+DRB1*14:44:01    |                          |                          |
| DRB1*13:05:01+DRB1*14:05:03  | DRB1*13:42+DRB1*14:44:02    |                          |                          |
| DRB1*13:05:01+DRB1*14:06:01  | DRB1*13:26:02+DRB1*14:17    | DRB1*13:42+DRB1*14:02    | DRB1*13:56+DRB1*14:108   |
| DRB1*13:05:01+DRB1*14:06:02  | DRB1*13:05:02+DRB1*14:06:01 |                          |                          |
| DRB1*13:05:01+DRB1*14:07:02  | DRB1*13:05:02+DRB1*14:07:01 |                          |                          |
| DRB1*13:05:01+DRB1*14:12:01  | DRB1*13:42+DRB1*14:03:01    |                          |                          |
| DRB1*13:05:01+DRB1*14:17     | DRB1*13:42+DRB1*14:30       |                          |                          |
| DRB1*13:05:01+DRB1*14:23:01  | DRB1*13:42+DRB1*14:14       |                          |                          |
| DRB1*13:05:01+DRB1*14:44:03  | DRB1*13:05:02+DRB1*14:44:01 |                          |                          |
| DRB1*13:05:01+DRB1*14:69     | DRB1*13:56+DRB1*14:25       |                          |                          |
| DRB1*13:05:01+DRB1*14:77     | DRB1*13:136+DRB1*14:40      |                          |                          |
| DRB1*13:05:01+DRB1*14:78     | DRB1*13:42+DRB1*14:63       |                          |                          |
| DRB1*13:05:01+DRB1*14:80     | DRB1*13:42+DRB1*14:09       |                          |                          |
| DRB1*13:05:01+DRB1*14:82     | DRB1*14:22+DRB1*14:95       |                          |                          |
| DRB1*13:05:01+DRB1*14:89     | DRB1*14:27+DRB1*14:30       |                          |                          |
| DRB1*13:05:01+DRB1*14:102    | DRB1*13:14:01+DRB1*14:03:01 | DRB1*13:25+DRB1*14:27    |                          |
| DRB1*13:05:01+DRB1*14:106    | DRB1*13:26:02+DRB1*14:33    | DRB1*13:42+DRB1*14:51    |                          |
| DRB1*13:05:01+DRB1*14:110    | DRB1*13:136+DRB1*14:01:01G  |                          |                          |
| DRB1*13:05:01+DRB1*14:116    | DRB1*13:07:01+DRB1*13:119   |                          |                          |
| DRB1*13:05:01+DRB1*14:119    | DRB1*14:22+DRB1*14:30       |                          |                          |
| DRB1*13:05:01+DRB1*15:01:01G | DRB1*13:06+DRB1*15:15       | DRB1*13:42+DRB1*15:02:01 | DRB1*13:50:02+DRB1*15:62 |
|                              | DRB1*13:132+DRB1*15:32      |                          |                          |
| DRB1*13:05:01+DRB1*15:01:03  | DRB1*13:42+DRB1*15:02:06    |                          |                          |
| DRB1*13:05:01+DRB1*15:01:04  | DRB1*13:42+DRB1*15:02:02    |                          |                          |
| DRB1*13:05:01+DRB1*15:01:09  | DRB1*13:42+DRB1*15:02:04    |                          |                          |
| DRB1*13:05:01+DRB1*15:01:10  | DRB1*13:42+DRB1*15:02:08    |                          |                          |
| DRB1*13:05:01+DRB1*15:02:05  | DRB1*13:05:02+DRB1*15:02:02 |                          |                          |
| DRB1*13:05:01+DRB1*15:02:09  | DRB1*13:05:02+DRB1*15:02:01 |                          |                          |
| DRB1*13:05:01+DRB1*15:04     | DRB1*13:42+DRB1*15:15       |                          |                          |
| DRB1*13:05:01+DRB1*15:05     | DRB1*13:42+DRB1*15:31       | DRB1*13:56+DRB1*15:04    |                          |
| DRB1*13:05:01+DRB1*15:07:01  | DRB1*13:09+DRB1*16:01:02    | DRB1*13:42+DRB1*15:11    |                          |
| DRB1*13:05:01+DRB1*15:31     | DRB1*13:56+DRB1*15:15       |                          |                          |
| DRB1*13:05:01+DRB1*15:34     | DRB1*14:30+DRB1*16:01:02    |                          |                          |
| DRB1*13:05:01+DRB1*15:65     | DRB1*13:42+DRB1*15:47       |                          |                          |
| DRB1*13:05:01+DRB1*15:66     | DRB1*13:42+DRB1*15:27       |                          |                          |
| DRB1*13:05:01+DRB1*16:02:01  | DRB1*13:56+DRB1*16:01:01    |                          |                          |
| DRB1*13:05:01+DRB1*16:02:02  | DRB1*13:56+DRB1*16:01:02    |                          |                          |
| DRB1*13:05:01+DRB1*16:10     | DRB1*13:56+DRB1*16:09       |                          |                          |
| DRB1*13:05:01+DRB1*16:15     | DRB1*13:42+DRB1*16:01:01    |                          |                          |
| DRB1*13:05:01+DRB1*16:18     | DRB1*13:119+DRB1*16:01:02   |                          |                          |
| DRB1*13:05:02+DRB1*13:11:01  | DRB1*13:14:03+DRB1*13:42    |                          |                          |
| DRB1*13:05:02+DRB1*13:24     | DRB1*13:14:03+DRB1*13:111   |                          |                          |
| DRB1*13:05:02+DRB1*13:25     | DRB1*13:14:03+DRB1*13:56    |                          |                          |
| DRB1*13:05:02+DRB1*13:44     | DRB1*13:14:03+DRB1*14:17    |                          |                          |
| DRB1*13:05:02+DRB1*13:75     | DRB1*13:21:02+DRB1*13:111   |                          |                          |
| DRB1*13:05:02+DRB1*13:94     | DRB1*13:33:01+DRB1*13:42    |                          |                          |
| DRB1*13:05:02+DRB1*14:01:01G | DRB1*13:42+DRB1*14:07:02    |                          |                          |
| DRB1*13:05:02+DRB1*14:05:01  | DRB1*13:42+DRB1*14:44:03    |                          |                          |
| DRB1*13:05:02+DRB1*14:102    | DRB1*13:14:03+DRB1*14:03:01 |                          |                          |
| DRB1*13:05:02+DRB1*14:116    | DRB1*13:47+DRB1*13:56       |                          |                          |
| DRB1*13:05:02+DRB1*15:01:01G | DRB1*13:42+DRB1*15:02:09    |                          |                          |
| DRB1*13:05:02+DRB1*15:01:04  | DRB1*13:42+DRB1*15:02:05    |                          |                          |
| DRB1*13:05:02+DRB1*16:18     | DRB1*13:56+DRB1*16:04       |                          |                          |
| DRB1*13:06+DRB1*13:14:01     | DRB1*13:42+DRB1*13:82       |                          |                          |
| DRB1*13:06+DRB1*13:21:01     | DRB1*13:30+DRB1*13:42       |                          |                          |
| DRB1*13:06+DRB1*13:49        | DRB1*13:12:01+DRB1*13:42    |                          |                          |
| DRB1*13:06+DRB1*13:55        | DRB1*13:12:02+DRB1*13:18    |                          |                          |
| DRB1*13:06+DRB1*13:66:01     | DRB1*13:10+DRB1*13:30       |                          |                          |
| DRB1*13:06+DRB1*13:81        | DRB1*13:10+DRB1*13:58       |                          |                          |
| DRB1*13:06+DRB1*13:88        | DRB1*13:56+DRB1*13:89       |                          |                          |
| DRB1*13:06+DRB1*14:07:01     | DRB1*13:56+DRB1*14:122      |                          |                          |
| DRB1*13:06+DRB1*14:19        | DRB1*13:10+DRB1*14:02       | DRB1*13:85+DRB1*14:17    |                          |
| DRB1*13:06+DRB1*14:21        | DRB1*13:10+DRB1*14:17       |                          |                          |
| DRB1*13:06+DRB1*14:27        | DRB1*13:42+DRB1*14:67       |                          |                          |
| DRB1*13:06+DRB1*14:44:01     | DRB1*13:56+DRB1*14:45       |                          |                          |
| DRB1*13:06+DRB1*14:68        | DRB1*13:56+DRB1*14:120      |                          |                          |
| DRB1*13:06+DRB1*14:85        | DRB1*13:56+DRB1*14:78       |                          |                          |
| DRB1*13:06+DRB1*14:89        | DRB1*14:17+DRB1*14:67       |                          |                          |
| DRB1*13:06+DRB1*14:102       | DRB1*13:82+DRB1*14:12:01    |                          |                          |
| DRB1*13:06+DRB1*15:04        | DRB1*13:42+DRB1*15:01:01G   |                          |                          |
| DRB1*13:06+DRB1*15:31        | DRB1*13:56+DRB1*15:01:01G   |                          |                          |
| DRB1*13:06+DRB1*16:01:01     | DRB1*13:42+DRB1*16:05:01    |                          |                          |
| DRB1*13:07:01+DRB1*13:11:02  | DRB1*13:07:02+DRB1*13:11:01 |                          |                          |
| DRB1*13:07:01+DRB1*13:14:02  | DRB1*13:07:02+DRB1*13:14:01 |                          |                          |
| DRB1*13:07:01+DRB1*13:15     | DRB1*13:14:01+DRB1*13:53    | DRB1*13:22+DRB1*13:26:02 |                          |
| DRB1*13:07:01+DRB1*13:21:01  | DRB1*13:14:01+DRB1*13:49    |                          |                          |
| DRB1*13:07:01+DRB1*13:21:02  | DRB1*13:14:03+DRB1*13:49    |                          |                          |
| DRB1*13:07:01+DRB1*13:22     | DRB1*13:14:01+DRB1*13:70    |                          |                          |
| DRB1*13:07:01+DRB1*13:30     | DRB1*13:12:01+DRB1*13:14:01 | DRB1*13:49+DRB1*13:82    |                          |
| DRB1*13:07:01+DRB1*13:31     | DRB1*13:36+DRB1*13:46       |                          |                          |
| DRB1*13:07:01+DRB1*13:32     | DRB1*13:36+DRB1*13:108      | DRB1*13:40+DRB1*13:49    |                          |
| DRB1*13:07:01+DRB1*13:43     | DRB1*13:20+DRB1*14:25       | DRB1*13:111+DRB1*14:69   |                          |
| DRB1*13:07:01+DRB1*13:45     | DRB1*13:23:01+DRB1*14:25    |                          |                          |
| DRB1*13:07:01+DRB1*13:48     | DRB1*13:49+DRB1*13:70       |                          |                          |
| DRB1*13:07:01+DRB1*13:52     | DRB1*13:70+DRB1*13:132      |                          |                          |
| DRB1*13:07:01+DRB1*13:53     | DRB1*13:26:02+DRB1*13:70    |                          |                          |
| DRB1*13:07:01+DRB1*13:55     | DRB1*13:47+DRB1*13:49       |                          |                          |
| DRB1*13:07:01+DRB1*13:57     | DRB1*13:14:01+DRB1*13:19    |                          |                          |
| DRB1*13:07:01+DRB1*13:65     | DRB1*13:36+DRB1*13:49       |                          |                          |
| DRB1*13:07:01+DRB1*13:69     | DRB1*13:50:02+DRB1*13:70    |                          |                          |

|                              |                             |                              |                             |
|------------------------------|-----------------------------|------------------------------|-----------------------------|
| DRB1*13:07:01+DRB1*13:75     | DRB1*13:24+DRB1*13:49       |                              |                             |
| DRB1*13:07:01+DRB1*13:83     | DRB1*13:08+DRB1*13:14:01    |                              |                             |
| DRB1*13:07:01+DRB1*13:87     | DRB1*13:08+DRB1*13:50:01    |                              |                             |
| DRB1*13:07:01+DRB1*13:89     | DRB1*13:37+DRB1*13:108      |                              |                             |
| DRB1*13:07:01+DRB1*13:104    | DRB1*13:23:02+DRB1*13:26:02 |                              |                             |
| DRB1*13:07:01+DRB1*14:01:01G | DRB1*14:23:01+DRB1*14:25    |                              |                             |
| DRB1*13:07:01+DRB1*14:03:01  | DRB1*13:26:02+DRB1*14:116   |                              |                             |
| DRB1*13:07:01+DRB1*14:07:01  | DRB1*14:14+DRB1*14:25       |                              |                             |
| DRB1*13:07:01+DRB1*14:13     | DRB1*13:49+DRB1*14:02       |                              |                             |
| DRB1*13:07:01+DRB1*14:16     | DRB1*13:08+DRB1*14:25       | DRB1*13:70+DRB1*14:22        |                             |
| DRB1*13:07:01+DRB1*14:17     | DRB1*13:11:01+DRB1*14:09    | DRB1*13:14:01+DRB1*14:80     |                             |
| DRB1*13:07:01+DRB1*14:30     | DRB1*13:14:01+DRB1*14:09    |                              |                             |
| DRB1*13:07:01+DRB1*14:32:02  | DRB1*14:25+DRB1*14:123      |                              |                             |
| DRB1*13:07:01+DRB1*14:35     | DRB1*13:11:01+DRB1*14:07:01 | DRB1*13:14:01+DRB1*14:01:01G | DRB1*14:23:01+DRB1*14:53    |
| DRB1*13:07:01+DRB1*14:53     | DRB1*13:14:01+DRB1*14:25    |                              |                             |
| DRB1*13:07:01+DRB1*14:63     | DRB1*13:12:01+DRB1*14:27    | DRB1*13:13+DRB1*13:26:02     | DRB1*13:49+DRB1*14:67       |
| DRB1*13:07:01+DRB1*14:65     | DRB1*13:21:01+DRB1*14:123   |                              |                             |
| DRB1*13:07:01+DRB1*14:78     | DRB1*13:108+DRB1*14:67      |                              |                             |
| DRB1*13:07:01+DRB1*14:85     | DRB1*13:49+DRB1*14:03:01    | DRB1*13:134+DRB1*14:27       |                             |
| DRB1*13:07:01+DRB1*15:01:01G | DRB1*13:07:02+DRB1*15:01:04 | DRB1*13:11:01+DRB1*15:11     | DRB1*13:14:01+DRB1*15:07:01 |
|                              | DRB1*13:14:02+DRB1*15:07:02 |                              |                             |
|                              | DRB1*13:14:01+DRB1*15:07:02 |                              |                             |
| DRB1*13:07:01+DRB1*15:01:04  | DRB1*13:07:02+DRB1*15:02:02 | DRB1*13:14:01+DRB1*15:11     |                             |
| DRB1*13:07:01+DRB1*15:02:01  | DRB1*13:07:02+DRB1*15:02:05 | DRB1*13:14:03+DRB1*15:11     |                             |
| DRB1*13:07:01+DRB1*15:02:09  | DRB1*13:07:02+DRB1*15:07:02 |                              |                             |
| DRB1*13:07:01+DRB1*15:07:01  | DRB1*13:14:01+DRB1*15:48    |                              |                             |
| DRB1*13:07:01+DRB1*15:09     | DRB1*13:22+DRB1*16:01:02    |                              |                             |
| DRB1*13:07:01+DRB1*15:10     | DRB1*13:21:01+DRB1*15:07:02 | DRB1*13:49+DRB1*15:01:04     | DRB1*13:108+DRB1*15:02:02   |
| DRB1*13:07:01+DRB1*15:12     | DRB1*13:14:01+DRB1*15:34    |                              |                             |
| DRB1*13:07:01+DRB1*15:27     | DRB1*13:50:01+DRB1*15:07:01 |                              |                             |
| DRB1*13:07:01+DRB1*15:32     | DRB1*13:11:01+DRB1*15:34    | DRB1*13:44+DRB1*16:01:02     |                             |
| DRB1*13:07:01+DRB1*15:66     | DRB1*13:47+DRB1*16:01:02    |                              |                             |
| DRB1*13:07:01+DRB1*16:04     | DRB1*13:14:01+DRB1*16:01:01 |                              |                             |
| DRB1*13:07:01+DRB1*16:09     | DRB1*13:14:01+DRB1*16:02:01 | DRB1*13:25+DRB1*16:01:01     |                             |
| DRB1*13:07:01+DRB1*16:10     | DRB1*14:116+DRB1*16:01:02   |                              |                             |
| DRB1*13:07:01+DRB1*16:18     | DRB1*13:14:02+DRB1*13:53    |                              |                             |
| DRB1*13:07:02+DRB1*13:15     | DRB1*13:14:02+DRB1*13:116   |                              |                             |
| DRB1*13:07:02+DRB1*13:17     | DRB1*13:14:02+DRB1*13:49    |                              |                             |
| DRB1*13:07:02+DRB1*13:21:01  | DRB1*13:14:02+DRB1*13:70    |                              |                             |
| DRB1*13:07:02+DRB1*13:22     | DRB1*13:12:01+DRB1*13:14:02 |                              |                             |
| DRB1*13:07:02+DRB1*13:30     | DRB1*13:14:02+DRB1*13:19    |                              |                             |
| DRB1*13:07:02+DRB1*13:57     | DRB1*13:08+DRB1*13:14:02    |                              |                             |
| DRB1*13:07:02+DRB1*13:83     | DRB1*13:11:02+DRB1*14:09    | DRB1*13:14:02+DRB1*14:80     |                             |
| DRB1*13:07:02+DRB1*14:17     | DRB1*13:14:02+DRB1*14:09    |                              |                             |
| DRB1*13:07:02+DRB1*14:30     | DRB1*13:11:02+DRB1*14:07:01 | DRB1*13:14:02+DRB1*14:01:01G |                             |
| DRB1*13:07:02+DRB1*14:35     | DRB1*13:14:02+DRB1*14:25    |                              |                             |
| DRB1*13:07:02+DRB1*14:53     | DRB1*13:11:02+DRB1*15:11    | DRB1*13:14:02+DRB1*15:07:01  |                             |
| DRB1*13:07:02+DRB1*15:01:01G | DRB1*13:14:02+DRB1*15:11    |                              |                             |
| DRB1*13:07:02+DRB1*15:02:01  | DRB1*13:14:02+DRB1*15:48    |                              |                             |
| DRB1*13:07:02+DRB1*15:09     | DRB1*13:12:01+DRB1*15:04    | DRB1*13:21:01+DRB1*15:07:01  | DRB1*13:49+DRB1*15:01:01G   |
| DRB1*13:07:02+DRB1*15:12     | DRB1*13:108+DRB1*15:02:01   |                              |                             |
|                              | DRB1*13:14:02+DRB1*15:34    |                              |                             |
| DRB1*13:07:02+DRB1*15:27     | DRB1*13:11:02+DRB1*15:34    |                              |                             |
| DRB1*13:07:02+DRB1*15:66     | DRB1*13:14:02+DRB1*16:01:01 |                              |                             |
| DRB1*13:07:02+DRB1*16:09     | DRB1*13:14:02+DRB1*16:02:01 |                              |                             |
| DRB1*13:07:02+DRB1*16:10     | DRB1*13:83+DRB1*13:116      | DRB1*13:107+DRB1*13:108      |                             |
| DRB1*13:08+DRB1*13:17        | DRB1*13:49+DRB1*13:83       |                              |                             |
| DRB1*13:08+DRB1*13:21:01     | DRB1*13:70+DRB1*13:83       |                              |                             |
| DRB1*13:08+DRB1*13:22        | DRB1*13:70+DRB1*13:107      |                              |                             |
| DRB1*13:08+DRB1*13:23:02     | DRB1*13:12:01+DRB1*13:83    |                              |                             |
| DRB1*13:08+DRB1*13:30        | DRB1*13:36+DRB1*13:64       |                              |                             |
| DRB1*13:08+DRB1*13:34        | DRB1*13:20+DRB1*14:16       |                              |                             |
| DRB1*13:08+DRB1*13:43        | DRB1*13:23:01+DRB1*14:16    |                              |                             |
| DRB1*13:08+DRB1*13:45        | DRB1*13:19+DRB1*13:40       |                              |                             |
| DRB1*13:08+DRB1*13:53        | DRB1*13:19+DRB1*13:83       |                              |                             |
| DRB1*13:08+DRB1*13:57        | DRB1*13:23:02+DRB1*14:20    |                              |                             |
| DRB1*13:08+DRB1*13:86        | DRB1*13:32+DRB1*13:83       | DRB1*13:65+DRB1*13:83        |                             |
| DRB1*13:08+DRB1*13:93        | DRB1*13:32+DRB1*13:107      | DRB1*14:16+DRB1*14:23:01     |                             |
| DRB1*13:08+DRB1*13:139       | DRB1*13:76+DRB1*14:32:01    | DRB1*13:36+DRB1*14:20        |                             |
| DRB1*13:08+DRB1*14:01:01G    | DRB1*13:19+DRB1*14:09       |                              |                             |
| DRB1*13:08+DRB1*14:02        | DRB1*13:40+DRB1*14:40       |                              |                             |
| DRB1*13:08+DRB1*14:03:01     | DRB1*14:16+DRB1*14:126      |                              |                             |
| DRB1*13:08+DRB1*14:04        | DRB1*13:72+DRB1*14:23:01    |                              |                             |
| DRB1*13:08+DRB1*14:05:01     | DRB1*13:19+DRB1*14:80       | DRB1*13:40+DRB1*14:20        |                             |
| DRB1*13:08+DRB1*14:06:01     | DRB1*14:14+DRB1*14:16       |                              |                             |
| DRB1*13:08+DRB1*14:07:01     | DRB1*13:65+DRB1*14:20       |                              |                             |
| DRB1*13:08+DRB1*14:13        | DRB1*13:83+DRB1*14:80       |                              |                             |
| DRB1*13:08+DRB1*14:17        | DRB1*13:53+DRB1*14:23:03    |                              |                             |
| DRB1*13:08+DRB1*14:18        | DRB1*13:83+DRB1*14:09       | DRB1*13:107+DRB1*14:80       |                             |
| DRB1*13:08+DRB1*14:30        | DRB1*14:16+DRB1*14:123      |                              |                             |
| DRB1*13:08+DRB1*14:32:02     | DRB1*13:83+DRB1*14:01:01G   |                              |                             |
| DRB1*13:08+DRB1*14:35        | DRB1*13:22+DRB1*14:14       | DRB1*13:23:02+DRB1*14:23:01  |                             |
| DRB1*13:08+DRB1*14:42        | DRB1*13:72+DRB1*14:14       |                              |                             |
| DRB1*13:08+DRB1*14:44:01     | DRB1*13:19+DRB1*14:119      |                              |                             |
| DRB1*13:08+DRB1*14:49        | DRB1*13:14:01+DRB1*14:16    | DRB1*13:22+DRB1*14:22        | DRB1*13:83+DRB1*14:25       |
| DRB1*13:08+DRB1*14:53        | DRB1*13:70+DRB1*14:01:01G   |                              |                             |
| DRB1*13:08+DRB1*14:58        | DRB1*13:79+DRB1*14:23:01    |                              |                             |
| DRB1*13:08+DRB1*14:64        | DRB1*13:32+DRB1*14:40       |                              |                             |
| DRB1*13:08+DRB1*14:85        | DRB1*13:84+DRB1*14:05:01    |                              |                             |
| DRB1*13:08+DRB1*14:91        | DRB1*13:27+DRB1*14:23:01    |                              |                             |
| DRB1*13:08+DRB1*14:95        | DRB1*13:72+DRB1*14:123      |                              |                             |
| DRB1*13:08+DRB1*14:100       | DRB1*13:19+DRB1*14:116      | DRB1*13:70+DRB1*14:40        |                             |
| DRB1*13:08+DRB1*14:102       | DRB1*13:19+DRB1*14:70       |                              |                             |
| DRB1*13:08+DRB1*14:124       | DRB1*13:83+DRB1*15:07:01    |                              |                             |
| DRB1*13:08+DRB1*15:01:01G    | DRB1*13:83+DRB1*15:07:02    |                              |                             |
| DRB1*13:08+DRB1*15:01:04     | DRB1*13:83+DRB1*15:11       | DRB1*13:107+DRB1*15:07:01    |                             |
| DRB1*13:08+DRB1*15:02:01     | DRB1*13:107+DRB1*15:07:02   |                              |                             |
| DRB1*13:08+DRB1*15:02:02     | DRB1*13:83+DRB1*15:48       |                              |                             |
| DRB1*13:08+DRB1*15:09        | DRB1*13:83+DRB1*15:34       |                              |                             |
| DRB1*13:08+DRB1*15:27        | DRB1*13:87+DRB1*15:07:01    |                              |                             |
| DRB1*13:08+DRB1*15:32        | DRB1*13:135+DRB1*15:01:01G  |                              |                             |
| DRB1*13:08+DRB1*15:47        | DRB1*13:83+DRB1*16:01:01    | DRB1*13:107+DRB1*16:15       |                             |
| DRB1*13:08+DRB1*16:09        | DRB1*13:83+DRB1*16:02:01    |                              |                             |
| DRB1*13:08+DRB1*16:10        | DRB1*13:42+DRB1*14:24       |                              |                             |
| DRB1*13:09+DRB1*13:26:02     | DRB1*13:20+DRB1*13:129      |                              |                             |
| DRB1*13:09+DRB1*13:71        |                             |                              |                             |

|                              |                              |                              |                             |
|------------------------------|------------------------------|------------------------------|-----------------------------|
| DRB1*13:09+DRB1*13:85        | DRB1*13:10+DRB1*14:24        |                              |                             |
| DRB1*13:09+DRB1*14:02        | DRB1*14:17+DRB1*14:24        |                              |                             |
| DRB1*13:09+DRB1*14:19        | DRB1*14:21+DRB1*14:24        |                              |                             |
| DRB1*13:09+DRB1*14:27        | DRB1*13:18+DRB1*14:24        |                              |                             |
| DRB1*13:09+DRB1*14:51        | DRB1*14:24+DRB1*14:33        |                              |                             |
| DRB1*13:09+DRB1*14:82        | DRB1*13:129+DRB1*14:01:01G   |                              |                             |
| DRB1*13:09+DRB1*15:27        | DRB1*14:17+DRB1*15:02:01     | DRB1*14:30+DRB1*15:01:01G    |                             |
| DRB1*13:09+DRB1*15:34        | DRB1*14:09+DRB1*15:01:01G    | DRB1*14:17+DRB1*15:11        | DRB1*14:30+DRB1*15:07:01    |
|                              | DRB1*14:80+DRB1*15:02:01     |                              |                             |
| DRB1*13:09+DRB1*15:54        | DRB1*14:17+DRB1*15:03:01G    |                              |                             |
| DRB1*13:09+DRB1*15:66        | DRB1*14:17+DRB1*15:01:01G    |                              |                             |
| DRB1*13:09+DRB1*16:02:02     | DRB1*13:56+DRB1*15:07:01     |                              |                             |
| DRB1*13:09+DRB1*16:18        | DRB1*13:119+DRB1*15:07:01    |                              |                             |
| DRB1*13:10+DRB1*13:21:01     | DRB1*13:42+DRB1*13:66:01     |                              |                             |
| DRB1*13:10+DRB1*13:21:02     | DRB1*13:42+DRB1*13:66:02     |                              |                             |
| DRB1*13:10+DRB1*13:26:02     | DRB1*13:42+DRB1*13:85        |                              |                             |
| DRB1*13:10+DRB1*13:47        | DRB1*13:18+DRB1*13:37        |                              |                             |
| DRB1*13:10+DRB1*14:19        | DRB1*13:85+DRB1*14:21        |                              |                             |
| DRB1*13:10+DRB1*14:27        | DRB1*13:18+DRB1*13:85        |                              |                             |
| DRB1*13:10+DRB1*14:51        | DRB1*13:85+DRB1*14:33        |                              |                             |
| DRB1*13:10+DRB1*14:89        | DRB1*14:21+DRB1*14:67        |                              |                             |
| DRB1*13:11:01+DRB1*13:12:01  | DRB1*13:82+DRB1*13:108       |                              |                             |
| DRB1*13:11:01+DRB1*13:14:02  | DRB1*13:11:02+DRB1*13:14:01  |                              |                             |
| DRB1*13:11:01+DRB1*13:23:01  | DRB1*13:14:03+DRB1*13:22     | DRB1*13:24+DRB1*13:82        |                             |
| DRB1*13:11:01+DRB1*13:23:02  | DRB1*13:14:01+DRB1*13:22     | DRB1*13:24+DRB1*13:56        | DRB1*13:25+DRB1*13:111      |
| DRB1*13:11:01+DRB1*13:29     | DRB1*13:14:01+DRB1*13:20     |                              |                             |
| DRB1*13:11:01+DRB1*13:33:01  | DRB1*13:14:03+DRB1*13:94     |                              |                             |
| DRB1*13:11:01+DRB1*13:34     | DRB1*13:22+DRB1*13:136       |                              |                             |
| DRB1*13:11:01+DRB1*13:38     | DRB1*13:12:02+DRB1*13:24     | DRB1*13:14:03+DRB1*13:48     | DRB1*13:21:02+DRB1*13:70    |
|                              | DRB1*13:23:01+DRB1*13:108    |                              |                             |
| DRB1*13:11:01+DRB1*13:39     | DRB1*13:14:01+DRB1*13:79     |                              |                             |
| DRB1*13:11:01+DRB1*13:40     | DRB1*13:42+DRB1*13:70        |                              |                             |
| DRB1*13:11:01+DRB1*13:41     | DRB1*13:14:01+DRB1*13:27     |                              |                             |
| DRB1*13:11:01+DRB1*13:48     | DRB1*13:22+DRB1*13:108       |                              |                             |
| DRB1*13:11:01+DRB1*13:49     | DRB1*13:14:01+DRB1*13:108    |                              |                             |
| DRB1*13:11:01+DRB1*13:56     | DRB1*13:25+DRB1*13:42        |                              |                             |
| DRB1*13:11:01+DRB1*13:96:01  | DRB1*13:14:01+DRB1*13:61:02  |                              |                             |
| DRB1*13:11:01+DRB1*13:96:02  | DRB1*13:14:01+DRB1*13:61:01  |                              |                             |
| DRB1*13:11:01+DRB1*13:97:01  | DRB1*13:14:01+DRB1*13:52     | DRB1*13:22+DRB1*13:132       |                             |
| DRB1*13:11:01+DRB1*13:104    | DRB1*13:14:01+DRB1*13:15     |                              |                             |
| DRB1*13:11:01+DRB1*13:107    | DRB1*13:14:01+DRB1*13:83     |                              |                             |
| DRB1*13:11:01+DRB1*13:111    | DRB1*13:24+DRB1*13:42        |                              |                             |
| DRB1*13:11:01+DRB1*13:115    | DRB1*13:50:01+DRB1*13:89     |                              |                             |
| DRB1*13:11:01+DRB1*13:119    | DRB1*13:18+DRB1*13:25        |                              |                             |
| DRB1*13:11:01+DRB1*13:128    | DRB1*13:14:01+DRB1*13:112    |                              |                             |
| DRB1*13:11:01+DRB1*13:134    | DRB1*13:25+DRB1*13:108       |                              |                             |
| DRB1*13:11:01+DRB1*14:02     | DRB1*13:14:01+DRB1*14:06:01  | DRB1*13:25+DRB1*14:108       | DRB1*13:26:02+DRB1*13:44    |
| DRB1*13:11:01+DRB1*14:03:01  | DRB1*13:14:01+DRB1*14:12:01  | DRB1*13:42+DRB1*14:102       |                             |
| DRB1*13:11:01+DRB1*14:07:02  | DRB1*13:14:03+DRB1*14:01:01G |                              |                             |
| DRB1*13:11:01+DRB1*14:13     | DRB1*13:21:01+DRB1*14:06:01  |                              |                             |
| DRB1*13:11:01+DRB1*14:14     | DRB1*13:14:01+DRB1*14:23:01  |                              |                             |
| DRB1*13:11:01+DRB1*14:17     | DRB1*13:42+DRB1*13:44        |                              |                             |
| DRB1*13:11:01+DRB1*14:44:01  | DRB1*13:14:01+DRB1*14:05:01  |                              |                             |
| DRB1*13:11:01+DRB1*14:44:02  | DRB1*13:14:01+DRB1*14:05:03  |                              |                             |
| DRB1*13:11:01+DRB1*14:44:03  | DRB1*13:14:03+DRB1*14:05:01  |                              |                             |
| DRB1*13:11:01+DRB1*14:48     | DRB1*13:100+DRB1*14:06:01    |                              |                             |
| DRB1*13:11:01+DRB1*14:49     | DRB1*14:20+DRB1*14:53        |                              |                             |
| DRB1*13:11:01+DRB1*14:51     | DRB1*13:14:01+DRB1*14:106    |                              |                             |
| DRB1*13:11:01+DRB1*14:63     | DRB1*13:14:01+DRB1*14:78     |                              |                             |
| DRB1*13:11:01+DRB1*14:85     | DRB1*13:21:01+DRB1*14:12:01  |                              |                             |
| DRB1*13:11:01+DRB1*14:89     | DRB1*13:44+DRB1*14:27        |                              |                             |
| DRB1*13:11:01+DRB1*14:119    | DRB1*13:44+DRB1*14:22        |                              |                             |
| DRB1*13:11:01+DRB1*15:01:01G | DRB1*13:11:02+DRB1*15:01:04  |                              |                             |
| DRB1*13:11:01+DRB1*15:02:01  | DRB1*13:11:02+DRB1*15:02:02  | DRB1*13:14:01+DRB1*15:01:01G | DRB1*13:14:02+DRB1*15:01:04 |
|                              | DRB1*13:82+DRB1*15:04        |                              |                             |
| DRB1*13:11:01+DRB1*15:02:02  | DRB1*13:14:01+DRB1*15:01:04  |                              |                             |
| DRB1*13:11:01+DRB1*15:02:04  | DRB1*13:14:01+DRB1*15:01:09  |                              |                             |
| DRB1*13:11:01+DRB1*15:02:05  | DRB1*13:14:03+DRB1*15:01:04  |                              |                             |
| DRB1*13:11:01+DRB1*15:02:06  | DRB1*13:14:01+DRB1*15:01:03  |                              |                             |
| DRB1*13:11:01+DRB1*15:02:08  | DRB1*13:14:01+DRB1*15:01:10  |                              |                             |
| DRB1*13:11:01+DRB1*15:02:09  | DRB1*13:11:02+DRB1*15:02:05  | DRB1*13:14:03+DRB1*15:01:01G |                             |
| DRB1*13:11:01+DRB1*15:07:01  | DRB1*13:11:02+DRB1*15:07:02  |                              |                             |
| DRB1*13:11:01+DRB1*15:15     | DRB1*13:14:01+DRB1*15:04     |                              |                             |
| DRB1*13:11:01+DRB1*15:27     | DRB1*13:14:01+DRB1*15:66     |                              |                             |
| DRB1*13:11:01+DRB1*15:31     | DRB1*13:14:01+DRB1*15:05     | DRB1*13:25+DRB1*15:04        |                             |
| DRB1*13:11:01+DRB1*15:47     | DRB1*13:14:01+DRB1*15:65     |                              |                             |
| DRB1*13:11:01+DRB1*16:01:01  | DRB1*13:14:01+DRB1*16:15     |                              |                             |
| DRB1*13:11:01+DRB1*16:02:01  | DRB1*13:25+DRB1*16:15        |                              |                             |
| DRB1*13:11:01+DRB1*16:05:01  | DRB1*13:82+DRB1*16:15        |                              |                             |
| DRB1*13:11:02+DRB1*13:23:02  | DRB1*13:14:02+DRB1*13:22     |                              |                             |
| DRB1*13:11:02+DRB1*13:29     | DRB1*13:14:02+DRB1*13:20     |                              |                             |
| DRB1*13:11:02+DRB1*13:39     | DRB1*13:14:02+DRB1*13:79     |                              |                             |
| DRB1*13:11:02+DRB1*13:41     | DRB1*13:14:02+DRB1*13:27     |                              |                             |
| DRB1*13:11:02+DRB1*13:49     | DRB1*13:14:02+DRB1*13:108    |                              |                             |
| DRB1*13:11:02+DRB1*13:63     | DRB1*13:14:02+DRB1*13:111    |                              |                             |
| DRB1*13:11:02+DRB1*13:96:01  | DRB1*13:14:02+DRB1*13:61:02  |                              |                             |
| DRB1*13:11:02+DRB1*13:96:02  | DRB1*13:14:02+DRB1*13:61:01  |                              |                             |
| DRB1*13:11:02+DRB1*13:97:01  | DRB1*13:14:02+DRB1*13:52     |                              |                             |
| DRB1*13:11:02+DRB1*13:104    | DRB1*13:14:02+DRB1*13:15     |                              |                             |
| DRB1*13:11:02+DRB1*13:107    | DRB1*13:14:02+DRB1*13:83     |                              |                             |
| DRB1*13:11:02+DRB1*13:128    | DRB1*13:14:02+DRB1*13:112    |                              |                             |
| DRB1*13:11:02+DRB1*14:02     | DRB1*13:14:02+DRB1*14:06:01  |                              |                             |
| DRB1*13:11:02+DRB1*14:03:01  | DRB1*13:14:02+DRB1*14:12:01  |                              |                             |
| DRB1*13:11:02+DRB1*14:14     | DRB1*13:14:02+DRB1*14:23:01  |                              |                             |
| DRB1*13:11:02+DRB1*14:30     | DRB1*13:14:02+DRB1*14:17     |                              |                             |
| DRB1*13:11:02+DRB1*14:44:01  | DRB1*13:14:02+DRB1*14:05:01  |                              |                             |
| DRB1*13:11:02+DRB1*14:44:02  | DRB1*13:14:02+DRB1*14:05:03  |                              |                             |
| DRB1*13:11:02+DRB1*14:51     | DRB1*13:14:02+DRB1*14:106    |                              |                             |
| DRB1*13:11:02+DRB1*14:63     | DRB1*13:14:02+DRB1*14:78     |                              |                             |
| DRB1*13:11:02+DRB1*14:68     | DRB1*13:14:02+DRB1*14:04     |                              |                             |
| DRB1*13:11:02+DRB1*15:02:01  | DRB1*13:14:02+DRB1*15:01:01G |                              |                             |
| DRB1*13:11:02+DRB1*15:02:04  | DRB1*13:14:02+DRB1*15:01:09  |                              |                             |
| DRB1*13:11:02+DRB1*15:02:06  | DRB1*13:14:02+DRB1*15:01:03  |                              |                             |
| DRB1*13:11:02+DRB1*15:02:08  | DRB1*13:14:02+DRB1*15:01:10  |                              |                             |
| DRB1*13:11:02+DRB1*15:15     | DRB1*13:14:02+DRB1*15:04     |                              |                             |

|                              |                             |                           |
|------------------------------|-----------------------------|---------------------------|
| DRB1*13:11:02+DRB1*15:27     | DRB1*13:14:02+DRB1*15:66    |                           |
| DRB1*13:11:02+DRB1*15:31     | DRB1*13:14:02+DRB1*15:05    |                           |
| DRB1*13:11:02+DRB1*15:38     | DRB1*13:14:01+DRB1*15:71    |                           |
| DRB1*13:11:02+DRB1*15:47     | DRB1*13:14:02+DRB1*15:65    |                           |
| DRB1*13:11:02+DRB1*16:01:01  | DRB1*13:14:02+DRB1*16:15    |                           |
| DRB1*13:12:01+DRB1*13:14:03  | DRB1*13:12:02+DRB1*13:14:01 |                           |
| DRB1*13:12:01+DRB1*13:15     | DRB1*13:30+DRB1*13:53       |                           |
| DRB1*13:12:01+DRB1*13:18     | DRB1*13:13+DRB1*13:42       |                           |
| DRB1*13:12:01+DRB1*13:21:01  | DRB1*13:30+DRB1*13:49       |                           |
| DRB1*13:12:01+DRB1*13:21:02  | DRB1*13:12:02+DRB1*13:21:01 |                           |
| DRB1*13:12:01+DRB1*13:22     | DRB1*13:30+DRB1*13:70       | DRB1*13:48+DRB1*13:82     |
| DRB1*13:12:01+DRB1*13:23:01  | DRB1*13:12:02+DRB1*13:23:02 | DRB1*13:38+DRB1*13:82     |
| DRB1*13:12:01+DRB1*13:25     | DRB1*13:82+DRB1*13:134      |                           |
| DRB1*13:12:01+DRB1*13:33:03  | DRB1*13:12:02+DRB1*13:33:02 |                           |
| DRB1*13:12:01+DRB1*13:43     | DRB1*13:93+DRB1*14:69       |                           |
| DRB1*13:12:01+DRB1*13:54     | DRB1*13:48+DRB1*13:100      |                           |
| DRB1*13:12:01+DRB1*13:57     | DRB1*13:19+DRB1*13:30       |                           |
| DRB1*13:12:01+DRB1*13:71     | DRB1*13:27+DRB1*13:134      |                           |
| DRB1*13:12:01+DRB1*13:78     | DRB1*13:79+DRB1*13:134      |                           |
| DRB1*13:12:01+DRB1*13:93     | DRB1*13:30+DRB1*13:32       |                           |
| DRB1*13:12:01+DRB1*13:119    | DRB1*13:13+DRB1*13:56       |                           |
| DRB1*13:12:01+DRB1*13:139    | DRB1*13:30+DRB1*13:65       |                           |
| DRB1*13:12:01+DRB1*14:01:01G | DRB1*13:134+DRB1*14:122     |                           |
| DRB1*13:12:01+DRB1*14:03:01  | DRB1*13:134+DRB1*14:67      |                           |
| DRB1*13:12:01+DRB1*14:05:01  | DRB1*13:134+DRB1*14:45      |                           |
| DRB1*13:12:01+DRB1*14:06:02  | DRB1*13:12:02+DRB1*14:06:01 |                           |
| DRB1*13:12:01+DRB1*14:07:02  | DRB1*13:12:02+DRB1*14:07:01 |                           |
| DRB1*13:12:01+DRB1*14:17     | DRB1*13:30+DRB1*14:80       |                           |
| DRB1*13:12:01+DRB1*14:29     | DRB1*13:58+DRB1*14:02       |                           |
| DRB1*13:12:01+DRB1*14:30     | DRB1*13:30+DRB1*14:09       |                           |
| DRB1*13:12:01+DRB1*14:35     | DRB1*13:30+DRB1*14:01:01G   |                           |
| DRB1*13:12:01+DRB1*14:44:03  | DRB1*13:12:02+DRB1*14:44:01 |                           |
| DRB1*13:12:01+DRB1*14:53     | DRB1*13:30+DRB1*14:25       |                           |
| DRB1*13:12:01+DRB1*14:55     | DRB1*13:13+DRB1*14:32:02    |                           |
| DRB1*13:12:01+DRB1*14:85     | DRB1*13:134+DRB1*14:63      |                           |
| DRB1*13:12:01+DRB1*14:86     | DRB1*13:118+DRB1*14:01:01G  |                           |
| DRB1*13:12:01+DRB1*14:89     | DRB1*13:13+DRB1*14:02       |                           |
| DRB1*13:12:01+DRB1*14:96     | DRB1*13:118+DRB1*14:05:01   |                           |
| DRB1*13:12:01+DRB1*14:99     | DRB1*13:58+DRB1*14:07:01    |                           |
| DRB1*13:12:01+DRB1*15:01:01G | DRB1*13:30+DRB1*15:07:01    |                           |
| DRB1*13:12:01+DRB1*15:01:04  | DRB1*13:30+DRB1*15:07:02    |                           |
| DRB1*13:12:01+DRB1*15:02:01  | DRB1*13:30+DRB1*15:11       |                           |
| DRB1*13:12:01+DRB1*15:02:05  | DRB1*13:12:02+DRB1*15:02:02 |                           |
| DRB1*13:12:01+DRB1*15:02:09  | DRB1*13:12:02+DRB1*15:02:01 |                           |
| DRB1*13:12:01+DRB1*15:05     | DRB1*13:134+DRB1*15:01:01G  |                           |
| DRB1*13:12:01+DRB1*15:09     | DRB1*13:30+DRB1*15:48       |                           |
| DRB1*13:12:01+DRB1*15:15     | DRB1*13:21:01+DRB1*15:11    | DRB1*13:49+DRB1*15:02:01  |
| DRB1*13:12:01+DRB1*15:23     | DRB1*13:134+DRB1*15:03:01G  |                           |
| DRB1*13:12:01+DRB1*15:27     | DRB1*13:30+DRB1*15:34       |                           |
| DRB1*13:12:01+DRB1*15:31     | DRB1*13:134+DRB1*15:02:01   |                           |
| DRB1*13:12:01+DRB1*15:35     | DRB1*13:58+DRB1*15:02:01    |                           |
| DRB1*13:12:01+DRB1*15:47     | DRB1*13:118+DRB1*15:02:01   |                           |
| DRB1*13:12:01+DRB1*15:63     | DRB1*13:134+DRB1*15:38      |                           |
| DRB1*13:12:01+DRB1*15:65     | DRB1*13:118+DRB1*15:01:01G  |                           |
| DRB1*13:12:01+DRB1*15:73     | DRB1*13:134+DRB1*15:06:01   |                           |
| DRB1*13:12:01+DRB1*16:01:01  | DRB1*13:49+DRB1*16:05:01    |                           |
| DRB1*13:12:01+DRB1*16:02:01  | DRB1*13:134+DRB1*16:05:01   |                           |
| DRB1*13:12:01+DRB1*16:09     | DRB1*13:21:01+DRB1*16:05:01 | DRB1*13:30+DRB1*16:01:01  |
| DRB1*13:12:01+DRB1*16:10     | DRB1*13:30+DRB1*16:02:01    |                           |
| DRB1*13:12:01+DRB1*16:15     | DRB1*13:108+DRB1*16:05:01   |                           |
| DRB1*13:12:01+DRB1*16:18     | DRB1*13:13+DRB1*16:02:02    |                           |
| DRB1*13:12:02+DRB1*13:29     | DRB1*13:38+DRB1*13:56       |                           |
| DRB1*13:12:02+DRB1*13:75     | DRB1*13:21:02+DRB1*13:48    |                           |
| DRB1*13:12:02+DRB1*14:99     | DRB1*13:58+DRB1*14:07:02    |                           |
| DRB1*13:12:02+DRB1*15:04     | DRB1*13:21:02+DRB1*15:07:01 | DRB1*13:108+DRB1*15:02:09 |
| DRB1*13:12:02+DRB1*15:15     | DRB1*13:21:02+DRB1*15:11    | DRB1*13:49+DRB1*15:02:09  |
| DRB1*13:12:02+DRB1*15:31     | DRB1*13:134+DRB1*15:02:09   |                           |
| DRB1*13:12:02+DRB1*15:35     | DRB1*13:58+DRB1*15:02:09    |                           |
| DRB1*13:12:02+DRB1*15:47     | DRB1*13:118+DRB1*15:02:09   |                           |
| DRB1*13:12:02+DRB1*16:09     | DRB1*13:21:02+DRB1*16:05:01 |                           |
| DRB1*13:13+DRB1*13:14:03     | DRB1*13:30+DRB1*13:47       | DRB1*13:55+DRB1*13:82     |
| DRB1*13:13+DRB1*13:20        | DRB1*13:48+DRB1*13:119      | DRB1*13:93+DRB1*14:116    |
| DRB1*13:13+DRB1*13:21:02     | DRB1*13:30+DRB1*13:55       |                           |
| DRB1*13:13+DRB1*13:25        | DRB1*13:30+DRB1*14:116      |                           |
| DRB1*13:13+DRB1*13:29        | DRB1*13:139+DRB1*14:116     |                           |
| DRB1*13:13+DRB1*13:53        | DRB1*13:48+DRB1*14:67       | DRB1*13:70+DRB1*14:63     |
| DRB1*13:13+DRB1*13:104       | DRB1*13:23:02+DRB1*14:63    |                           |
| DRB1*13:13+DRB1*14:03:01     | DRB1*14:63+DRB1*14:116      |                           |
| DRB1*13:13+DRB1*14:12:01     | DRB1*14:78+DRB1*14:116      |                           |
| DRB1*13:13+DRB1*14:29        | DRB1*13:58+DRB1*14:89       |                           |
| DRB1*13:14:01+DRB1*13:21:02  | DRB1*13:14:03+DRB1*13:21:01 |                           |
| DRB1*13:14:01+DRB1*13:23:01  | DRB1*13:14:03+DRB1*13:23:02 |                           |
| DRB1*13:14:01+DRB1*13:29     | DRB1*13:25+DRB1*13:63       |                           |
| DRB1*13:14:01+DRB1*13:30     | DRB1*13:21:01+DRB1*13:82    |                           |
| DRB1*13:14:01+DRB1*13:33:03  | DRB1*13:14:03+DRB1*13:33:02 |                           |
| DRB1*13:14:01+DRB1*13:34     | DRB1*13:23:02+DRB1*13:136   |                           |
| DRB1*13:14:01+DRB1*13:38     | DRB1*13:23:01+DRB1*13:49    |                           |
| DRB1*13:14:01+DRB1*13:43     | DRB1*13:20+DRB1*14:53       |                           |
| DRB1*13:14:01+DRB1*13:45     | DRB1*13:23:01+DRB1*14:53    |                           |
| DRB1*13:14:01+DRB1*13:54     | DRB1*13:24+DRB1*13:100      |                           |
| DRB1*13:14:01+DRB1*13:55     | DRB1*13:21:01+DRB1*13:47    |                           |
| DRB1*13:14:01+DRB1*13:66:02  | DRB1*13:14:03+DRB1*13:66:01 |                           |
| DRB1*13:14:01+DRB1*13:69     | DRB1*13:22+DRB1*13:50:02    |                           |
| DRB1*13:14:01+DRB1*13:75     | DRB1*13:21:01+DRB1*13:24    |                           |
| DRB1*13:14:01+DRB1*13:87     | DRB1*13:50:01+DRB1*13:83    |                           |
| DRB1*13:14:01+DRB1*13:97:01  | DRB1*13:23:02+DRB1*13:132   |                           |
| DRB1*13:14:01+DRB1*13:134    | DRB1*13:25+DRB1*13:49       |                           |
| DRB1*13:14:01+DRB1*14:06:02  | DRB1*13:14:03+DRB1*14:06:01 |                           |
| DRB1*13:14:01+DRB1*14:07:01  | DRB1*14:14+DRB1*14:53       | DRB1*14:22+DRB1*14:42     |
| DRB1*13:14:01+DRB1*14:07:02  | DRB1*13:14:03+DRB1*14:07:01 |                           |
| DRB1*13:14:01+DRB1*14:13     | DRB1*13:21:01+DRB1*14:02    |                           |
| DRB1*13:14:01+DRB1*14:32:02  | DRB1*14:53+DRB1*14:123      |                           |
| DRB1*13:14:01+DRB1*14:44:03  | DRB1*13:14:03+DRB1*14:44:01 |                           |
| DRB1*13:14:01+DRB1*14:48     | DRB1*13:100+DRB1*14:02      |                           |
| DRB1*13:14:01+DRB1*14:49     | DRB1*13:86+DRB1*14:22       |                           |

|                             |                              |                             |
|-----------------------------|------------------------------|-----------------------------|
| DRB1*13:14:01+DRB1*14:63    | DRB1*13:21:01+DRB1*14:67     | DRB1*13:30+DRB1*14:27       |
| DRB1*13:14:01+DRB1*14:67    | DRB1*13:82+DRB1*14:27        |                             |
| DRB1*13:14:01+DRB1*14:69    | DRB1*13:25+DRB1*14:25        |                             |
| DRB1*13:14:01+DRB1*14:85    | DRB1*13:21:01+DRB1*14:03:01  |                             |
| DRB1*13:14:01+DRB1*15:02:01 | DRB1*13:14:02+DRB1*15:02:02  | DRB1*13:82+DRB1*15:15       |
| DRB1*13:14:01+DRB1*15:02:05 | DRB1*13:14:03+DRB1*15:02:02  |                             |
| DRB1*13:14:01+DRB1*15:02:09 | DRB1*13:14:02+DRB1*15:02:05  | DRB1*13:14:03+DRB1*15:02:01 |
| DRB1*13:14:01+DRB1*15:12    | DRB1*13:21:01+DRB1*15:01:04  |                             |
| DRB1*13:14:01+DRB1*15:31    | DRB1*13:25+DRB1*15:15        |                             |
| DRB1*13:14:01+DRB1*15:32    | DRB1*13:50:01+DRB1*15:01:01G |                             |
| DRB1*13:14:01+DRB1*16:02:02 | DRB1*13:25+DRB1*16:01:02     |                             |
| DRB1*13:14:01+DRB1*16:05:01 | DRB1*13:82+DRB1*16:01:01     |                             |
| DRB1*13:14:01+DRB1*16:10    | DRB1*13:25+DRB1*16:09        |                             |
| DRB1*13:14:02+DRB1*15:12    | DRB1*13:21:01+DRB1*15:01:01G | DRB1*13:30+DRB1*15:04       |
| DRB1*13:14:03+DRB1*13:30    | DRB1*13:21:02+DRB1*13:82     |                             |
| DRB1*13:14:03+DRB1*13:34    | DRB1*13:23:01+DRB1*13:136    |                             |
| DRB1*13:14:03+DRB1*13:55    | DRB1*13:21:02+DRB1*13:47     |                             |
| DRB1*13:14:03+DRB1*13:75    | DRB1*13:21:02+DRB1*13:24     |                             |
| DRB1*13:14:03+DRB1*13:97:01 | DRB1*13:23:01+DRB1*13:132    |                             |
| DRB1*13:14:03+DRB1*14:13    | DRB1*13:21:02+DRB1*14:02     |                             |
| DRB1*13:14:03+DRB1*14:63    | DRB1*13:21:02+DRB1*14:67     |                             |
| DRB1*13:14:03+DRB1*14:85    | DRB1*13:21:02+DRB1*14:03:01  |                             |
| DRB1*13:14:03+DRB1*14:116   | DRB1*13:25+DRB1*13:47        |                             |
| DRB1*13:14:03+DRB1*15:12    | DRB1*13:21:02+DRB1*15:01:04  |                             |
| DRB1*13:14:03+DRB1*16:18    | DRB1*13:25+DRB1*16:04        |                             |
| DRB1*13:15+DRB1*13:19       | DRB1*13:53+DRB1*13:57        |                             |
| DRB1*13:15+DRB1*13:23:02    | DRB1*13:22+DRB1*13:104       |                             |
| DRB1*13:15+DRB1*13:29       | DRB1*13:20+DRB1*13:104       |                             |
| DRB1*13:15+DRB1*13:32       | DRB1*13:53+DRB1*13:93        |                             |
| DRB1*13:15+DRB1*13:39       | DRB1*13:79+DRB1*13:104       |                             |
| DRB1*13:15+DRB1*13:41       | DRB1*13:27+DRB1*13:104       |                             |
| DRB1*13:15+DRB1*13:63       | DRB1*13:104+DRB1*13:111      |                             |
| DRB1*13:15+DRB1*13:65       | DRB1*13:32+DRB1*13:104       | DRB1*13:53+DRB1*13:139      |
| DRB1*13:15+DRB1*13:70       | DRB1*13:22+DRB1*13:53        |                             |
| DRB1*13:15+DRB1*13:96:01    | DRB1*13:61:02+DRB1*13:104    |                             |
| DRB1*13:15+DRB1*13:96:02    | DRB1*13:61:01+DRB1*13:104    |                             |
| DRB1*13:15+DRB1*13:97:01    | DRB1*13:52+DRB1*13:104       |                             |
| DRB1*13:15+DRB1*13:116      | DRB1*13:17+DRB1*13:53        |                             |
| DRB1*13:15+DRB1*13:128      | DRB1*13:104+DRB1*13:112      |                             |
| DRB1*13:15+DRB1*13:139      | DRB1*13:93+DRB1*13:104       |                             |
| DRB1*13:15+DRB1*14:01:01G   | DRB1*13:53+DRB1*14:35        |                             |
| DRB1*13:15+DRB1*14:02       | DRB1*13:104+DRB1*14:06:01    |                             |
| DRB1*13:15+DRB1*14:03:01    | DRB1*13:104+DRB1*14:12:01    |                             |
| DRB1*13:15+DRB1*14:07:01    | DRB1*13:104+DRB1*14:01:01G   |                             |
| DRB1*13:15+DRB1*14:14       | DRB1*13:104+DRB1*14:23:01    |                             |
| DRB1*13:15+DRB1*14:20       | DRB1*13:57+DRB1*14:06:01     |                             |
| DRB1*13:15+DRB1*14:23:03    | DRB1*13:83+DRB1*14:18        |                             |
| DRB1*13:15+DRB1*14:25       | DRB1*13:53+DRB1*14:53        |                             |
| DRB1*13:15+DRB1*14:30       | DRB1*13:104+DRB1*14:17       |                             |
| DRB1*13:15+DRB1*14:40       | DRB1*13:57+DRB1*14:03:01     |                             |
| DRB1*13:15+DRB1*14:44:01    | DRB1*13:104+DRB1*14:05:01    |                             |
| DRB1*13:15+DRB1*14:44:02    | DRB1*13:104+DRB1*14:05:03    |                             |
| DRB1*13:15+DRB1*14:51       | DRB1*13:104+DRB1*14:106      |                             |
| DRB1*13:15+DRB1*14:63       | DRB1*13:104+DRB1*14:78       |                             |
| DRB1*13:15+DRB1*14:68       | DRB1*13:104+DRB1*14:04       |                             |
| DRB1*13:15+DRB1*15:02:01    | DRB1*13:104+DRB1*15:01:01G   |                             |
| DRB1*13:15+DRB1*15:02:02    | DRB1*13:104+DRB1*15:01:04    |                             |
| DRB1*13:15+DRB1*15:02:04    | DRB1*13:104+DRB1*15:01:09    |                             |
| DRB1*13:15+DRB1*15:02:06    | DRB1*13:104+DRB1*15:01:03    |                             |
| DRB1*13:15+DRB1*15:02:08    | DRB1*13:104+DRB1*15:01:10    |                             |
| DRB1*13:15+DRB1*15:07:01    | DRB1*13:53+DRB1*15:01:01G    |                             |
| DRB1*13:15+DRB1*15:07:02    | DRB1*13:53+DRB1*15:01:04     |                             |
| DRB1*13:15+DRB1*15:11       | DRB1*13:53+DRB1*15:02:01     | DRB1*13:104+DRB1*15:07:01   |
| DRB1*13:15+DRB1*15:15       | DRB1*13:104+DRB1*15:04       | DRB1*14:24+DRB1*15:10       |
| DRB1*13:15+DRB1*15:27       | DRB1*13:104+DRB1*15:66       |                             |
| DRB1*13:15+DRB1*15:31       | DRB1*13:104+DRB1*15:05       |                             |
| DRB1*13:15+DRB1*15:34       | DRB1*13:53+DRB1*15:27        | DRB1*14:02+DRB1*15:10       |
| DRB1*13:15+DRB1*15:47       | DRB1*13:104+DRB1*15:65       |                             |
| DRB1*13:15+DRB1*15:48       | DRB1*13:53+DRB1*15:09        |                             |
| DRB1*13:15+DRB1*16:01:01    | DRB1*13:53+DRB1*16:09        | DRB1*13:104+DRB1*16:15      |
| DRB1*13:15+DRB1*16:01:02    | DRB1*13:26:02+DRB1*15:10     |                             |
| DRB1*13:15+DRB1*16:02:01    | DRB1*13:53+DRB1*16:10        |                             |
| DRB1*13:15+DRB1*16:18       | DRB1*14:03:01+DRB1*15:10     |                             |
| DRB1*13:17+DRB1*13:19       | DRB1*13:57+DRB1*13:116       |                             |
| DRB1*13:17+DRB1*13:32       | DRB1*13:93+DRB1*13:116       |                             |
| DRB1*13:17+DRB1*13:65       | DRB1*13:116+DRB1*13:139      |                             |
| DRB1*13:17+DRB1*13:70       | DRB1*13:22+DRB1*13:116       |                             |
| DRB1*13:17+DRB1*14:01:01G   | DRB1*13:22+DRB1*14:04        | DRB1*13:116+DRB1*14:35      |
| DRB1*13:17+DRB1*14:02       | DRB1*13:23:02+DRB1*14:52     |                             |
| DRB1*13:17+DRB1*14:06:01    | DRB1*13:22+DRB1*14:52        |                             |
| DRB1*13:17+DRB1*14:07:01    | DRB1*13:22+DRB1*14:68        |                             |
| DRB1*13:17+DRB1*14:07:02    | DRB1*13:23:01+DRB1*14:04     | DRB1*13:23:02+DRB1*14:04    |
| DRB1*13:17+DRB1*14:09       | DRB1*13:116+DRB1*14:30       | DRB1*13:45+DRB1*14:126      |
| DRB1*13:17+DRB1*14:14       | DRB1*13:23:02+DRB1*14:126    |                             |
| DRB1*13:17+DRB1*14:23:01    | DRB1*13:22+DRB1*14:126       |                             |
| DRB1*13:17+DRB1*14:25       | DRB1*13:116+DRB1*14:53       |                             |
| DRB1*13:17+DRB1*14:32:02    | DRB1*13:22+DRB1*14:31        |                             |
| DRB1*13:17+DRB1*14:38       | DRB1*13:22+DRB1*14:50        |                             |
| DRB1*13:17+DRB1*14:80       | DRB1*13:116+DRB1*14:17       |                             |
| DRB1*13:17+DRB1*14:99       | DRB1*13:22+DRB1*14:28        |                             |
| DRB1*13:17+DRB1*14:111      | DRB1*13:22+DRB1*14:107       |                             |
| DRB1*13:17+DRB1*14:122      | DRB1*13:22+DRB1*14:120       |                             |
| DRB1*13:17+DRB1*15:07:01    | DRB1*13:116+DRB1*15:01:01G   |                             |
| DRB1*13:17+DRB1*15:07:02    | DRB1*13:116+DRB1*15:01:04    |                             |
| DRB1*13:17+DRB1*15:11       | DRB1*13:116+DRB1*15:02:01    |                             |
| DRB1*13:17+DRB1*15:34       | DRB1*13:116+DRB1*15:27       |                             |
| DRB1*13:17+DRB1*15:48       | DRB1*13:116+DRB1*15:09       |                             |
| DRB1*13:17+DRB1*16:01:01    | DRB1*13:116+DRB1*16:09       |                             |
| DRB1*13:17+DRB1*16:02:01    | DRB1*13:116+DRB1*16:10       |                             |
| DRB1*13:18+DRB1*13:26:02    | DRB1*13:42+DRB1*14:27        |                             |
| DRB1*13:18+DRB1*13:29       | DRB1*13:111+DRB1*13:119      |                             |
| DRB1*13:18+DRB1*13:56       | DRB1*13:42+DRB1*13:119       |                             |
| DRB1*13:18+DRB1*13:134      | DRB1*13:108+DRB1*13:119      |                             |
| DRB1*13:18+DRB1*14:02       | DRB1*13:42+DRB1*14:89        | DRB1*13:119+DRB1*14:108     |
| DRB1*13:18+DRB1*14:19       | DRB1*14:21+DRB1*14:27        | DRB1*14:17+DRB1*14:27       |

|                              |                             |                           |                        |
|------------------------------|-----------------------------|---------------------------|------------------------|
| DRB1*13:18+DRB1*14:32:02     | DRB1*13:42+DRB1*14:55       |                           |                        |
| DRB1*13:18+DRB1*14:51        | DRB1*14:27+DRB1*14:33       |                           |                        |
| DRB1*13:18+DRB1*15:10        | DRB1*13:111+DRB1*15:21      |                           |                        |
| DRB1*13:18+DRB1*15:31        | DRB1*13:119+DRB1*15:04      |                           |                        |
| DRB1*13:18+DRB1*16:02:01     | DRB1*13:119+DRB1*16:15      |                           |                        |
| DRB1*13:18+DRB1*16:02:02     | DRB1*13:42+DRB1*16:18       |                           |                        |
| DRB1*13:19+DRB1*13:21:01     | DRB1*13:49+DRB1*13:57       |                           |                        |
| DRB1*13:19+DRB1*13:22        | DRB1*13:57+DRB1*13:70       |                           |                        |
| DRB1*13:19+DRB1*13:44        | DRB1*13:22+DRB1*14:20       |                           |                        |
| DRB1*13:19+DRB1*13:93        | DRB1*13:32+DRB1*13:57       |                           |                        |
| DRB1*13:19+DRB1*13:136       | DRB1*13:26:02+DRB1*13:64    |                           |                        |
| DRB1*13:19+DRB1*13:139       | DRB1*13:57+DRB1*13:65       |                           |                        |
| DRB1*13:19+DRB1*14:03:01     | DRB1*13:53+DRB1*14:40       |                           |                        |
| DRB1*13:19+DRB1*14:06:01     | DRB1*13:53+DRB1*14:20       |                           |                        |
| DRB1*13:19+DRB1*14:33        | DRB1*13:83+DRB1*14:106      |                           |                        |
| DRB1*13:19+DRB1*14:35        | DRB1*13:57+DRB1*14:01:01G   |                           |                        |
| DRB1*13:19+DRB1*14:53        | DRB1*13:57+DRB1*14:25       |                           |                        |
| DRB1*13:19+DRB1*15:01:01G    | DRB1*13:57+DRB1*15:07:01    |                           |                        |
| DRB1*13:19+DRB1*15:01:04     | DRB1*13:57+DRB1*15:07:02    |                           |                        |
| DRB1*13:19+DRB1*15:02:01     | DRB1*13:57+DRB1*15:11       |                           |                        |
| DRB1*13:19+DRB1*15:09        | DRB1*13:57+DRB1*15:48       |                           |                        |
| DRB1*13:19+DRB1*15:27        | DRB1*13:57+DRB1*15:34       |                           |                        |
| DRB1*13:19+DRB1*15:66        | DRB1*14:20+DRB1*15:10       |                           |                        |
| DRB1*13:19+DRB1*16:09        | DRB1*13:57+DRB1*16:01:01    |                           |                        |
| DRB1*13:19+DRB1*16:10        | DRB1*13:57+DRB1*16:02:01    |                           |                        |
| DRB1*13:20+DRB1*13:21:01     | DRB1*13:56+DRB1*13:75       |                           |                        |
| DRB1*13:20+DRB1*13:23:02     | DRB1*13:22+DRB1*13:29       |                           |                        |
| DRB1*13:20+DRB1*13:33:01     | DRB1*13:61:02+DRB1*13:88    |                           |                        |
| DRB1*13:20+DRB1*13:33:03     | DRB1*13:61:01+DRB1*13:88    |                           |                        |
| DRB1*13:20+DRB1*13:36        | DRB1*13:29+DRB1*13:40       |                           |                        |
| DRB1*13:20+DRB1*13:45        | DRB1*13:23:01+DRB1*13:43    |                           |                        |
| DRB1*13:20+DRB1*13:49        | DRB1*13:29+DRB1*13:108      | DRB1*13:111+DRB1*13:134   |                        |
| DRB1*13:20+DRB1*13:63        | DRB1*13:29+DRB1*13:111      |                           |                        |
| DRB1*13:20+DRB1*13:65        | DRB1*13:29+DRB1*13:32       |                           |                        |
| DRB1*13:20+DRB1*13:96:01     | DRB1*13:29+DRB1*13:61:02    |                           |                        |
| DRB1*13:20+DRB1*13:96:02     | DRB1*13:29+DRB1*13:61:01    |                           |                        |
| DRB1*13:20+DRB1*13:97:01     | DRB1*13:29+DRB1*13:52       |                           |                        |
| DRB1*13:20+DRB1*13:100       | DRB1*13:46+DRB1*13:78       | DRB1*13:54+DRB1*13:56     |                        |
| DRB1*13:20+DRB1*13:107       | DRB1*13:29+DRB1*13:83       |                           |                        |
| DRB1*13:20+DRB1*13:118       | DRB1*13:131+DRB1*13:134     |                           |                        |
| DRB1*13:20+DRB1*13:128       | DRB1*13:29+DRB1*13:112      |                           |                        |
| DRB1*13:20+DRB1*13:139       | DRB1*13:29+DRB1*13:93       |                           |                        |
| DRB1*13:20+DRB1*14:01:01G    | DRB1*13:43+DRB1*14:23:01    |                           |                        |
| DRB1*13:20+DRB1*14:02        | DRB1*13:29+DRB1*14:06:01    |                           |                        |
| DRB1*13:20+DRB1*14:03:01     | DRB1*13:29+DRB1*14:12:01    |                           |                        |
| DRB1*13:20+DRB1*14:04        | DRB1*13:43+DRB1*14:126      |                           |                        |
| DRB1*13:20+DRB1*14:07:01     | DRB1*13:29+DRB1*14:01:01G   | DRB1*13:43+DRB1*14:14     |                        |
| DRB1*13:20+DRB1*14:09        | DRB1*13:29+DRB1*14:80       |                           |                        |
| DRB1*13:20+DRB1*14:14        | DRB1*13:29+DRB1*14:23:01    |                           |                        |
| DRB1*13:20+DRB1*14:22        | DRB1*13:63+DRB1*14:74       |                           |                        |
| DRB1*13:20+DRB1*14:27        | DRB1*13:63+DRB1*14:12:01    | DRB1*13:111+DRB1*14:03:01 |                        |
| DRB1*13:20+DRB1*14:30        | DRB1*13:29+DRB1*14:17       |                           |                        |
| DRB1*13:20+DRB1*14:32:02     | DRB1*13:43+DRB1*14:123      |                           |                        |
| DRB1*13:20+DRB1*14:44:01     | DRB1*13:29+DRB1*14:05:01    |                           |                        |
| DRB1*13:20+DRB1*14:44:02     | DRB1*13:29+DRB1*14:05:03    |                           |                        |
| DRB1*13:20+DRB1*14:51        | DRB1*13:29+DRB1*14:106      |                           |                        |
| DRB1*13:20+DRB1*14:68        | DRB1*13:29+DRB1*14:04       |                           |                        |
| DRB1*13:20+DRB1*14:78        | DRB1*13:93+DRB1*14:12:01    |                           |                        |
| DRB1*13:20+DRB1*14:82        | DRB1*13:71+DRB1*14:01:01G   |                           |                        |
| DRB1*13:20+DRB1*14:108       | DRB1*13:111+DRB1*14:06:01   |                           |                        |
| DRB1*13:20+DRB1*14:109       | DRB1*13:78+DRB1*14:19       |                           |                        |
| DRB1*13:20+DRB1*14:115       | DRB1*13:78+DRB1*14:03:01    |                           |                        |
| DRB1*13:20+DRB1*15:02:02     | DRB1*13:29+DRB1*15:01:04    |                           |                        |
| DRB1*13:20+DRB1*15:04        | DRB1*13:111+DRB1*15:05      |                           |                        |
| DRB1*13:20+DRB1*15:07:01     | DRB1*13:40+DRB1*15:05       |                           |                        |
| DRB1*13:20+DRB1*15:11        | DRB1*13:29+DRB1*15:07:01    | DRB1*13:36+DRB1*15:05     | DRB1*13:40+DRB1*15:31  |
| DRB1*13:20+DRB1*15:15        | DRB1*13:29+DRB1*15:04       | DRB1*13:63+DRB1*15:05     | DRB1*13:111+DRB1*15:31 |
| DRB1*13:20+DRB1*15:24        | DRB1*13:92+DRB1*15:05       |                           |                        |
| DRB1*13:20+DRB1*15:27        | DRB1*13:29+DRB1*15:66       |                           |                        |
| DRB1*13:20+DRB1*15:31        | DRB1*13:29+DRB1*15:05       |                           |                        |
| DRB1*13:20+DRB1*15:37        | DRB1*13:61:02+DRB1*15:05    |                           |                        |
| DRB1*13:20+DRB1*15:39        | DRB1*13:127+DRB1*15:31      |                           |                        |
| DRB1*13:20+DRB1*15:47        | DRB1*13:29+DRB1*15:65       | DRB1*13:131+DRB1*15:31    |                        |
| DRB1*13:20+DRB1*15:57        | DRB1*13:61:01+DRB1*15:23    |                           |                        |
| DRB1*13:20+DRB1*15:65        | DRB1*13:131+DRB1*15:05      |                           |                        |
| DRB1*13:20+DRB1*15:71        | DRB1*13:78+DRB1*15:01:01G   | DRB1*13:79+DRB1*15:05     |                        |
| DRB1*13:20+DRB1*16:01:01     | DRB1*13:29+DRB1*16:15       | DRB1*13:111+DRB1*16:02:01 |                        |
| DRB1*13:20+DRB1*16:01:02     | DRB1*13:111+DRB1*16:02:02   |                           |                        |
| DRB1*13:20+DRB1*16:09        | DRB1*13:111+DRB1*16:10      |                           |                        |
| DRB1*13:21:01+DRB1*13:23:01  | DRB1*13:21:02+DRB1*13:23:02 |                           |                        |
| DRB1*13:21:01+DRB1*13:31     | DRB1*13:46+DRB1*13:139      |                           |                        |
| DRB1*13:21:01+DRB1*13:32     | DRB1*13:49+DRB1*13:93       | DRB1*13:108+DRB1*13:139   |                        |
| DRB1*13:21:01+DRB1*13:33:03  | DRB1*13:21:02+DRB1*13:33:02 |                           |                        |
| DRB1*13:21:01+DRB1*13:54     | DRB1*13:75+DRB1*13:100      |                           |                        |
| DRB1*13:21:01+DRB1*13:65     | DRB1*13:49+DRB1*13:139      |                           |                        |
| DRB1*13:21:01+DRB1*13:66:02  | DRB1*13:21:02+DRB1*13:66:01 |                           |                        |
| DRB1*13:21:01+DRB1*13:85     | DRB1*13:26:02+DRB1*13:66:01 |                           |                        |
| DRB1*13:21:01+DRB1*13:89     | DRB1*13:66:02+DRB1*13:108   |                           |                        |
| DRB1*13:21:01+DRB1*14:01:01G | DRB1*13:49+DRB1*14:35       |                           |                        |
| DRB1*13:21:01+DRB1*14:06:02  | DRB1*13:21:02+DRB1*14:06:01 |                           |                        |
| DRB1*13:21:01+DRB1*14:07:02  | DRB1*13:21:02+DRB1*14:07:01 |                           |                        |
| DRB1*13:21:01+DRB1*14:09     | DRB1*13:49+DRB1*14:30       |                           |                        |
| DRB1*13:21:01+DRB1*14:25     | DRB1*13:49+DRB1*14:53       |                           |                        |
| DRB1*13:21:01+DRB1*14:32:02  | DRB1*14:25+DRB1*14:65       |                           |                        |
| DRB1*13:21:01+DRB1*14:44:03  | DRB1*13:21:02+DRB1*14:44:01 |                           |                        |
| DRB1*13:21:01+DRB1*14:48     | DRB1*13:100+DRB1*14:13      |                           |                        |
| DRB1*13:21:01+DRB1*14:69     | DRB1*13:134+DRB1*14:53      |                           |                        |
| DRB1*13:21:01+DRB1*14:80     | DRB1*13:49+DRB1*14:17       | DRB1*13:108+DRB1*14:30    |                        |
| DRB1*13:21:01+DRB1*15:02:01  | DRB1*13:30+DRB1*15:15       |                           |                        |
| DRB1*13:21:01+DRB1*15:02:05  | DRB1*13:21:02+DRB1*15:02:02 |                           |                        |
| DRB1*13:21:01+DRB1*15:02:09  | DRB1*13:21:02+DRB1*15:02:01 |                           |                        |
| DRB1*13:21:01+DRB1*15:34     | DRB1*13:49+DRB1*15:27       |                           |                        |
| DRB1*13:21:01+DRB1*15:48     | DRB1*13:49+DRB1*15:09       |                           |                        |
| DRB1*13:21:01+DRB1*16:01:01  | DRB1*13:49+DRB1*16:09       |                           |                        |
| DRB1*13:21:01+DRB1*16:02:01  | DRB1*13:49+DRB1*16:10       | DRB1*13:134+DRB1*16:09    |                        |

|                             |                              |                          |                       |
|-----------------------------|------------------------------|--------------------------|-----------------------|
| DRB1*13:21:01+DRB1*16:15    | DRB1*13:108+DRB1*16:09       |                          |                       |
| DRB1*13:21:02+DRB1*13:85    | DRB1*13:26:02+DRB1*13:66:02  |                          |                       |
| DRB1*13:21:02+DRB1*14:116   | DRB1*13:25+DRB1*13:55        |                          |                       |
| DRB1*13:21:02+DRB1*15:07:02 | DRB1*13:108+DRB1*15:02:05    |                          |                       |
| DRB1*13:22+DRB1*13:33:01    | DRB1*13:23:01+DRB1*13:94     |                          |                       |
| DRB1*13:22+DRB1*13:38       | DRB1*13:23:01+DRB1*13:48     |                          |                       |
| DRB1*13:22+DRB1*13:39       | DRB1*13:23:02+DRB1*13:79     |                          |                       |
| DRB1*13:22+DRB1*13:41       | DRB1*13:23:02+DRB1*13:27     |                          |                       |
| DRB1*13:22+DRB1*13:96:01    | DRB1*13:23:02+DRB1*13:61:02  |                          |                       |
| DRB1*13:22+DRB1*13:96:02    | DRB1*13:23:02+DRB1*13:61:01  |                          |                       |
| DRB1*13:22+DRB1*13:97:01    | DRB1*13:23:02+DRB1*13:52     |                          |                       |
| DRB1*13:22+DRB1*13:100      | DRB1*13:54+DRB1*13:82        |                          |                       |
| DRB1*13:22+DRB1*13:107      | DRB1*13:23:02+DRB1*13:83     |                          |                       |
| DRB1*13:22+DRB1*13:128      | DRB1*13:23:02+DRB1*13:112    |                          |                       |
| DRB1*13:22+DRB1*13:134      | DRB1*13:25+DRB1*13:48        | DRB1*13:83+DRB1*14:58    |                       |
| DRB1*13:22+DRB1*14:01:01G   | DRB1*13:70+DRB1*14:35        | DRB1*13:40+DRB1*13:86    |                       |
| DRB1*13:22+DRB1*14:02       | DRB1*13:23:02+DRB1*14:06:01  |                          |                       |
| DRB1*13:22+DRB1*14:06:01    | DRB1*13:44+DRB1*13:53        |                          |                       |
| DRB1*13:22+DRB1*14:07:01    | DRB1*13:23:02+DRB1*14:01:01G | DRB1*13:107+DRB1*14:58   | DRB1*14:16+DRB1*14:42 |
| DRB1*13:22+DRB1*14:07:02    | DRB1*13:23:01+DRB1*14:01:01G | DRB1*13:45+DRB1*14:23:01 |                       |
| DRB1*13:22+DRB1*14:09       | DRB1*13:23:02+DRB1*14:80     | DRB1*13:36+DRB1*13:44    | DRB1*13:70+DRB1*14:30 |
| DRB1*13:22+DRB1*14:25       | DRB1*13:70+DRB1*14:53        |                          |                       |
| DRB1*13:22+DRB1*14:40       | DRB1*13:57+DRB1*14:116       | DRB1*13:83+DRB1*14:102   |                       |
| DRB1*13:22+DRB1*14:44:01    | DRB1*13:23:02+DRB1*14:05:01  | DRB1*13:72+DRB1*14:42    |                       |
| DRB1*13:22+DRB1*14:44:02    | DRB1*13:23:02+DRB1*14:05:03  |                          |                       |
| DRB1*13:22+DRB1*14:44:03    | DRB1*13:23:01+DRB1*14:05:01  |                          |                       |
| DRB1*13:22+DRB1*14:49       | DRB1*13:86+DRB1*14:16        |                          |                       |
| DRB1*13:22+DRB1*14:51       | DRB1*13:23:02+DRB1*14:106    |                          |                       |
| DRB1*13:22+DRB1*14:77       | DRB1*13:64+DRB1*14:102       |                          |                       |
| DRB1*13:22+DRB1*14:80       | DRB1*13:40+DRB1*13:44        | DRB1*13:70+DRB1*14:17    |                       |
| DRB1*13:22+DRB1*14:94       | DRB1*13:84+DRB1*13:86        |                          |                       |
| DRB1*13:22+DRB1*14:97       | DRB1*13:106+DRB1*14:58       |                          |                       |
| DRB1*13:22+DRB1*14:98       | DRB1*13:61:01+DRB1*14:102    |                          |                       |
| DRB1*13:22+DRB1*14:110      | DRB1*13:64+DRB1*14:58        |                          |                       |
| DRB1*13:22+DRB1*14:115      | DRB1*13:79+DRB1*14:102       |                          |                       |
| DRB1*13:22+DRB1*15:02:01    | DRB1*13:23:02+DRB1*15:01:01G |                          |                       |
| DRB1*13:22+DRB1*15:02:02    | DRB1*13:23:02+DRB1*15:01:04  |                          |                       |
| DRB1*13:22+DRB1*15:02:04    | DRB1*13:23:02+DRB1*15:01:09  |                          |                       |
| DRB1*13:22+DRB1*15:02:05    | DRB1*13:23:01+DRB1*15:01:04  |                          |                       |
| DRB1*13:22+DRB1*15:02:06    | DRB1*13:23:02+DRB1*15:01:03  |                          |                       |
| DRB1*13:22+DRB1*15:02:08    | DRB1*13:23:02+DRB1*15:01:10  |                          |                       |
| DRB1*13:22+DRB1*15:02:09    | DRB1*13:23:01+DRB1*15:01:01G |                          |                       |
| DRB1*13:22+DRB1*15:04       | DRB1*13:24+DRB1*15:01:01G    |                          |                       |
| DRB1*13:22+DRB1*15:07:01    | DRB1*13:70+DRB1*15:01:01G    |                          |                       |
| DRB1*13:22+DRB1*15:07:02    | DRB1*13:70+DRB1*15:01:04     |                          |                       |
| DRB1*13:22+DRB1*15:11       | DRB1*13:23:02+DRB1*15:07:01  | DRB1*13:70+DRB1*15:02:01 |                       |
| DRB1*13:22+DRB1*15:15       | DRB1*13:23:02+DRB1*15:04     | DRB1*13:24+DRB1*15:02:01 |                       |
| DRB1*13:22+DRB1*15:27       | DRB1*13:23:02+DRB1*15:66     |                          |                       |
| DRB1*13:22+DRB1*15:31       | DRB1*13:23:02+DRB1*15:05     |                          |                       |
| DRB1*13:22+DRB1*15:34       | DRB1*13:70+DRB1*15:27        |                          |                       |
| DRB1*13:22+DRB1*15:47       | DRB1*13:23:02+DRB1*15:65     |                          |                       |
| DRB1*13:22+DRB1*15:48       | DRB1*13:70+DRB1*15:09        |                          |                       |
| DRB1*13:22+DRB1*15:66       | DRB1*13:44+DRB1*15:10        |                          |                       |
| DRB1*13:22+DRB1*16:01:01    | DRB1*13:23:02+DRB1*16:15     | DRB1*13:24+DRB1*16:05:01 | DRB1*13:70+DRB1*16:09 |
| DRB1*13:22+DRB1*16:02:01    | DRB1*13:70+DRB1*16:10        |                          |                       |
| DRB1*13:22+DRB1*16:04       | DRB1*13:47+DRB1*15:10        |                          |                       |
| DRB1*13:22+DRB1*16:18       | DRB1*14:116+DRB1*15:10       |                          |                       |
| DRB1*13:23:01+DRB1*13:33:02 | DRB1*13:23:02+DRB1*13:33:03  |                          |                       |
| DRB1*13:23:01+DRB1*13:66:01 | DRB1*13:23:02+DRB1*13:66:02  |                          |                       |
| DRB1*13:23:01+DRB1*13:85    | DRB1*13:37+DRB1*13:104       |                          |                       |
| DRB1*13:23:01+DRB1*13:134   | DRB1*13:25+DRB1*13:38        |                          |                       |
| DRB1*13:23:01+DRB1*14:06:01 | DRB1*13:23:02+DRB1*14:06:02  |                          |                       |
| DRB1*13:23:01+DRB1*14:07:01 | DRB1*13:23:02+DRB1*14:07:02  | DRB1*13:45+DRB1*14:14    |                       |
| DRB1*13:23:01+DRB1*14:27    | DRB1*13:47+DRB1*13:104       |                          |                       |
| DRB1*13:23:01+DRB1*14:32:02 | DRB1*13:45+DRB1*14:123       |                          |                       |
| DRB1*13:23:01+DRB1*14:44:01 | DRB1*13:23:02+DRB1*14:44:03  |                          |                       |
| DRB1*13:23:01+DRB1*15:02:01 | DRB1*13:23:02+DRB1*15:02:09  |                          |                       |
| DRB1*13:23:01+DRB1*15:02:02 | DRB1*13:23:02+DRB1*15:02:05  |                          |                       |
| DRB1*13:23:01+DRB1*15:04    | DRB1*13:24+DRB1*15:02:09     |                          |                       |
| DRB1*13:23:01+DRB1*15:07:01 | DRB1*13:70+DRB1*15:02:09     |                          |                       |
| DRB1*13:23:01+DRB1*15:07:02 | DRB1*13:70+DRB1*15:02:05     |                          |                       |
| DRB1*13:23:02+DRB1*13:53    | DRB1*13:70+DRB1*13:104       |                          |                       |
| DRB1*13:23:02+DRB1*14:02    | DRB1*13:36+DRB1*13:86        |                          |                       |
| DRB1*13:23:02+DRB1*14:13    | DRB1*13:65+DRB1*13:86        |                          |                       |
| DRB1*13:23:02+DRB1*14:22    | DRB1*13:107+DRB1*14:25       |                          |                       |
| DRB1*13:23:02+DRB1*14:40    | DRB1*13:107+DRB1*14:102      |                          |                       |
| DRB1*13:23:02+DRB1*14:64    | DRB1*13:79+DRB1*14:42        |                          |                       |
| DRB1*13:23:02+DRB1*14:74    | DRB1*13:25+DRB1*14:16        | DRB1*13:83+DRB1*14:69    |                       |
| DRB1*13:23:02+DRB1*14:85    | DRB1*13:139+DRB1*14:102      |                          |                       |
| DRB1*13:23:02+DRB1*14:95    | DRB1*13:27+DRB1*14:42        |                          |                       |
| DRB1*13:23:02+DRB1*14:98    | DRB1*13:96:02+DRB1*14:102    |                          |                       |
| DRB1*13:23:02+DRB1*14:115   | DRB1*13:39+DRB1*14:102       |                          |                       |
| DRB1*13:23:02+DRB1*15:07:02 | DRB1*13:70+DRB1*15:02:02     |                          |                       |
| DRB1*13:23:02+DRB1*15:62    | DRB1*13:97:02+DRB1*15:01:01G |                          |                       |
| DRB1*13:24+DRB1*13:32       | DRB1*13:40+DRB1*13:75        | DRB1*13:48+DRB1*13:111   |                       |
| DRB1*13:24+DRB1*13:36       | DRB1*13:63+DRB1*13:70        |                          |                       |
| DRB1*13:24+DRB1*13:40       | DRB1*13:70+DRB1*13:111       |                          |                       |
| DRB1*13:24+DRB1*13:48       | DRB1*13:70+DRB1*13:75        |                          |                       |
| DRB1*13:24+DRB1*13:55       | DRB1*13:47+DRB1*13:75        |                          |                       |
| DRB1*13:24+DRB1*13:65       | DRB1*13:36+DRB1*13:75        | DRB1*13:48+DRB1*13:63    |                       |
| DRB1*13:24+DRB1*14:03:01    | DRB1*13:111+DRB1*14:102      |                          |                       |
| DRB1*13:24+DRB1*14:13       | DRB1*13:75+DRB1*14:02        |                          |                       |
| DRB1*13:24+DRB1*14:17       | DRB1*13:44+DRB1*13:111       |                          |                       |
| DRB1*13:24+DRB1*14:30       | DRB1*13:44+DRB1*13:63        |                          |                       |
| DRB1*13:24+DRB1*14:48       | DRB1*13:54+DRB1*14:02        |                          |                       |
| DRB1*13:24+DRB1*14:85       | DRB1*13:75+DRB1*14:03:01     |                          |                       |
| DRB1*13:24+DRB1*15:07:01    | DRB1*13:70+DRB1*15:04        |                          |                       |
| DRB1*13:24+DRB1*15:11       | DRB1*13:70+DRB1*15:15        |                          |                       |
| DRB1*13:24+DRB1*15:12       | DRB1*13:75+DRB1*15:01:04     |                          |                       |
| DRB1*13:25+DRB1*13:27       | DRB1*13:71+DRB1*13:82        |                          |                       |
| DRB1*13:25+DRB1*13:40       | DRB1*13:56+DRB1*13:70        |                          |                       |
| DRB1*13:25+DRB1*13:79       | DRB1*13:78+DRB1*13:82        |                          |                       |
| DRB1*13:25+DRB1*13:139      | DRB1*13:29+DRB1*13:30        |                          |                       |
| DRB1*13:25+DRB1*14:01:01G   | DRB1*14:42+DRB1*14:74        |                          |                       |
| DRB1*13:25+DRB1*14:03:01    | DRB1*13:56+DRB1*14:102       |                          |                       |

|                             |                             |                          |
|-----------------------------|-----------------------------|--------------------------|
| DRB1*13:25+DRB1*14:17       | DRB1*13:44+DRB1*13:56       |                          |
| DRB1*13:25+DRB1*14:45       | DRB1*13:82+DRB1*14:05:01    |                          |
| DRB1*13:25+DRB1*14:63       | DRB1*13:30+DRB1*14:03:01    | DRB1*13:82+DRB1*14:85    |
| DRB1*13:25+DRB1*14:67       | DRB1*13:82+DRB1*14:03:01    |                          |
| DRB1*13:25+DRB1*14:78       | DRB1*13:30+DRB1*14:12:01    |                          |
| DRB1*13:25+DRB1*14:89       | DRB1*14:30+DRB1*14:102      |                          |
| DRB1*13:25+DRB1*14:120      | DRB1*13:82+DRB1*14:04       |                          |
| DRB1*13:25+DRB1*14:122      | DRB1*13:82+DRB1*14:01:01G   |                          |
| DRB1*13:25+DRB1*15:01:01G   | DRB1*13:82+DRB1*15:05       |                          |
| DRB1*13:25+DRB1*15:02:01    | DRB1*13:82+DRB1*15:31       |                          |
| DRB1*13:25+DRB1*15:03:01G   | DRB1*13:82+DRB1*15:23       |                          |
| DRB1*13:25+DRB1*15:06:01    | DRB1*13:82+DRB1*15:73       |                          |
| DRB1*13:25+DRB1*15:38       | DRB1*13:82+DRB1*15:63       |                          |
| DRB1*13:25+DRB1*16:05:01    | DRB1*13:82+DRB1*16:02:01    |                          |
| DRB1*13:26:01+DRB1*15:02:02 | DRB1*14:24+DRB1*16:09       |                          |
| DRB1*13:26:01+DRB1*15:07:02 | DRB1*14:24+DRB1*16:15       |                          |
| DRB1*13:26:02+DRB1*13:48    | DRB1*13:49+DRB1*13:53       |                          |
| DRB1*13:26:02+DRB1*13:52    | DRB1*13:53+DRB1*13:132      |                          |
| DRB1*13:26:02+DRB1*13:69    | DRB1*13:50:02+DRB1*13:53    |                          |
| DRB1*13:26:02+DRB1*14:16    | DRB1*13:53+DRB1*14:22       |                          |
| DRB1*13:26:02+DRB1*14:21    | DRB1*13:42+DRB1*14:19       |                          |
| DRB1*13:26:02+DRB1*14:32:01 | DRB1*14:22+DRB1*14:81       |                          |
| DRB1*13:26:02+DRB1*14:55    | DRB1*14:27+DRB1*14:32:02    |                          |
| DRB1*13:26:02+DRB1*14:89    | DRB1*14:02+DRB1*14:27       |                          |
| DRB1*13:26:02+DRB1*14:119   | DRB1*14:02+DRB1*14:22       |                          |
| DRB1*13:26:02+DRB1*15:11    | DRB1*14:24+DRB1*16:01:02    |                          |
| DRB1*13:26:02+DRB1*15:34    | DRB1*14:02+DRB1*16:01:02    |                          |
| DRB1*13:26:02+DRB1*16:18    | DRB1*14:03:01+DRB1*16:01:02 | DRB1*14:27+DRB1*16:02:02 |
| DRB1*13:27+DRB1*13:36       | DRB1*13:40+DRB1*13:41       |                          |
| DRB1*13:27+DRB1*13:39       | DRB1*13:41+DRB1*13:79       |                          |
| DRB1*13:27+DRB1*13:49       | DRB1*13:41+DRB1*13:108      |                          |
| DRB1*13:27+DRB1*13:63       | DRB1*13:41+DRB1*13:111      |                          |
| DRB1*13:27+DRB1*13:65       | DRB1*13:32+DRB1*13:41       |                          |
| DRB1*13:27+DRB1*13:78       | DRB1*13:71+DRB1*13:79       |                          |
| DRB1*13:27+DRB1*13:96:01    | DRB1*13:41+DRB1*13:61:02    |                          |
| DRB1*13:27+DRB1*13:96:02    | DRB1*13:41+DRB1*13:61:01    |                          |
| DRB1*13:27+DRB1*13:97:01    | DRB1*13:41+DRB1*13:52       |                          |
| DRB1*13:27+DRB1*13:107      | DRB1*13:41+DRB1*13:83       |                          |
| DRB1*13:27+DRB1*13:128      | DRB1*13:41+DRB1*13:112      |                          |
| DRB1*13:27+DRB1*13:139      | DRB1*13:41+DRB1*13:93       |                          |
| DRB1*13:27+DRB1*14:02       | DRB1*13:41+DRB1*14:06:01    |                          |
| DRB1*13:27+DRB1*14:03:01    | DRB1*13:41+DRB1*14:12:01    | DRB1*13:71+DRB1*14:67    |
| DRB1*13:27+DRB1*14:04       | DRB1*13:71+DRB1*14:120      |                          |
| DRB1*13:27+DRB1*14:05:01    | DRB1*13:71+DRB1*14:45       | DRB1*13:72+DRB1*14:95    |
| DRB1*13:27+DRB1*14:09       | DRB1*13:41+DRB1*14:80       |                          |
| DRB1*13:27+DRB1*14:14       | DRB1*13:41+DRB1*14:23:01    |                          |
| DRB1*13:27+DRB1*14:26       | DRB1*13:92+DRB1*14:82       |                          |
| DRB1*13:27+DRB1*14:30       | DRB1*13:41+DRB1*14:17       |                          |
| DRB1*13:27+DRB1*14:37       | DRB1*13:72+DRB1*13:129      |                          |
| DRB1*13:27+DRB1*14:44:01    | DRB1*13:41+DRB1*14:05:01    |                          |
| DRB1*13:27+DRB1*14:44:02    | DRB1*13:41+DRB1*14:05:03    |                          |
| DRB1*13:27+DRB1*14:51       | DRB1*13:41+DRB1*14:106      |                          |
| DRB1*13:27+DRB1*14:63       | DRB1*13:41+DRB1*14:78       |                          |
| DRB1*13:27+DRB1*14:64       | DRB1*13:79+DRB1*14:95       |                          |
| DRB1*13:27+DRB1*14:68       | DRB1*13:41+DRB1*14:04       |                          |
| DRB1*13:27+DRB1*14:85       | DRB1*13:71+DRB1*14:63       |                          |
| DRB1*13:27+DRB1*14:86       | DRB1*13:131+DRB1*14:82      |                          |
| DRB1*13:27+DRB1*15:01:01G   | DRB1*13:129+DRB1*15:10      |                          |
| DRB1*13:27+DRB1*15:02:01    | DRB1*13:41+DRB1*15:01:01G   |                          |
| DRB1*13:27+DRB1*15:02:02    | DRB1*13:41+DRB1*15:01:04    |                          |
| DRB1*13:27+DRB1*15:02:04    | DRB1*13:41+DRB1*15:01:09    |                          |
| DRB1*13:27+DRB1*15:02:06    | DRB1*13:41+DRB1*15:01:03    |                          |
| DRB1*13:27+DRB1*15:02:08    | DRB1*13:41+DRB1*15:01:10    |                          |
| DRB1*13:27+DRB1*15:05       | DRB1*13:71+DRB1*15:01:01G   |                          |
| DRB1*13:27+DRB1*15:11       | DRB1*13:41+DRB1*15:07:01    |                          |
| DRB1*13:27+DRB1*15:15       | DRB1*13:41+DRB1*15:04       |                          |
| DRB1*13:27+DRB1*15:23       | DRB1*13:71+DRB1*15:03:01G   |                          |
| DRB1*13:27+DRB1*15:27       | DRB1*13:41+DRB1*15:66       |                          |
| DRB1*13:27+DRB1*15:31       | DRB1*13:41+DRB1*15:05       | DRB1*13:71+DRB1*15:02:01 |
| DRB1*13:27+DRB1*15:47       | DRB1*13:41+DRB1*15:65       |                          |
| DRB1*13:27+DRB1*15:63       | DRB1*13:71+DRB1*15:38       |                          |
| DRB1*13:27+DRB1*15:73       | DRB1*13:71+DRB1*15:06:01    |                          |
| DRB1*13:27+DRB1*16:01:01    | DRB1*13:41+DRB1*16:15       |                          |
| DRB1*13:27+DRB1*16:02:01    | DRB1*13:71+DRB1*16:05:01    |                          |
| DRB1*13:29+DRB1*13:33:01    | DRB1*13:88+DRB1*13:96:01    |                          |
| DRB1*13:29+DRB1*13:33:03    | DRB1*13:88+DRB1*13:96:02    |                          |
| DRB1*13:29+DRB1*13:49       | DRB1*13:63+DRB1*13:134      |                          |
| DRB1*13:29+DRB1*14:25       | DRB1*13:63+DRB1*14:69       |                          |
| DRB1*13:29+DRB1*14:27       | DRB1*13:63+DRB1*14:03:01    |                          |
| DRB1*13:29+DRB1*14:82       | DRB1*13:71+DRB1*14:07:01    |                          |
| DRB1*13:29+DRB1*14:108      | DRB1*13:63+DRB1*14:06:01    | DRB1*13:111+DRB1*14:02   |
| DRB1*13:29+DRB1*15:11       | DRB1*13:36+DRB1*15:31       |                          |
| DRB1*13:29+DRB1*15:15       | DRB1*13:63+DRB1*15:31       |                          |
| DRB1*13:29+DRB1*15:21       | DRB1*13:119+DRB1*15:10      |                          |
| DRB1*13:29+DRB1*15:24       | DRB1*13:92+DRB1*15:31       |                          |
| DRB1*13:29+DRB1*15:37       | DRB1*13:61:02+DRB1*15:31    | DRB1*13:96:01+DRB1*15:05 |
| DRB1*13:29+DRB1*15:57       | DRB1*13:96:02+DRB1*15:23    |                          |
| DRB1*13:29+DRB1*15:61       | DRB1*13:124+DRB1*15:05      |                          |
| DRB1*13:29+DRB1*15:70       | DRB1*13:140+DRB1*15:05      |                          |
| DRB1*13:29+DRB1*16:01:01    | DRB1*13:63+DRB1*16:02:01    |                          |
| DRB1*13:29+DRB1*16:01:02    | DRB1*13:63+DRB1*16:02:02    |                          |
| DRB1*13:29+DRB1*16:09       | DRB1*13:63+DRB1*16:10       |                          |
| DRB1*13:30+DRB1*13:81       | DRB1*13:58+DRB1*13:66:01    |                          |
| DRB1*13:30+DRB1*13:88       | DRB1*13:66:02+DRB1*13:134   |                          |
| DRB1*13:30+DRB1*13:135      | DRB1*13:107+DRB1*13:118     |                          |
| DRB1*13:30+DRB1*14:02       | DRB1*13:82+DRB1*14:13       |                          |
| DRB1*13:30+DRB1*14:19       | DRB1*13:66:01+DRB1*14:02    |                          |
| DRB1*13:30+DRB1*14:21       | DRB1*13:66:01+DRB1*14:17    |                          |
| DRB1*13:30+DRB1*14:67       | DRB1*13:82+DRB1*14:63       |                          |
| DRB1*13:30+DRB1*14:86       | DRB1*13:118+DRB1*14:35      |                          |
| DRB1*13:30+DRB1*15:01:04    | DRB1*13:82+DRB1*15:12       |                          |
| DRB1*13:31+DRB1*13:49       | DRB1*13:46+DRB1*13:65       |                          |
| DRB1*13:31+DRB1*13:108      | DRB1*13:32+DRB1*13:46       |                          |
| DRB1*13:32+DRB1*13:36       | DRB1*13:40+DRB1*13:65       |                          |
| DRB1*13:32+DRB1*13:39       | DRB1*13:65+DRB1*13:79       |                          |



|                              |                             |                             |                           |
|------------------------------|-----------------------------|-----------------------------|---------------------------|
| DRB1*13:32+DRB1*13:47        | DRB1*13:40+DRB1*13:55       |                             |                           |
| DRB1*13:32+DRB1*13:49        | DRB1*13:65+DRB1*13:108      |                             |                           |
| DRB1*13:32+DRB1*13:63        | DRB1*13:65+DRB1*13:111      |                             |                           |
| DRB1*13:32+DRB1*13:70        | DRB1*13:40+DRB1*13:48       |                             |                           |
| DRB1*13:32+DRB1*13:96:01     | DRB1*13:61:02+DRB1*13:65    |                             |                           |
| DRB1*13:32+DRB1*13:96:02     | DRB1*13:61:01+DRB1*13:65    |                             |                           |
| DRB1*13:32+DRB1*13:97:01     | DRB1*13:52+DRB1*13:65       |                             |                           |
| DRB1*13:32+DRB1*13:128       | DRB1*13:65+DRB1*13:112      |                             |                           |
| DRB1*13:32+DRB1*13:139       | DRB1*13:65+DRB1*13:93       |                             |                           |
| DRB1*13:32+DRB1*14:02        | DRB1*13:40+DRB1*14:13       | DRB1*13:65+DRB1*14:06:01    |                           |
| DRB1*13:32+DRB1*14:03:01     | DRB1*13:40+DRB1*14:85       | DRB1*13:65+DRB1*14:12:01    |                           |
| DRB1*13:32+DRB1*14:07:01     | DRB1*13:65+DRB1*14:01:01G   |                             |                           |
| DRB1*13:32+DRB1*14:09        | DRB1*13:65+DRB1*14:80       |                             |                           |
| DRB1*13:32+DRB1*14:14        | DRB1*13:65+DRB1*14:23:01    |                             |                           |
| DRB1*13:32+DRB1*14:17        | DRB1*13:93+DRB1*14:80       |                             |                           |
| DRB1*13:32+DRB1*14:30        | DRB1*13:65+DRB1*14:17       | DRB1*13:93+DRB1*14:09       | DRB1*13:139+DRB1*14:80    |
| DRB1*13:32+DRB1*14:35        | DRB1*13:93+DRB1*14:01:01G   |                             |                           |
| DRB1*13:32+DRB1*14:44:01     | DRB1*13:65+DRB1*14:05:01    |                             |                           |
| DRB1*13:32+DRB1*14:44:02     | DRB1*13:65+DRB1*14:05:03    |                             |                           |
| DRB1*13:32+DRB1*14:49        | DRB1*14:13+DRB1*14:16       |                             |                           |
| DRB1*13:32+DRB1*14:51        | DRB1*13:65+DRB1*14:106      |                             |                           |
| DRB1*13:32+DRB1*14:53        | DRB1*13:93+DRB1*14:25       |                             |                           |
| DRB1*13:32+DRB1*14:63        | DRB1*13:65+DRB1*14:78       |                             |                           |
| DRB1*13:32+DRB1*14:67        | DRB1*13:36+DRB1*14:78       | DRB1*13:40+DRB1*14:63       |                           |
| DRB1*13:32+DRB1*14:68        | DRB1*13:65+DRB1*14:04       |                             |                           |
| DRB1*13:32+DRB1*14:94        | DRB1*13:84+DRB1*14:13       |                             |                           |
| DRB1*13:32+DRB1*14:102       | DRB1*13:48+DRB1*14:03:01    | DRB1*13:70+DRB1*14:85       |                           |
| DRB1*13:32+DRB1*15:01:01G    | DRB1*13:93+DRB1*15:07:01    |                             |                           |
| DRB1*13:32+DRB1*15:01:04     | DRB1*13:40+DRB1*15:12       | DRB1*13:93+DRB1*15:07:02    |                           |
| DRB1*13:32+DRB1*15:02:01     | DRB1*13:65+DRB1*15:01:01G   | DRB1*13:93+DRB1*15:11       | DRB1*13:139+DRB1*15:07:01 |
| DRB1*13:32+DRB1*15:02:02     | DRB1*13:36+DRB1*15:12       | DRB1*13:65+DRB1*15:01:04    | DRB1*13:139+DRB1*15:07:02 |
| DRB1*13:32+DRB1*15:02:04     | DRB1*13:65+DRB1*15:01:09    |                             |                           |
| DRB1*13:32+DRB1*15:02:06     | DRB1*13:65+DRB1*15:01:03    |                             |                           |
| DRB1*13:32+DRB1*15:02:08     | DRB1*13:65+DRB1*15:01:10    |                             |                           |
| DRB1*13:32+DRB1*15:09        | DRB1*13:93+DRB1*15:48       |                             |                           |
| DRB1*13:32+DRB1*15:11        | DRB1*13:65+DRB1*15:07:01    |                             |                           |
| DRB1*13:32+DRB1*15:15        | DRB1*13:65+DRB1*15:04       |                             |                           |
| DRB1*13:32+DRB1*15:27        | DRB1*13:65+DRB1*15:66       | DRB1*13:93+DRB1*15:34       |                           |
| DRB1*13:32+DRB1*15:31        | DRB1*13:65+DRB1*15:05       |                             |                           |
| DRB1*13:32+DRB1*15:47        | DRB1*13:65+DRB1*15:65       |                             |                           |
| DRB1*13:32+DRB1*16:01:01     | DRB1*13:65+DRB1*16:15       |                             |                           |
| DRB1*13:32+DRB1*16:09        | DRB1*13:93+DRB1*16:01:01    | DRB1*13:139+DRB1*16:15      |                           |
| DRB1*13:32+DRB1*16:10        | DRB1*13:93+DRB1*16:02:01    |                             |                           |
| DRB1*13:33:01+DRB1*13:48     | DRB1*13:38+DRB1*13:94       |                             |                           |
| DRB1*13:33:01+DRB1*13:61:01  | DRB1*13:33:03+DRB1*13:61:02 |                             |                           |
| DRB1*13:33:01+DRB1*13:96:02  | DRB1*13:33:03+DRB1*13:96:01 |                             |                           |
| DRB1*13:33:01+DRB1*14:01:01G | DRB1*13:94+DRB1*14:07:02    |                             |                           |
| DRB1*13:33:01+DRB1*14:05:01  | DRB1*13:94+DRB1*14:44:03    |                             |                           |
| DRB1*13:33:01+DRB1*15:01:04  | DRB1*13:94+DRB1*15:02:05    |                             |                           |
| DRB1*13:33:01+DRB1*15:05     | DRB1*13:88+DRB1*15:37       |                             |                           |
| DRB1*13:33:01+DRB1*15:32     | DRB1*13:115+DRB1*15:37      |                             |                           |
| DRB1*13:33:02+DRB1*13:61:02  | DRB1*13:94+DRB1*13:96:02    |                             |                           |
| DRB1*13:33:02+DRB1*13:66:02  | DRB1*13:33:03+DRB1*13:66:01 |                             |                           |
| DRB1*13:33:02+DRB1*14:06:02  | DRB1*13:33:03+DRB1*14:06:01 | DRB1*13:89+DRB1*14:47       |                           |
| DRB1*13:33:02+DRB1*14:07:02  | DRB1*13:33:03+DRB1*14:07:01 |                             |                           |
| DRB1*13:33:02+DRB1*14:29     | DRB1*13:81+DRB1*14:47       |                             |                           |
| DRB1*13:33:02+DRB1*14:44:03  | DRB1*13:33:03+DRB1*14:44:01 |                             |                           |
| DRB1*13:33:02+DRB1*15:02:05  | DRB1*13:33:03+DRB1*15:02:02 |                             |                           |
| DRB1*13:33:02+DRB1*15:02:09  | DRB1*13:33:03+DRB1*15:02:01 |                             |                           |
| DRB1*13:33:03+DRB1*14:12:01  | DRB1*13:89+DRB1*14:98       |                             |                           |
| DRB1*13:33:03+DRB1*15:23     | DRB1*13:88+DRB1*15:57       |                             |                           |
| DRB1*13:34+DRB1*13:57        | DRB1*13:64+DRB1*13:104      |                             |                           |
| DRB1*13:34+DRB1*13:108       | DRB1*13:48+DRB1*13:136      |                             |                           |
| DRB1*13:34+DRB1*13:132       | DRB1*13:97:01+DRB1*13:136   |                             |                           |
| DRB1*13:34+DRB1*14:82        | DRB1*13:41+DRB1*14:110      |                             |                           |
| DRB1*13:34+DRB1*14:118       | DRB1*13:99+DRB1*14:110      |                             |                           |
| DRB1*13:36+DRB1*13:48        | DRB1*13:65+DRB1*13:70       |                             |                           |
| DRB1*13:36+DRB1*13:52        | DRB1*13:40+DRB1*13:97:01    |                             |                           |
| DRB1*13:36+DRB1*13:55        | DRB1*13:47+DRB1*13:65       |                             |                           |
| DRB1*13:36+DRB1*13:61:01     | DRB1*13:40+DRB1*13:96:02    |                             |                           |
| DRB1*13:36+DRB1*13:61:02     | DRB1*13:40+DRB1*13:96:01    |                             |                           |
| DRB1*13:36+DRB1*13:79        | DRB1*13:39+DRB1*13:40       |                             |                           |
| DRB1*13:36+DRB1*13:111       | DRB1*13:40+DRB1*13:63       |                             |                           |
| DRB1*13:36+DRB1*13:112       | DRB1*13:40+DRB1*13:128      |                             |                           |
| DRB1*13:36+DRB1*14:01:01G    | DRB1*13:40+DRB1*14:07:01    |                             |                           |
| DRB1*13:36+DRB1*14:04        | DRB1*13:40+DRB1*14:68       |                             |                           |
| DRB1*13:36+DRB1*14:05:01     | DRB1*13:40+DRB1*14:44:01    |                             |                           |
| DRB1*13:36+DRB1*14:05:03     | DRB1*13:40+DRB1*14:44:02    |                             |                           |
| DRB1*13:36+DRB1*14:06:01     | DRB1*13:40+DRB1*14:02       | DRB1*13:53+DRB1*14:09       |                           |
| DRB1*13:36+DRB1*14:12:01     | DRB1*13:40+DRB1*14:03:01    |                             |                           |
| DRB1*13:36+DRB1*14:13        | DRB1*13:65+DRB1*14:02       |                             |                           |
| DRB1*13:36+DRB1*14:23:01     | DRB1*13:40+DRB1*14:14       |                             |                           |
| DRB1*13:36+DRB1*14:63        | DRB1*13:65+DRB1*14:67       |                             |                           |
| DRB1*13:36+DRB1*14:65        | DRB1*13:139+DRB1*14:123     |                             |                           |
| DRB1*13:36+DRB1*14:80        | DRB1*13:40+DRB1*14:09       |                             |                           |
| DRB1*13:36+DRB1*14:85        | DRB1*13:65+DRB1*14:03:01    |                             |                           |
| DRB1*13:36+DRB1*14:106       | DRB1*13:40+DRB1*14:51       |                             |                           |
| DRB1*13:36+DRB1*15:04        | DRB1*13:40+DRB1*15:15       | DRB1*13:63+DRB1*15:07:01    | DRB1*13:111+DRB1*15:11    |
| DRB1*13:36+DRB1*15:07:01     | DRB1*13:40+DRB1*15:11       |                             |                           |
| DRB1*13:36+DRB1*15:15        | DRB1*13:63+DRB1*15:11       |                             |                           |
| DRB1*13:36+DRB1*15:24        | DRB1*13:92+DRB1*15:11       |                             |                           |
| DRB1*13:36+DRB1*15:37        | DRB1*13:61:02+DRB1*15:11    | DRB1*13:96:01+DRB1*15:07:01 |                           |
| DRB1*13:36+DRB1*15:61        | DRB1*13:124+DRB1*15:07:01   |                             |                           |
| DRB1*13:36+DRB1*15:65        | DRB1*13:40+DRB1*15:47       | DRB1*13:131+DRB1*15:11      |                           |
| DRB1*13:36+DRB1*15:70        | DRB1*13:140+DRB1*15:07:01   |                             |                           |
| DRB1*13:36+DRB1*15:71        | DRB1*13:39+DRB1*15:07:01    | DRB1*13:79+DRB1*15:11       |                           |
| DRB1*13:36+DRB1*16:15        | DRB1*13:40+DRB1*16:01:01    | DRB1*13:84+DRB1*16:08       |                           |
| DRB1*13:37+DRB1*14:27        | DRB1*13:47+DRB1*13:85       |                             |                           |
| DRB1*13:37+DRB1*14:65        | DRB1*13:66:02+DRB1*14:123   |                             |                           |
| DRB1*13:37+DRB1*14:78        | DRB1*13:89+DRB1*14:67       |                             |                           |
| DRB1*13:38+DRB1*14:01:01G    | DRB1*13:48+DRB1*14:07:02    |                             |                           |
| DRB1*13:38+DRB1*14:05:01     | DRB1*13:48+DRB1*14:44:03    |                             |                           |
| DRB1*13:38+DRB1*14:53        | DRB1*13:45+DRB1*13:49       |                             |                           |
| DRB1*13:38+DRB1*15:01:01G    | DRB1*13:48+DRB1*15:02:09    |                             |                           |
| DRB1*13:38+DRB1*15:01:04     | DRB1*13:48+DRB1*15:02:05    |                             |                           |

|                           |                             |                           |
|---------------------------|-----------------------------|---------------------------|
| DRB1*13:39+DRB1*13:52     | DRB1*13:79+DRB1*13:97:01    |                           |
| DRB1*13:39+DRB1*13:61:01  | DRB1*13:79+DRB1*13:96:02    |                           |
| DRB1*13:39+DRB1*13:61:02  | DRB1*13:79+DRB1*13:96:01    |                           |
| DRB1*13:39+DRB1*13:71     | DRB1*13:41+DRB1*13:78       |                           |
| DRB1*13:39+DRB1*13:83     | DRB1*13:79+DRB1*13:107      |                           |
| DRB1*13:39+DRB1*13:93     | DRB1*13:79+DRB1*13:139      |                           |
| DRB1*13:39+DRB1*13:108    | DRB1*13:49+DRB1*13:79       |                           |
| DRB1*13:39+DRB1*13:111    | DRB1*13:63+DRB1*13:79       |                           |
| DRB1*13:39+DRB1*13:112    | DRB1*13:79+DRB1*13:128      |                           |
| DRB1*13:39+DRB1*14:01:01G | DRB1*13:79+DRB1*14:07:01    |                           |
| DRB1*13:39+DRB1*14:04     | DRB1*13:79+DRB1*14:68       |                           |
| DRB1*13:39+DRB1*14:05:01  | DRB1*13:79+DRB1*14:44:01    |                           |
| DRB1*13:39+DRB1*14:05:03  | DRB1*13:79+DRB1*14:44:02    |                           |
| DRB1*13:39+DRB1*14:06:01  | DRB1*13:79+DRB1*14:02       |                           |
| DRB1*13:39+DRB1*14:17     | DRB1*13:79+DRB1*14:30       |                           |
| DRB1*13:39+DRB1*14:23:01  | DRB1*13:79+DRB1*14:14       |                           |
| DRB1*13:39+DRB1*14:40     | DRB1*13:107+DRB1*14:115     |                           |
| DRB1*13:39+DRB1*14:78     | DRB1*13:79+DRB1*14:63       |                           |
| DRB1*13:39+DRB1*14:80     | DRB1*13:79+DRB1*14:09       |                           |
| DRB1*13:39+DRB1*14:85     | DRB1*13:139+DRB1*14:115     |                           |
| DRB1*13:39+DRB1*14:95     | DRB1*13:41+DRB1*14:64       |                           |
| DRB1*13:39+DRB1*14:98     | DRB1*13:96:02+DRB1*14:115   |                           |
| DRB1*13:39+DRB1*14:106    | DRB1*13:79+DRB1*14:51       |                           |
| DRB1*13:39+DRB1*15:01:03  | DRB1*13:79+DRB1*15:02:06    |                           |
| DRB1*13:39+DRB1*15:01:10  | DRB1*13:79+DRB1*15:02:08    |                           |
| DRB1*13:39+DRB1*15:04     | DRB1*13:63+DRB1*15:71       | DRB1*13:79+DRB1*15:15     |
| DRB1*13:39+DRB1*15:07:02  | DRB1*13:40+DRB1*15:38       |                           |
| DRB1*13:39+DRB1*15:12     | DRB1*13:93+DRB1*15:38       |                           |
| DRB1*13:39+DRB1*15:37     | DRB1*13:96:01+DRB1*15:71    |                           |
| DRB1*13:39+DRB1*15:61     | DRB1*13:124+DRB1*15:71      |                           |
| DRB1*13:39+DRB1*15:65     | DRB1*13:79+DRB1*15:47       |                           |
| DRB1*13:39+DRB1*15:66     | DRB1*13:79+DRB1*15:27       |                           |
| DRB1*13:39+DRB1*15:70     | DRB1*13:140+DRB1*15:71      |                           |
| DRB1*13:39+DRB1*16:15     | DRB1*13:79+DRB1*16:01:01    |                           |
| DRB1*13:40+DRB1*14:06:01  | DRB1*13:53+DRB1*14:80       | DRB1*14:02+DRB1*14:16     |
| DRB1*13:40+DRB1*14:49     | DRB1*13:53+DRB1*14:119      |                           |
| DRB1*13:40+DRB1*14:65     | DRB1*13:93+DRB1*14:123      |                           |
| DRB1*13:40+DRB1*14:86     | DRB1*14:16+DRB1*14:59       |                           |
| DRB1*13:40+DRB1*14:94     | DRB1*13:84+DRB1*14:02       |                           |
| DRB1*13:40+DRB1*14:96     | DRB1*13:72+DRB1*14:59       | DRB1*13:70+DRB1*14:03:01  |
| DRB1*13:40+DRB1*14:102    | DRB1*13:53+DRB1*14:116      |                           |
| DRB1*13:40+DRB1*14:119    | DRB1*14:09+DRB1*14:16       |                           |
| DRB1*13:40+DRB1*14:124    | DRB1*13:53+DRB1*14:70       |                           |
| DRB1*13:40+DRB1*15:04     | DRB1*13:111+DRB1*15:07:01   |                           |
| DRB1*13:40+DRB1*15:24     | DRB1*13:92+DRB1*15:07:01    |                           |
| DRB1*13:40+DRB1*15:37     | DRB1*13:61:02+DRB1*15:07:01 |                           |
| DRB1*13:40+DRB1*15:39     | DRB1*13:127+DRB1*15:11      |                           |
| DRB1*13:40+DRB1*15:65     | DRB1*13:131+DRB1*15:07:01   |                           |
| DRB1*13:40+DRB1*15:66     | DRB1*14:80+DRB1*15:10       |                           |
| DRB1*13:40+DRB1*15:71     | DRB1*13:79+DRB1*15:07:01    |                           |
| DRB1*13:41+DRB1*14:118    | DRB1*13:99+DRB1*14:82       |                           |
| DRB1*13:42+DRB1*13:134    | DRB1*13:56+DRB1*13:108      |                           |
| DRB1*13:42+DRB1*14:41     | DRB1*13:136+DRB1*14:20      |                           |
| DRB1*13:42+DRB1*14:119    | DRB1*14:17+DRB1*14:22       |                           |
| DRB1*13:42+DRB1*15:34     | DRB1*14:17+DRB1*16:01:02    |                           |
| DRB1*13:42+DRB1*16:02:01  | DRB1*13:56+DRB1*16:15       |                           |
| DRB1*13:44+DRB1*14:02     | DRB1*13:86+DRB1*14:80       |                           |
| DRB1*13:44+DRB1*14:03:01  | DRB1*14:17+DRB1*14:102      |                           |
| DRB1*13:44+DRB1*16:04     | DRB1*13:47+DRB1*15:66       |                           |
| DRB1*13:44+DRB1*16:18     | DRB1*14:116+DRB1*15:66      |                           |
| DRB1*13:46+DRB1*14:109    | DRB1*13:100+DRB1*14:19      |                           |
| DRB1*13:46+DRB1*14:115    | DRB1*13:100+DRB1*14:03:01   |                           |
| DRB1*13:46+DRB1*15:38     | DRB1*13:100+DRB1*15:02:02   |                           |
| DRB1*13:46+DRB1*15:71     | DRB1*13:100+DRB1*15:01:01G  |                           |
| DRB1*13:47+DRB1*14:13     | DRB1*13:55+DRB1*14:02       |                           |
| DRB1*13:47+DRB1*14:63     | DRB1*13:55+DRB1*14:67       |                           |
| DRB1*13:47+DRB1*14:85     | DRB1*13:55+DRB1*14:03:01    |                           |
| DRB1*13:47+DRB1*15:12     | DRB1*13:55+DRB1*15:01:04    |                           |
| DRB1*13:47+DRB1*16:18     | DRB1*14:116+DRB1*16:04      |                           |
| DRB1*13:48+DRB1*13:50:02  | DRB1*13:49+DRB1*13:69       | DRB1*13:97:01+DRB1*13:108 |
| DRB1*13:48+DRB1*13:132    | DRB1*13:49+DRB1*13:52       |                           |
| DRB1*13:48+DRB1*14:02     | DRB1*13:70+DRB1*14:13       |                           |
| DRB1*13:48+DRB1*14:22     | DRB1*13:49+DRB1*14:16       |                           |
| DRB1*13:48+DRB1*15:04     | DRB1*13:75+DRB1*15:07:01    |                           |
| DRB1*13:48+DRB1*15:15     | DRB1*13:75+DRB1*15:11       |                           |
| DRB1*13:49+DRB1*13:61:01  | DRB1*13:96:02+DRB1*13:108   |                           |
| DRB1*13:49+DRB1*13:61:02  | DRB1*13:96:01+DRB1*13:108   |                           |
| DRB1*13:49+DRB1*13:111    | DRB1*13:63+DRB1*13:108      |                           |
| DRB1*13:49+DRB1*13:112    | DRB1*13:108+DRB1*13:128     |                           |
| DRB1*13:49+DRB1*13:131    | DRB1*13:111+DRB1*13:118     |                           |
| DRB1*13:49+DRB1*14:01:01G | DRB1*13:108+DRB1*14:07:01   |                           |
| DRB1*13:49+DRB1*14:04     | DRB1*13:108+DRB1*14:68      |                           |
| DRB1*13:49+DRB1*14:05:01  | DRB1*13:108+DRB1*14:44:01   |                           |
| DRB1*13:49+DRB1*14:05:03  | DRB1*13:108+DRB1*14:44:02   | DRB1*13:134+DRB1*14:108   |
| DRB1*13:49+DRB1*14:06:01  | DRB1*13:108+DRB1*14:02      |                           |
| DRB1*13:49+DRB1*14:12:01  | DRB1*13:108+DRB1*14:03:01   |                           |
| DRB1*13:49+DRB1*14:23:01  | DRB1*13:108+DRB1*14:14      |                           |
| DRB1*13:49+DRB1*14:69     | DRB1*13:134+DRB1*14:25      |                           |
| DRB1*13:49+DRB1*14:78     | DRB1*13:108+DRB1*14:63      |                           |
| DRB1*13:49+DRB1*14:80     | DRB1*13:108+DRB1*14:09      |                           |
| DRB1*13:49+DRB1*14:106    | DRB1*13:108+DRB1*14:51      |                           |
| DRB1*13:49+DRB1*15:01:03  | DRB1*13:108+DRB1*15:02:06   |                           |
| DRB1*13:49+DRB1*15:01:09  | DRB1*13:108+DRB1*15:02:04   |                           |
| DRB1*13:49+DRB1*15:01:10  | DRB1*13:108+DRB1*15:02:08   |                           |
| DRB1*13:49+DRB1*15:04     | DRB1*13:108+DRB1*15:15      | DRB1*13:134+DRB1*15:04    |
| DRB1*13:49+DRB1*15:05     | DRB1*13:108+DRB1*15:31      |                           |
| DRB1*13:49+DRB1*15:07:01  | DRB1*13:108+DRB1*15:11      |                           |
| DRB1*13:49+DRB1*15:31     | DRB1*13:134+DRB1*15:15      |                           |
| DRB1*13:49+DRB1*15:35     | DRB1*13:58+DRB1*15:15       |                           |
| DRB1*13:49+DRB1*15:47     | DRB1*13:118+DRB1*15:15      | DRB1*13:118+DRB1*15:04    |
| DRB1*13:49+DRB1*15:65     | DRB1*13:108+DRB1*15:47      |                           |
| DRB1*13:49+DRB1*15:66     | DRB1*13:108+DRB1*15:27      |                           |
| DRB1*13:49+DRB1*16:02:01  | DRB1*13:134+DRB1*16:01:01   |                           |
| DRB1*13:49+DRB1*16:02:02  | DRB1*13:134+DRB1*16:01:02   |                           |
| DRB1*13:49+DRB1*16:04     | DRB1*13:55+DRB1*16:01:02    |                           |

|                             |                              |
|-----------------------------|------------------------------|
| DRB1*13:49+DRB1*16:15       | DRB1*13:108+DRB1*16:01:01    |
| DRB1*13:50:01+DRB1*14:16    | DRB1*13:87+DRB1*14:25        |
| DRB1*13:50:02+DRB1*13:52    | DRB1*13:69+DRB1*13:132       |
| DRB1*13:50:02+DRB1*14:16    | DRB1*13:69+DRB1*14:22        |
| DRB1*13:52+DRB1*13:63       | DRB1*13:97:01+DRB1*13:111    |
| DRB1*13:52+DRB1*13:96:01    | DRB1*13:61:02+DRB1*13:97:01  |
| DRB1*13:52+DRB1*13:96:02    | DRB1*13:61:01+DRB1*13:97:01  |
| DRB1*13:52+DRB1*13:107      | DRB1*13:83+DRB1*13:97:01     |
| DRB1*13:52+DRB1*13:128      | DRB1*13:97:01+DRB1*13:112    |
| DRB1*13:52+DRB1*13:139      | DRB1*13:93+DRB1*13:97:01     |
| DRB1*13:52+DRB1*14:02       | DRB1*13:97:01+DRB1*14:06:01  |
| DRB1*13:52+DRB1*14:03:01    | DRB1*13:97:01+DRB1*14:12:01  |
| DRB1*13:52+DRB1*14:07:01    | DRB1*13:97:01+DRB1*14:01:01G |
| DRB1*13:52+DRB1*14:09       | DRB1*13:97:01+DRB1*14:80     |
| DRB1*13:52+DRB1*14:14       | DRB1*13:97:01+DRB1*14:23:01  |
| DRB1*13:52+DRB1*14:22       | DRB1*13:132+DRB1*14:16       |
| DRB1*13:52+DRB1*14:30       | DRB1*13:97:01+DRB1*14:17     |
| DRB1*13:52+DRB1*14:44:01    | DRB1*13:97:01+DRB1*14:05:01  |
| DRB1*13:52+DRB1*14:44:02    | DRB1*13:97:01+DRB1*14:05:03  |
| DRB1*13:52+DRB1*14:51       | DRB1*13:97:01+DRB1*14:106    |
| DRB1*13:52+DRB1*14:63       | DRB1*13:97:01+DRB1*14:78     |
| DRB1*13:52+DRB1*14:68       | DRB1*13:97:01+DRB1*14:04     |
| DRB1*13:52+DRB1*15:02:01    | DRB1*13:97:01+DRB1*15:01:01G |
| DRB1*13:52+DRB1*15:02:02    | DRB1*13:97:01+DRB1*15:01:04  |
| DRB1*13:52+DRB1*15:02:04    | DRB1*13:97:01+DRB1*15:01:09  |
| DRB1*13:52+DRB1*15:02:06    | DRB1*13:97:01+DRB1*15:01:03  |
| DRB1*13:52+DRB1*15:02:08    | DRB1*13:97:01+DRB1*15:01:10  |
| DRB1*13:52+DRB1*15:11       | DRB1*13:97:01+DRB1*15:07:01  |
| DRB1*13:52+DRB1*15:15       | DRB1*13:97:01+DRB1*15:04     |
| DRB1*13:52+DRB1*15:27       | DRB1*13:97:01+DRB1*15:66     |
| DRB1*13:52+DRB1*15:31       | DRB1*13:97:01+DRB1*15:05     |
| DRB1*13:52+DRB1*15:47       | DRB1*13:97:01+DRB1*15:65     |
| DRB1*13:52+DRB1*16:01:01    | DRB1*13:97:01+DRB1*16:15     |
| DRB1*13:53+DRB1*14:23:01    | DRB1*13:76+DRB1*14:81        |
| DRB1*13:53+DRB1*14:32:01    | DRB1*14:16+DRB1*14:81        |
| DRB1*13:53+DRB1*15:02:02    | DRB1*13:104+DRB1*15:07:02    |
| DRB1*13:53+DRB1*15:54       | DRB1*14:121+DRB1*15:10       |
| DRB1*13:53+DRB1*15:66       | DRB1*14:06:01+DRB1*15:10     |
| DRB1*13:54+DRB1*14:13       | DRB1*13:75+DRB1*14:48        |
| DRB1*13:55+DRB1*16:02:02    | DRB1*13:134+DRB1*16:04       |
| DRB1*13:56+DRB1*14:55       | DRB1*13:119+DRB1*14:32:02    |
| DRB1*13:56+DRB1*14:89       | DRB1*13:119+DRB1*14:02       |
| DRB1*13:56+DRB1*15:34       | DRB1*14:30+DRB1*16:02:02     |
| DRB1*13:56+DRB1*16:18       | DRB1*13:119+DRB1*16:02:02    |
| DRB1*13:57+DRB1*14:02       | DRB1*13:104+DRB1*14:20       |
| DRB1*13:57+DRB1*14:70       | DRB1*13:83+DRB1*14:124       |
| DRB1*13:57+DRB1*14:119      | DRB1*13:83+DRB1*14:49        |
| DRB1*13:57+DRB1*16:18       | DRB1*14:40+DRB1*15:10        |
| DRB1*13:58+DRB1*14:21       | DRB1*13:81+DRB1*14:17        |
| DRB1*13:58+DRB1*15:04       | DRB1*13:108+DRB1*15:35       |
| DRB1*13:58+DRB1*15:31       | DRB1*13:134+DRB1*15:35       |
| DRB1*13:58+DRB1*15:47       | DRB1*13:118+DRB1*15:35       |
| DRB1*13:61:01+DRB1*13:63    | DRB1*13:96:02+DRB1*13:111    |
| DRB1*13:61:01+DRB1*13:96:01 | DRB1*13:61:02+DRB1*13:96:02  |
| DRB1*13:61:01+DRB1*13:107   | DRB1*13:83+DRB1*13:96:02     |
| DRB1*13:61:01+DRB1*13:128   | DRB1*13:96:02+DRB1*13:112    |
| DRB1*13:61:01+DRB1*13:139   | DRB1*13:93+DRB1*13:96:02     |
| DRB1*13:61:01+DRB1*14:07:01 | DRB1*13:96:02+DRB1*14:01:01G |
| DRB1*13:61:01+DRB1*14:09    | DRB1*13:96:02+DRB1*14:80     |
| DRB1*13:61:01+DRB1*14:13    | DRB1*13:93+DRB1*14:47        |
| DRB1*13:61:01+DRB1*14:14    | DRB1*13:96:02+DRB1*14:23:01  |
| DRB1*13:61:01+DRB1*14:30    | DRB1*13:96:02+DRB1*14:17     |
| DRB1*13:61:01+DRB1*14:40    | DRB1*13:83+DRB1*14:98        |
| DRB1*13:61:01+DRB1*14:41    | DRB1*13:64+DRB1*14:47        |
| DRB1*13:61:01+DRB1*14:44:01 | DRB1*13:96:02+DRB1*14:05:01  |
| DRB1*13:61:01+DRB1*14:51    | DRB1*13:96:02+DRB1*14:106    |
| DRB1*13:61:01+DRB1*14:63    | DRB1*13:96:02+DRB1*14:78     |
| DRB1*13:61:01+DRB1*14:68    | DRB1*13:96:02+DRB1*14:04     |
| DRB1*13:61:01+DRB1*14:77    | DRB1*13:64+DRB1*14:98        |
| DRB1*13:61:01+DRB1*14:85    | DRB1*13:93+DRB1*14:98        |
| DRB1*13:61:01+DRB1*14:93    | DRB1*13:96:01+DRB1*14:50     |
| DRB1*13:61:01+DRB1*14:115   | DRB1*13:79+DRB1*14:98        |
| DRB1*13:61:01+DRB1*15:02:01 | DRB1*13:96:02+DRB1*15:01:01G |
| DRB1*13:61:01+DRB1*15:02:02 | DRB1*13:96:02+DRB1*15:01:04  |
| DRB1*13:61:01+DRB1*15:02:04 | DRB1*13:96:02+DRB1*15:01:09  |
| DRB1*13:61:01+DRB1*15:02:06 | DRB1*13:96:02+DRB1*15:01:03  |
| DRB1*13:61:01+DRB1*15:02:08 | DRB1*13:96:02+DRB1*15:01:10  |
| DRB1*13:61:01+DRB1*15:11    | DRB1*13:96:02+DRB1*15:07:01  |
| DRB1*13:61:01+DRB1*15:15    | DRB1*13:96:02+DRB1*15:04     |
| DRB1*13:61:01+DRB1*15:27    | DRB1*13:96:02+DRB1*15:66     |
| DRB1*13:61:01+DRB1*15:31    | DRB1*13:96:02+DRB1*15:05     |
| DRB1*13:61:01+DRB1*15:47    | DRB1*13:96:02+DRB1*15:65     |
| DRB1*13:61:01+DRB1*16:01:01 | DRB1*13:96:02+DRB1*16:15     |
| DRB1*13:61:02+DRB1*13:63    | DRB1*13:96:01+DRB1*13:111    |
| DRB1*13:61:02+DRB1*13:107   | DRB1*13:83+DRB1*13:96:01     |
| DRB1*13:61:02+DRB1*13:128   | DRB1*13:96:01+DRB1*13:112    |
| DRB1*13:61:02+DRB1*13:139   | DRB1*13:93+DRB1*13:96:01     |
| DRB1*13:61:02+DRB1*14:02    | DRB1*13:96:01+DRB1*14:06:01  |
| DRB1*13:61:02+DRB1*14:03:01 | DRB1*13:96:01+DRB1*14:12:01  |
| DRB1*13:61:02+DRB1*14:07:01 | DRB1*13:96:01+DRB1*14:01:01G |
| DRB1*13:61:02+DRB1*14:09    | DRB1*13:96:01+DRB1*14:80     |
| DRB1*13:61:02+DRB1*14:14    | DRB1*13:96:01+DRB1*14:23:01  |
| DRB1*13:61:02+DRB1*14:30    | DRB1*13:96:01+DRB1*14:17     |
| DRB1*13:61:02+DRB1*14:44:01 | DRB1*13:96:01+DRB1*14:05:01  |
| DRB1*13:61:02+DRB1*14:44:02 | DRB1*13:96:01+DRB1*14:05:03  |
| DRB1*13:61:02+DRB1*14:51    | DRB1*13:96:01+DRB1*14:106    |
| DRB1*13:61:02+DRB1*14:63    | DRB1*13:96:01+DRB1*14:78     |
| DRB1*13:61:02+DRB1*15:02:02 | DRB1*13:96:01+DRB1*15:01:04  |
| DRB1*13:61:02+DRB1*15:02:06 | DRB1*13:96:01+DRB1*15:01:03  |
| DRB1*13:61:02+DRB1*15:02:08 | DRB1*13:96:01+DRB1*15:01:10  |
| DRB1*13:61:02+DRB1*15:04    | DRB1*13:111+DRB1*15:37       |
| DRB1*13:61:02+DRB1*15:15    | DRB1*13:63+DRB1*15:37        |
| DRB1*13:61:02+DRB1*15:24    | DRB1*13:92+DRB1*15:37        |
| DRB1*13:61:02+DRB1*15:27    | DRB1*13:96:01+DRB1*15:66     |
| DRB1*13:61:02+DRB1*15:47    | DRB1*13:96:01+DRB1*15:65     |

DRB1\*14:03:01+DRB1\*14:30

DRB1\*13:96:01+DRB1\*15:04

|                             |                             |                            |
|-----------------------------|-----------------------------|----------------------------|
| DRB1*13:61:02+DRB1*15:65    | DRB1*13:131+DRB1*15:37      |                            |
| DRB1*13:61:02+DRB1*15:71    | DRB1*13:79+DRB1*15:37       |                            |
| DRB1*13:61:02+DRB1*16:01:01 | DRB1*13:96:01+DRB1*16:15    |                            |
| DRB1*13:63+DRB1*13:83       | DRB1*13:107+DRB1*13:111     |                            |
| DRB1*13:63+DRB1*13:93       | DRB1*13:111+DRB1*13:139     |                            |
| DRB1*13:63+DRB1*13:112      | DRB1*13:111+DRB1*13:128     |                            |
| DRB1*13:63+DRB1*14:01:01G   | DRB1*13:111+DRB1*14:07:01   |                            |
| DRB1*13:63+DRB1*14:04       | DRB1*13:111+DRB1*14:68      |                            |
| DRB1*13:63+DRB1*14:05:01    | DRB1*13:111+DRB1*14:44:01   |                            |
| DRB1*13:63+DRB1*14:05:03    | DRB1*13:111+DRB1*14:44:02   |                            |
| DRB1*13:63+DRB1*14:17       | DRB1*13:111+DRB1*14:30      |                            |
| DRB1*13:63+DRB1*14:23:01    | DRB1*13:111+DRB1*14:14      |                            |
| DRB1*13:63+DRB1*14:63       | DRB1*13:139+DRB1*14:27      |                            |
| DRB1*13:63+DRB1*14:78       | DRB1*13:93+DRB1*14:27       | DRB1*13:111+DRB1*14:63     |
| DRB1*13:63+DRB1*14:80       | DRB1*13:111+DRB1*14:09      |                            |
| DRB1*13:63+DRB1*14:106      | DRB1*13:111+DRB1*14:51      |                            |
| DRB1*13:63+DRB1*15:01:04    | DRB1*13:111+DRB1*15:02:02   |                            |
| DRB1*13:63+DRB1*15:04       | DRB1*13:111+DRB1*15:15      |                            |
| DRB1*13:63+DRB1*15:24       | DRB1*13:92+DRB1*15:15       |                            |
| DRB1*13:63+DRB1*15:61       | DRB1*13:124+DRB1*15:04      |                            |
| DRB1*13:63+DRB1*15:65       | DRB1*13:111+DRB1*15:47      | DRB1*13:131+DRB1*15:15     |
| DRB1*13:63+DRB1*15:66       | DRB1*13:111+DRB1*15:27      |                            |
| DRB1*13:63+DRB1*15:70       | DRB1*13:140+DRB1*15:04      |                            |
| DRB1*13:63+DRB1*16:15       | DRB1*13:111+DRB1*16:01:01   |                            |
| DRB1*13:64+DRB1*14:01:01G   | DRB1*13:83+DRB1*14:110      |                            |
| DRB1*13:64+DRB1*14:07:01    | DRB1*13:107+DRB1*14:110     |                            |
| DRB1*13:64+DRB1*14:13       | DRB1*13:93+DRB1*14:41       |                            |
| DRB1*13:64+DRB1*14:40       | DRB1*13:83+DRB1*14:77       |                            |
| DRB1*13:64+DRB1*14:85       | DRB1*13:93+DRB1*14:77       |                            |
| DRB1*13:64+DRB1*14:97       | DRB1*13:106+DRB1*14:110     |                            |
| DRB1*13:64+DRB1*14:115      | DRB1*13:79+DRB1*14:77       |                            |
| DRB1*13:65+DRB1*14:30       | DRB1*13:139+DRB1*14:09      |                            |
| DRB1*13:65+DRB1*14:35       | DRB1*13:93+DRB1*14:07:01    | DRB1*13:139+DRB1*14:01:01G |
| DRB1*13:65+DRB1*14:53       | DRB1*13:139+DRB1*14:25      |                            |
| DRB1*13:65+DRB1*15:02:01    | DRB1*13:139+DRB1*15:11      |                            |
| DRB1*13:65+DRB1*15:09       | DRB1*13:139+DRB1*15:48      |                            |
| DRB1*13:65+DRB1*15:27       | DRB1*13:139+DRB1*15:34      |                            |
| DRB1*13:65+DRB1*16:09       | DRB1*13:139+DRB1*16:01:01   |                            |
| DRB1*13:65+DRB1*16:10       | DRB1*13:139+DRB1*16:02:01   |                            |
| DRB1*13:66:01+DRB1*14:06:02 | DRB1*13:66:02+DRB1*14:06:01 |                            |
| DRB1*13:66:01+DRB1*14:07:02 | DRB1*13:66:02+DRB1*14:07:01 |                            |
| DRB1*13:66:01+DRB1*14:44:03 | DRB1*13:66:02+DRB1*14:44:01 |                            |
| DRB1*13:66:01+DRB1*15:02:05 | DRB1*13:66:02+DRB1*15:02:02 |                            |
| DRB1*13:66:01+DRB1*15:02:09 | DRB1*13:66:02+DRB1*15:02:01 |                            |
| DRB1*13:66:02+DRB1*14:02    | DRB1*13:86+DRB1*13:120      |                            |
| DRB1*13:66:02+DRB1*16:15    | DRB1*13:89+DRB1*16:09       |                            |
| DRB1*13:70+DRB1*14:04       | DRB1*13:116+DRB1*14:01:01G  |                            |
| DRB1*13:70+DRB1*14:28       | DRB1*13:116+DRB1*14:99      |                            |
| DRB1*13:70+DRB1*14:31       | DRB1*13:116+DRB1*14:32:02   |                            |
| DRB1*13:70+DRB1*14:50       | DRB1*13:116+DRB1*14:38      |                            |
| DRB1*13:70+DRB1*14:52       | DRB1*13:116+DRB1*14:06:01   |                            |
| DRB1*13:70+DRB1*14:68       | DRB1*13:116+DRB1*14:07:01   |                            |
| DRB1*13:70+DRB1*14:107      | DRB1*13:116+DRB1*14:111     |                            |
| DRB1*13:70+DRB1*14:120      | DRB1*13:116+DRB1*14:122     |                            |
| DRB1*13:70+DRB1*14:126      | DRB1*13:116+DRB1*14:23:01   |                            |
| DRB1*13:71+DRB1*14:64       | DRB1*13:78+DRB1*14:95       |                            |
| DRB1*13:72+DRB1*14:01:01G   | DRB1*14:05:01+DRB1*14:16    |                            |
| DRB1*13:72+DRB1*14:01:02    | DRB1*14:05:03+DRB1*14:16    |                            |
| DRB1*13:72+DRB1*14:07:01    | DRB1*14:16+DRB1*14:44:01    |                            |
| DRB1*13:72+DRB1*14:07:02    | DRB1*14:16+DRB1*14:44:03    |                            |
| DRB1*13:72+DRB1*14:32:02    | DRB1*14:16+DRB1*14:100      |                            |
| DRB1*13:72+DRB1*14:38       | DRB1*14:16+DRB1*14:127      |                            |
| DRB1*13:72+DRB1*14:64       | DRB1*13:78+DRB1*14:45       | DRB1*13:79+DRB1*14:05:01   |
| DRB1*13:72+DRB1*14:75       | DRB1*14:16+DRB1*14:103      |                            |
| DRB1*13:72+DRB1*14:86       | DRB1*14:16+DRB1*14:96       |                            |
| DRB1*13:72+DRB1*14:122      | DRB1*14:16+DRB1*14:45       |                            |
| DRB1*13:72+DRB1*15:01:01G   | DRB1*14:37+DRB1*15:10       |                            |
| DRB1*13:78+DRB1*14:27       | DRB1*13:111+DRB1*14:115     |                            |
| DRB1*13:78+DRB1*14:63       | DRB1*13:79+DRB1*14:85       | DRB1*13:93+DRB1*14:115     |
| DRB1*13:78+DRB1*14:120      | DRB1*13:79+DRB1*14:04       |                            |
| DRB1*13:78+DRB1*14:122      | DRB1*13:79+DRB1*14:01:01G   | DRB1*14:16+DRB1*14:64      |
| DRB1*13:78+DRB1*15:03:01G   | DRB1*13:79+DRB1*15:23       |                            |
| DRB1*13:78+DRB1*15:06:01    | DRB1*13:79+DRB1*15:73       |                            |
| DRB1*13:78+DRB1*15:38       | DRB1*13:79+DRB1*15:63       |                            |
| DRB1*13:78+DRB1*16:05:01    | DRB1*13:79+DRB1*16:02:01    |                            |
| DRB1*13:79+DRB1*14:40       | DRB1*13:83+DRB1*14:115      |                            |
| DRB1*13:79+DRB1*15:04       | DRB1*13:111+DRB1*15:71      |                            |
| DRB1*13:79+DRB1*15:24       | DRB1*13:92+DRB1*15:71       |                            |
| DRB1*13:79+DRB1*15:65       | DRB1*13:131+DRB1*15:71      |                            |
| DRB1*13:81+DRB1*14:06:02    | DRB1*13:89+DRB1*14:29       |                            |
| DRB1*13:81+DRB1*15:37       | DRB1*13:94+DRB1*15:35       |                            |
| DRB1*13:83+DRB1*13:128      | DRB1*13:107+DRB1*13:112     |                            |
| DRB1*13:83+DRB1*13:139      | DRB1*13:93+DRB1*13:107      |                            |
| DRB1*13:83+DRB1*14:07:01    | DRB1*13:107+DRB1*14:01:01G  |                            |
| DRB1*13:83+DRB1*14:10       | DRB1*14:57+DRB1*14:72       |                            |
| DRB1*13:83+DRB1*14:13       | DRB1*13:139+DRB1*14:20      |                            |
| DRB1*13:83+DRB1*14:14       | DRB1*13:107+DRB1*14:23:01   |                            |
| DRB1*13:83+DRB1*14:30       | DRB1*13:107+DRB1*14:17      |                            |
| DRB1*13:83+DRB1*14:44:01    | DRB1*13:107+DRB1*14:05:01   |                            |
| DRB1*13:83+DRB1*14:44:02    | DRB1*13:107+DRB1*14:05:03   |                            |
| DRB1*13:83+DRB1*14:47       | DRB1*13:96:02+DRB1*14:20    |                            |
| DRB1*13:83+DRB1*14:51       | DRB1*13:107+DRB1*14:106     |                            |
| DRB1*13:83+DRB1*14:59       | DRB1*13:131+DRB1*14:23:01   |                            |
| DRB1*13:83+DRB1*14:63       | DRB1*13:107+DRB1*14:78      |                            |
| DRB1*13:83+DRB1*14:68       | DRB1*13:107+DRB1*14:04      |                            |
| DRB1*13:83+DRB1*14:85       | DRB1*13:93+DRB1*14:40       |                            |
| DRB1*13:83+DRB1*14:97       | DRB1*13:106+DRB1*14:01:01G  |                            |
| DRB1*13:83+DRB1*15:02:01    | DRB1*13:107+DRB1*15:01:01G  |                            |
| DRB1*13:83+DRB1*15:02:02    | DRB1*13:107+DRB1*15:01:04   |                            |
| DRB1*13:83+DRB1*15:02:04    | DRB1*13:107+DRB1*15:01:09   |                            |
| DRB1*13:83+DRB1*15:02:06    | DRB1*13:107+DRB1*15:01:03   |                            |
| DRB1*13:83+DRB1*15:02:08    | DRB1*13:107+DRB1*15:01:10   |                            |
| DRB1*13:83+DRB1*15:15       | DRB1*13:107+DRB1*15:04      |                            |
| DRB1*13:83+DRB1*15:27       | DRB1*13:107+DRB1*15:66      |                            |
| DRB1*13:83+DRB1*15:31       | DRB1*13:107+DRB1*15:05      |                            |

|                              |                             |                             |
|------------------------------|-----------------------------|-----------------------------|
| DRB1*13:83+DRB1*15:32        | DRB1*13:87+DRB1*15:01:01G   |                             |
| DRB1*13:83+DRB1*15:47        | DRB1*13:107+DRB1*15:65      |                             |
| DRB1*13:84+DRB1*14:49        | DRB1*14:16+DRB1*14:94       |                             |
| DRB1*13:85+DRB1*14:89        | DRB1*14:19+DRB1*14:67       |                             |
| DRB1*13:86+DRB1*14:07:01     | DRB1*14:42+DRB1*14:49       |                             |
| DRB1*13:86+DRB1*14:23:01     | DRB1*14:20+DRB1*14:42       |                             |
| DRB1*13:86+DRB1*16:18        | DRB1*14:102+DRB1*15:27      |                             |
| DRB1*13:87+DRB1*15:02:01     | DRB1*13:107+DRB1*15:32      |                             |
| DRB1*13:88+DRB1*14:78        | DRB1*13:89+DRB1*14:85       |                             |
| DRB1*13:88+DRB1*15:32        | DRB1*13:115+DRB1*15:05      |                             |
| DRB1*13:92+DRB1*14:86        | DRB1*13:131+DRB1*14:26      |                             |
| DRB1*13:92+DRB1*15:04        | DRB1*13:111+DRB1*15:24      |                             |
| DRB1*13:92+DRB1*15:65        | DRB1*13:131+DRB1*15:24      |                             |
| DRB1*13:93+DRB1*13:128       | DRB1*13:112+DRB1*13:139     |                             |
| DRB1*13:93+DRB1*14:14        | DRB1*13:139+DRB1*14:23:01   |                             |
| DRB1*13:93+DRB1*14:30        | DRB1*13:139+DRB1*14:17      |                             |
| DRB1*13:93+DRB1*14:44:01     | DRB1*13:139+DRB1*14:05:01   |                             |
| DRB1*13:93+DRB1*14:44:02     | DRB1*13:139+DRB1*14:05:03   |                             |
| DRB1*13:93+DRB1*14:51        | DRB1*13:139+DRB1*14:106     |                             |
| DRB1*13:93+DRB1*14:63        | DRB1*13:139+DRB1*14:78      |                             |
| DRB1*13:93+DRB1*14:68        | DRB1*13:139+DRB1*14:04      |                             |
| DRB1*13:93+DRB1*15:02:04     | DRB1*13:139+DRB1*15:01:09   |                             |
| DRB1*13:93+DRB1*15:02:06     | DRB1*13:139+DRB1*15:01:03   |                             |
| DRB1*13:93+DRB1*15:02:08     | DRB1*13:139+DRB1*15:01:10   |                             |
| DRB1*13:93+DRB1*15:15        | DRB1*13:139+DRB1*15:04      |                             |
| DRB1*13:93+DRB1*15:27        | DRB1*13:139+DRB1*15:66      |                             |
| DRB1*13:93+DRB1*15:31        | DRB1*13:139+DRB1*15:05      |                             |
| DRB1*13:93+DRB1*15:47        | DRB1*13:139+DRB1*15:65      |                             |
| DRB1*13:96:01+DRB1*15:61     | DRB1*13:124+DRB1*15:37      |                             |
| DRB1*13:96:01+DRB1*15:70     | DRB1*13:140+DRB1*15:37      |                             |
| DRB1*13:96:02+DRB1*14:13     | DRB1*13:139+DRB1*14:47      |                             |
| DRB1*13:96:02+DRB1*14:40     | DRB1*13:107+DRB1*14:98      |                             |
| DRB1*13:96:02+DRB1*14:85     | DRB1*13:139+DRB1*14:98      |                             |
| DRB1*13:104+DRB1*14:23:03    | DRB1*13:107+DRB1*14:18      |                             |
| DRB1*13:106+DRB1*14:07:01    | DRB1*13:107+DRB1*14:97      |                             |
| DRB1*13:107+DRB1*14:59       | DRB1*13:131+DRB1*14:14      |                             |
| DRB1*13:107+DRB1*14:85       | DRB1*13:139+DRB1*14:40      |                             |
| DRB1*13:107+DRB1*14:86       | DRB1*13:135+DRB1*14:35      |                             |
| DRB1*13:108+DRB1*16:02:01    | DRB1*13:134+DRB1*16:15      |                             |
| DRB1*13:111+DRB1*15:39       | DRB1*13:127+DRB1*15:15      |                             |
| DRB1*13:111+DRB1*15:65       | DRB1*13:131+DRB1*15:04      |                             |
| DRB1*13:112+DRB1*14:02       | DRB1*13:128+DRB1*14:06:01   |                             |
| DRB1*13:112+DRB1*14:03:01    | DRB1*13:128+DRB1*14:12:01   |                             |
| DRB1*13:112+DRB1*14:07:01    | DRB1*13:128+DRB1*14:01:01G  |                             |
| DRB1*13:112+DRB1*14:09       | DRB1*13:128+DRB1*14:80      |                             |
| DRB1*13:112+DRB1*14:14       | DRB1*13:128+DRB1*14:23:01   |                             |
| DRB1*13:112+DRB1*14:30       | DRB1*13:128+DRB1*14:17      |                             |
| DRB1*13:112+DRB1*14:44:01    | DRB1*13:128+DRB1*14:05:01   |                             |
| DRB1*13:112+DRB1*14:44:02    | DRB1*13:128+DRB1*14:05:03   |                             |
| DRB1*13:112+DRB1*14:51       | DRB1*13:128+DRB1*14:106     |                             |
| DRB1*13:112+DRB1*14:63       | DRB1*13:128+DRB1*14:78      |                             |
| DRB1*13:112+DRB1*14:68       | DRB1*13:128+DRB1*14:04      |                             |
| DRB1*13:112+DRB1*15:02:01    | DRB1*13:128+DRB1*15:01:01G  |                             |
| DRB1*13:112+DRB1*15:02:02    | DRB1*13:128+DRB1*15:01:04   |                             |
| DRB1*13:112+DRB1*15:02:04    | DRB1*13:128+DRB1*15:01:09   |                             |
| DRB1*13:112+DRB1*15:02:06    | DRB1*13:128+DRB1*15:01:03   |                             |
| DRB1*13:112+DRB1*15:02:08    | DRB1*13:128+DRB1*15:01:10   |                             |
| DRB1*13:112+DRB1*15:11       | DRB1*13:128+DRB1*15:07:01   |                             |
| DRB1*13:112+DRB1*15:15       | DRB1*13:128+DRB1*15:04      |                             |
| DRB1*13:112+DRB1*15:27       | DRB1*13:128+DRB1*15:66      |                             |
| DRB1*13:112+DRB1*15:31       | DRB1*13:128+DRB1*15:05      |                             |
| DRB1*13:112+DRB1*15:47       | DRB1*13:128+DRB1*15:65      |                             |
| DRB1*13:112+DRB1*16:01:01    | DRB1*13:128+DRB1*16:15      |                             |
| DRB1*13:118+DRB1*15:05       | DRB1*13:134+DRB1*15:65      |                             |
| DRB1*13:118+DRB1*15:31       | DRB1*13:134+DRB1*15:47      |                             |
| DRB1*13:119+DRB1*14:06:01    | DRB1*14:03:01+DRB1*14:17    | DRB1*14:12:01+DRB1*14:30    |
| DRB1*13:119+DRB1*14:13       | DRB1*14:30+DRB1*14:85       |                             |
| DRB1*13:119+DRB1*14:20       | DRB1*14:17+DRB1*14:40       |                             |
| DRB1*13:119+DRB1*14:41       | DRB1*14:30+DRB1*14:77       |                             |
| DRB1*13:119+DRB1*14:47       | DRB1*14:30+DRB1*14:98       |                             |
| DRB1*13:119+DRB1*14:106      | DRB1*14:03:01+DRB1*14:33    |                             |
| DRB1*13:119+DRB1*15:34       | DRB1*14:30+DRB1*16:18       |                             |
| DRB1*13:124+DRB1*15:70       | DRB1*13:140+DRB1*15:61      |                             |
| DRB1*13:127+DRB1*15:47       | DRB1*13:131+DRB1*15:39      |                             |
| DRB1*13:129+DRB1*14:05:01    | DRB1*14:37+DRB1*14:95       |                             |
| DRB1*13:134+DRB1*14:89       | DRB1*14:13+DRB1*14:116      |                             |
| DRB1*14:01:01G+DRB1*14:02    | DRB1*14:06:01+DRB1*14:07:01 | DRB1*14:32:02+DRB1*14:51    |
| DRB1*14:01:01G+DRB1*14:03:01 | DRB1*14:07:01+DRB1*14:12:01 |                             |
| DRB1*14:01:01G+DRB1*14:05:03 | DRB1*14:01:02+DRB1*14:05:01 |                             |
| DRB1*14:01:01G+DRB1*14:06:01 | DRB1*14:32:02+DRB1*14:106   |                             |
| DRB1*14:01:01G+DRB1*14:09    | DRB1*14:07:01+DRB1*14:80    |                             |
| DRB1*14:01:01G+DRB1*14:14    | DRB1*14:07:01+DRB1*14:23:01 |                             |
| DRB1*14:01:01G+DRB1*14:17    | DRB1*14:32:02+DRB1*14:33    | DRB1*14:35+DRB1*14:80       |
| DRB1*14:01:01G+DRB1*14:23:02 | DRB1*14:08+DRB1*14:101      |                             |
| DRB1*14:01:01G+DRB1*14:25    | DRB1*14:22+DRB1*14:58       |                             |
| DRB1*14:01:01G+DRB1*14:28    | DRB1*14:04+DRB1*14:99       |                             |
| DRB1*14:01:01G+DRB1*14:29    | DRB1*14:06:01+DRB1*14:99    |                             |
| DRB1*14:01:01G+DRB1*14:30    | DRB1*14:07:01+DRB1*14:17    | DRB1*14:09+DRB1*14:35       |
| DRB1*14:01:01G+DRB1*14:31    | DRB1*14:04+DRB1*14:32:02    |                             |
| DRB1*14:01:01G+DRB1*14:32:01 | DRB1*14:01:02+DRB1*14:32:02 |                             |
| DRB1*14:01:01G+DRB1*14:34    | DRB1*14:08+DRB1*14:32:02    |                             |
| DRB1*14:01:01G+DRB1*14:44:01 | DRB1*14:05:01+DRB1*14:07:01 |                             |
| DRB1*14:01:01G+DRB1*14:44:02 | DRB1*14:01:02+DRB1*14:44:01 | DRB1*14:05:03+DRB1*14:07:01 |
| DRB1*14:01:01G+DRB1*14:44:03 | DRB1*14:05:01+DRB1*14:07:02 |                             |
| DRB1*14:01:01G+DRB1*14:45    | DRB1*14:05:01+DRB1*14:122   |                             |
| DRB1*14:01:01G+DRB1*14:50    | DRB1*14:04+DRB1*14:38       |                             |
| DRB1*14:01:01G+DRB1*14:51    | DRB1*14:07:01+DRB1*14:106   |                             |
| DRB1*14:01:01G+DRB1*14:52    | DRB1*14:04+DRB1*14:06:01    | DRB1*14:31+DRB1*14:106      |
| DRB1*14:01:01G+DRB1*14:53    | DRB1*14:25+DRB1*14:35       |                             |
| DRB1*14:01:01G+DRB1*14:63    | DRB1*14:07:01+DRB1*14:78    | DRB1*14:85+DRB1*14:122      |
| DRB1*14:01:01G+DRB1*14:67    | DRB1*14:03:01+DRB1*14:122   |                             |
| DRB1*14:01:01G+DRB1*14:68    | DRB1*14:04+DRB1*14:07:01    |                             |
| DRB1*14:01:01G+DRB1*14:76    | DRB1*14:79+DRB1*14:101      |                             |
| DRB1*14:01:01G+DRB1*14:77    | DRB1*14:40+DRB1*14:110      |                             |
| DRB1*14:01:01G+DRB1*14:89    | DRB1*14:51+DRB1*14:55       |                             |

|                               |                              |                              |                        |
|-------------------------------|------------------------------|------------------------------|------------------------|
| DRB1*14:01:01G+DRB1*14:96     | DRB1*14:05:01+DRB1*14:86     |                              |                        |
| DRB1*14:01:01G+DRB1*14:100    | DRB1*14:05:01+DRB1*14:32:02  |                              |                        |
| DRB1*14:01:01G+DRB1*14:102    | DRB1*14:40+DRB1*14:58        |                              |                        |
| DRB1*14:01:01G+DRB1*14:103    | DRB1*14:05:01+DRB1*14:75     |                              |                        |
| DRB1*14:01:01G+DRB1*14:107    | DRB1*14:04+DRB1*14:111       |                              |                        |
| DRB1*14:01:01G+DRB1*14:120    | DRB1*14:04+DRB1*14:122       |                              |                        |
| DRB1*14:01:01G+DRB1*14:121    | DRB1*14:06:01+DRB1*14:70     | DRB1*14:80+DRB1*14:124       |                        |
| DRB1*14:01:01G+DRB1*14:123    | DRB1*14:23:01+DRB1*14:32:02  |                              |                        |
| DRB1*14:01:01G+DRB1*14:126    | DRB1*14:04+DRB1*14:23:01     |                              |                        |
| DRB1*14:01:01G+DRB1*14:127    | DRB1*14:05:01+DRB1*14:38     |                              |                        |
| DRB1*14:01:01G+DRB1*15:01:01G | DRB1*14:01:02+DRB1*15:01:03  | DRB1*14:35+DRB1*15:07:01     | DRB1*14:122+DRB1*15:05 |
| DRB1*14:01:01G+DRB1*15:01:04  | DRB1*14:35+DRB1*15:07:02     |                              |                        |
| DRB1*14:01:01G+DRB1*15:02:01  | DRB1*14:01:02+DRB1*15:02:06  | DRB1*14:07:01+DRB1*15:01:01G | DRB1*14:35+DRB1*15:11  |
|                               | DRB1*14:122+DRB1*15:31       |                              |                        |
| DRB1*14:01:01G+DRB1*15:02:02  | DRB1*14:07:01+DRB1*15:01:04  |                              |                        |
| DRB1*14:01:01G+DRB1*15:02:04  | DRB1*14:07:01+DRB1*15:01:09  |                              |                        |
| DRB1*14:01:01G+DRB1*15:02:05  | DRB1*14:07:02+DRB1*15:01:04  |                              |                        |
| DRB1*14:01:01G+DRB1*15:02:06  | DRB1*14:07:01+DRB1*15:01:03  |                              |                        |
| DRB1*14:01:01G+DRB1*15:02:08  | DRB1*14:07:01+DRB1*15:01:10  |                              |                        |
| DRB1*14:01:01G+DRB1*15:02:09  | DRB1*14:07:02+DRB1*15:01:01G |                              |                        |
| DRB1*14:01:01G+DRB1*15:03:01G | DRB1*14:70+DRB1*15:01:01G    | DRB1*14:122+DRB1*15:23       |                        |
| DRB1*14:01:01G+DRB1*15:03:02  | DRB1*14:70+DRB1*15:01:13     |                              |                        |
| DRB1*14:01:01G+DRB1*15:06:01  | DRB1*14:122+DRB1*15:73       |                              |                        |
| DRB1*14:01:01G+DRB1*15:09     | DRB1*14:35+DRB1*15:48        |                              |                        |
| DRB1*14:01:01G+DRB1*15:11     | DRB1*14:07:01+DRB1*15:07:01  |                              |                        |
| DRB1*14:01:01G+DRB1*15:14     | DRB1*14:117+DRB1*15:02:01    |                              |                        |
| DRB1*14:01:01G+DRB1*15:15     | DRB1*14:07:01+DRB1*15:04     |                              |                        |
| DRB1*14:01:01G+DRB1*15:16     | DRB1*14:60+DRB1*15:01:01G    |                              |                        |
| DRB1*14:01:01G+DRB1*15:23     | DRB1*14:70+DRB1*15:05        |                              |                        |
| DRB1*14:01:01G+DRB1*15:24     | DRB1*14:26+DRB1*15:01:01G    |                              |                        |
| DRB1*14:01:01G+DRB1*15:27     | DRB1*14:07:01+DRB1*15:66     | DRB1*14:35+DRB1*15:34        |                        |
| DRB1*14:01:01G+DRB1*15:31     | DRB1*14:07:01+DRB1*15:05     |                              |                        |
| DRB1*14:01:01G+DRB1*15:35     | DRB1*14:99+DRB1*15:01:01G    |                              |                        |
| DRB1*14:01:01G+DRB1*15:38     | DRB1*14:122+DRB1*15:63       |                              |                        |
| DRB1*14:01:01G+DRB1*15:47     | DRB1*14:07:01+DRB1*15:65     | DRB1*14:86+DRB1*15:02:01     |                        |
| DRB1*14:01:01G+DRB1*15:54     | DRB1*14:70+DRB1*15:66        |                              |                        |
| DRB1*14:01:01G+DRB1*15:60     | DRB1*14:75+DRB1*15:02:06     |                              |                        |
| DRB1*14:01:01G+DRB1*15:65     | DRB1*14:86+DRB1*15:01:01G    |                              |                        |
| DRB1*14:01:01G+DRB1*16:01:01  | DRB1*14:07:01+DRB1*16:15     |                              |                        |
| DRB1*14:01:01G+DRB1*16:05:01  | DRB1*14:122+DRB1*16:02:01    |                              |                        |
| DRB1*14:01:01G+DRB1*16:09     | DRB1*14:35+DRB1*16:01:01     |                              |                        |
| DRB1*14:01:01G+DRB1*16:10     | DRB1*14:35+DRB1*16:02:01     |                              |                        |
| DRB1*14:01:02+DRB1*14:02      | DRB1*14:32:01+DRB1*14:51     |                              |                        |
| DRB1*14:01:02+DRB1*14:06:01   | DRB1*14:32:01+DRB1*14:106    |                              |                        |
| DRB1*14:01:02+DRB1*14:17      | DRB1*14:32:01+DRB1*14:33     |                              |                        |
| DRB1*14:01:02+DRB1*14:31      | DRB1*14:04+DRB1*14:32:01     |                              |                        |
| DRB1*14:01:02+DRB1*14:34      | DRB1*14:08+DRB1*14:32:01     |                              |                        |
| DRB1*14:01:02+DRB1*14:44:03   | DRB1*14:05:03+DRB1*14:07:02  |                              |                        |
| DRB1*14:01:02+DRB1*14:45      | DRB1*14:05:03+DRB1*14:122    |                              |                        |
| DRB1*14:01:02+DRB1*14:47      | DRB1*14:02+DRB1*14:38        |                              |                        |
| DRB1*14:01:02+DRB1*14:96      | DRB1*14:05:03+DRB1*14:86     |                              |                        |
| DRB1*14:01:02+DRB1*14:98      | DRB1*14:03:01+DRB1*14:38     |                              |                        |
| DRB1*14:01:02+DRB1*14:100     | DRB1*14:05:01+DRB1*14:32:01  | DRB1*14:05:03+DRB1*14:32:02  |                        |
| DRB1*14:01:02+DRB1*14:103     | DRB1*14:05:03+DRB1*14:75     |                              |                        |
| DRB1*14:01:02+DRB1*14:123     | DRB1*14:23:01+DRB1*14:32:01  |                              |                        |
| DRB1*14:01:02+DRB1*14:127     | DRB1*14:05:03+DRB1*14:38     |                              |                        |
| DRB1*14:01:02+DRB1*15:57      | DRB1*14:38+DRB1*15:03:01G    |                              |                        |
| DRB1*14:01:02+DRB1*15:60      | DRB1*14:75+DRB1*15:02:01     |                              |                        |
| DRB1*14:02+DRB1*14:04         | DRB1*14:06:01+DRB1*14:68     | DRB1*14:07:01+DRB1*14:52     | DRB1*14:31+DRB1*14:51  |
| DRB1*14:02+DRB1*14:05:01      | DRB1*14:06:01+DRB1*14:44:01  | DRB1*14:51+DRB1*14:100       |                        |
| DRB1*14:02+DRB1*14:05:03      | DRB1*14:06:01+DRB1*14:44:02  |                              |                        |
| DRB1*14:02+DRB1*14:08         | DRB1*14:34+DRB1*14:51        |                              |                        |
| DRB1*14:02+DRB1*14:12:01      | DRB1*14:03:01+DRB1*14:06:01  |                              |                        |
| DRB1*14:02+DRB1*14:17         | DRB1*14:06:01+DRB1*14:30     |                              |                        |
| DRB1*14:02+DRB1*14:21         | DRB1*14:17+DRB1*14:19        |                              |                        |
| DRB1*14:02+DRB1*14:23:01      | DRB1*14:06:01+DRB1*14:14     | DRB1*14:51+DRB1*14:123       |                        |
| DRB1*14:02+DRB1*14:28         | DRB1*14:29+DRB1*14:68        |                              |                        |
| DRB1*14:02+DRB1*14:32:01      | DRB1*14:81+DRB1*14:119       |                              |                        |
| DRB1*14:02+DRB1*14:33         | DRB1*14:17+DRB1*14:51        | DRB1*14:30+DRB1*14:106       |                        |
| DRB1*14:02+DRB1*14:55         | DRB1*14:32:02+DRB1*14:89     |                              |                        |
| DRB1*14:02+DRB1*14:63         | DRB1*14:13+DRB1*14:67        |                              |                        |
| DRB1*14:02+DRB1*14:70         | DRB1*14:07:01+DRB1*14:121    | DRB1*14:09+DRB1*14:124       |                        |
| DRB1*14:02+DRB1*14:77         | DRB1*14:03:01+DRB1*14:41     |                              |                        |
| DRB1*14:02+DRB1*14:78         | DRB1*14:06:01+DRB1*14:63     |                              |                        |
| DRB1*14:02+DRB1*14:80         | DRB1*14:06:01+DRB1*14:09     |                              |                        |
| DRB1*14:02+DRB1*14:85         | DRB1*14:03:01+DRB1*14:13     |                              |                        |
| DRB1*14:02+DRB1*14:86         | DRB1*14:49+DRB1*14:59        |                              |                        |
| DRB1*14:02+DRB1*14:98         | DRB1*14:03:01+DRB1*14:47     |                              |                        |
| DRB1*14:02+DRB1*14:99         | DRB1*14:07:01+DRB1*14:29     |                              |                        |
| DRB1*14:02+DRB1*14:106        | DRB1*14:06:01+DRB1*14:51     |                              |                        |
| DRB1*14:02+DRB1*14:116        | DRB1*14:09+DRB1*14:102       |                              |                        |
| DRB1*14:02+DRB1*14:119        | DRB1*14:09+DRB1*14:49        |                              |                        |
| DRB1*14:02+DRB1*14:126        | DRB1*14:14+DRB1*14:52        |                              |                        |
| DRB1*14:02+DRB1*14:127        | DRB1*14:05:03+DRB1*14:47     |                              |                        |
| DRB1*14:02+DRB1*15:01:01G     | DRB1*14:06:01+DRB1*15:02:01  | DRB1*14:24+DRB1*15:66        |                        |
| DRB1*14:02+DRB1*15:01:03      | DRB1*14:06:01+DRB1*15:02:06  |                              |                        |
| DRB1*14:02+DRB1*15:01:04      | DRB1*14:06:01+DRB1*15:02:02  |                              |                        |
| DRB1*14:02+DRB1*15:01:09      | DRB1*14:06:01+DRB1*15:02:04  |                              |                        |
| DRB1*14:02+DRB1*15:01:10      | DRB1*14:06:01+DRB1*15:02:08  |                              |                        |
| DRB1*14:02+DRB1*15:02:01      | DRB1*14:24+DRB1*15:27        |                              |                        |
| DRB1*14:02+DRB1*15:03:01G     | DRB1*14:24+DRB1*15:54        | DRB1*14:121+DRB1*15:02:01    |                        |
| DRB1*14:02+DRB1*15:04         | DRB1*14:06:01+DRB1*15:15     | DRB1*14:108+DRB1*15:31       |                        |
| DRB1*14:02+DRB1*15:05         | DRB1*14:06:01+DRB1*15:31     |                              |                        |
| DRB1*14:02+DRB1*15:07:01      | DRB1*14:06:01+DRB1*15:11     |                              |                        |
| DRB1*14:02+DRB1*15:11         | DRB1*14:24+DRB1*15:34        |                              |                        |
| DRB1*14:02+DRB1*15:12         | DRB1*14:13+DRB1*15:01:04     |                              |                        |
| DRB1*14:02+DRB1*15:21         | DRB1*14:67+DRB1*15:66        |                              |                        |
| DRB1*14:02+DRB1*15:23         | DRB1*14:121+DRB1*15:31       |                              |                        |
| DRB1*14:02+DRB1*15:35         | DRB1*14:29+DRB1*15:02:01     |                              |                        |
| DRB1*14:02+DRB1*15:54         | DRB1*14:121+DRB1*15:27       |                              |                        |
| DRB1*14:02+DRB1*15:57         | DRB1*14:47+DRB1*15:03:01G    |                              |                        |
| DRB1*14:02+DRB1*15:65         | DRB1*14:06:01+DRB1*15:47     |                              |                        |
| DRB1*14:02+DRB1*15:66         | DRB1*14:06:01+DRB1*15:27     |                              |                        |
| DRB1*14:02+DRB1*16:01:01      | DRB1*14:94+DRB1*16:08        |                              |                        |
| DRB1*14:02+DRB1*16:15         | DRB1*14:06:01+DRB1*16:01:01  | DRB1*14:108+DRB1*16:02:01    |                        |

|                              |                              |                              |
|------------------------------|------------------------------|------------------------------|
| DRB1*14:02+DRB1*16:18        | DRB1*14:03:01+DRB1*15:34     | DRB1*14:89+DRB1*16:02:02     |
| DRB1*14:03:01+DRB1*14:04     | DRB1*14:12:01+DRB1*14:68     |                              |
| DRB1*14:03:01+DRB1*14:05:01  | DRB1*14:12:01+DRB1*14:44:01  |                              |
| DRB1*14:03:01+DRB1*14:05:03  | DRB1*14:12:01+DRB1*14:44:02  |                              |
| DRB1*14:03:01+DRB1*14:20     | DRB1*14:06:01+DRB1*14:40     |                              |
| DRB1*14:03:01+DRB1*14:23:01  | DRB1*14:12:01+DRB1*14:14     |                              |
| DRB1*14:03:01+DRB1*14:25     | DRB1*14:27+DRB1*14:69        |                              |
| DRB1*14:03:01+DRB1*14:45     | DRB1*14:05:01+DRB1*14:67     |                              |
| DRB1*14:03:01+DRB1*14:63     | DRB1*14:67+DRB1*14:85        |                              |
| DRB1*14:03:01+DRB1*14:78     | DRB1*14:12:01+DRB1*14:63     |                              |
| DRB1*14:03:01+DRB1*14:80     | DRB1*14:09+DRB1*14:12:01     |                              |
| DRB1*14:03:01+DRB1*14:106    | DRB1*14:12:01+DRB1*14:51     |                              |
| DRB1*14:03:01+DRB1*14:108    | DRB1*14:06:01+DRB1*14:27     |                              |
| DRB1*14:03:01+DRB1*14:109    | DRB1*14:19+DRB1*14:115       |                              |
| DRB1*14:03:01+DRB1*14:120    | DRB1*14:04+DRB1*14:67        |                              |
| DRB1*14:03:01+DRB1*14:127    | DRB1*14:05:03+DRB1*14:98     |                              |
| DRB1*14:03:01+DRB1*15:01:01G | DRB1*14:12:01+DRB1*15:02:01  | DRB1*14:67+DRB1*15:05        |
| DRB1*14:03:01+DRB1*15:01:03  | DRB1*14:12:01+DRB1*15:02:06  |                              |
| DRB1*14:03:01+DRB1*15:01:04  | DRB1*14:12:01+DRB1*15:02:02  |                              |
| DRB1*14:03:01+DRB1*15:01:09  | DRB1*14:12:01+DRB1*15:02:04  |                              |
| DRB1*14:03:01+DRB1*15:01:10  | DRB1*14:12:01+DRB1*15:02:08  |                              |
| DRB1*14:03:01+DRB1*15:02:01  | DRB1*14:67+DRB1*15:31        |                              |
| DRB1*14:03:01+DRB1*15:03:01G | DRB1*14:67+DRB1*15:23        |                              |
| DRB1*14:03:01+DRB1*15:04     | DRB1*14:12:01+DRB1*15:15     | DRB1*14:27+DRB1*15:05        |
| DRB1*14:03:01+DRB1*15:05     | DRB1*14:12:01+DRB1*15:31     |                              |
| DRB1*14:03:01+DRB1*15:06:01  | DRB1*14:67+DRB1*15:73        |                              |
| DRB1*14:03:01+DRB1*15:07:01  | DRB1*14:12:01+DRB1*15:11     |                              |
| DRB1*14:03:01+DRB1*15:11     | DRB1*14:24+DRB1*16:18        |                              |
| DRB1*14:03:01+DRB1*15:12     | DRB1*14:85+DRB1*15:01:04     |                              |
| DRB1*14:03:01+DRB1*15:15     | DRB1*14:27+DRB1*15:31        |                              |
| DRB1*14:03:01+DRB1*15:38     | DRB1*14:67+DRB1*15:63        | DRB1*14:115+DRB1*15:02:02    |
| DRB1*14:03:01+DRB1*15:57     | DRB1*14:98+DRB1*15:03:01G    |                              |
| DRB1*14:03:01+DRB1*15:65     | DRB1*14:12:01+DRB1*15:47     |                              |
| DRB1*14:03:01+DRB1*15:66     | DRB1*14:12:01+DRB1*15:27     |                              |
| DRB1*14:03:01+DRB1*15:71     | DRB1*14:115+DRB1*15:01:01G   |                              |
| DRB1*14:03:01+DRB1*16:01:01  | DRB1*14:27+DRB1*16:02:01     |                              |
| DRB1*14:03:01+DRB1*16:05:01  | DRB1*14:67+DRB1*16:02:01     |                              |
| DRB1*14:03:01+DRB1*16:09     | DRB1*14:27+DRB1*16:10        |                              |
| DRB1*14:03:01+DRB1*16:15     | DRB1*14:12:01+DRB1*16:01:01  |                              |
| DRB1*14:04+DRB1*14:09        | DRB1*14:68+DRB1*14:80        |                              |
| DRB1*14:04+DRB1*14:14        | DRB1*14:07:01+DRB1*14:126    | DRB1*14:23:01+DRB1*14:68     |
| DRB1*14:04+DRB1*14:17        | DRB1*14:31+DRB1*14:33        |                              |
| DRB1*14:04+DRB1*14:29        | DRB1*14:06:01+DRB1*14:28     | DRB1*14:52+DRB1*14:99        |
| DRB1*14:04+DRB1*14:30        | DRB1*14:17+DRB1*14:68        |                              |
| DRB1*14:04+DRB1*14:34        | DRB1*14:08+DRB1*14:31        |                              |
| DRB1*14:04+DRB1*14:44:01     | DRB1*14:05:01+DRB1*14:68     |                              |
| DRB1*14:04+DRB1*14:44:02     | DRB1*14:05:03+DRB1*14:68     |                              |
| DRB1*14:04+DRB1*14:45        | DRB1*14:05:01+DRB1*14:120    |                              |
| DRB1*14:04+DRB1*14:51        | DRB1*14:68+DRB1*14:106       |                              |
| DRB1*14:04+DRB1*14:63        | DRB1*14:68+DRB1*14:78        | DRB1*14:85+DRB1*14:120       |
| DRB1*14:04+DRB1*14:100       | DRB1*14:05:01+DRB1*14:31     |                              |
| DRB1*14:04+DRB1*14:105       | DRB1*14:32:02+DRB1*14:73     |                              |
| DRB1*14:04+DRB1*14:121       | DRB1*14:52+DRB1*14:70        |                              |
| DRB1*14:04+DRB1*14:123       | DRB1*14:23:01+DRB1*14:31     | DRB1*14:32:02+DRB1*14:126    |
| DRB1*14:04+DRB1*14:127       | DRB1*14:05:01+DRB1*14:50     |                              |
| DRB1*14:04+DRB1*15:01:01G    | DRB1*14:120+DRB1*15:05       |                              |
| DRB1*14:04+DRB1*15:02:01     | DRB1*14:68+DRB1*15:01:01G    | DRB1*14:120+DRB1*15:31       |
| DRB1*14:04+DRB1*15:02:02     | DRB1*14:68+DRB1*15:01:04     |                              |
| DRB1*14:04+DRB1*15:02:04     | DRB1*14:68+DRB1*15:01:09     |                              |
| DRB1*14:04+DRB1*15:02:06     | DRB1*14:68+DRB1*15:01:03     |                              |
| DRB1*14:04+DRB1*15:02:08     | DRB1*14:68+DRB1*15:01:10     |                              |
| DRB1*14:04+DRB1*15:03:01G    | DRB1*14:120+DRB1*15:23       |                              |
| DRB1*14:04+DRB1*15:06:01     | DRB1*14:120+DRB1*15:73       |                              |
| DRB1*14:04+DRB1*15:11        | DRB1*14:68+DRB1*15:07:01     |                              |
| DRB1*14:04+DRB1*15:15        | DRB1*14:68+DRB1*15:04        |                              |
| DRB1*14:04+DRB1*15:27        | DRB1*14:68+DRB1*15:66        |                              |
| DRB1*14:04+DRB1*15:31        | DRB1*14:68+DRB1*15:05        |                              |
| DRB1*14:04+DRB1*15:35        | DRB1*14:28+DRB1*15:01:01G    |                              |
| DRB1*14:04+DRB1*15:38        | DRB1*14:120+DRB1*15:63       |                              |
| DRB1*14:04+DRB1*15:47        | DRB1*14:68+DRB1*15:65        |                              |
| DRB1*14:04+DRB1*16:01:01     | DRB1*14:68+DRB1*16:15        |                              |
| DRB1*14:04+DRB1*16:05:01     | DRB1*14:120+DRB1*16:02:01    |                              |
| DRB1*14:05:01+DRB1*14:06:01  | DRB1*14:100+DRB1*14:106      |                              |
| DRB1*14:05:01+DRB1*14:09     | DRB1*14:44:01+DRB1*14:80     |                              |
| DRB1*14:05:01+DRB1*14:12:01  | DRB1*14:18+DRB1*14:84        |                              |
| DRB1*14:05:01+DRB1*14:14     | DRB1*14:23:01+DRB1*14:44:01  |                              |
| DRB1*14:05:01+DRB1*14:17     | DRB1*14:33+DRB1*14:100       |                              |
| DRB1*14:05:01+DRB1*14:22     | DRB1*14:44:02+DRB1*14:105    |                              |
| DRB1*14:05:01+DRB1*14:23:01  | DRB1*14:05:02+DRB1*14:23:03  |                              |
| DRB1*14:05:01+DRB1*14:30     | DRB1*14:17+DRB1*14:44:01     |                              |
| DRB1*14:05:01+DRB1*14:34     | DRB1*14:08+DRB1*14:100       |                              |
| DRB1*14:05:01+DRB1*14:44:02  | DRB1*14:05:03+DRB1*14:44:01  |                              |
| DRB1*14:05:01+DRB1*14:51     | DRB1*14:44:01+DRB1*14:106    |                              |
| DRB1*14:05:01+DRB1*14:63     | DRB1*14:44:01+DRB1*14:78     | DRB1*14:45+DRB1*14:85        |
| DRB1*14:05:01+DRB1*14:123    | DRB1*14:23:01+DRB1*14:100    |                              |
| DRB1*14:05:01+DRB1*15:01:01G | DRB1*14:05:03+DRB1*15:01:03  | DRB1*14:45+DRB1*15:05        |
| DRB1*14:05:01+DRB1*15:02:01  | DRB1*14:05:03+DRB1*15:02:06  | DRB1*14:44:01+DRB1*15:01:01G |
|                              | DRB1*14:45+DRB1*15:31        | DRB1*14:44:02+DRB1*15:01:03  |
| DRB1*14:05:01+DRB1*15:02:02  | DRB1*14:44:01+DRB1*15:01:04  |                              |
| DRB1*14:05:01+DRB1*15:02:04  | DRB1*14:44:01+DRB1*15:01:09  |                              |
| DRB1*14:05:01+DRB1*15:02:05  | DRB1*14:44:03+DRB1*15:01:04  |                              |
| DRB1*14:05:01+DRB1*15:02:06  | DRB1*14:44:01+DRB1*15:01:03  |                              |
| DRB1*14:05:01+DRB1*15:02:08  | DRB1*14:44:01+DRB1*15:01:10  |                              |
| DRB1*14:05:01+DRB1*15:02:09  | DRB1*14:44:03+DRB1*15:01:01G |                              |
| DRB1*14:05:01+DRB1*15:03:01G | DRB1*14:45+DRB1*15:23        |                              |
| DRB1*14:05:01+DRB1*15:06:01  | DRB1*14:45+DRB1*15:73        |                              |
| DRB1*14:05:01+DRB1*15:11     | DRB1*14:44:01+DRB1*15:07:01  |                              |
| DRB1*14:05:01+DRB1*15:15     | DRB1*14:44:01+DRB1*15:04     |                              |
| DRB1*14:05:01+DRB1*15:27     | DRB1*14:44:01+DRB1*15:66     |                              |
| DRB1*14:05:01+DRB1*15:31     | DRB1*14:44:01+DRB1*15:05     |                              |
| DRB1*14:05:01+DRB1*15:38     | DRB1*14:45+DRB1*15:63        |                              |
| DRB1*14:05:01+DRB1*15:47     | DRB1*14:44:01+DRB1*15:65     |                              |
| DRB1*14:05:01+DRB1*15:60     | DRB1*14:103+DRB1*15:02:06    | DRB1*14:96+DRB1*15:02:01     |
| DRB1*14:05:01+DRB1*15:65     | DRB1*14:96+DRB1*15:01:01G    |                              |
| DRB1*14:05:01+DRB1*16:01:01  | DRB1*14:44:01+DRB1*16:15     |                              |

|                              |                              |
|------------------------------|------------------------------|
| DRB1*14:05:01+DRB1*16:05:01  | DRB1*14:45+DRB1*16:02:01     |
| DRB1*14:05:03+DRB1*14:09     | DRB1*14:44:02+DRB1*14:80     |
| DRB1*14:05:03+DRB1*14:14     | DRB1*14:23:01+DRB1*14:44:02  |
| DRB1*14:05:03+DRB1*14:30     | DRB1*14:17+DRB1*14:44:02     |
| DRB1*14:05:03+DRB1*14:51     | DRB1*14:44:02+DRB1*14:106    |
| DRB1*14:05:03+DRB1*14:63     | DRB1*14:44:02+DRB1*14:78     |
| DRB1*14:05:03+DRB1*15:02:01  | DRB1*14:44:02+DRB1*15:01:01G |
| DRB1*14:05:03+DRB1*15:02:02  | DRB1*14:44:02+DRB1*15:01:04  |
| DRB1*14:05:03+DRB1*15:02:04  | DRB1*14:44:02+DRB1*15:01:09  |
| DRB1*14:05:03+DRB1*15:02:08  | DRB1*14:44:02+DRB1*15:01:10  |
| DRB1*14:05:03+DRB1*15:11     | DRB1*14:44:02+DRB1*15:07:01  |
| DRB1*14:05:03+DRB1*15:15     | DRB1*14:44:02+DRB1*15:04     |
| DRB1*14:05:03+DRB1*15:27     | DRB1*14:44:02+DRB1*15:66     |
| DRB1*14:05:03+DRB1*15:31     | DRB1*14:44:02+DRB1*15:05     |
| DRB1*14:05:03+DRB1*15:47     | DRB1*14:44:02+DRB1*15:65     |
| DRB1*14:05:03+DRB1*15:57     | DRB1*14:127+DRB1*15:03:01G   |
| DRB1*14:05:03+DRB1*15:60     | DRB1*14:103+DRB1*15:02:01    |
| DRB1*14:05:03+DRB1*16:01:01  | DRB1*14:44:02+DRB1*16:15     |
| DRB1*14:06:01+DRB1*14:07:02  | DRB1*14:06:02+DRB1*14:07:01  |
| DRB1*14:06:01+DRB1*14:08     | DRB1*14:34+DRB1*14:106       |
| DRB1*14:06:01+DRB1*14:23:01  | DRB1*14:106+DRB1*14:123      |
| DRB1*14:06:01+DRB1*14:25     | DRB1*14:69+DRB1*14:108       |
| DRB1*14:06:01+DRB1*14:31     | DRB1*14:32:02+DRB1*14:52     |
| DRB1*14:06:01+DRB1*14:33     | DRB1*14:17+DRB1*14:106       |
| DRB1*14:06:01+DRB1*14:44:03  | DRB1*14:06:02+DRB1*14:44:01  |
| DRB1*14:06:01+DRB1*14:50     | DRB1*14:38+DRB1*14:52        |
| DRB1*14:06:01+DRB1*14:77     | DRB1*14:12:01+DRB1*14:41     |
| DRB1*14:06:01+DRB1*14:85     | DRB1*14:12:01+DRB1*14:13     |
| DRB1*14:06:01+DRB1*14:98     | DRB1*14:12:01+DRB1*14:47     |
| DRB1*14:06:01+DRB1*14:107    | DRB1*14:52+DRB1*14:111       |
| DRB1*14:06:01+DRB1*14:116    | DRB1*14:80+DRB1*14:102       |
| DRB1*14:06:01+DRB1*14:119    | DRB1*14:49+DRB1*14:80        |
| DRB1*14:06:01+DRB1*14:120    | DRB1*14:52+DRB1*14:122       |
| DRB1*14:06:01+DRB1*14:126    | DRB1*14:23:01+DRB1*14:52     |
| DRB1*14:06:01+DRB1*15:02:05  | DRB1*14:06:02+DRB1*15:02:02  |
| DRB1*14:06:01+DRB1*15:02:09  | DRB1*14:06:02+DRB1*15:02:01  |
| DRB1*14:06:01+DRB1*15:03:01G | DRB1*14:121+DRB1*15:01:01G   |
| DRB1*14:06:01+DRB1*15:03:02  | DRB1*14:121+DRB1*15:01:13    |
| DRB1*14:06:01+DRB1*15:04     | DRB1*14:108+DRB1*15:05       |
| DRB1*14:06:01+DRB1*15:23     | DRB1*14:121+DRB1*15:05       |
| DRB1*14:06:01+DRB1*15:35     | DRB1*14:29+DRB1*15:01:01G    |
| DRB1*14:06:01+DRB1*15:54     | DRB1*14:121+DRB1*15:66       |
| DRB1*14:06:01+DRB1*16:01:02  | DRB1*14:108+DRB1*16:02:02    |
| DRB1*14:06:01+DRB1*16:09     | DRB1*14:108+DRB1*16:10       |
| DRB1*14:06:01+DRB1*16:18     | DRB1*14:12:01+DRB1*15:34     |
| DRB1*14:06:02+DRB1*14:68     | DRB1*14:07:02+DRB1*14:52     |
| DRB1*14:07:01+DRB1*14:20     | DRB1*14:23:01+DRB1*14:49     |
| DRB1*14:07:01+DRB1*14:28     | DRB1*14:68+DRB1*14:99        |
| DRB1*14:07:01+DRB1*14:31     | DRB1*14:32:02+DRB1*14:68     |
| DRB1*14:07:01+DRB1*14:44:03  | DRB1*14:07:02+DRB1*14:44:01  |
| DRB1*14:07:01+DRB1*14:45     | DRB1*14:44:01+DRB1*14:122    |
| DRB1*14:07:01+DRB1*14:50     | DRB1*14:38+DRB1*14:68        |
| DRB1*14:07:01+DRB1*14:79     | DRB1*14:93+DRB1*14:111       |
| DRB1*14:07:01+DRB1*14:96     | DRB1*14:44:01+DRB1*14:86     |
| DRB1*14:07:01+DRB1*14:100    | DRB1*14:32:02+DRB1*14:44:01  |
| DRB1*14:07:01+DRB1*14:103    | DRB1*14:44:01+DRB1*14:75     |
| DRB1*14:07:01+DRB1*14:107    | DRB1*14:68+DRB1*14:111       |
| DRB1*14:07:01+DRB1*14:120    | DRB1*14:68+DRB1*14:122       |
| DRB1*14:07:01+DRB1*14:123    | DRB1*14:14+DRB1*14:32:02     |
| DRB1*14:07:01+DRB1*14:127    | DRB1*14:38+DRB1*14:44:01     |
| DRB1*14:07:01+DRB1*15:02:05  | DRB1*14:07:02+DRB1*15:02:02  |
| DRB1*14:07:01+DRB1*15:02:09  | DRB1*14:07:02+DRB1*15:02:01  |
| DRB1*14:07:01+DRB1*15:03:01G | DRB1*14:70+DRB1*15:02:01     |
| DRB1*14:07:01+DRB1*15:16     | DRB1*14:60+DRB1*15:02:01     |
| DRB1*14:07:01+DRB1*15:23     | DRB1*14:70+DRB1*15:31        |
| DRB1*14:07:01+DRB1*15:24     | DRB1*14:26+DRB1*15:02:01     |
| DRB1*14:07:01+DRB1*15:35     | DRB1*14:99+DRB1*15:02:01     |
| DRB1*14:07:01+DRB1*15:54     | DRB1*14:70+DRB1*15:27        |
| DRB1*14:07:02+DRB1*14:45     | DRB1*14:44:03+DRB1*14:122    |
| DRB1*14:07:02+DRB1*14:96     | DRB1*14:44:03+DRB1*14:86     |
| DRB1*14:07:02+DRB1*14:100    | DRB1*14:32:02+DRB1*14:44:03  |
| DRB1*14:07:02+DRB1*14:103    | DRB1*14:44:03+DRB1*14:75     |
| DRB1*14:07:02+DRB1*14:127    | DRB1*14:38+DRB1*14:44:03     |
| DRB1*14:07:02+DRB1*15:03:01G | DRB1*14:70+DRB1*15:02:09     |
| DRB1*14:07:02+DRB1*15:16     | DRB1*14:60+DRB1*15:02:09     |
| DRB1*14:07:02+DRB1*15:24     | DRB1*14:26+DRB1*15:02:09     |
| DRB1*14:07:02+DRB1*15:35     | DRB1*14:99+DRB1*15:02:09     |
| DRB1*14:07:02+DRB1*15:65     | DRB1*14:86+DRB1*15:02:09     |
| DRB1*14:08+DRB1*14:17        | DRB1*14:33+DRB1*14:34        |
| DRB1*14:08+DRB1*14:76        | DRB1*14:23:02+DRB1*14:79     |
| DRB1*14:08+DRB1*14:123       | DRB1*14:23:01+DRB1*14:34     |
| DRB1*14:09+DRB1*14:17        | DRB1*14:30+DRB1*14:80        |
| DRB1*14:09+DRB1*14:23:01     | DRB1*14:14+DRB1*14:80        |
| DRB1*14:09+DRB1*14:53        | DRB1*14:25+DRB1*14:30        |
| DRB1*14:09+DRB1*14:78        | DRB1*14:63+DRB1*14:80        |
| DRB1*14:09+DRB1*14:86        | DRB1*14:59+DRB1*14:119       |
| DRB1*14:09+DRB1*14:106       | DRB1*14:51+DRB1*14:80        |
| DRB1*14:09+DRB1*15:01:03     | DRB1*14:80+DRB1*15:02:06     |
| DRB1*14:09+DRB1*15:01:04     | DRB1*14:30+DRB1*15:07:02     |
| DRB1*14:09+DRB1*15:01:09     | DRB1*14:80+DRB1*15:02:04     |
| DRB1*14:09+DRB1*15:01:10     | DRB1*14:80+DRB1*15:02:08     |
| DRB1*14:09+DRB1*15:02:01     | DRB1*14:30+DRB1*15:11        |
| DRB1*14:09+DRB1*15:04        | DRB1*14:80+DRB1*15:15        |
| DRB1*14:09+DRB1*15:05        | DRB1*14:80+DRB1*15:31        |
| DRB1*14:09+DRB1*15:07:01     | DRB1*14:80+DRB1*15:11        |
| DRB1*14:09+DRB1*15:09        | DRB1*14:30+DRB1*15:48        |
| DRB1*14:09+DRB1*15:27        | DRB1*14:30+DRB1*15:34        |
| DRB1*14:09+DRB1*15:65        | DRB1*14:80+DRB1*15:47        |
| DRB1*14:09+DRB1*15:66        | DRB1*14:17+DRB1*15:34        |
| DRB1*14:09+DRB1*16:09        | DRB1*14:30+DRB1*16:01:01     |
| DRB1*14:09+DRB1*16:10        | DRB1*14:30+DRB1*16:02:01     |
| DRB1*14:09+DRB1*16:15        | DRB1*14:80+DRB1*16:01:01     |
| DRB1*14:12:01+DRB1*14:22     | DRB1*14:27+DRB1*14:74        |
| DRB1*14:12:01+DRB1*14:119    | DRB1*14:74+DRB1*14:89        |
| DRB1*14:12:01+DRB1*15:38     | DRB1*14:115+DRB1*15:01:04    |

DRB1\*14:80+DRB1\*15:02:02

DRB1\*14:80+DRB1\*15:27



|                             |                              |                       |
|-----------------------------|------------------------------|-----------------------|
| DRB1*14:13+DRB1*14:77       | DRB1*14:41+DRB1*14:85        |                       |
| DRB1*14:13+DRB1*14:98       | DRB1*14:47+DRB1*14:85        |                       |
| DRB1*14:13+DRB1*15:21       | DRB1*14:63+DRB1*15:66        | DRB1*14:78+DRB1*15:27 |
| DRB1*14:13+DRB1*16:18       | DRB1*14:85+DRB1*15:34        |                       |
| DRB1*14:14+DRB1*14:17       | DRB1*14:23:01+DRB1*14:30     |                       |
| DRB1*14:14+DRB1*14:31       | DRB1*14:68+DRB1*14:123       |                       |
| DRB1*14:14+DRB1*14:78       | DRB1*14:23:01+DRB1*14:63     |                       |
| DRB1*14:14+DRB1*14:100      | DRB1*14:44:01+DRB1*14:123    |                       |
| DRB1*14:14+DRB1*14:106      | DRB1*14:23:01+DRB1*14:51     |                       |
| DRB1*14:14+DRB1*15:01:01G   | DRB1*14:23:01+DRB1*15:02:01  |                       |
| DRB1*14:14+DRB1*15:01:03    | DRB1*14:23:01+DRB1*15:02:06  |                       |
| DRB1*14:14+DRB1*15:01:04    | DRB1*14:23:01+DRB1*15:02:02  |                       |
| DRB1*14:14+DRB1*15:01:09    | DRB1*14:23:01+DRB1*15:02:04  |                       |
| DRB1*14:14+DRB1*15:01:10    | DRB1*14:23:01+DRB1*15:02:08  |                       |
| DRB1*14:14+DRB1*15:04       | DRB1*14:23:01+DRB1*15:15     |                       |
| DRB1*14:14+DRB1*15:05       | DRB1*14:23:01+DRB1*15:31     |                       |
| DRB1*14:14+DRB1*15:07:01    | DRB1*14:23:01+DRB1*15:11     |                       |
| DRB1*14:14+DRB1*15:65       | DRB1*14:23:01+DRB1*15:47     |                       |
| DRB1*14:14+DRB1*15:66       | DRB1*14:23:01+DRB1*15:27     |                       |
| DRB1*14:14+DRB1*16:15       | DRB1*14:23:01+DRB1*16:01:01  |                       |
| DRB1*14:16+DRB1*15:27       | DRB1*14:119+DRB1*15:10       |                       |
| DRB1*14:17+DRB1*14:23:01    | DRB1*14:33+DRB1*14:123       |                       |
| DRB1*14:17+DRB1*14:25       | DRB1*14:53+DRB1*14:80        |                       |
| DRB1*14:17+DRB1*14:63       | DRB1*14:30+DRB1*14:78        |                       |
| DRB1*14:17+DRB1*14:124      | DRB1*14:35+DRB1*14:121       |                       |
| DRB1*14:17+DRB1*15:02:02    | DRB1*14:30+DRB1*15:01:04     |                       |
| DRB1*14:17+DRB1*15:02:04    | DRB1*14:30+DRB1*15:01:09     |                       |
| DRB1*14:17+DRB1*15:02:06    | DRB1*14:30+DRB1*15:01:03     |                       |
| DRB1*14:17+DRB1*15:02:08    | DRB1*14:30+DRB1*15:01:10     |                       |
| DRB1*14:17+DRB1*15:07:01    | DRB1*14:80+DRB1*15:01:01G    |                       |
| DRB1*14:17+DRB1*15:07:02    | DRB1*14:80+DRB1*15:01:04     |                       |
| DRB1*14:17+DRB1*15:15       | DRB1*14:30+DRB1*15:04        |                       |
| DRB1*14:17+DRB1*15:27       | DRB1*14:30+DRB1*15:66        |                       |
| DRB1*14:17+DRB1*15:31       | DRB1*14:30+DRB1*15:05        |                       |
| DRB1*14:17+DRB1*15:47       | DRB1*14:30+DRB1*15:65        |                       |
| DRB1*14:17+DRB1*15:48       | DRB1*14:80+DRB1*15:09        |                       |
| DRB1*14:17+DRB1*16:01:01    | DRB1*14:30+DRB1*16:15        | DRB1*14:80+DRB1*16:09 |
| DRB1*14:17+DRB1*16:02:01    | DRB1*14:80+DRB1*16:10        |                       |
| DRB1*14:19+DRB1*14:33       | DRB1*14:21+DRB1*14:51        |                       |
| DRB1*14:19+DRB1*15:38       | DRB1*14:109+DRB1*15:02:02    |                       |
| DRB1*14:19+DRB1*15:71       | DRB1*14:109+DRB1*15:01:01G   |                       |
| DRB1*14:20+DRB1*14:27       | DRB1*14:40+DRB1*14:108       |                       |
| DRB1*14:20+DRB1*14:68       | DRB1*14:49+DRB1*14:126       |                       |
| DRB1*14:22+DRB1*14:89       | DRB1*14:27+DRB1*14:119       |                       |
| DRB1*14:22+DRB1*14:102      | DRB1*14:25+DRB1*14:40        |                       |
| DRB1*14:22+DRB1*15:01:03    | DRB1*14:105+DRB1*15:02:01    |                       |
| DRB1*14:22+DRB1*15:05       | DRB1*14:74+DRB1*15:15        |                       |
| DRB1*14:22+DRB1*15:34       | DRB1*14:119+DRB1*16:01:02    |                       |
| DRB1*14:23:01+DRB1*14:28    | DRB1*14:99+DRB1*14:126       |                       |
| DRB1*14:23:01+DRB1*14:35    | DRB1*14:72+DRB1*14:101       |                       |
| DRB1*14:23:01+DRB1*14:50    | DRB1*14:38+DRB1*14:126       |                       |
| DRB1*14:23:01+DRB1*14:107   | DRB1*14:111+DRB1*14:126      |                       |
| DRB1*14:23:01+DRB1*14:120   | DRB1*14:122+DRB1*14:126      |                       |
| DRB1*14:23:02+DRB1*14:32:02 | DRB1*14:34+DRB1*14:101       |                       |
| DRB1*14:24+DRB1*15:21       | DRB1*14:67+DRB1*15:01:01G    |                       |
| DRB1*14:25+DRB1*15:01:01G   | DRB1*14:53+DRB1*15:07:01     |                       |
| DRB1*14:25+DRB1*15:01:04    | DRB1*14:53+DRB1*15:07:02     |                       |
| DRB1*14:25+DRB1*15:02:01    | DRB1*14:53+DRB1*15:11        |                       |
| DRB1*14:25+DRB1*15:05       | DRB1*14:69+DRB1*15:04        |                       |
| DRB1*14:25+DRB1*15:09       | DRB1*14:53+DRB1*15:48        |                       |
| DRB1*14:25+DRB1*15:27       | DRB1*14:53+DRB1*15:34        |                       |
| DRB1*14:25+DRB1*15:31       | DRB1*14:69+DRB1*15:15        |                       |
| DRB1*14:25+DRB1*16:02:01    | DRB1*14:69+DRB1*16:01:01     |                       |
| DRB1*14:25+DRB1*16:02:02    | DRB1*14:69+DRB1*16:01:02     |                       |
| DRB1*14:25+DRB1*16:09       | DRB1*14:53+DRB1*16:01:01     |                       |
| DRB1*14:25+DRB1*16:10       | DRB1*14:53+DRB1*16:02:01     | DRB1*14:69+DRB1*16:09 |
| DRB1*14:26+DRB1*15:03:01G   | DRB1*14:70+DRB1*15:24        |                       |
| DRB1*14:26+DRB1*15:16       | DRB1*14:60+DRB1*15:24        |                       |
| DRB1*14:26+DRB1*15:35       | DRB1*14:99+DRB1*15:24        |                       |
| DRB1*14:26+DRB1*15:65       | DRB1*14:86+DRB1*15:24        |                       |
| DRB1*14:27+DRB1*15:01:01G   | DRB1*14:67+DRB1*15:04        |                       |
| DRB1*14:27+DRB1*15:02:01    | DRB1*14:67+DRB1*15:15        |                       |
| DRB1*14:27+DRB1*15:34       | DRB1*14:89+DRB1*16:01:02     |                       |
| DRB1*14:27+DRB1*16:05:01    | DRB1*14:67+DRB1*16:01:01     |                       |
| DRB1*14:28+DRB1*14:32:02    | DRB1*14:31+DRB1*14:99        |                       |
| DRB1*14:28+DRB1*14:38       | DRB1*14:50+DRB1*14:99        |                       |
| DRB1*14:28+DRB1*14:111      | DRB1*14:99+DRB1*14:107       |                       |
| DRB1*14:28+DRB1*14:122      | DRB1*14:99+DRB1*14:120       |                       |
| DRB1*14:28+DRB1*15:02:01    | DRB1*14:68+DRB1*15:35        |                       |
| DRB1*14:29+DRB1*14:70       | DRB1*14:99+DRB1*14:121       |                       |
| DRB1*14:29+DRB1*15:03:01G   | DRB1*14:121+DRB1*15:35       |                       |
| DRB1*14:30+DRB1*14:82       | DRB1*14:95+DRB1*14:119       |                       |
| DRB1*14:31+DRB1*14:38       | DRB1*14:32:02+DRB1*14:50     |                       |
| DRB1*14:31+DRB1*14:44:01    | DRB1*14:68+DRB1*14:100       |                       |
| DRB1*14:31+DRB1*14:45       | DRB1*14:100+DRB1*14:120      |                       |
| DRB1*14:31+DRB1*14:111      | DRB1*14:32:02+DRB1*14:107    |                       |
| DRB1*14:31+DRB1*14:122      | DRB1*14:32:02+DRB1*14:120    |                       |
| DRB1*14:31+DRB1*14:127      | DRB1*14:50+DRB1*14:100       |                       |
| DRB1*14:32:01+DRB1*14:44:01 | DRB1*14:32:02+DRB1*14:44:02  |                       |
| DRB1*14:32:01+DRB1*15:01:03 | DRB1*14:32:02+DRB1*15:01:01G |                       |
| DRB1*14:32:01+DRB1*15:02:06 | DRB1*14:32:02+DRB1*15:02:01  |                       |
| DRB1*14:32:02+DRB1*14:45    | DRB1*14:100+DRB1*14:122      |                       |
| DRB1*14:32:02+DRB1*14:96    | DRB1*14:86+DRB1*14:100       |                       |
| DRB1*14:32:02+DRB1*14:103   | DRB1*14:75+DRB1*14:100       |                       |
| DRB1*14:32:02+DRB1*14:127   | DRB1*14:38+DRB1*14:100       |                       |
| DRB1*14:32:02+DRB1*16:18    | DRB1*14:55+DRB1*16:02:02     |                       |
| DRB1*14:35+DRB1*16:05:01    | DRB1*14:122+DRB1*16:10       |                       |
| DRB1*14:38+DRB1*14:45       | DRB1*14:122+DRB1*14:127      |                       |
| DRB1*14:38+DRB1*14:96       | DRB1*14:86+DRB1*14:127       |                       |
| DRB1*14:38+DRB1*14:103      | DRB1*14:75+DRB1*14:127       |                       |
| DRB1*14:38+DRB1*14:107      | DRB1*14:50+DRB1*14:111       |                       |
| DRB1*14:38+DRB1*14:120      | DRB1*14:50+DRB1*14:122       |                       |
| DRB1*14:41+DRB1*14:98       | DRB1*14:47+DRB1*14:77        |                       |
| DRB1*14:41+DRB1*16:18       | DRB1*14:77+DRB1*15:34        |                       |
| DRB1*14:44:01+DRB1*14:50    | DRB1*14:68+DRB1*14:127       |                       |

|                              |                              |                             |                          |
|------------------------------|------------------------------|-----------------------------|--------------------------|
| DRB1*14:44:01+DRB1*14:120    | DRB1*14:45+DRB1*14:68        |                             |                          |
| DRB1*14:44:01+DRB1*15:02:01  | DRB1*14:44:02+DRB1*15:02:06  |                             |                          |
| DRB1*14:44:01+DRB1*15:02:05  | DRB1*14:44:03+DRB1*15:02:02  |                             |                          |
| DRB1*14:44:01+DRB1*15:02:09  | DRB1*14:44:03+DRB1*15:02:01  |                             |                          |
| DRB1*14:44:03+DRB1*15:65     | DRB1*14:96+DRB1*15:02:09     |                             |                          |
| DRB1*14:45+DRB1*14:50        | DRB1*14:120+DRB1*14:127      |                             |                          |
| DRB1*14:45+DRB1*14:75        | DRB1*14:103+DRB1*14:122      |                             |                          |
| DRB1*14:45+DRB1*14:86        | DRB1*14:96+DRB1*14:122       |                             |                          |
| DRB1*14:47+DRB1*16:18        | DRB1*14:98+DRB1*15:34        |                             |                          |
| DRB1*14:49+DRB1*14:70        | DRB1*14:119+DRB1*14:124      |                             |                          |
| DRB1*14:49+DRB1*14:116       | DRB1*14:102+DRB1*14:119      |                             |                          |
| DRB1*14:51+DRB1*14:78        | DRB1*14:63+DRB1*14:106       |                             |                          |
| DRB1*14:51+DRB1*15:01:01G    | DRB1*14:106+DRB1*15:02:01    |                             |                          |
| DRB1*14:51+DRB1*15:01:03     | DRB1*14:106+DRB1*15:02:06    |                             |                          |
| DRB1*14:51+DRB1*15:01:04     | DRB1*14:106+DRB1*15:02:02    |                             |                          |
| DRB1*14:51+DRB1*15:01:09     | DRB1*14:106+DRB1*15:02:04    |                             |                          |
| DRB1*14:51+DRB1*15:01:10     | DRB1*14:106+DRB1*15:02:08    |                             |                          |
| DRB1*14:51+DRB1*15:04        | DRB1*14:106+DRB1*15:15       |                             |                          |
| DRB1*14:51+DRB1*15:05        | DRB1*14:106+DRB1*15:31       |                             |                          |
| DRB1*14:51+DRB1*15:07:01     | DRB1*14:106+DRB1*15:11       |                             |                          |
| DRB1*14:51+DRB1*15:65        | DRB1*14:106+DRB1*15:47       |                             |                          |
| DRB1*14:51+DRB1*15:66        | DRB1*14:106+DRB1*15:27       |                             |                          |
| DRB1*14:51+DRB1*16:15        | DRB1*14:106+DRB1*16:01:01    |                             |                          |
| DRB1*14:58+DRB1*14:77        | DRB1*14:102+DRB1*14:110      |                             |                          |
| DRB1*14:60+DRB1*15:03:01G    | DRB1*14:70+DRB1*15:16        |                             |                          |
| DRB1*14:60+DRB1*15:35        | DRB1*14:99+DRB1*15:16        |                             |                          |
| DRB1*14:60+DRB1*15:65        | DRB1*14:86+DRB1*15:16        |                             |                          |
| DRB1*14:63+DRB1*15:01:01G    | DRB1*14:78+DRB1*15:02:01     |                             |                          |
| DRB1*14:63+DRB1*15:01:03     | DRB1*14:78+DRB1*15:02:06     |                             |                          |
| DRB1*14:63+DRB1*15:01:04     | DRB1*14:67+DRB1*15:12        | DRB1*14:78+DRB1*15:02:02    |                          |
| DRB1*14:63+DRB1*15:01:09     | DRB1*14:78+DRB1*15:02:04     |                             |                          |
| DRB1*14:63+DRB1*15:01:10     | DRB1*14:78+DRB1*15:02:08     |                             |                          |
| DRB1*14:63+DRB1*15:04        | DRB1*14:78+DRB1*15:15        |                             |                          |
| DRB1*14:63+DRB1*15:05        | DRB1*14:78+DRB1*15:31        | DRB1*14:85+DRB1*15:01:01G   |                          |
| DRB1*14:63+DRB1*15:07:01     | DRB1*14:78+DRB1*15:11        |                             |                          |
| DRB1*14:63+DRB1*15:23        | DRB1*14:85+DRB1*15:03:01G    |                             |                          |
| DRB1*14:63+DRB1*15:31        | DRB1*14:85+DRB1*15:02:01     |                             |                          |
| DRB1*14:63+DRB1*15:63        | DRB1*14:85+DRB1*15:38        |                             |                          |
| DRB1*14:63+DRB1*15:65        | DRB1*14:78+DRB1*15:47        |                             |                          |
| DRB1*14:63+DRB1*15:73        | DRB1*14:85+DRB1*15:06:01     |                             |                          |
| DRB1*14:63+DRB1*16:02:01     | DRB1*14:85+DRB1*16:05:01     |                             |                          |
| DRB1*14:63+DRB1*16:15        | DRB1*14:78+DRB1*16:01:01     |                             |                          |
| DRB1*14:65+DRB1*15:07:02     | DRB1*14:123+DRB1*15:12       |                             |                          |
| DRB1*14:68+DRB1*14:79        | DRB1*14:93+DRB1*14:107       |                             |                          |
| DRB1*14:68+DRB1*15:37        | DRB1*14:93+DRB1*15:01:03     |                             |                          |
| DRB1*14:70+DRB1*14:102       | DRB1*14:116+DRB1*14:124      |                             |                          |
| DRB1*14:70+DRB1*15:35        | DRB1*14:99+DRB1*15:03:01G    |                             |                          |
| DRB1*14:70+DRB1*15:65        | DRB1*14:86+DRB1*15:03:01G    |                             |                          |
| DRB1*14:73+DRB1*14:123       | DRB1*14:105+DRB1*14:126      |                             |                          |
| DRB1*14:75+DRB1*14:96        | DRB1*14:86+DRB1*14:103       |                             |                          |
| DRB1*14:78+DRB1*15:63        | DRB1*14:115+DRB1*15:12       |                             |                          |
| DRB1*14:79+DRB1*15:01:03     | DRB1*14:107+DRB1*15:37       |                             |                          |
| DRB1*14:86+DRB1*15:14        | DRB1*14:117+DRB1*15:47       |                             |                          |
| DRB1*14:86+DRB1*15:35        | DRB1*14:99+DRB1*15:65        |                             |                          |
| DRB1*14:107+DRB1*14:122      | DRB1*14:111+DRB1*14:120      |                             |                          |
| DRB1*14:108+DRB1*15:23       | DRB1*14:121+DRB1*15:04       |                             |                          |
| DRB1*15:01:01G+DRB1*15:02:02 | DRB1*15:01:04+DRB1*15:02:01  |                             |                          |
| DRB1*15:01:01G+DRB1*15:02:04 | DRB1*15:01:09+DRB1*15:02:01  |                             |                          |
| DRB1*15:01:01G+DRB1*15:02:05 | DRB1*15:01:04+DRB1*15:02:09  |                             |                          |
| DRB1*15:01:01G+DRB1*15:02:06 | DRB1*15:01:03+DRB1*15:02:01  |                             |                          |
| DRB1*15:01:01G+DRB1*15:02:08 | DRB1*15:01:10+DRB1*15:02:01  |                             |                          |
| DRB1*15:01:01G+DRB1*15:03:02 | DRB1*15:01:13+DRB1*15:03:01G |                             |                          |
| DRB1*15:01:01G+DRB1*15:07:02 | DRB1*15:01:04+DRB1*15:07:01  |                             |                          |
| DRB1*15:01:01G+DRB1*15:11    | DRB1*15:02:01+DRB1*15:07:01  |                             |                          |
| DRB1*15:01:01G+DRB1*15:15    | DRB1*15:02:01+DRB1*15:04     |                             |                          |
| DRB1*15:01:01G+DRB1*15:23    | DRB1*15:03:01G+DRB1*15:05    |                             |                          |
| DRB1*15:01:01G+DRB1*15:27    | DRB1*15:02:01+DRB1*15:66     |                             |                          |
| DRB1*15:01:01G+DRB1*15:31    | DRB1*15:02:01+DRB1*15:05     | DRB1*15:11+DRB1*15:66       |                          |
| DRB1*15:01:01G+DRB1*15:34    | DRB1*15:07:01+DRB1*15:27     |                             |                          |
| DRB1*15:01:01G+DRB1*15:38    | DRB1*15:02:02+DRB1*15:71     |                             |                          |
| DRB1*15:01:01G+DRB1*15:47    | DRB1*15:02:01+DRB1*15:65     |                             |                          |
| DRB1*15:01:01G+DRB1*15:48    | DRB1*15:07:01+DRB1*15:09     |                             |                          |
| DRB1*15:01:01G+DRB1*15:54    | DRB1*15:03:01G+DRB1*15:66    |                             |                          |
| DRB1*15:01:01G+DRB1*15:63    | DRB1*15:05+DRB1*15:38        |                             |                          |
| DRB1*15:01:01G+DRB1*15:73    | DRB1*15:05+DRB1*15:06:01     |                             |                          |
| DRB1*15:01:01G+DRB1*16:01:01 | DRB1*15:02:01+DRB1*16:15     | DRB1*15:04+DRB1*16:05:01    | DRB1*15:07:01+DRB1*16:09 |
| DRB1*15:01:01G+DRB1*16:02:01 | DRB1*15:05+DRB1*16:05:01     | DRB1*15:07:01+DRB1*16:10    |                          |
| DRB1*15:01:01G+DRB1*16:07    | DRB1*15:72+DRB1*16:05:01     |                             |                          |
| DRB1*15:01:01G+DRB1*16:12    | DRB1*15:28+DRB1*16:02:01     |                             |                          |
| DRB1*15:01:01G+DRB1*16:17    | DRB1*15:53+DRB1*16:02:01     |                             |                          |
| DRB1*15:01:03+DRB1*15:02:02  | DRB1*15:01:04+DRB1*15:02:06  |                             |                          |
| DRB1*15:01:03+DRB1*15:02:04  | DRB1*15:01:09+DRB1*15:02:06  |                             |                          |
| DRB1*15:01:03+DRB1*15:02:08  | DRB1*15:01:10+DRB1*15:02:06  |                             |                          |
| DRB1*15:01:03+DRB1*15:11     | DRB1*15:02:06+DRB1*15:07:01  |                             |                          |
| DRB1*15:01:03+DRB1*15:15     | DRB1*15:02:06+DRB1*15:04     |                             |                          |
| DRB1*15:01:03+DRB1*15:27     | DRB1*15:02:06+DRB1*15:66     |                             |                          |
| DRB1*15:01:03+DRB1*15:31     | DRB1*15:02:06+DRB1*15:05     |                             |                          |
| DRB1*15:01:03+DRB1*15:47     | DRB1*15:02:06+DRB1*15:65     |                             |                          |
| DRB1*15:01:03+DRB1*16:01:01  | DRB1*15:02:06+DRB1*16:15     |                             |                          |
| DRB1*15:01:04+DRB1*15:02:04  | DRB1*15:01:09+DRB1*15:02:02  |                             |                          |
| DRB1*15:01:04+DRB1*15:02:08  | DRB1*15:01:10+DRB1*15:02:02  |                             |                          |
| DRB1*15:01:04+DRB1*15:11     | DRB1*15:02:01+DRB1*15:07:02  | DRB1*15:02:02+DRB1*15:07:01 |                          |
| DRB1*15:01:04+DRB1*15:15     | DRB1*15:02:02+DRB1*15:04     |                             |                          |
| DRB1*15:01:04+DRB1*15:27     | DRB1*15:02:02+DRB1*15:66     |                             |                          |
| DRB1*15:01:04+DRB1*15:31     | DRB1*15:02:02+DRB1*15:05     |                             |                          |
| DRB1*15:01:04+DRB1*15:34     | DRB1*15:07:02+DRB1*15:27     |                             |                          |
| DRB1*15:01:04+DRB1*15:47     | DRB1*15:02:02+DRB1*15:65     |                             |                          |
| DRB1*15:01:04+DRB1*15:48     | DRB1*15:07:02+DRB1*15:09     |                             |                          |
| DRB1*15:01:04+DRB1*16:01:01  | DRB1*15:02:02+DRB1*16:15     | DRB1*15:07:02+DRB1*16:09    |                          |
| DRB1*15:01:04+DRB1*16:02:01  | DRB1*15:07:02+DRB1*16:10     |                             |                          |
| DRB1*15:01:09+DRB1*15:02:08  | DRB1*15:01:10+DRB1*15:02:04  |                             |                          |
| DRB1*15:01:09+DRB1*15:11     | DRB1*15:02:04+DRB1*15:07:01  |                             |                          |
| DRB1*15:01:09+DRB1*15:15     | DRB1*15:02:04+DRB1*15:04     |                             |                          |
| DRB1*15:01:09+DRB1*15:27     | DRB1*15:02:04+DRB1*15:66     |                             |                          |
| DRB1*15:01:09+DRB1*15:31     | DRB1*15:02:04+DRB1*15:05     |                             |                          |

|                              |                             |                          |
|------------------------------|-----------------------------|--------------------------|
| DRB1*15:01:09+DRB1*15:47     | DRB1*15:02:04+DRB1*15:65    |                          |
| DRB1*15:01:09+DRB1*16:01:01  | DRB1*15:02:04+DRB1*16:15    |                          |
| DRB1*15:01:10+DRB1*15:11     | DRB1*15:02:08+DRB1*15:07:01 |                          |
| DRB1*15:01:10+DRB1*15:15     | DRB1*15:02:08+DRB1*15:04    |                          |
| DRB1*15:01:10+DRB1*15:27     | DRB1*15:02:08+DRB1*15:66    |                          |
| DRB1*15:01:10+DRB1*15:31     | DRB1*15:02:08+DRB1*15:05    |                          |
| DRB1*15:01:10+DRB1*15:47     | DRB1*15:02:08+DRB1*15:65    |                          |
| DRB1*15:01:10+DRB1*16:01:01  | DRB1*15:02:08+DRB1*16:15    |                          |
| DRB1*15:01:13+DRB1*15:23     | DRB1*15:03:02+DRB1*15:05    |                          |
| DRB1*15:01:13+DRB1*15:54     | DRB1*15:03:02+DRB1*15:66    |                          |
| DRB1*15:02:01+DRB1*15:02:05  | DRB1*15:02:02+DRB1*15:02:09 |                          |
| DRB1*15:02:01+DRB1*15:23     | DRB1*15:03:01G+DRB1*15:31   |                          |
| DRB1*15:02:01+DRB1*15:34     | DRB1*15:11+DRB1*15:27       |                          |
| DRB1*15:02:01+DRB1*15:48     | DRB1*15:09+DRB1*15:11       |                          |
| DRB1*15:02:01+DRB1*15:54     | DRB1*15:03:01G+DRB1*15:27   |                          |
| DRB1*15:02:01+DRB1*15:63     | DRB1*15:31+DRB1*15:38       |                          |
| DRB1*15:02:01+DRB1*15:73     | DRB1*15:06:01+DRB1*15:31    |                          |
| DRB1*15:02:01+DRB1*16:01:01  | DRB1*15:11+DRB1*16:09       | DRB1*15:15+DRB1*16:05:01 |
| DRB1*15:02:01+DRB1*16:02:01  | DRB1*15:11+DRB1*16:10       | DRB1*15:31+DRB1*16:05:01 |
| DRB1*15:02:05+DRB1*15:07:01  | DRB1*15:02:09+DRB1*15:07:02 |                          |
| DRB1*15:03:01G+DRB1*15:34    | DRB1*15:11+DRB1*15:54       |                          |
| DRB1*15:03:01G+DRB1*15:63    | DRB1*15:23+DRB1*15:38       |                          |
| DRB1*15:03:01G+DRB1*15:73    | DRB1*15:06:01+DRB1*15:23    |                          |
| DRB1*15:03:01G+DRB1*16:02:01 | DRB1*15:23+DRB1*16:05:01    |                          |
| DRB1*15:04+DRB1*15:11        | DRB1*15:07:01+DRB1*15:15    |                          |
| DRB1*15:04+DRB1*15:27        | DRB1*15:15+DRB1*15:66       |                          |
| DRB1*15:04+DRB1*15:31        | DRB1*15:05+DRB1*15:15       |                          |
| DRB1*15:04+DRB1*15:47        | DRB1*15:15+DRB1*15:65       |                          |
| DRB1*15:04+DRB1*16:01:01     | DRB1*15:15+DRB1*16:15       |                          |
| DRB1*15:04+DRB1*16:02:01     | DRB1*15:05+DRB1*16:01:01    | DRB1*15:31+DRB1*16:15    |
| DRB1*15:04+DRB1*16:02:02     | DRB1*15:05+DRB1*16:01:02    |                          |
| DRB1*15:04+DRB1*16:07        | DRB1*15:72+DRB1*16:01:01    |                          |
| DRB1*15:04+DRB1*16:10        | DRB1*15:05+DRB1*16:09       |                          |
| DRB1*15:05+DRB1*15:11        | DRB1*15:07:01+DRB1*15:31    |                          |
| DRB1*15:05+DRB1*15:27        | DRB1*15:31+DRB1*15:66       |                          |
| DRB1*15:05+DRB1*15:47        | DRB1*15:31+DRB1*15:65       |                          |
| DRB1*15:05+DRB1*15:54        | DRB1*15:23+DRB1*15:66       |                          |
| DRB1*15:05+DRB1*16:07        | DRB1*15:72+DRB1*16:02:01    |                          |
| DRB1*15:06:01+DRB1*15:63     | DRB1*15:38+DRB1*15:73       |                          |
| DRB1*15:06:01+DRB1*16:02:01  | DRB1*15:73+DRB1*16:05:01    |                          |
| DRB1*15:07:01+DRB1*15:47     | DRB1*15:11+DRB1*15:65       |                          |
| DRB1*15:07:01+DRB1*16:01:01  | DRB1*15:11+DRB1*16:15       |                          |
| DRB1*15:09+DRB1*15:34        | DRB1*15:27+DRB1*15:48       |                          |
| DRB1*15:09+DRB1*16:01:01     | DRB1*15:48+DRB1*16:09       |                          |
| DRB1*15:09+DRB1*16:02:01     | DRB1*15:48+DRB1*16:10       |                          |
| DRB1*15:15+DRB1*16:02:01     | DRB1*15:31+DRB1*16:01:01    |                          |
| DRB1*15:15+DRB1*16:02:02     | DRB1*15:31+DRB1*16:01:02    |                          |
| DRB1*15:15+DRB1*16:10        | DRB1*15:31+DRB1*16:09       |                          |
| DRB1*15:23+DRB1*15:27        | DRB1*15:31+DRB1*15:54       |                          |
| DRB1*15:27+DRB1*15:65        | DRB1*15:47+DRB1*15:66       |                          |
| DRB1*15:27+DRB1*16:01:01     | DRB1*15:34+DRB1*16:09       |                          |
| DRB1*15:27+DRB1*16:02:01     | DRB1*15:34+DRB1*16:10       |                          |
| DRB1*15:27+DRB1*16:15        | DRB1*15:66+DRB1*16:01:01    |                          |
| DRB1*15:28+DRB1*16:17        | DRB1*15:53+DRB1*16:12       |                          |
| DRB1*15:38+DRB1*16:02:01     | DRB1*15:63+DRB1*16:05:01    |                          |
| DRB1*15:47+DRB1*16:15        | DRB1*15:65+DRB1*16:01:01    |                          |
| DRB1*16:01:01+DRB1*16:02:02  | DRB1*16:01:02+DRB1*16:02:01 |                          |
| DRB1*16:01:01+DRB1*16:10     | DRB1*16:02:01+DRB1*16:09    |                          |
| DRB1*16:01:02+DRB1*16:10     | DRB1*16:02:02+DRB1*16:09    |                          |

# HLA-DRB3 Ambiguities, Release 3.9.0

## Sequences identical over exons 2

| Code in table  | Allele 1         | Allele 2         | Allele 3   | Allele 4    |
|----------------|------------------|------------------|------------|-------------|
| DRB3*01:01:02G | DRB3*01:01:02:01 | DRB3*01:01:02:02 |            |             |
| DRB3*02:01:01G | DRB3*02:01       | DRB3*02:24       |            |             |
| DRB3*02:02:01G | DRB3*02:02:01:01 | DRB3*02:02:01:02 | DRB3*02:28 | DRB3*02:29N |
| DRB3*03:01:01G | DRB3*03:01:01    | DRB3*03:01:03    |            |             |

## Alleles extended due to unsequenced regions

The following alleles do not contain the complete exon 2 sequence. For these alleles, the sequence of an alternate allele has been used to extend the sequence to cover this region.

| Incomplete allele | Sequence extended with |
|-------------------|------------------------|
| DRB3*01:01:03     | DRB3*01:01:02:01       |
| DRB3*01:01:04     | DRB3*01:01:02:01       |
| DRB3*01:02        | DRB3*01:01:02:01       |
| DRB3*01:03        | DRB3*01:01:02:01       |
| DRB3*01:04        | DRB3*01:01:02:01       |
| DRB3*01:05        | DRB3*01:01:02:01       |
| DRB3*01:06        | DRB3*01:01:02:01       |
| DRB3*01:07        | DRB3*01:01:02:01       |
| DRB3*01:08        | DRB3*01:01:02:01       |
| DRB3*01:09        | DRB3*01:01:02:01       |
| DRB3*01:10        | DRB3*01:01:02:01       |
| DRB3*02:02:02     | DRB3*01:01:02:01       |
| DRB3*02:03        | DRB3*01:01:02:01       |
| DRB3*02:05        | DRB3*01:01:02:01       |
| DRB3*02:06        | DRB3*01:01:02:01       |
| DRB3*02:07        | DRB3*01:01:02:01       |
| DRB3*02:08        | DRB3*01:01:02:01       |
| DRB3*03:02        | DRB3*01:01:02:01       |

## Alleles removed from analysis due to insertions or deletions

| Allele |
|--------|
| None   |

## Ambiguous typing combinations over exon 2

| Combination 1                 | Combination 2             | Combination 3 | Combination 4 |
|-------------------------------|---------------------------|---------------|---------------|
| DRB3*01:01:02G+DRB3*02:02:01G | DRB3*01:15+DRB3*02:21     |               |               |
| DRB3*01:01:02G+DRB3*02:10     | DRB3*01:15+DRB3*02:09     |               |               |
| DRB3*01:06+DRB3*02:05         | DRB3*01:07+DRB3*03:03     |               |               |
| DRB3*02:01:01G+DRB3*03:03     | DRB3*02:22+DRB3*03:01:01G |               |               |
| DRB3*02:02:01G+DRB3*02:09     | DRB3*02:10+DRB3*02:21     |               |               |
| DRB3*02:02:01G+DRB3*02:19     | DRB3*02:22+DRB3*02:25     |               |               |
| DRB3*02:02:01G+DRB3*02:21     | DRB3*02:07+DRB3*02:25     |               |               |
| DRB3*02:02:01G+DRB3*03:01:01G | DRB3*02:05+DRB3*03:02     |               |               |
| DRB3*02:07+DRB3*02:19         | DRB3*02:21+DRB3*02:22     |               |               |

# HLA-DRB4 Ambiguities, Release 3.9.0

## *Sequences identical over exons 2*

| Code in table  | Allele 1         | Allele 2         | Allele 3          | Allele 4         | Allele 5      | Allele 6   |
|----------------|------------------|------------------|-------------------|------------------|---------------|------------|
| DRB4*01:01:01G | DRB4*01:01:01:01 | DRB4*01:03:01:01 | DRB4*01:03:01:02N | DRB4*01:03:01:03 | DRB4*01:03:02 | DRB4*01:06 |

## *Alleles extended due to unsequenced regions*

The following alleles do not contain the complete exon 2 sequence. For these alleles, the sequence of an alternate allele has been used to extend the sequence to cover this region.

| Incomplete allele | Sequence extended with |
|-------------------|------------------------|
| DRB4*01:02        | DRB4*01:01:01:01       |
| DRB4*01:05        | DRB4*01:01:01:01       |
| DRB4*01:07        | DRB4*01:01:01:01       |

## *Alleles removed from analysis due to insertions or deletions*

| Allele      |
|-------------|
| DRB4*02:01N |
| DRB4*03:01N |

## *Ambiguous typing combinations over exon 2*

| Combination 1 | Combination 2 |
|---------------|---------------|
| None          |               |

# HLA-DRB5 Ambiguities, Release 3.9.0

## *Sequences identical over exons 2*

| Code in table  | Allele 1   | Allele 2    |
|----------------|------------|-------------|
| DRB5*01:02:01G | DRB5*01:02 | DRB5*01:08N |
| DRB5*02:02:01G | DRB5*02:02 | DRB5*02:06  |

## *Alleles extended due to unsequenced regions*

The following alleles do not contain the complete exon 2 sequence. For these alleles, the sequence of an alternate allele has been used to extend the sequence to cover this region.

| Incomplete allele | Sequence extended with |
|-------------------|------------------------|
| DRB5*01:01:02     | DRB5*01:01:01          |
| DRB5*01:03        | DRB5*01:01:01          |
| DRB5*01:05        | DRB5*01:01:01          |
| DRB5*01:06        | DRB5*01:01:01          |
| DRB5*01:07        | DRB5*01:01:01          |
| DRB5*01:09        | DRB5*01:01:01          |
| DRB5*02:03        | DRB5*02:02             |
| DRB5*02:04        | DRB5*02:02             |

## *Alleles removed from analysis due to insertions or deletions*

| Allele      |
|-------------|
| DRB5*01:10N |

## *Ambiguous typing combinations over exon 2*

| Combination 1                | Combination 2             | Combination 3 | Combination 4 |
|------------------------------|---------------------------|---------------|---------------|
| DRB5*01:01:01+DRB5*02:02:01G | DRB5*01:07+DRB5*02:04     |               |               |
| DRB5*01:06+DRB5*02:03        | DRB5*01:11+DRB5*02:02:01G |               |               |