

# The mechanism (Phe362Tyr mutation) behind resistance in *Lepeophtheirus salmonis* pre-dates the use of organophosphate in salmon farming

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| Country          | Site code | Date of sample collection | Phe362Tyr |    |     | Status of treatment while collection |
|------------------|-----------|---------------------------|-----------|----|-----|--------------------------------------|
|                  |           |                           | SS        | RS | RR  |                                      |
| Scotland         | 1         | 12.11.2015                | 24        | 79 | 47  | Untreated                            |
| Scotland         | 1         | 20.01.2016                | 0         | 45 | 45  | Treated with Azamethiphos            |
| Scotland         | 5         | 12.11.2015                | 24        | 79 | 47  | Untreated                            |
| Scotland         | 5         | 20.01.2016                | 0         | 45 | 45  | Treated with Azamethiphos            |
| Scotland         | 3         | 21.05.2015                | 0         | 22 | 38  | Treated with Azamethiphos            |
| Scotland         | 3         | 08.07.2015                | 0         | 3  | 26  | Treated with Azamethiphos            |
| Shetland Islands | 2         | 04.09.2014                | 13        | 25 | 21  | Untreated                            |
| Shetland Islands | 3         | 25.06.2014                | 36        | 62 | 24  | Untreated                            |
| Shetland Islands | 4         | 20.09.2014                | 0         | 15 | 165 | Treated with Azamethiphos            |
| Faroe Islands    | 6         | 14.04.2016                | 39        | 39 | 12  | Untreated                            |
| Faroe Islands    | 7         | 14.04.2016                | 0         | 42 | 45  | Treated with Azamethiphos            |
| Faroe Islands    | 9         | 09.10.2015                | 0         | 54 | 33  | Treated neighbouring site            |
| Faroe Islands    | 10        | 12.10.2015                | 69        | 18 | 3   | Untreated                            |

**Supplementary table S1: Details of sample set I**

Total N= 1287

**Supplementary table S2: Details of sample set II**

| <b>Country</b> | <b>Year</b> | <b>total samples</b> | <b>Present study/Previous study [33]</b> |
|----------------|-------------|----------------------|------------------------------------------|
| Norway         | 1998        | 160                  | present study                            |
| Norway         | 2000        | 30                   | [33]                                     |
| Norway         | 2002        | 29                   | [33]                                     |
| North Norway   | 2009        | 96                   | [33]                                     |
| South Norway   | 2009        | 96                   | [33]                                     |
| Canada         | 1999        | 96                   | present study                            |
| Canada         | 2002        | 30                   | [33]                                     |
| Canada (a)     | 2009        | 47                   | [33]                                     |
| Canada (b)     | 2009        | 47                   | [33]                                     |
| Scotland (a)   | 2002        | 60                   | present study                            |
| Scotland (b)   | 2002        | 30                   | [33]                                     |
| Shetland       | 2009        | 95                   | [33]                                     |
| Ireland        | 2001        | 16                   | present study                            |
| Ireland        | 2002        | 16                   | present study                            |
| Ireland        | 2009        | 94                   | [33]                                     |
| Faroe Islands  | 2009        | 94                   | [33]                                     |
|                |             | N= 1036              |                                          |

**Supplementary table S3: SNPs selected for genotyping**

| LG | name                  | flanking                                                                                                                                                                                                                                                                    | SNP   | flanking                                                                                                                                                                                                                                                             | map position |
|----|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 14 | LS_Gdist_c19637.22906 | AATCTTGACCCCTCATAAATAGGAACCTCCATGAGGATGAAATCT<br>TTGACGACTACATTACGAAACTGACTTTGACGCAAAAAGGAAGGT<br>CTTTCAAA                                                                                                                                                                  | [T/C] | AATGTATCTTTCATTGTATTACGTTAGCTTGATTGGAAGT<br>AATTTAGTTTTTCATGCATGNNNNNNNNNNNNNNNNNN                                                                                                                                                                                   | 19,8         |
| 14 | LS_Gdist_c9990.2279   | CTATTATGGCAAAAAAATATCTTCTCACATATTATTTAGGTTCA<br>AAATAGGTTTCCTTTCACCTTGAAATCAATTTTAATGGAGTATTACG<br>TTCATTTT                                                                                                                                                                 | [A/G] | CAAAACATCGTGTATCAATTCCTTCAAGAGTGAGGTAGCC<br>TTCGTCTCCCTGACAGGTTTAGTGAGTTTAAACCGGAGTCTC<br>GGAGTCACAAAATTCCTAAAAA                                                                                                                                                     | 19,8         |
| 14 | LS_Gdist_c7174.6841   | TTTAATATCCGAAAAGTTCCTCAATCTTATTATGATCTGTAAGG<br>TTTGGGTACGGGAAGCCGGTTCGGATCTTGGATCAATTTTGGATACGGG<br>GTAAT                                                                                                                                                                  | [A/G] | CATTTATGACGTCTTAAAAAAGTACAATTGTTAAATCT<br>GTGTGTATTGTCCAAAACCTTGATATCCCCCCCCCTCCG<br>ATTGGACTCATTAACCTCACACC                                                                                                                                                         | 21,3         |
| 14 | LS_Gdist_c7508.2175   | TAGCTGGAGAAAATTATATATGAGCCCTCAGAATCTTCTCTAGATT<br>TCCCTCCATTGTATTTAACTACGACTATTTTGAGGGAGGACTTTTAA<br>TAATGA                                                                                                                                                                 | [T/C] | GTTATTCATCTTAATTATTTATATATGAAAATATCGCT<br>GAAATGAACAACCGCTGAAAAAAGCTCGCCCAATAAA<br>ATAAATGCTCAAATGAATGTTGGT                                                                                                                                                          | 21,3         |
| 14 | LS_Gdist_c14196.14756 | TAATCAACCCCTGGGTCTGGGGTTATTTTGAAGTGTGGAGGGAG<br>CCTAAATGCTTAGTGAAGTAACGAGTGGAATTTTAACCTGCATGGT<br>GTCCCT                                                                                                                                                                    | [A/G] | JTCGTAGTCTAAACAATCAATGACCGGGGGTTTATTTT<br>GAAGCATTTGGAGGGGTTCAAAGGCTTTGAGAAAGTGGTTG<br>CAGTAGTTTATAACCTGAATA                                                                                                                                                         | 21,3         |
| 14 | LS_Gdist_c7446.141775 | CAATTAATTTTCCATCAATTGAAAACCTTTATAAACTAGCATAA<br>TTTAGAAGGAA                                                                                                                                                                                                                 | [T/C] | ACTGAGCATTCAATTTTTACCCATATATATCCAACCTTA<br>GATTGTAAACATAATTTAGAGTAGAATTATGTTTAGACT<br>TATACA                                                                                                                                                                         | 21,3         |
| 14 | LS_Diag_c7446.181381  | AACAAAAATAGAACCAAGAGGAACTTCCAATTATGAGCTGTAA<br>ATAAAAAAACCCAGCAAAATGGAACAAAGAGCAGCATTTAAGG<br>CACAAAAATTA                                                                                                                                                                   | [T/C] | AAGACAAGATTGAAAGGCTACAGAAAGGATGTTCTGTAC<br>ACATTTGAGGGTACTTCATCCAAATATTCTGCATTCAAA<br>GATGATTTTTTTTTGAGTTATTG                                                                                                                                                        | 22,5         |
| 14 | Target                | ATGATGAGCTGTCTTACGATGAAAAAATACAAAGGCCATGATT<br>GAATGCCCTGCGCAAAAAGGATGCAACAGAGATGGTTAATCAGGAGT<br>GGATTGGTATCATTTCTGGGATTGCAGAGTCCCTTTTGTCTCTATTG<br>TGGATGTCITGAAGTTCCTTGGATGAGGCCCTGGAATAATCTCTAC<br>AACAAAGA<br>ACTATAAAAAAACCAATTTTAATTGGAAGCAATAAGGAAGAA<br>GGGAATTATT | [A/T] | CATCATGTACTATCTTACAGATCTCTTTAAAAAATACGGA<br>GAGCGTCTATGTTGATCGAACAGATTTCATTTCGAAAGTGT<br>TCAGAAATTGAACCACTATGTAAAAAATGGGAAGAG<br>AGGCAATAACTTTTGAGTACACAGATTGGCTCAATCCAA<br>ACGATCCCATAAAAAATAGAGAAGCAATTGATCGCATG<br>GTCGGTGACTATCAATTCATTTGCCCAACTGCTGACTTTG<br>CT |              |
| 14 | LS_Diag_c64652.27830  | TCAATTTGTCCAAAAAAGATGCTTGACTTTGTTTTGACCTTTTGA<br>AAGTATCTCTTGATCTTGAATTGAGTTACATGAAGCATTTTATTG<br>AACCGA                                                                                                                                                                    | [T/C] | GTAAGTACACC                                                                                                                                                                                                                                                          | 25,4         |
| 14 | LS_Diag_c14769.22573  | TGATAAAAAATGGCAAAATATTGAGTTTTAGTAAGTTATTTATAA<br>GATGAATCTAGGGATTGAATAAATAACGTAACAAAATACTTT<br>AAATAAATAG                                                                                                                                                                   | [T/C] | GGAGCAAATTGGGAGGTCAAAAGAAAGTCGGATCGTCATT<br>TTTTAGCTATGTCAATTAATTCAAATTAGTAAAAATGTTT<br>GTATGATTGTAAAAAAGITAA                                                                                                                                                        | 27,3         |
| 14 | LS_Gdist_c14769.23700 | ACAGAGTAATTATTTAATAGTGTGTCTGAATATTTAGGACGTAA<br>TATTTATTTATGACGCAAAATAGGTGTTCGATTTTGTACAAAATAG<br>TAACCAA                                                                                                                                                                   | [T/C] | GCAATTGTTCAGTTTATTNNNNNNNNNNNNNNNNNNNN<br>NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNGG<br>TACACGTAAATATTACTGTTAAG                                                                                                                                                           | 27,3         |
| 14 | LS_Gdist_c8326.48240  | ATGTTGFACTTCTTTAAAAACTATAATAACAATACATAGTTCCTAC<br>TCAATGATTCGGAAATCCTTTCTCTCCTCACGTTGTCCAACGTG<br>TGAGAAA                                                                                                                                                                   | [T/C] | GTTCATTTTATCAAAGACACAATTACGTACGTTTACAT<br>ACAATCAAAATCACAATAAAACATTATTTTAAAGTGGG<br>GGAGGGGGGGGGAAGATGAAGT                                                                                                                                                           | 27,3         |
| 14 | LS_Gdist_c8039.18856  | ATTAGAGCTTGAATAAATTCCAAACAAATTAACGTATTATGAAA<br>CATACATTTGTTGAAAGAGTAGTACTTTTCTACCTCTAATTAT<br>CTGTAAACT                                                                                                                                                                    | [A/G] | TTTATGAGTTTATGAGTGGTGTGATCGACTGATCCTCAA<br>ACCTCGATCTGCAAGTGCAAAAAAACAACGTTAT<br>TGAAGGGACTATCAAGGATACA                                                                                                                                                              | 28,7         |

Supplementary table S4: Raw genotype data

| Country_<br>year  | SAMPLE NAME | SNP_<br>Gdist_<br>c1963722906 | SNP_<br>Gdist_<br>c99902279 | SNP_<br>Gdist_<br>c71746841 | SNP_<br>Gdist_<br>c75082175 | SNP_<br>Gdist_<br>c1419614756 | SNP_<br>Gdist_<br>c7446141775 | SNP_<br>Diag_<br>c7446181381 | Target<br>(Phe36<br>2Tyr) | SNP_<br>Gdist_<br>c832648240 | SNP_<br>Gdist_<br>c803918856 |
|-------------------|-------------|-------------------------------|-----------------------------|-----------------------------|-----------------------------|-------------------------------|-------------------------------|------------------------------|---------------------------|------------------------------|------------------------------|
| South Norway-2009 | 1603_813_1  | C                             | G                           | GA                          | CT                          | G                             | TC                            | CT                           | T                         | C                            |                              |
| South Norway-2009 | 1603_813_10 | CT                            | G                           | GA                          | CT                          | A                             | T                             | T                            | T                         | CT                           |                              |
| South Norway-2009 | 1603_813_11 | C                             | GA                          | A                           | CT                          | A                             | T                             | CT                           | T                         | C                            | G                            |
| South Norway-2009 | 1603_813_12 | C                             | G                           | A                           | C                           | G                             | TC                            | CT                           | T                         | C                            |                              |
| South Norway-2009 | 1603_813_13 | CT                            | G                           | GA                          | T                           | G                             | TC                            | C                            | T                         | CT                           | G                            |
| South Norway-2009 | 1603_813_14 | C                             | G                           | GA                          | CT                          | G                             | TC                            | C                            | T                         | C                            | G                            |
| South Norway-2009 | 1603_813_15 | C                             | G                           | G                           | CT                          | GA                            | T                             | CT                           | T                         | C                            | G                            |
| South Norway-2009 | 1603_813_16 | C                             | G                           | GA                          | C                           | G                             | C                             | CT                           | T                         | C                            | G                            |
| South Norway-2009 | 1603_813_17 | C                             | GA                          | G                           | CT                          | G                             | T                             | CT                           | T                         | C                            | G                            |
| South Norway-2009 | 1603_813_18 | C                             | G                           | A                           | CT                          | G                             | C                             | C                            | T                         | CT                           |                              |
| South Norway-2009 | 1603_813_19 | C                             | GA                          | G                           | CT                          | G                             | T                             | CT                           | T                         | CT                           |                              |
| South Norway-2009 | 1603_813_2  |                               | GA                          | GA                          | CT                          | G                             | TC                            | CT                           | T                         | C                            | G                            |
| South Norway-2009 | 1603_813_20 | CT                            | GA                          | GA                          | CT                          | G                             | C                             | CT                           | T                         | CT                           | G                            |
| South Norway-2009 | 1603_813_21 | C                             | G                           | GA                          | CT                          | A                             | C                             | CT                           | T                         | C                            |                              |
| South Norway-2009 | 1603_813_22 | CT                            | G                           | GA                          | CT                          | G                             | T                             | C                            | T                         | T                            |                              |
| South Norway-2009 | 1603_813_23 | C                             | A                           | GA                          | C                           | G                             | TC                            | C                            | T                         | C                            | G                            |
| South Norway-2009 | 1603_813_24 | CT                            | A                           |                             | CT                          | G                             | TC                            | CT                           | T                         | C                            |                              |
| South Norway-2009 | 1603_813_25 | C                             | A                           | G                           | T                           | G                             | C                             | CT                           | T                         | C                            | G                            |
| South Norway-2009 | 1603_813_26 | C                             | GA                          | G                           | CT                          | G                             | T                             | CT                           | T                         | CT                           | G                            |
| South Norway-2009 | 1603_813_27 | C                             | GA                          | GA                          | T                           | G                             | C                             | CT                           | T                         | C                            | G                            |
| South Norway-2009 | 1603_813_28 | C                             | GA                          | GA                          | CT                          | G                             | T                             | CT                           | T                         | C                            |                              |
| South Norway-2009 | 1603_813_29 | CT                            | GA                          | GA                          | CT                          | G                             | T                             | T                            | T                         | C                            |                              |
| South Norway-2009 | 1603_813_3  | T                             | GA                          | G                           | C                           | G                             | TC                            | C                            | T                         | T                            | G                            |
| South Norway-2009 | 1603_813_30 | CT                            | A                           | G                           |                             | G                             | C                             | CT                           | T                         | CT                           | G                            |
| South Norway-2009 | 1603_813_31 | C                             | GA                          | G                           | T                           | G                             | T                             | T                            | T                         | C                            |                              |

|                   |             |    |    |    |    |   |    |    |    |    |   |
|-------------------|-------------|----|----|----|----|---|----|----|----|----|---|
| South Norway-2009 | 1603_813_32 | C  | G  | GA | C  | G | TC | CT | T  | T  | G |
| South Norway-2009 | 1603_813_33 | CT | G  | GA | CT | G | T  | CT | T  | C  |   |
| South Norway-2009 | 1603_813_34 | CT | GA | GA | C  | G | TC | C  | T  | CT | G |
| South Norway-2009 | 1603_813_35 | C  | GA | GA | CT | G | TC | T  | T  | C  |   |
| South Norway-2009 | 1603_813_36 | CT | G  | GA | C  | A | C  | CT | TA | C  | G |
| South Norway-2009 | 1603_813_37 | T  | G  | GA | T  | G | TC | CT | T  | CT | G |
| South Norway-2009 | 1603_813_38 | C  | G  | GA |    | G | C  | T  | TA | C  | G |
| South Norway-2009 | 1603_813_39 | CT | G  | G  | CT | G | T  | CT | T  | CT | G |
| South Norway-2009 | 1603_813_4  | C  | G  | GA | CT | G | TC | CT | T  | C  | G |
| South Norway-2009 | 1603_813_40 | C  | A  | G  | CT | A | TC | C  | T  | CT |   |
| South Norway-2009 | 1603_813_41 | C  | G  | G  | T  | G | T  | CT | T  | C  | G |
| South Norway-2009 | 1603_813_42 | C  | GA | G  | T  | G | TC | CT | T  | CT | G |
| South Norway-2009 | 1603_813_43 | CT | GA | G  | T  | G | TC | T  | T  | C  | G |
| South Norway-2009 | 1603_813_44 | C  | G  | GA | T  | A | T  | T  | T  | CT |   |
| South Norway-2009 | 1603_813_45 | T  | G  | GA | C  | G | TC | CT | T  | C  | G |
| South Norway-2009 | 1603_813_46 | C  | G  | GA | CT | G | TC | CT | T  | C  |   |
| South Norway-2009 | 1603_813_5  | CT | G  | G  | T  | G | T  | T  | T  | C  | G |
| South Norway-2009 | 1603_813_57 | CT | GA | GA | C  | G | TC | C  | T  | C  |   |
| South Norway-2009 | 1603_813_58 | CT | A  | G  | CT | G | TC | CT | T  | CT |   |
| South Norway-2009 | 1603_813_6  | C  | GA | GA | CT | G | T  | CT | T  | C  |   |
| South Norway-2009 | 1603_813_7  | CT | G  | GA | CT | G | T  | CT | T  | CT | G |
| South Norway-2009 | 1603_813_8  | C  | A  | GA | CT | G | T  | CT | T  | C  |   |
| South Norway-2009 | 1603_813_9  | C  | G  | GA | CT | G | TC | C  | T  | C  |   |
| North Norway-2009 | 1746_837_1  | T  | GA | GA | C  | A | TC | C  | T  | CT |   |
| North Norway-2009 | 1746_837_10 | C  | GA | G  | CT | A | TC | CT | T  | C  |   |
| North Norway-2009 | 1746_837_11 | CT | G  | A  | C  | G | T  | C  | T  | CT |   |
| North Norway-2009 | 1746_837_12 | T  | G  | GA | T  | G | TC | CT | T  | C  |   |
| North Norway-2009 | 1746_837_13 | C  | G  | GA |    | A | TC | T  | T  | C  |   |
| North Norway-2009 | 1746_837_14 | C  | G  | GA | C  | G | TC | CT | TA | C  |   |
| North Norway-2009 | 1746_837_15 | C  | GA | A  | CT | G | C  | C  | T  | C  | G |
| North Norway-2009 | 1746_837_16 | C  | G  | G  | T  | A | TC | CT | T  | CT |   |
| North Norway-2009 | 1746_837_17 | C  | G  | GA | CT | A | TC | C  | T  | CT |   |
| North Norway-2009 | 1746_837_18 | C  | GA | A  | CT | G | TC | C  | T  | CT |   |
| North Norway-2009 | 1746_837_19 | C  | G  | GA | CT | G | T  | C  | T  | C  |   |
| North Norway-2009 | 1746_837_2  | CT | G  | G  | CT | G | C  | C  | T  | C  | G |
| North Norway-2009 | 1746_837_20 | C  | G  | G  | CT | G | T  | C  | T  | T  | G |
| North Norway-2009 | 1746_837_21 | C  | A  | G  | T  | G | C  | C  | T  | CT | G |
| North Norway-2009 | 1746_837_22 | C  | G  | A  |    | G | C  | CT | TA | C  | A |
| North Norway-2009 | 1746_837_23 | C  | G  | A  | C  | G | T  | C  | T  | C  |   |

|                   |             |    |    |    |    |    |    |    |    |    |   |
|-------------------|-------------|----|----|----|----|----|----|----|----|----|---|
| North Norway-2009 | 1746_837_24 | CT | G  | GA | C  | G  | TC | CT | TA | CT | G |
| North Norway-2009 | 1746_837_25 | C  | G  | G  | CT | A  | TC | CT | T  | C  | G |
| North Norway-2009 | 1746_837_26 | C  | GA | G  | C  | G  | TC | C  | T  | CT | G |
| North Norway-2009 | 1746_837_27 | C  | G  | GA | CT | A  | TC | C  | T  | T  |   |
| North Norway-2009 | 1746_837_28 | C  | A  | GA | CT | A  | C  | C  | TA | CT |   |
| North Norway-2009 | 1746_837_29 | T  | G  | G  | CT | G  | T  | C  | T  | C  |   |
| North Norway-2009 | 1746_837_3  | C  | G  | GA | C  | G  | T  | C  | T  | CT | G |
| North Norway-2009 | 1746_837_30 |    |    | A  |    |    |    |    | T  |    |   |
| North Norway-2009 | 1746_837_31 |    |    |    |    |    |    | C  |    |    |   |
| North Norway-2009 | 1746_837_32 | CT | GA | GA | C  | G  | TC | C  | T  | C  | A |
| North Norway-2009 | 1746_837_33 | C  | GA | G  | CT | G  | TC | CT | T  | C  | G |
| North Norway-2009 | 1746_837_34 | C  | G  | GA | CT | G  | T  | CT | T  | CT |   |
| North Norway-2009 | 1746_837_35 | CT | G  | A  | CT | A  | TC | CT | T  | CT | G |
| North Norway-2009 | 1746_837_36 | CT | GA | GA | CT | G  | TC | CT | T  | CT |   |
| North Norway-2009 | 1746_837_37 | C  | GA | GA | C  | G  | C  | C  | T  | C  | A |
| North Norway-2009 | 1746_837_38 | C  | G  | GA | C  | G  | T  | C  | T  | T  |   |
| North Norway-2009 | 1746_837_39 | C  | GA | A  | CT | G  | TC | C  | TA | C  |   |
| North Norway-2009 | 1746_837_4  | C  | G  | GA | C  | GA | TC | CT | TA | C  |   |
| North Norway-2009 | 1746_837_40 | C  | G  | A  | C  | G  | TC | CT | T  | C  |   |
| North Norway-2009 | 1746_837_41 | C  | G  | GA | T  | G  | C  | CT | T  | CT |   |
| North Norway-2009 | 1746_837_42 | C  | G  | G  | C  | A  | T  | C  | T  | C  | G |
| North Norway-2009 | 1746_837_43 | CT | G  | G  | C  | A  | C  | C  | T  | C  | G |
| North Norway-2009 | 1746_837_44 | C  | GA | GA | C  | G  | TC | C  | T  | C  | A |
| North Norway-2009 | 1746_837_45 | C  | GA | G  | C  | G  | C  | CT | T  | CT | G |
| North Norway-2009 | 1746_837_46 | CT | GA | GA | C  |    | T  | CT | T  | CT |   |
| North Norway-2009 | 1746_837_47 | C  | G  | G  | CT | G  | T  | CT | T  | C  | G |
| North Norway-2009 | 1746_837_5  | CT | GA | GA | C  | A  | TC | C  | T  | C  |   |
| North Norway-2009 | 1746_837_50 | CT | GA | G  | CT | G  | T  | C  | T  | CT |   |
| North Norway-2009 | 1746_837_6  | CT | GA | GA | CT | G  | C  | C  | TA | C  |   |
| North Norway-2009 | 1746_837_7  | CT | GA | G  | CT | A  | TC | C  | T  | T  | G |
| North Norway-2009 | 1746_837_8  | CT | G  | G  | C  | G  | TC | C  | T  | C  | G |
| North Norway-2009 | 1746_837_9  | C  | G  | A  | CT | G  | TC | C  | TA | C  | G |
| South Norway-2009 | 1765_854_1  | C  | GA | A  | CT | G  | TC | CT | TA | T  | G |
| South Norway-2009 | 1765_854_10 | CT | G  |    | CT | G  | TC | C  | T  | CT | G |
| South Norway-2009 | 1765_854_11 | CT | GA | GA | T  | A  | TC | CT | TA | CT | G |
| South Norway-2009 | 1765_854_12 | CT | G  | GA |    | G  | TC | T  | TA | C  |   |
| South Norway-2009 | 1765_854_13 | CT | A  | GA | CT | G  | C  | C  | T  | C  |   |
| South Norway-2009 | 1765_854_14 | T  | G  | GA | C  | G  | TC | T  | T  | C  | G |
| South Norway-2009 | 1765_854_15 | C  | G  | GA | CT | G  | C  | CT | T  | C  | G |

|                   |             |    |    |    |    |   |    |    |    |    |   |
|-------------------|-------------|----|----|----|----|---|----|----|----|----|---|
| South Norway-2009 | 1765_854_16 | C  | GA | G  | T  | G | T  | CT | T  | C  | G |
| South Norway-2009 | 1765_854_17 | C  | G  | A  | C  | G | C  | CT | TA | CT |   |
| South Norway-2009 | 1765_854_18 | C  | A  | G  | T  | G | T  | T  | T  | CT |   |
| South Norway-2009 | 1765_854_19 | CT | G  |    | CT | A | T  | C  | T  | CT | G |
| South Norway-2009 | 1765_854_2  | C  | G  | G  | C  | G | C  | C  | T  | CT |   |
| South Norway-2009 | 1765_854_20 | C  | GA | A  | CT | A | C  | C  | T  | CT | A |
| South Norway-2009 | 1765_854_21 | C  | G  | G  | CT | G | TC | C  | T  | C  |   |
| South Norway-2009 | 1765_854_22 | C  | G  | G  | C  | A | TC | C  | T  | C  | G |
| South Norway-2009 | 1765_854_23 | C  | G  | GA | C  | G | T  | C  | T  | T  | G |
| South Norway-2009 | 1765_854_24 | C  | G  | G  | C  | G | TC | CT | T  | CT | G |
| South Norway-2009 | 1765_854_25 | CT | G  | GA | C  | A | TC | C  | T  | CT | G |
| South Norway-2009 | 1765_854_26 | C  | G  | G  | T  | G | T  | CT | T  | C  | G |
| South Norway-2009 | 1765_854_27 | C  | G  | GA | CT | G | C  | C  | T  | CT |   |
| South Norway-2009 | 1765_854_28 | CT | GA | G  | C  | G | TC | CT | T  | C  |   |
| South Norway-2009 | 1765_854_29 | C  | G  | A  | CT | G | TC | C  | T  | C  | G |
| South Norway-2009 | 1765_854_3  | CT | G  | GA | C  | G | C  | C  | T  | C  |   |
| South Norway-2009 | 1765_854_30 | CT | G  | GA | CT | G | T  | CT | T  | CT |   |
| South Norway-2009 | 1765_854_31 | C  | G  | GA | CT | G | TC | C  | T  | C  | G |
| South Norway-2009 | 1765_854_32 | C  | GA | GA | CT | G | C  | CT | T  | CT |   |
| South Norway-2009 | 1765_854_33 | C  | A  | G  | CT | G | T  | CT | T  | C  | G |
| South Norway-2009 | 1765_854_34 | C  | G  | GA | C  | A | C  | CT | T  | C  | G |
| South Norway-2009 | 1765_854_35 | C  | GA | GA | C  | G | C  | C  | T  | C  | G |
| South Norway-2009 | 1765_854_36 | C  | GA | G  | CT | G | T  | CT | T  | C  | G |
| South Norway-2009 | 1765_854_37 | C  | G  | A  | CT | G | T  | CT | TA | T  | A |
| South Norway-2009 | 1765_854_38 | C  | G  | GA | CT | A | C  | C  | T  | T  |   |
| South Norway-2009 | 1765_854_39 | T  | GA | GA | CT | A | T  | C  | T  | CT |   |
| South Norway-2009 | 1765_854_4  | T  | GA | G  | C  | G | TC | C  | T  | C  | G |
| South Norway-2009 | 1765_854_40 | CT | GA | A  | CT | G | TC | C  | T  | CT |   |
| South Norway-2009 | 1765_854_41 | C  | G  | GA | T  | A | TC | CT | T  | C  |   |
| South Norway-2009 | 1765_854_42 | C  | G  | A  | C  | G | T  | C  | T  | CT |   |
| South Norway-2009 | 1765_854_43 | CT | G  | G  | CT | G | TC | CT | T  | T  | A |
| South Norway-2009 | 1765_854_44 | C  | G  | G  | CT | G | TC | CT | T  | C  |   |
| South Norway-2009 | 1765_854_45 | CT | G  | A  | C  | G | C  | CT | T  | C  | G |
| South Norway-2009 | 1765_854_46 | C  | A  | G  |    | G | TC | T  | T  | C  | G |
| South Norway-2009 | 1765_854_47 | C  | A  | GA | C  | A | C  | CT | T  | CT |   |
| South Norway-2009 | 1765_854_5  | CT | G  | GA | C  | G | TC | CT | TA | C  | G |
| South Norway-2009 | 1765_854_59 | C  | GA | GA | C  | G | C  | CT | T  | T  |   |
| South Norway-2009 | 1765_854_6  | CT | GA | GA | C  | G | C  | C  | T  | CT | G |
| South Norway-2009 | 1765_854_7  | C  | GA | G  | C  | G | TC | C  | T  | CT | G |

|                   |             |    |    |    |    |   |    |    |    |    |   |
|-------------------|-------------|----|----|----|----|---|----|----|----|----|---|
| South Norway-2009 | 1765_854_8  | CT | GA | GA | C  | G | TC | C  | T  | T  | G |
| South Norway-2009 | 1765_854_9  | C  | G  | GA | CT | A | T  | C  | T  | C  |   |
| North Norway-2009 | 1766_849_1  | T  | G  | GA | CT | G | TC | C  | T  | C  | G |
| North Norway-2009 | 1766_849_10 | C  | GA | A  | CT | G | C  | C  | T  | CT | G |
| North Norway-2009 | 1766_849_11 | C  | G  | G  | T  | G | T  | C  | T  | CT |   |
| North Norway-2009 | 1766_849_12 | C  | GA | A  | T  | G | TC | C  | T  | C  |   |
| North Norway-2009 | 1766_849_13 | C  | G  | G  | C  | G | T  | C  | T  | C  |   |
| North Norway-2009 | 1766_849_14 | C  | A  | G  | C  | G | TC | C  | T  | C  |   |
| North Norway-2009 | 1766_849_15 | CT | G  | GA | CT | G | TC | C  | T  | CT |   |
| North Norway-2009 | 1766_849_16 | T  | GA | G  | T  | G | TC | CT | T  | CT | G |
| North Norway-2009 | 1766_849_17 | CT | G  | A  | CT | G | TC | C  | T  | C  | G |
| North Norway-2009 | 1766_849_18 | CT | G  | GA | CT | G | TC | T  | T  | C  |   |
| North Norway-2009 | 1766_849_19 | C  | G  | GA | C  | A | T  | C  | T  | CT | G |
| North Norway-2009 | 1766_849_2  | C  | GA | GA | T  | G | TC | CT | T  | CT |   |
| North Norway-2009 | 1766_849_20 | C  | GA | G  | CT | G | T  | T  | T  | CT |   |
| North Norway-2009 | 1766_849_21 | CT | GA | GA | CT | G | TC | C  | T  | C  | A |
| North Norway-2009 | 1766_849_22 | C  | G  | GA | C  | G | C  | CT | T  | C  | A |
| North Norway-2009 | 1766_849_23 | C  | G  | A  | CT | G | TC | C  | T  | C  |   |
| North Norway-2009 | 1766_849_24 | CT | G  | G  | CT | G | TC | C  | T  | CT | G |
| North Norway-2009 | 1766_849_25 | C  | GA | GA | T  | G | TC | C  | T  | CT |   |
| North Norway-2009 | 1766_849_26 | C  | G  | GA | CT | A | C  | C  | T  | CT | G |
| North Norway-2009 | 1766_849_27 | C  | GA | GA | C  | G | TC | CT | TA | C  | G |
| North Norway-2009 | 1766_849_28 | C  | G  | GA | CT | G | T  | C  | T  | T  | G |
| North Norway-2009 | 1766_849_29 | CT | G  | GA | C  | G | TC | C  | T  | C  | A |
| North Norway-2009 | 1766_849_3  | C  | G  | GA | CT | A | TC | C  | T  | C  |   |
| North Norway-2009 | 1766_849_30 | C  | GA | A  | CT | A | TC | C  | TA | CT | A |
| North Norway-2009 | 1766_849_31 | CT | GA | G  | CT | G | TC | CT | T  | CT | G |
| North Norway-2009 | 1766_849_32 | CT | GA | G  | CT | A | TC | C  | T  |    | G |
| North Norway-2009 | 1766_849_33 | CT | G  | GA | T  | G | C  | C  | T  | C  |   |
| North Norway-2009 | 1766_849_34 | C  | GA | GA | C  | G | TC | C  | T  | T  | G |
| North Norway-2009 | 1766_849_35 | C  | GA | GA | C  | A | C  | C  | T  | C  | G |
| North Norway-2009 | 1766_849_36 | C  | G  | GA | CT | G | T  | CT | T  | C  | G |
| North Norway-2009 | 1766_849_37 | C  | G  | GA |    | G | TC | CT | TA | T  | G |
| North Norway-2009 | 1766_849_38 | C  | G  | GA | CT | G | TC | C  | TA | CT |   |
| North Norway-2009 | 1766_849_39 | C  | GA | GA | CT | G | T  | C  | T  | C  |   |
| North Norway-2009 | 1766_849_4  | C  | G  | GA | C  | A | TC | C  | T  | C  |   |
| North Norway-2009 | 1766_849_40 | C  | GA | GA | CT | A | TC | C  | T  | CT | G |
| North Norway-2009 | 1766_849_41 | C  | G  | A  | CT | A | C  | CT | T  | CT | G |
| North Norway-2009 | 1766_849_42 | C  | A  | GA | CT | G | TC | CT | T  | C  | G |

|                   |             |    |    |    |    |    |    |    |    |    |   |
|-------------------|-------------|----|----|----|----|----|----|----|----|----|---|
| North Norway-2009 | 1766_849_43 | CT | A  | G  | T  | G  | T  | CT | T  | CT | G |
| North Norway-2009 | 1766_849_44 | C  | G  | G  | C  | G  | TC | CT | T  | CT |   |
| North Norway-2009 | 1766_849_45 | C  | GA | G  | C  | G  | T  | C  | T  | C  |   |
| North Norway-2009 | 1766_849_46 | CT | G  | A  | CT | G  | TC | C  | T  | CT |   |
| North Norway-2009 | 1766_849_47 | C  | G  | A  | CT | A  | TC | C  | T  | C  |   |
| North Norway-2009 | 1766_849_5  | C  | GA | G  | C  | A  | C  | C  | T  | CT | G |
| North Norway-2009 | 1766_849_50 | C  | GA | G  | C  | G  | T  | C  | T  | CT | G |
| North Norway-2009 | 1766_849_6  | C  | G  | A  |    | G  | C  | CT | T  | C  |   |
| North Norway-2009 | 1766_849_7  | C  | GA | GA | C  | G  | TC | CT | T  | CT | G |
| North Norway-2009 | 1766_849_8  | C  | GA | GA | CT | G  | TC | CT | T  | C  | G |
| North Norway-2009 | 1766_849_9  | C  | G  | A  | CT | A  | C  | CT | T  | CT | G |
| Shetland-2009     | 1771_856_51 |    |    |    |    |    |    |    |    |    |   |
| Ireland-2009      | 1772_852_1  | CT | G  | GA | C  | G  | TC | C  | T  | CT | G |
| Ireland--2009     | 1772_852_10 | C  | G  | G  |    | G  | TC | T  | T  | CT | G |
| Ireland--2009     | 1772_852_11 | CT | G  | GA | C  | G  | TC | CT | T  | C  | G |
| Ireland--2009     | 1772_852_12 | C  | GA | GA | CT | G  | TC | C  | T  | C  |   |
| Ireland--2009     | 1772_852_13 | T  | G  | A  | CT | A  | C  | C  | T  | CT | G |
| Ireland--2009     | 1772_852_14 | T  | G  | A  | CT | G  | C  | C  | T  | C  | G |
| Ireland--2009     | 1772_852_15 | C  | GA | A  | CT | G  | TC | CT | TA | C  | G |
| Ireland--2009     | 1772_852_16 | C  | G  | GA | T  | G  | C  | C  | T  | C  | G |
| Ireland--2009     | 1772_852_17 | CT | G  | G  | C  | A  | TC | C  | T  | C  |   |
| Ireland--2009     | 1772_852_18 | C  | GA | GA | C  | G  | TC | C  | T  | CT |   |
| Ireland--2009     | 1772_852_19 | C  | G  | A  | C  | A  | TC | CT | T  | CT | G |
| Ireland--2009     | 1772_852_2  | C  | G  | G  | CT | G  | TC | CT | T  | CT |   |
| Ireland--2009     | 1772_852_20 | C  | G  | GA | C  | A  | T  | CT | T  | C  | G |
| Ireland--2009     | 1772_852_21 | C  | G  | G  | CT | G  | TC | CT | T  | CT | G |
| Ireland-2009      | 1772_852_22 | C  | GA | A  | T  | G  | C  | C  | T  | CT |   |
| Ireland--2009     | 1772_852_23 | C  | G  | A  | CT | G  | C  | C  | T  | C  | G |
| Ireland--2009     | 1772_852_24 | CT | GA | A  | CT | G  | C  | C  | T  | CT | G |
| Ireland--2009     | 1772_852_25 | C  | G  | A  |    | A  | C  | CT | T  | C  |   |
| Ireland--2009     | 1772_852_26 | C  | G  | GA | C  | G  | TC | C  | T  | CT | G |
| Ireland--2009     | 1772_852_27 | CT | G  | A  | T  | G  | C  | C  | T  | CT | G |
| Ireland--2009     | 1772_852_28 | CT | G  | GA | T  | G  | TC | T  | TA | C  | G |
| Ireland--2009     | 1772_852_29 | C  | GA | A  | T  | G  | C  | C  | T  | C  |   |
| Ireland--2009     | 1772_852_3  | C  | G  | A  | CT | G  | C  | C  | T  | CT |   |
| Ireland--2009     | 1772_852_30 | C  | G  | GA | CT | G  | T  | CT | T  | C  | A |
| Ireland--2009     | 1772_852_31 | C  | GA | GA | T  | G  | C  | C  | T  | C  |   |
| Ireland-2009      | 1772_852_32 | CT | G  | A  | C  | GA | TC | C  | T  | CT | G |
| Ireland--2009     | 1772_852_33 | CT | GA | A  | C  | A  | TC | C  | T  | T  | G |

|               |             |    |    |    |    |    |    |    |    |    |   |
|---------------|-------------|----|----|----|----|----|----|----|----|----|---|
| Ireland--2009 | 1772_852_34 | C  | G  | A  | T  | G  | C  | CT | T  | CT | G |
| Ireland--2009 | 1772_852_35 | T  | G  | G  | C  | A  | TC | T  | T  | CT | G |
| Ireland--2009 | 1772_852_36 | CT | G  | A  | T  | G  | TC | C  | T  | CT | G |
| Ireland--2009 | 1772_852_37 | CT | G  | A  | CT | G  | T  | C  | T  | CT | G |
| Ireland--2009 | 1772_852_38 | C  | G  | GA | CT | G  | TC | C  | T  | C  |   |
| Ireland--2009 | 1772_852_39 | CT | GA | GA | T  | G  | TC | C  | T  | C  | G |
| Ireland--2009 | 1772_852_4  | C  | G  | A  | C  | G  | TC | C  | T  | CT | G |
| Ireland--2009 | 1772_852_40 | C  | A  | A  | C  | G  | TC | C  | T  | CT | G |
| Ireland--2009 | 1772_852_41 | C  | G  | G  | CT | G  | T  | CT | T  | C  |   |
| Ireland--2009 | 1772_852_42 | T  | G  | G  | CT | G  | TC | C  | T  | T  |   |
| Ireland--2009 | 1772_852_43 | C  | GA | GA | CT | G  | TC | CT | T  | C  | G |
| Ireland--2009 | 1772_852_44 | C  | G  | A  | CT | GA | C  | C  | T  | CT | G |
| Ireland--2009 | 1772_852_45 | CT | G  | A  | T  | A  | TC | C  | T  | CT | G |
| Ireland--2009 | 1772_852_46 | C  | G  | GA | T  | G  | TC | T  | T  | C  | G |
| Ireland--2009 | 1772_852_47 | C  | G  | GA | T  | G  | C  | CT | T  | T  | G |
| Ireland--2009 | 1772_852_9  | C  | GA | GA | CT | G  | C  | C  | T  | C  | G |
| Ireland--2009 | 1773_853_48 | C  | GA | A  |    | G  | TC | CT | A  | C  | A |
| Ireland--2009 | 1773_853_49 | C  | A  | A  | C  | G  | TC | CT | TA | C  |   |
| Ireland--2009 | 1773_853_50 | C  | A  | A  | T  |    | C  | C  | TA | C  |   |
| Ireland--2009 | 1773_853_51 | C  | G  | A  | CT | G  | TC | C  | TA | CT | G |
| Ireland--2009 | 1773_853_52 | C  | G  | A  | T  | G  | C  | C  | TA | C  | G |
| Ireland--2009 | 1773_853_53 | C  | G  | GA | CT | G  | C  | C  | TA | C  | G |
| Ireland--2009 | 1773_853_54 | C  | G  | A  | CT | G  | TC | C  | TA | C  | A |
| Ireland--2009 | 1773_853_55 | C  | G  | A  |    | G  | C  | CT | A  | C  | G |
| Ireland--2009 | 1773_853_56 | C  | GA | A  |    | A  | TC | CT | A  | C  |   |
| Ireland--2009 | 1773_853_57 | C  | G  | A  | CT | G  | TC | CT | TA | C  | G |
| Ireland--2009 | 1773_853_58 | C  | G  | A  |    | G  | TC | CT | A  | C  |   |
| Ireland--2009 | 1773_853_59 | C  | G  | A  | C  | A  | C  | T  | A  | C  | A |
| Ireland--2009 | 1773_853_60 | C  | G  | A  | C  | G  | C  | T  | A  | C  | A |
| Ireland--2009 | 1773_853_61 | C  | GA | A  | CT | A  | TC | C  | A  | C  | G |
| Ireland--2009 | 1773_853_62 | C  | A  | A  | CT |    | TC | C  | TA | C  | G |
| Ireland--2009 | 1773_853_63 | C  | A  | A  | T  | A  | C  | C  | TA | C  | A |
| Ireland--2009 | 1773_853_64 | C  | GA | GA | CT | G  | TC | CT | TA | CT |   |
| Ireland--2009 | 1773_853_65 | C  | G  | A  | CT | G  | C  | C  | A  | C  | A |
| Ireland--2009 | 1773_853_66 | C  | GA | A  | C  | G  | TC | CT | TA | C  |   |
| Ireland--2009 | 1773_853_67 | C  | GA | A  | CT | G  | TC | C  | A  | C  |   |
| Ireland--2009 | 1773_853_68 | C  | GA | A  | CT | A  | TC | C  | TA | C  |   |
| Ireland--2009 | 1773_853_69 | C  | GA | A  | CT | A  | TC | C  | A  | C  | A |
| Ireland--2009 | 1773_853_70 | C  | G  | A  | CT | G  | TC | C  | TA | CT | G |

|               |             |    |    |    |    |   |    |    |    |    |   |
|---------------|-------------|----|----|----|----|---|----|----|----|----|---|
| Ireland--2009 | 1773_853_71 | C  | A  | A  | T  | G | C  | C  | A  | C  |   |
| Ireland--2009 | 1773_853_72 | C  | G  | A  |    | G | TC | CT | A  | C  |   |
| Ireland--2009 | 1773_853_73 | CT | A  | A  | CT | G | TC | C  | TA | CT |   |
| Ireland--2009 | 1773_853_74 | C  | GA | A  | CT | G | TC | C  | TA | C  |   |
| Ireland-2009  | 1773_853_75 | C  | G  | A  |    | G | TC | CT | A  | C  | G |
| Ireland--2009 | 1773_853_76 | C  | G  | A  | T  | G | C  | C  | TA | C  |   |
| Ireland--2009 | 1773_853_77 | C  | G  | A  |    | G | TC | CT | A  | C  | A |
| Ireland--2009 | 1773_853_78 | C  | G  | A  | CT | A | TC | C  | TA | CT | G |
| Ireland--2009 | 1773_853_79 | C  | GA | A  | CT | G | TC | CT | A  | C  | G |
| Ireland--2009 | 1773_853_80 | C  | GA | A  | CT | A | TC | C  | TA | C  | A |
| Ireland--2009 | 1773_853_81 | C  | G  | A  | CT | G | C  | CT | A  | C  | A |
| Ireland--2009 | 1773_853_82 | C  | GA | A  |    | G | TC | CT | A  | C  |   |
| Ireland--2009 | 1773_853_83 | C  | GA | GA |    | G | TC | T  | TA | C  |   |
| Ireland--2009 | 1773_853_84 | C  | G  | A  | CT | G | C  | CT | A  | C  |   |
| Ireland--2009 | 1773_853_85 | C  | G  | A  | CT | G | TC | C  | TA | C  | G |
| Ireland--2009 | 1773_853_86 | C  | GA | A  |    | G | TC | CT | TA | CT | G |
| Ireland--2009 | 1773_853_87 | C  | G  | A  | CT | A | TC | C  | TA | C  | A |
| Ireland--2009 | 1773_853_88 | CT | GA | A  | CT | A | TC | C  | TA | C  |   |
| Ireland--2009 | 1773_853_89 | C  | G  | A  | T  | G | TC | C  | A  | C  | G |
| Ireland--2009 | 1773_853_90 | C  | GA | A  | CT | A | TC | CT | TA | CT | G |
| Ireland-2009  | 1773_853_91 | C  | G  | A  | CT | G | C  | C  | A  | C  | G |
| Ireland--2009 | 1773_853_92 | CT | A  | A  | CT | G | TC | C  | A  | CT | G |
| Ireland--2009 | 1773_853_93 | C  | GA | GA | C  | G | TC | CT | TA | C  |   |
| Ireland--2009 | 1773_853_94 | C  | GA | A  | CT | A | TC | CT | A  | C  | A |
| Canada-2009_a | 1774_857_1  | CT | G  | GA | CT | G | TC | C  | TA | CT |   |
| Canada-2009_a | 1774_857_10 | C  | GA | A  | CT | G | C  | C  | TA | C  | G |
| Canada-2009_a | 1774_857_11 | C  | G  | GA | C  | G | TC | C  | T  | C  | G |
| Canada-2009_a | 1774_857_12 | C  | G  | A  | C  | G | TC | C  | T  | CT |   |
| Canada-2009_a | 1774_857_13 | C  | G  | G  | C  | G | TC | C  | T  | C  | G |
| Canada-2009_a | 1774_857_14 | CT | G  | A  | C  | G | C  | C  | T  | T  | G |
| Canada-2009_a | 1774_857_15 | C  | G  | A  | C  | G | C  | C  | T  | C  |   |
| Canada-2009_a | 1774_857_16 | C  | G  | A  | C  | G | C  | C  | T  | CT | G |
| Canada-2009_a | 1774_857_17 | C  | GA | GA | C  | A | T  | CT | T  | T  | G |
| Canada-2009_a | 1774_857_18 | C  | GA | G  | T  | G | C  | C  | T  | C  | G |
| Canada-2009_a | 1774_857_19 | C  | G  | GA | C  | A | T  | C  | T  | CT | G |
| Canada-2009_a | 1774_857_2  | CT | G  | GA | C  | G | TC | CT | TA | C  | G |
| Canada-2009_a | 1774_857_20 | C  | GA | G  | CT | G | T  | T  | T  | T  |   |
| Canada-2009_a | 1774_857_21 | C  | G  | A  | T  | A | C  | C  | T  | CT | G |
| Canada-2009_a | 1774_857_22 | C  | GA | GA | C  | G | TC | C  | T  | C  | G |

|               |             |    |    |    |    |   |    |    |    |    |   |
|---------------|-------------|----|----|----|----|---|----|----|----|----|---|
| Canada-2009_a | 1774_857_23 | CT | G  | GA | CT | G | C  | C  | TA | C  |   |
| Canada-2009_a | 1774_857_24 | CT | G  | GA | T  | A | TC | C  | TA | C  | G |
| Canada-2009_a | 1774_857_25 | C  | GA | G  | C  | G | TC | C  | T  | CT |   |
| Canada-2009_a | 1774_857_26 | C  | G  | A  | C  | G | T  | C  | TA | T  |   |
| Canada-2009_a | 1774_857_27 | C  | G  | GA | CT | A | C  | CT | T  | C  |   |
| Canada-2009_a | 1774_857_28 | CT | G  | GA | C  | G | TC | C  | TA | C  | G |
| Canada-2009_a | 1774_857_29 | CT | G  | GA | CT | G | C  | C  | TA | CT |   |
| Canada-2009_a | 1774_857_3  | CT | G  | GA | C  | G | TC | C  | TA | C  |   |
| Canada-2009_a | 1774_857_30 | C  | G  | GA | CT | G | T  | C  | T  | CT | A |
| Canada-2009_a | 1774_857_31 | CT | G  | GA | CT | G | TC | C  | TA | C  | A |
| Canada-2009_a | 1774_857_32 | CT | G  | A  | C  | G | C  | CT | TA | CT | G |
| Canada-2009_a | 1774_857_33 | C  | G  | G  | C  | G | TC | CT | T  | C  | G |
| Canada-2009_a | 1774_857_34 | CT | G  | A  | C  | G | C  | CT | TA | C  | G |
| Canada-2009_a | 1774_857_35 | T  | G  | GA | C  | G | TC | C  | T  | C  | G |
| Canada-2009_a | 1774_857_36 | T  | G  | A  | C  | G | C  | CT | T  | C  | G |
| Canada-2009_a | 1774_857_37 | CT | G  | GA | CT | G | C  | C  | T  | CT | G |
| Canada-2009_a | 1774_857_38 | C  | GA | GA |    | G | C  | CT | TA | C  | G |
| Canada-2009_a | 1774_857_39 | CT | G  | GA | CT | G | TC | CT | T  | T  | G |
| Canada-2009_a | 1774_857_4  | CT | G  | GA | C  | G | C  | CT | T  | C  | G |
| Canada-2009_a | 1774_857_40 | C  | G  | GA | C  | G | TC | CT | T  | CT | G |
| Canada-2009_a | 1774_857_41 | C  | G  | G  | CT | A | TC | C  | T  | CT | G |
| Canada-2009_a | 1774_857_42 | C  | A  | GA | C  | G | C  | C  | T  | T  | G |
| Canada-2009_a | 1774_857_43 | C  | G  | GA | CT | G | TC | C  | T  | CT | G |
| Canada-2009_a | 1774_857_44 | C  | G  | GA | C  | G | T  | C  | T  | T  |   |
| Canada-2009_a | 1774_857_45 | C  | G  | GA | CT | G | TC | C  | TA | CT | G |
| Canada-2009_a | 1774_857_46 | CT | GA | GA | CT | G | C  | C  | TA | CT | G |
| Canada-2009_a | 1774_857_47 | T  | G  | A  | CT | G | TC | C  | T  | C  | G |
| Canada-2009_a | 1774_857_5  | CT | G  | A  | C  | G | C  | CT | TA | C  | A |
| Canada-2009_a | 1774_857_6  | C  | G  | GA | C  | G | C  | CT | T  | C  |   |
| Canada-2009_a | 1774_857_7  | CT | G  | A  | CT | G | TC | C  | T  | C  | G |
| Canada-2009_a | 1774_857_8  | CT | G  | G  | CT | G | C  | C  | T  | C  |   |
| Canada-2009_a | 1774_857_9  | C  | G  | GA | CT |   | T  | CT | T  | CT | G |
| Canada-2009_b | 1775_858_48 | C  | G  | GA | T  | G | C  | CT | TA | CT |   |
| Canada-2009_b | 1775_858_49 | C  | A  | GA | CT | A | C  | C  | TA | CT | G |
| Canada-2009_b | 1775_858_50 | CT | G  | GA | CT | G | C  | CT | TA | CT | G |
| Canada-2009_b | 1775_858_51 | C  | GA | GA | C  | G | T  | C  | T  | T  |   |
| Canada-2009_b | 1775_858_52 | C  | G  | GA | C  | G | TC | CT | TA | C  |   |
| Canada-2009_b | 1775_858_53 | CT | G  | A  |    | A | TC | T  | TA | T  | G |
| Canada-2009_b | 1775_858_54 | CT | G  | G  | C  | G | C  | CT | T  | C  | G |

|               |             |    |    |    |    |   |    |    |    |    |   |
|---------------|-------------|----|----|----|----|---|----|----|----|----|---|
| Canada-2009_b | 1775_858_55 | CT | GA | GA | CT | G | T  | CT | T  | C  | G |
| Canada-2009_b | 1775_858_56 | C  | G  | GA | T  | A | TC | C  | T  | CT | G |
| Canada-2009_b | 1775_858_57 | C  | GA | G  | CT | G | C  | CT | T  | C  | G |
| Canada-2009_b | 1775_858_58 | CT | G  | GA | CT | G | C  | C  | TA | C  | G |
| Canada-2009_b | 1775_858_59 | CT | GA | GA | CT | G | C  | C  | TA | CT | G |
| Canada-2009_b | 1775_858_60 | C  | GA | G  | C  | A | C  | C  | T  | CT |   |
| Canada-2009_b | 1775_858_61 | CT | G  | A  | CT | A | TC | C  | T  | C  | A |
| Canada-2009_b | 1775_858_62 | CT | G  | A  | C  | A | C  | C  | T  | C  | G |
| Canada-2009_b | 1775_858_63 | C  | G  | GA | CT | G | TC | CT | T  | CT | G |
| Canada-2009_b | 1775_858_64 | C  | GA | GA | C  | G | C  | CT | T  | C  | G |
| Canada-2009_b | 1775_858_65 | C  | G  | G  | CT | A | C  | CT | T  | C  | G |
| Canada-2009_b | 1775_858_66 | C  | G  | GA | CT | G | TC | CT | T  | C  |   |
| Canada-2009_b | 1775_858_67 | C  | G  | GA | CT | G | C  | C  | T  | C  | G |
| Canada-2009_b | 1775_858_68 | CT | G  | GA |    | G | C  | CT | TA | T  |   |
| Canada-2009_b | 1775_858_69 | C  | G  | GA | CT | G | TC | CT | TA | CT | A |
| Canada-2009_b | 1775_858_70 | CT | GA | GA | CT | A | TC | C  | T  | CT | A |
| Canada-2009_b | 1775_858_71 | C  | G  | A  | CT | G | C  | C  | TA | C  | G |
| Canada-2009_b | 1775_858_72 | C  | G  | GA | C  | G | TC | C  | T  | C  | G |
| Canada-2009_b | 1775_858_73 | C  | G  | A  | C  | G | TC | C  | T  | CT | G |
| Canada-2009_b | 1775_858_74 | C  | G  | GA | C  | G | C  | T  | T  | CT |   |
| Canada-2009_b | 1775_858_75 | C  | G  | G  | CT | G | TC | CT | T  | C  |   |
| Canada-2009_b | 1775_858_76 | C  | GA | G  |    | G | TC | T  | TA | C  | G |
| Canada-2009_b | 1775_858_77 | C  | G  | A  | C  | A | TC | C  | T  | T  | G |
| Canada-2009_b | 1775_858_78 | C  | G  | A  | CT | G | TC | CT | T  | CT | G |
| Canada-2009_b | 1775_858_79 | C  | G  | GA | C  | G | TC | CT | TA | C  | G |
| Canada-2009_b | 1775_858_80 | C  | G  | A  | CT | G | C  | C  | TA | CT | G |
| Canada-2009_b | 1775_858_81 | C  | G  | A  | CT | A | C  | C  | T  | C  | G |
| Canada-2009_b | 1775_858_82 | C  | G  | GA | CT | G | TC | CT | T  | C  |   |
| Canada-2009_b | 1775_858_83 | C  | GA | GA | C  | G | T  | C  | T  | T  | G |
| Canada-2009_b | 1775_858_84 | C  | GA | A  | CT | G | C  | C  | TA | C  | G |
| Canada-2009_b | 1775_858_85 | C  | GA | G  | T  | G | T  | CT | T  | C  |   |
| Canada-2009_b | 1775_858_86 | C  | G  | GA | CT | G | TC | CT | T  | C  | G |
| Canada-2009_b | 1775_858_87 | C  | G  | A  | CT | A | TC | C  | T  | C  | G |
| Canada-2009_b | 1775_858_88 | C  | G  | GA | CT | A | C  | C  | TA | CT |   |
| Canada-2009_b | 1775_858_89 | C  | GA | GA | T  | A | TC | C  | TA | C  |   |
| Canada-2009_b | 1775_858_90 | C  | GA | G  | T  | G | TC | T  | T  | C  | G |
| Canada-2009_b | 1775_858_91 | C  | G  | G  | C  | A | TC | C  | T  | T  | G |
| Canada-2009_b | 1775_858_92 | CT | G  | G  | C  | A | TC | C  | T  | C  | G |
| Canada-2009_b | 1775_858_93 | T  | G  | A  | C  | G | C  | CT | T  | C  |   |

|                    |             |    |    |    |    |   |    |    |   |    |   |
|--------------------|-------------|----|----|----|----|---|----|----|---|----|---|
| Canada-2009_b      | 1775_858_94 | CT | G  | G  | C  | G | C  | C  | T | CT | G |
| Faroe islands-2009 | 1768_850_1  | C  | GA | A  | C  | G | C  | C  | T | CT |   |
| Faroe islands-2009 | 1768_850_10 | C  | GA | GA | CT | G | T  | CT | T | CT |   |
| Faroe islands-2009 | 1768_850_11 | CT | GA | GA | T  | G | TC | CT | T | C  |   |
| Faroe islands-2009 | 1768_850_12 | C  | GA | A  | CT | G | C  | C  | T | C  | G |
| Faroe islands-2009 | 1768_850_13 | C  | G  | A  | CT | G | T  | CT | T | CT |   |
| Faroe islands-2009 | 1768_850_14 | C  | G  | GA | CT | G | C  | C  | T | C  |   |
| Faroe islands-2009 | 1768_850_15 | C  | G  | A  | CT | G | C  | C  | T | CT | G |
| Faroe islands-2009 | 1768_850_16 | C  | GA | A  | C  | G | C  | CT | T | T  | G |
| Faroe islands-2009 | 1768_850_17 | CT | G  | GA | CT | G | T  | CT | T | C  | G |
| Faroe islands-2009 | 1768_850_18 | C  | G  | GA | C  | A | TC | C  | T | C  |   |
| Faroe islands-2009 | 1768_850_19 | C  | G  | A  | C  | G | T  | C  | T | C  | G |
| Faroe islands-2009 | 1768_850_2  | C  | G  | A  | CT | G | TC | C  | T | CT |   |
| Faroe islands-2009 | 1768_850_20 | C  | G  | GA | T  | G | C  | C  | T | C  | G |
| Faroe islands-2009 | 1768_850_21 | CT | G  | A  | T  | A | C  | C  | T | C  |   |
| Faroe islands-2009 | 1768_850_22 | C  | G  | A  | C  | G | C  | C  | T | C  |   |
| Faroe islands-2009 | 1768_850_23 | C  | G  | GA | C  | G | T  | C  | T | C  |   |
| Faroe islands-2009 | 1768_850_24 | C  | GA | G  | CT | G | TC | CT | T | CT | G |
| Faroe islands-2009 | 1768_850_25 | C  | G  | A  | CT | G | TC | CT | T | CT | G |
| Faroe islands-2009 | 1768_850_26 | T  | G  | A  | CT | G | TC | C  | T | CT |   |
| Faroe islands-2009 | 1768_850_27 | C  | GA | G  | T  | G | T  | T  | T | C  | G |
| Faroe islands-2009 | 1768_850_28 | C  | G  | A  | T  | G | C  | C  | T | CT |   |
| Faroe islands-2009 | 1768_850_29 | C  | G  | A  | C  | G | TC | C  | T | C  | G |
| Faroe islands-2009 | 1768_850_3  | C  | G  | A  | T  | A | C  | C  | T | C  |   |
| Faroe islands-2009 | 1768_850_30 | C  | G  | A  | CT | G | TC | C  | T | CT |   |
| Faroe islands-2009 | 1768_850_31 | C  | G  | A  | C  | G | T  | C  | T | T  |   |
| Faroe islands-2009 | 1768_850_32 | C  | G  | GA | CT | G | T  | CT | T | C  |   |
| Faroe islands-2009 | 1768_850_33 | CT | GA | G  | CT | G | TC | C  | T | C  |   |
| Faroe islands-2009 | 1768_850_34 | C  | G  | A  | CT | G | TC | C  | T | C  | G |
| Faroe islands-2009 | 1768_850_35 | C  | G  | A  | C  | G | T  | C  | T | T  | G |
| Faroe islands-2009 | 1768_850_36 | C  | G  | GA | T  | G | T  | T  | T | C  |   |
| Faroe islands-2009 | 1768_850_37 | C  | G  | A  | CT | A | C  | C  | T | C  | G |
| Faroe islands-2009 | 1768_850_38 | C  | G  | A  | CT | A | TC | C  | T | C  |   |
| Faroe islands-2009 | 1768_850_39 | C  | GA | GA | CT | G | T  | CT | T | C  | G |
| Faroe islands-2009 | 1768_850_4  | C  | GA | GA | CT | G | C  | C  | T | CT |   |
| Faroe islands-2009 | 1768_850_40 | C  | GA | A  |    | G |    | C  | T |    |   |
| Faroe islands-2009 | 1768_850_41 | C  | G  | A  | C  | G | T  | C  | T | C  |   |
| Faroe islands-2009 | 1768_850_42 | C  | G  | A  | CT | A | TC | C  | T | C  |   |
| Faroe islands-2009 | 1768_850_43 | C  | GA | GA | T  | G | TC | CT | T | C  |   |

|                    |             |    |    |    |    |   |    |    |    |    |   |
|--------------------|-------------|----|----|----|----|---|----|----|----|----|---|
| Faroe islands-2009 | 1768_850_44 | C  | G  | A  | CT | G | C  | C  | T  | T  | A |
| Faroe islands-2009 | 1768_850_45 | C  | G  | A  | CT | G | T  | C  | T  | CT | G |
| Faroe islands-2009 | 1768_850_46 | C  | GA | GA | CT | G | TC | C  | T  | CT | G |
| Faroe islands-2009 | 1768_850_47 | C  | G  | A  | C  | G | T  | C  | T  | CT |   |
| Faroe islands-2009 | 1768_850_5  | CT | A  | GA | C  | G | T  | CT | T  | CT |   |
| Faroe islands-2009 | 1768_850_6  | C  | G  | A  | CT | A | TC | C  | T  | C  |   |
| Faroe islands-2009 | 1768_850_7  | C  | G  | A  | C  | G | T  | C  | T  | T  | G |
| Faroe islands-2009 | 1768_850_8  | C  | GA | A  | CT | G | TC | C  | T  | CT | G |
| Faroe islands-2009 | 1768_850_9  | C  | G  | G  | T  | G | T  | T  | T  | C  | G |
| Faroe islands-2009 | 1769_851_1  | C  | G  | GA | CT | G | TC | C  | T  | T  |   |
| Faroe islands-2009 | 1769_851_10 | C  | GA | GA | CT | G | T  | CT | T  | CT |   |
| Faroe islands-2009 | 1769_851_11 | C  | G  | GA | CT | G | T  | C  | T  | CT | A |
| Faroe islands-2009 | 1769_851_12 | C  | GA | GA | C  | G | T  | CT | T  | C  | G |
| Faroe islands-2009 | 1769_851_13 | C  | G  | A  | C  | G | TC | C  | T  | CT |   |
| Faroe islands-2009 | 1769_851_14 | C  | G  | GA | CT | G | T  | C  | T  | CT |   |
| Faroe islands-2009 | 1769_851_15 | C  | GA | GA | CT | G | TC | C  | T  | CT |   |
| Faroe islands-2009 | 1769_851_16 | C  | G  | A  |    | A | C  | CT | T  | CT |   |
| Faroe islands-2009 | 1769_851_17 | C  | GA | A  | C  | G | TC | CT | TA | C  | A |
| Faroe islands-2009 | 1769_851_18 | C  | G  | A  | C  | G | TC | C  | T  | C  |   |
| Faroe islands-2009 | 1769_851_19 | C  | G  | GA | CT | G | C  | C  | T  | CT |   |
| Faroe islands-2009 | 1769_851_2  | C  | G  | G  | CT | G | C  | CT | T  | C  | G |
| Faroe islands-2009 | 1769_851_20 | C  | G  | A  | CT | G | TC | CT | TA | C  |   |
| Faroe islands-2009 | 1769_851_21 | C  | G  | GA | CT | G | TC | CT | T  | T  |   |
| Faroe islands-2009 | 1769_851_22 | CT | G  | A  | CT | A | C  | C  | T  | C  |   |
| Faroe islands-2009 | 1769_851_23 | C  | G  | A  | CT | G | TC | CT | T  | CT |   |
| Faroe islands-2009 | 1769_851_24 | C  | G  | G  | CT | G | TC | CT | T  | CT | G |
| Faroe islands-2009 | 1769_851_25 | C  | G  | A  | CT | A | T  | C  | T  | T  | G |
| Faroe islands-2009 | 1769_851_26 | C  | GA | GA | CT | G | C  | CT | T  | C  |   |
| Faroe islands-2009 | 1769_851_27 | C  | G  | G  | C  | G | T  | C  | T  | C  | G |
| Faroe islands-2009 | 1769_851_28 | C  | G  | A  | T  | A | TC | CT | T  | CT |   |
| Faroe islands-2009 | 1769_851_29 | C  | GA | GA |    | G | TC | CT | TA | C  | G |
| Faroe islands-2009 | 1769_851_3  | C  | G  | GA | CT | G | TC | C  | T  | T  |   |
| Faroe islands-2009 | 1769_851_30 | C  | G  | A  | CT | G | TC | C  | T  | CT |   |
| Faroe islands-2009 | 1769_851_31 | CT | G  | GA | CT | G | T  | CT | T  | CT | A |
| Faroe islands-2009 | 1769_851_32 | C  | GA | GA | T  | G | C  | C  | T  | C  |   |
| Faroe islands-2009 | 1769_851_33 | C  | GA | GA | CT | G | TC | CT | T  | C  |   |
| Faroe islands-2009 | 1769_851_34 | CT | A  | A  | CT | G | TC | C  | T  | C  |   |
| Faroe islands-2009 | 1769_851_35 | C  | A  | G  | CT | G | T  | CT | T  | CT | A |
| Faroe islands-2009 | 1769_851_36 | CT | G  | A  | C  | G | TC | CT | TA | T  | G |

|                    |             |    |    |    |    |    |    |    |    |    |   |
|--------------------|-------------|----|----|----|----|----|----|----|----|----|---|
| Faroe islands-2009 | 1769_851_37 | C  | G  | A  | C  | G  | TC | C  | T  | C  |   |
| Faroe islands-2009 | 1769_851_38 | C  | GA | G  | CT | G  | T  | CT | T  | CT |   |
| Faroe islands-2009 | 1769_851_39 | C  | G  | A  |    | G  | TC | CT | TA | T  |   |
| Faroe islands-2009 | 1769_851_4  | C  | G  | A  | C  | G  | T  | C  | T  | T  | G |
| Faroe islands-2009 | 1769_851_40 | C  | G  | A  | CT | G  | TC | C  | T  | CT |   |
| Faroe islands-2009 | 1769_851_41 | C  | G  | GA | T  | G  | TC | CT | T  |    | A |
| Faroe islands-2009 | 1769_851_42 | C  | GA | GA | T  | G  | TC | CT | T  | C  | G |
| Faroe islands-2009 | 1769_851_43 | CT | A  | GA | C  | G  | TC | CT | T  | CT |   |
| Faroe islands-2009 | 1769_851_44 | C  | G  | GA | CT | G  | TC | C  | T  | CT | G |
| Faroe islands-2009 | 1769_851_45 | C  | GA | GA | C  | G  | T  | C  | T  | C  |   |
| Faroe islands-2009 | 1769_851_46 | C  | G  | A  | CT | G  | TC | C  | T  | C  |   |
| Faroe islands-2009 | 1769_851_47 |    |    |    |    | G  |    | CT | T  |    |   |
| Faroe islands-2009 | 1769_851_5  | C  | G  | A  | CT | G  | TC | C  | T  | C  |   |
| Faroe islands-2009 | 1769_851_6  | CT | GA | GA | CT | G  | T  | CT | T  | T  | A |
| Faroe islands-2009 | 1769_851_7  | C  | G  | A  | C  | G  | T  | C  | T  | CT |   |
| Faroe islands-2009 | 1769_851_8  | C  | G  | A  | T  | A  | C  | C  | T  | T  | G |
| Faroe islands-2009 | 1769_851_9  | C  | G  | A  | CT | G  | TC | C  | T  | T  | G |
| Shetland-2009      | 1770_855_1  | C  | GA | GA | T  | A  | TC | CT | T  | CT | G |
| Shetland-2009      | 1770_855_10 | C  | G  | A  | C  | G  | T  | C  | T  | T  |   |
| Shetland-2009      | 1770_855_11 | C  | GA | GA | CT | GA | TC | CT | T  | CT |   |
| Shetland-2009      | 1770_855_12 | CT | GA | G  | CT | G  | TC | CT | T  | T  |   |
| Shetland-2009      | 1770_855_13 | C  | G  | A  | CT | A  | TC | C  | T  | CT |   |
| Shetland-2009      | 1770_855_14 | C  | G  | A  | CT | A  | TC | C  | T  | C  | G |
| Shetland-2009      | 1770_855_15 |    |    |    |    |    |    |    |    |    |   |
| Shetland-2009      | 1770_855_16 | CT |    |    | T  | A  | TC | C  | T  | CT |   |
| Shetland-2009      | 1770_855_17 | C  | G  | A  | C  | A  | C  | C  | T  | C  |   |
| Shetland-2009      | 1770_855_18 | C  | G  | A  | T  | A  | C  | C  | T  | C  | G |
| Shetland-2009      | 1770_855_19 | C  | G  | A  | T  | A  | C  | C  | T  | C  |   |
| Shetland-2009      | 1770_855_2  | CT | G  | A  | T  | GA | C  | C  | TA | CT | G |
| Shetland-2009      | 1770_855_20 | C  | G  | A  | C  | G  | TC | C  | T  | CT |   |
| Shetland-2009      | 1770_855_21 | C  | G  | A  | CT | A  | TC | C  | T  | CT | G |
| Shetland-2009      | 1770_855_22 | C  | G  | A  | CT | A  | T  | CT | T  | CT | G |
| Shetland-2009      | 1770_855_23 | C  | GA | A  |    | G  |    | C  | T  | T  | G |
| Shetland-2009      | 1770_855_24 | C  | GA | GA | CT | G  | T  | CT | T  | C  | G |
| Shetland-2009      | 1770_855_25 | C  | G  | A  | T  | A  | C  | C  | T  | T  |   |
| Shetland-2009      | 1770_855_26 | C  | G  | GA | C  | G  | C  | C  | T  | T  |   |
| Shetland-2009      | 1770_855_27 | C  | G  | A  | CT | A  | TC | C  | T  | CT |   |
| Shetland-2009      | 1770_855_28 | C  | G  | A  | T  | A  | TC | CT | T  | CT | G |
| Shetland-2009      | 1770_855_29 | C  | G  | A  | T  | G  | C  | C  | TA | CT | G |

|               |             |    |    |    |    |    |    |    |    |    |   |
|---------------|-------------|----|----|----|----|----|----|----|----|----|---|
| Shetland-2009 | 1770_855_3  | C  | G  | A  | C  | G  |    | C  | TA | CT | G |
| Shetland-2009 | 1770_855_30 | C  | G  | A  | CT | G  | TC | C  | T  | T  |   |
| Shetland-2009 | 1770_855_31 | C  | G  | GA | C  | G  | TC | C  | T  | CT | G |
| Shetland-2009 | 1770_855_32 | C  | G  | A  | CT | G  | TC | C  | T  | CT | G |
| Shetland-2009 | 1770_855_33 | CT | G  | A  | CT | G  | C  | C  | T  | CT | G |
| Shetland-2009 | 1770_855_34 | C  | G  | GA | T  | G  | TC | CT | T  | C  | G |
| Shetland-2009 | 1770_855_35 | C  | G  | A  | CT | A  | TC | CT | T  | C  |   |
| Shetland-2009 | 1770_855_36 | C  | G  | A  | T  | A  | C  | C  | T  | C  |   |
| Shetland-2009 | 1770_855_37 | CT | G  | A  | T  | A  | TC | C  | T  | CT | G |
| Shetland-2009 | 1770_855_38 | C  | G  | A  | T  | A  | C  | C  | T  | C  | A |
| Shetland-2009 | 1770_855_39 | C  | GA | A  | C  | G  | TC | CT | TA | C  |   |
| Shetland-2009 | 1770_855_4  | C  | G  | A  |    | GA |    | CT | TA | C  | G |
| Shetland-2009 | 1770_855_40 | C  | G  | GA | T  | A  | TC | C  | T  | T  |   |
| Shetland-2009 | 1770_855_41 | C  | G  | A  | T  | A  | TC | C  | T  | T  | G |
| Shetland-2009 | 1770_855_42 | CT | GA | GA | CT | G  | T  | CT | T  | T  | A |
| Shetland-2009 | 1770_855_43 | CT | GA | GA | T  | G  | TC | CT | T  | T  |   |
| Shetland-2009 | 1770_855_44 |    |    | A  |    | G  |    | C  | T  |    | G |
| Shetland-2009 | 1770_855_45 | C  | G  | GA | T  |    | TC | CT | T  | C  |   |
| Shetland-2009 | 1770_855_46 | C  | G  | G  | T  | A  | T  | T  | T  | T  |   |
| Shetland-2009 | 1770_855_47 | C  | G  | A  | C  | A  | TC | C  | T  | CT |   |
| Shetland-2009 | 1770_855_5  | C  | G  | A  | C  | A  | C  | C  | T  | C  | A |
| Shetland-2009 | 1770_855_6  | C  | G  | A  | T  | G  | T  | C  | T  | T  | G |
| Shetland-2009 | 1770_855_7  | C  | GA | A  | C  | A  | TC | CT | TA | T  | G |
| Shetland-2009 | 1770_855_8  | C  | G  | A  | T  | A  | C  | CT | T  | T  |   |
| Shetland-2009 | 1770_855_9  | C  | G  | A  | C  | G  | T  | C  | T  | C  |   |
| Shetland-2009 | 1771_856_1  | C  | G  | A  | CT | A  | TC | C  | T  | CT |   |
| Shetland-2009 | 1771_856_10 | C  | G  | A  | CT | A  | TC | C  | T  | CT | G |
| Shetland-2009 | 1771_856_11 | C  | G  | A  | T  | A  | C  | C  | T  | CT |   |
| Shetland-2009 | 1771_856_12 | C  | GA | A  | C  | A  | TC | CT | T  | CT |   |
| Shetland-2009 | 1771_856_13 | C  | GA | A  | CT | G  | T  | C  | T  | C  |   |
| Shetland-2009 | 1771_856_14 | C  | G  | A  | CT | A  | TC | C  | T  | CT | A |
| Shetland-2009 | 1771_856_15 | C  | G  | A  | T  | A  | C  | C  | T  | C  | G |
| Shetland-2009 | 1771_856_16 | C  | G  | A  | C  | A  | TC | C  | T  | C  | A |
| Shetland-2009 | 1771_856_17 | C  | G  | A  | CT | A  | T  | C  | T  | CT | G |
| Shetland-2009 | 1771_856_18 | C  | G  | A  | C  | G  | T  | C  | T  | T  |   |
| Shetland-2009 | 1771_856_19 | C  | A  | GA | T  | G  | TC | CT | T  | C  | A |
| Shetland-2009 | 1771_856_2  | C  | G  | A  | T  | G  | C  | CT | T  | C  |   |
| Shetland-2009 | 1771_856_20 | C  | G  | A  | T  | G  | C  | C  | TA | C  |   |
| Shetland-2009 | 1771_856_21 | C  | G  | A  | CT | G  | TC | C  | T  | T  |   |

|               |             |    |    |    |    |    |    |    |    |    |   |
|---------------|-------------|----|----|----|----|----|----|----|----|----|---|
| Shetland-2009 | 1771_856_22 | C  | GA | A  | CT | A  | TC | C  | TA | CT |   |
| Shetland-2009 | 1771_856_23 | C  | G  | GA | CT | G  | C  | C  | T  | C  |   |
| Shetland-2009 | 1771_856_24 | C  | GA | A  | C  | A  | T  | C  | T  | CT |   |
| Shetland-2009 | 1771_856_25 | C  | GA | GA | T  | G  | C  | C  | T  | C  |   |
| Shetland-2009 | 1771_856_26 | C  | GA | A  | C  | G  | C  | T  | TA | CT |   |
| Shetland-2009 | 1771_856_27 | C  | G  | A  | C  | G  | T  | C  | T  | T  | G |
| Shetland-2009 | 1771_856_28 | C  | G  | A  | C  | G  | T  | C  | T  | T  | A |
| Shetland-2009 | 1771_856_29 | C  | G  | A  | CT | A  | TC | C  | T  | CT |   |
| Shetland-2009 | 1771_856_3  | CT | G  | A  | C  | A  | T  | C  | T  | T  |   |
| Shetland-2009 | 1771_856_30 | C  | G  | A  | C  | A  | T  | C  | T  | T  |   |
| Shetland-2009 | 1771_856_31 | C  | G  | A  | C  | A  | TC | C  | T  | T  |   |
| Shetland-2009 | 1771_856_32 | C  | G  | GA | T  | A  | TC | CT | T  | C  | G |
| Shetland-2009 | 1771_856_33 | C  | GA | GA | C  | G  | TC | CT | TA | CT | A |
| Shetland-2009 | 1771_856_34 | C  | G  | A  | CT | G  | TC | C  | T  | CT |   |
| Shetland-2009 | 1771_856_35 | CT | G  | A  | CT | G  | TC | C  | T  | CT |   |
| Shetland-2009 | 1771_856_36 | C  | GA | A  | T  | GA | C  | C  | T  | CT |   |
| Shetland-2009 | 1771_856_37 | C  | GA | A  |    | G  | C  | CT | A  | CT | G |
| Shetland-2009 | 1771_856_38 | C  | GA | A  | T  | A  | C  | C  | T  | C  |   |
| Shetland-2009 | 1771_856_39 | C  | GA | A  | C  | G  | TC | CT | T  | C  |   |
| Shetland-2009 | 1771_856_4  | C  | GA | A  | CT | G  | TC | C  | T  | T  | G |
| Shetland-2009 | 1771_856_40 | C  | G  | A  |    | A  | C  | CT | T  | CT | G |
| Shetland-2009 | 1771_856_41 | C  | G  | A  | CT | A  | TC | C  | T  | C  | G |
| Shetland-2009 | 1771_856_42 | C  | GA | A  | T  | A  | TC | C  | T  | CT | A |
| Shetland-2009 | 1771_856_43 | C  | G  | A  | T  | G  | C  | C  | T  | C  |   |
| Shetland-2009 | 1771_856_44 | C  | G  | A  | CT | A  | TC | C  | T  | C  |   |
| Shetland-2009 | 1771_856_45 | C  | GA | GA | CT | G  | T  | CT | T  | T  | G |
| Shetland-2009 | 1771_856_46 | C  | GA | A  | CT | G  | TC | C  | T  | CT | G |
| Shetland-2009 | 1771_856_47 | C  | G  | A  | CT | A  | TC | C  | T  | T  | A |
| Shetland-2009 | 1771_856_5  | CT | GA | A  | C  | A  | T  | C  | T  | CT |   |
| Shetland-2009 | 1771_856_6  | C  | G  | A  | CT | G  | T  | C  | T  | T  |   |
| Shetland-2009 | 1771_856_7  | C  | GA | A  | C  | G  | T  | C  | T  | T  | G |
| Shetland-2009 | 1771_856_8  | C  | G  | A  | CT | G  | TC | C  | T  | CT | G |
| Shetland-2009 | 1771_856_9  | C  | G  | A  | CT | G  | TC | C  | T  | CT | G |
| Ireland-2009  | 1772_852_5  | T  | GA | GA | CT | G  | T  | T  | T  | CT |   |
| Ireland-2009  | 1772_852_6  | CT | G  | A  | C  | G  | C  | C  | T  | T  | G |
| Ireland-2009  | 1772_852_7  | C  | G  | GA | T  | G  | TC | C  | T  | CT | G |
| Ireland-2009  | 1772_852_8  | C  | A  | A  | T  | G  | TC | T  | T  | C  |   |
| Canada-2002   | LsC1        | C  | G  | GA | C  | G  | TC | CT | T  | T  |   |
| Canada-2002   | LsC10       | C  | GA | G  | C  | A  | C  | CT | T  | T  |   |

|                 |       |    |    |    |    |    |    |    |    |    |   |
|-----------------|-------|----|----|----|----|----|----|----|----|----|---|
| Canada-2002     | LsC11 | C  | GA | GA | CT | G  | T  | C  | T  | CT | G |
| Canada-2002     | LsC12 | C  | G  | GA | CT | G  | C  | C  | TA | CT | G |
| Canada-2002     | LsC13 | C  | G  | GA | C  | A  | TC | C  | T  | C  | G |
| Canada-2002     | LsC14 | C  | G  | GA | C  | G  | TC | CT | TA | C  | G |
| Canada-2002     | LsC15 | C  | G  | GA | C  | G  | TC | C  | T  | CT | G |
| Canada-2002     | LsC16 | C  | G  | G  | CT |    | T  | C  | T  | C  | G |
| Canada-2002     | LsC17 | C  | A  | A  | CT | G  | C  | CT | T  | C  | G |
| Canada-2002     | LsC18 | CT | G  | GA | C  | G  | C  | C  | T  | C  |   |
| Canada-2002     | LsC19 | CT | G  | GA | C  | G  | C  | CT | TA | C  | G |
| Canada-2002     | LsC2  | C  | G  | GA | T  | G  | TC | CT | T  | T  |   |
| Canada-2002     | LsC20 | C  | G  | GA | C  | G  | C  | C  | T  | C  | G |
| Canada-2002     | LsC21 | C  | G  | GA | C  | G  | C  | C  | T  | C  | G |
| Canada-2002     | LsC22 | C  | G  | GA | CT | G  | C  | C  | T  | CT | G |
| Canada-2002     | LsC23 | CT | G  | GA | T  |    | C  | C  | TA | C  | G |
| Canada-2002     | LsC24 | CT | G  | G  | CT |    | C  | C  | T  | CT | G |
| Canada-2002     | LsC25 | CT | GA | G  | C  | GA | C  | CT | T  | T  | G |
| Canada-2002     | LsC26 | CT | G  | GA | C  |    | T  | C  | T  | CT | G |
| Canada-2002     | LsC27 | C  | G  | GA | C  | G  | T  | T  | TA | CT | G |
| Canada-2002     | LsC28 | C  | A  | A  | CT | G  | C  | CT | T  | C  | G |
| Canada-2002     | LsC29 | C  | G  | A  | C  | G  | T  | T  | TA | CT | G |
| Canada-2002     | LsC3  | C  | GA | G  | CT | A  | TC | C  | T  | C  | G |
| Canada-2002     | LsC30 | C  | GA | GA | CT | G  | T  | C  | T  | T  | G |
| Canada-2002     | LsC4  | CT | G  | G  | CT | A  | TC | C  | T  | CT | G |
| Canada-2002     | LsC5  | C  | G  | GA | CT | A  | TC | C  | T  | C  | G |
| Canada-2002     | LsC6  | C  | GA | A  | CT | G  | TC | C  | TA | CT | G |
| Canada-2002     | LsC7  | C  | G  | A  | C  | G  | TC | C  | T  | C  |   |
| Canada-2002     | LsC8  | C  | G  | G  | C  | G  | TC | C  | T  | T  | G |
| Canada-2002     | LsC9  | C  | G  | GA | CT | G  | C  | C  | T  | T  | G |
| Scotland-2002_b | LsK1  | C  | G  | A  | CT | G  | TC | C  | TA | C  | G |
| Scotland-2002_b | LsK10 | CT | GA | GA | T  | A  | TC | C  | A  | C  |   |
| Scotland-2002_b | LsK11 | C  | G  | A  | CT | G  | TC | C  | TA | C  |   |
| Scotland-2002_b | LsK12 | C  | G  | A  | CT | G  |    | C  | A  | CT |   |
| Scotland-2002_b | LsK13 | C  | G  | A  | CT | G  |    | C  | A  | C  |   |
| Scotland-2002_b | LsK14 | CT | G  | A  | T  | G  | C  | C  | TA | C  |   |
| Scotland-2002_b | LsK15 | C  | G  | A  | T  | G  | C  | C  | TA | C  |   |
| Scotland-2002_b | LsK16 | C  | GA | A  | CT | G  | TC | C  | TA | CT | G |
| Scotland-2002_b | LsK17 | CT | G  | A  | T  | G  | TC | C  | TA | CT | A |
| Scotland-2002_b | LsK18 | C  | G  | A  | CT | G  | C  | C  | TA | C  |   |
| Scotland-2002_b | LsK19 | C  | G  | A  | CT | G  | TC | C  | A  | C  | G |

|                 |        |    |    |    |    |   |    |    |    |    |   |
|-----------------|--------|----|----|----|----|---|----|----|----|----|---|
| Scotland-2002_b | LsK2   | C  | G  | A  | T  | A | TC | C  | TA | CT |   |
| Scotland-2002_b | LsK20  | C  | GA | A  | CT | G | TC | C  | TA | CT | G |
| Scotland-2002_b | LsK21  | C  | G  | GA | CT | G | C  | C  | TA | CT | G |
| Scotland-2002_b | LsK22  | C  | G  | A  | CT | G | TC | C  | A  | C  | G |
| Scotland-2002_b | LsK23  | C  | G  | A  | T  | G | C  | C  | TA | C  | G |
| Scotland-2002_b | LsK24  | C  | G  | A  | CT | A | TC | C  | A  | C  | G |
| Scotland-2002_b | LsK25  | C  | G  | A  | T  | G | C  | C  | TA | C  | G |
| Scotland-2002_b | LsK26  | CT | G  | A  | T  | G | C  | C  | TA | CT | G |
| Scotland-2002_b | LsK27  | C  | G  | A  |    | G | TC | C  | TA | C  | G |
| Scotland-2002_b | LsK28  | CT | GA | GA | CT | G | TC | C  | TA | CT | G |
| Scotland-2002_b | LsK29  | C  | G  | A  | CT | G | TC | C  | TA | CT | G |
| Scotland-2002_b | LsK3   | C  | GA | A  | CT | A | TC | C  | TA | CT | G |
| Scotland-2002_b | LsK30  | C  | G  | A  | CT | G | TC | C  | TA | C  | G |
| Scotland-2002_b | LsK4   | C  | G  | A  | CT | G | TC | C  | TA | CT |   |
| Scotland-2002_b | LsK5   | C  | G  | A  | CT | G | TC | C  | TA | C  | G |
| Scotland-2002_b | LsK6   | CT | G  | A  | CT | G | TC | C  | A  | C  | G |
| Scotland-2002_b | LsK7   | C  | GA | A  | T  | G | TC | C  | A  | C  | G |
| Scotland-2002_b | LsK8   | C  | G  | A  | CT | G | C  | C  | TA | C  | G |
| Scotland-2002_b | LsK9   | C  | GA | A  | CT | A | TC | C  | A  | C  |   |
| Norway-2002     | LsSu1  | T  | G  | A  | CT | G | TC | CT | T  | CT | G |
| Norway-2002     | LsSu10 | C  | G  | GA | T  | G | TC | CT | T  | CT | G |
| Norway-2002     | LsSu11 | C  | G  | G  | C  | A | TC | C  | T  | CT | G |
| Norway-2002     | LsSu12 | CT | GA | G  | T  | G | T  | T  | T  | C  | G |
| Norway-2002     | LsSu13 | C  | G  | G  | C  | G | TC | C  | T  | CT | G |
| Norway-2002     | LsSu14 | C  | A  | G  | C  | G | C  | T  | T  | C  |   |
| Norway-2002     | LsSu15 | C  | G  | G  | CT | G | C  | CT | T  | C  |   |
| Norway-2002     | LsSu16 | C  | G  | GA | C  | G | C  | CT | TA | C  | G |
| Norway-2002     | LsSu18 | CT | GA | GA | CT | G | C  | CT | T  |    |   |
| Norway-2002     | LsSu19 | C  | GA | G  | T  | G | T  | CT | T  | C  | G |
| Norway-2002     | LsSu2  | C  | GA | G  | CT | G | C  | C  | T  | CT |   |
| Norway-2002     | LsSu20 | T  | G  | GA | C  | G | TC | CT | TA | C  | G |
| Norway-2002     | LsSu21 | CT | A  | G  | CT | G | T  | CT | T  | C  | G |
| Norway-2002     | LsSu22 | C  | A  | GA | CT | G | TC | T  | T  | C  | G |
| Norway-2002     | LsSu23 | C  | G  | GA | C  | G | TC | C  | T  | C  | G |
| Norway-2002     | LsSu24 | CT | GA | GA |    | G | TC | T  | TA | C  |   |
| Norway-2002     | LsSu25 | C  | G  | GA | C  | G | TC | CT | TA | C  |   |
| Norway-2002     | LsSu26 | C  | G  | GA |    | G | C  | CT | TA | C  | G |
| Norway-2002     | LsSu27 | C  | A  | GA | CT | G | C  | T  | T  | T  | G |
| Norway-2002     | LsSu28 | C  | GA | GA |    | G | C  | CT | TA | C  | G |

|             |        |    |    |    |    |    |    |    |    |    |   |
|-------------|--------|----|----|----|----|----|----|----|----|----|---|
| Norway-2002 | LsSu29 | CT | GA | A  | C  | G  | C  | CT | TA | C  | G |
| Norway-2002 | LsSu3  | C  | GA | GA | CT | A  | T  | CT | T  | CT |   |
| Norway-2002 | LsSu30 | CT | G  | GA |    | G  | TC | T  | TA | C  | G |
| Norway-2002 | LsSu4  | C  | GA | G  | CT | G  | TC | CT | T  | C  |   |
| Norway-2002 | LsSu5  | C  | GA | G  | T  | G  | T  | T  | T  | C  | G |
| Norway-2002 | LsSu6  | CT | A  | G  | CT | G  | TC | C  | T  | C  |   |
| Norway-2002 | LsSu7  | CT | GA | A  |    | G  | TC | T  | TA | C  |   |
| Norway-2002 | LsSu8  | C  | G  | G  | T  | A  | T  | CT | T  | C  |   |
| Norway-2002 | LsSu9  | CT | GA | G  | CT | G  | T  | CT | T  | C  | G |
| Norway-2000 | LsT1   | C  | G  | GA | T  | G  | TC | CT | T  | CT |   |
| Norway-2000 | LsT10  | C  | GA | GA | CT | A  | C  | CT | T  | C  | G |
| Norway-2000 | LsT11  | C  | A  | GA | T  | G  | T  | T  | T  | C  | G |
| Norway-2000 | LsT12  | CT | G  | GA | C  | G  | TC | C  | T  | C  | G |
| Norway-2000 | LsT13  | C  | A  | GA | C  | A  | TC | C  | T  | C  | G |
| Norway-2000 | LsT14  | C  | GA | GA | T  | G  | TC | CT | T  | C  | G |
| Norway-2000 | LsT15  | T  | G  | GA | CT | G  | C  | C  | T  | CT | G |
| Norway-2000 | LsT16  | C  | G  | GA | CT | G  | C  | CT | T  | CT | G |
| Norway-2000 | LsT17  | CT |    | GA | CT | G  |    | CT | T  | C  | G |
| Norway-2000 | LsT18  | C  | G  | GA | CT | G  |    | C  | T  | CT | G |
| Norway-2000 | LsT19  | CT |    | GA | C  | GA | TC | CT | TA | C  | G |
| Norway-2000 | LsT2   | CT | GA | GA | C  | A  | C  | CT | TA | C  | G |
| Norway-2000 | LsT20  | C  | GA | GA | C  | GA | C  | CT | T  |    | G |
| Norway-2000 | LsT21  | CT | G  | GA | CT | GA | TC | CT | T  | CT | G |
| Norway-2000 | LsT22  | CT | G  | A  | T  | G  | C  | T  | T  | C  | G |
| Norway-2000 | LsT23  | C  | GA | GA | C  | G  | T  | C  | T  |    | G |
| Norway-2000 | LsT24  | C  |    | GA | C  | G  |    | CT | TA | C  | G |
| Norway-2000 | LsT25  | CT | GA | GA | CT | G  | TC | CT | T  | C  | G |
| Norway-2000 | LsT26  | C  | GA |    | CT | G  | TC | CT | T  | CT | G |
| Norway-2000 | LsT27  | CT | G  | GA |    | G  | C  | CT | TA | CT | G |
| Norway-2000 | LsT28  | C  | GA | GA |    | G  | TC | CT | TA | C  | G |
| Norway-2000 | LsT29  | C  | GA | G  | C  | G  |    | C  | T  | C  | G |
| Norway-2000 | LsT3   | CT | G  | GA | C  | G  | TC | C  | T  | CT | G |
| Norway-2000 | LsT30  | C  |    | A  | C  | A  | TC | C  | T  |    | G |
| Norway-2000 | LsT4   | C  | G  | GA | C  | G  | T  | C  | T  | C  | G |
| Norway-2000 | LsT5   | C  | G  | GA | C  | G  | TC | CT | TA | C  | G |
| Norway-2000 | LsT6   | C  | GA | GA | CT | G  | C  | C  | T  | C  | G |
| Norway-2000 | LsT7   | C  | G  | GA | C  | G  | C  | C  | T  | C  | G |
| Norway-2000 | LsT8   | T  | G  | GA | C  | G  | TC | T  | T  | C  | G |
| Norway-2000 | LsT9   | C  | G  | GA | CT | A  | TC | CT | T  | CT | G |

|             |     |    |    |    |    |    |    |    |    |    |   |
|-------------|-----|----|----|----|----|----|----|----|----|----|---|
| Canada-1999 | C1  | CT | G  |    | C  | G  | C  | C  | T  | CT | G |
| Canada-1999 | C10 | CT | G  | GA | CT | G  | T  | T  | T  | CT | G |
| Canada-1999 | C11 |    | GA |    |    | G  | TC | CT | TA |    | G |
| Canada-1999 | C12 | T  | G  | A  | CT | A  | TC | CT | T  | CT | G |
| Canada-1999 | C13 | C  | G  | A  | C  | G  | C  | CT | TA | C  |   |
| Canada-1999 | C14 | C  | G  | A  |    | G  | C  | CT | TA | C  | G |
| Canada-1999 | C15 | C  | G  | GA | C  | GA | TC | C  | T  | CT | G |
| Canada-1999 | C16 | C  | G  | G  | C  | A  | TC | CT | T  | T  | G |
| Canada-1999 | C17 | CT | G  | A  | CT | G  | C  | C  | TA | CT | G |
| Canada-1999 | C18 | CT | G  | GA | C  | G  | C  | CT | TA | C  | G |
| Canada-1999 | C19 | C  | G  | GA | CT | G  | TC | C  | T  | C  | A |
| Canada-1999 | C2  | C  | GA | G  | CT | G  | T  | CT | T  | C  | G |
| Canada-1999 | C20 | C  | A  | G  | CT |    | TC | C  | T  | CT | G |
| Canada-1999 | C21 | C  | G  | G  | C  | G  | C  | CT | T  | C  |   |
| Canada-1999 | C22 | C  | GA | GA | CT | G  | TC | C  | TA | T  | G |
| Canada-1999 | C23 |    |    |    | CT |    |    |    | T  | CT |   |
| Canada-1999 | C24 |    |    |    |    |    |    |    |    |    |   |
| Canada-1999 | C25 | T  | GA | GA | C  | GA | TC | CT | T  | C  | G |
| Canada-1999 | C26 | C  | GA | A  | CT | G  | TC | C  | T  | CT | G |
| Canada-1999 | C27 | C  | G  | GA | C  | G  | C  | CT | TA | C  | G |
| Canada-1999 | C28 | CT | GA | GA | C  |    | TC | C  | T  | CT | G |
| Canada-1999 | C29 | CT |    | GA | C  | GA | C  | C  | T  | C  | G |
| Canada-1999 | C3  | CT | GA | G  | C  | G  | C  | CT | T  | C  | G |
| Canada-1999 | C30 | C  | G  | GA | C  | G  |    | CT | TA | C  | G |
| Canada-1999 | C31 |    |    | GA |    | G  | TC | CT | T  | C  | G |
| Canada-1999 | C32 | C  | G  | GA | C  | G  | TC | C  | T  | CT | G |
| Canada-1999 | C33 | C  | G  | GA | C  | A  | C  | C  | T  | CT | G |
| Canada-1999 | C34 | C  | G  | A  | C  | A  | TC | C  | T  | C  |   |
| Canada-1999 | C35 | C  | GA | A  | CT | A  | C  | CT | T  | C  |   |
| Canada-1999 | C36 | T  | G  | G  | C  | G  | C  | CT | T  | C  | G |
| Canada-1999 | C37 | CT | G  |    | CT | GA | C  | CT | T  | CT | G |
| Canada-1999 | C38 | C  | G  | GA | CT | G  | C  | C  | TA | CT | G |
| Canada-1999 | C39 | C  | GA | G  | CT | G  | TC | CT | T  | C  | G |
| Canada-1999 | C4  | C  | G  | GA |    | G  | TC | T  | TA | C  | G |
| Canada-1999 | C40 |    |    |    |    |    |    |    |    |    |   |
| Canada-1999 | C41 | CT | G  | G  | CT | GA | TC | C  | T  | CT | A |
| Canada-1999 | C42 | C  | G  | A  | C  | GA | TC | C  | T  | C  | G |
| Canada-1999 | C43 | C  | G  | GA | T  | G  | C  | C  | T  | C  | G |
| Canada-1999 | C44 | C  | G  | A  | C  | G  | TC | C  | TA | C  |   |

|             |     |    |    |    |    |    |    |    |    |    |   |
|-------------|-----|----|----|----|----|----|----|----|----|----|---|
| Canada-1999 | C45 | C  | G  | GA | C  | G  | TC | C  | T  | CT |   |
| Canada-1999 | C46 | C  | G  |    | CT | G  | TC | CT | TA | C  | G |
| Canada-1999 | C47 | T  | GA | GA | C  | GA | TC | CT | TA | C  | G |
| Canada-1999 | C48 | CT | GA | A  | C  | G  | TC | C  | T  | C  | G |
| Canada-1999 | C49 | CT | G  | GA | C  | G  | TC | C  | T  | T  |   |
| Canada-1999 | C5  | C  | G  | GA | C  | G  | TC | C  | T  | C  | G |
| Canada-1999 | C50 | C  | GA | GA | C  | GA | TC | C  | T  | CT | G |
| Canada-1999 | C51 | C  | G  | GA | CT | G  | C  | C  | T  | T  |   |
| Canada-1999 | C52 | CT | GA |    | C  |    | C  | C  | T  | C  | G |
| Canada-1999 | C53 | C  | G  | A  | CT | G  | C  | C  | T  | C  | G |
| Canada-1999 | C54 | C  | G  | GA | CT | G  | C  |    | TA | C  | G |
| Canada-1999 | C55 | CT | G  |    | CT | G  | TC |    | TA |    | G |
| Canada-1999 | C56 | C  | G  | GA | CT | G  | C  |    |    |    | G |
| Canada-1999 | C57 | T  | GA | A  | C  | G  | TC | CT | T  | CT | G |
| Canada-1999 | C58 | C  | G  | GA | C  | G  | TC | C  | T  | C  | G |
| Canada-1999 | C59 | CT |    | GA |    | G  | C  | CT | TA | C  | G |
| Canada-1999 | C6  | C  | GA | A  | C  | G  | TC | C  | T  | T  | G |
| Canada-1999 | C60 | C  | G  | GA | C  | G  | C  | CT | TA | C  | G |
| Canada-1999 | C61 | C  |    |    |    |    | C  | CT | T  | C  | G |
| Canada-1999 | C62 | CT | G  | G  | C  | G  | C  | CT | T  | C  | G |
| Canada-1999 | C63 | C  | GA |    |    | G  | TC |    | T  | C  | G |
| Canada-1999 | C64 |    |    |    |    |    |    |    |    |    |   |
| Canada-1999 | C65 | C  | G  |    | CT |    | TC | CT | T  | CT | G |
| Canada-1999 | C66 | CT | G  | GA | C  | A  | C  | CT | T  | CT | G |
| Canada-1999 | C67 | C  |    | GA | CT | G  | T  | CT | TA | CT | G |
| Canada-1999 | C68 | C  | GA | A  | C  | G  | T  | CT | TA | C  | G |
| Canada-1999 | C69 | C  | GA | G  | C  | GA | C  | CT | T  | C  | G |
| Canada-1999 | C7  | CT | G  | GA | C  | G  | C  | C  | T  | C  | G |
| Canada-1999 | C70 | C  | GA | G  | CT | G  | T  | CT | T  | C  | G |
| Canada-1999 | C71 | C  |    | GA | C  | G  |    |    | TA | C  | G |
| Canada-1999 | C72 | C  | G  | GA | C  | G  | C  | CT | TA | C  | G |
| Canada-1999 | C73 | C  |    | G  |    | G  | TC | CT | TA | C  |   |
| Canada-1999 | C74 | C  | GA | G  | T  | G  | TC | T  | T  | C  | G |
| Canada-1999 | C75 | C  | G  | GA | CT | G  | C  | C  | TA | CT |   |
| Canada-1999 | C76 | C  | G  | A  | CT | G  | C  | CT | TA | C  | G |
| Canada-1999 | C77 | C  | A  | A  | C  | A  | T  | CT | T  | CT | G |
| Canada-1999 | C78 | C  | G  | GA | C  | G  | TC | CT | T  | CT | G |
| Canada-1999 | C79 | C  | G  | GA | C  | G  | TC | T  | TA | C  | G |
| Canada-1999 | C8  | C  | GA | A  |    | A  | C  | CT | A  | C  | G |

|              |     |    |    |    |    |    |    |    |    |    |   |
|--------------|-----|----|----|----|----|----|----|----|----|----|---|
| Canada-1999  | C80 | CT | GA | A  |    | G  | TC | CT | A  | C  | G |
| Canada-1999  | C81 | C  | G  | GA | C  | G  | TC | C  | T  |    |   |
| Canada-1999  | C82 | T  | G  | A  | C  | GA | TC | CT | TA | C  | G |
| Canada-1999  | C83 | CT | G  | GA | C  | G  | C  | C  | T  | CT | G |
| Canada-1999  | C84 | CT | GA | GA | CT | G  | C  | CT | TA | C  | G |
| Canada-1999  | C85 | C  | G  | GA | CT | G  | TC | CT | T  | C  | G |
| Canada-1999  | C86 |    | G  | GA | C  | G  |    | CT | TA | C  | G |
| Canada-1999  | C87 | CT | G  | GA | CT | G  | TC | C  | T  | T  | G |
| Canada-1999  | C88 | C  | G  | GA | T  | G  | C  | C  | T  | T  |   |
| Canada-1999  | C89 | CT | GA | G  | CT | GA | TC | C  | T  | CT | G |
| Canada-1999  | C9  | CT | G  | G  | CT | G  | TC | T  | T  | T  | G |
| Canada-1999  | C90 | C  | GA | A  | C  | G  | TC | C  | T  | C  | G |
| Canada-1999  | C91 | C  | G  | G  | C  | G  | C  | C  | T  | C  | G |
| Canada-1999  | C92 | CT | G  | G  | C  | G  | TC | C  | T  | CT | G |
| Canada-1999  | C93 | C  | G  | G  | C  |    | C  | CT | TA | C  | G |
| Canada-1999  | C94 | C  | G  | A  | T  | G  | C  | C  | A  | C  | G |
| Canada-1999  | C95 | CT | G  | GA | C  | G  | C  | CT | T  | C  | G |
| Canada-1999  | C96 | C  | G  | GA | C  | G  |    | C  | T  |    | G |
| Ireland-2001 | I1  | C  | G  | A  | T  | G  | TC | C  | T  | C  |   |
| Ireland-2001 | I10 | C  | G  | G  | CT | A  | TC | C  | T  | CT | A |
| Ireland-2001 | I11 | C  | G  | A  | C  | G  | C  | C  | T  | C  | G |
| Ireland-2001 | I12 | C  | G  | GA | C  | G  | TC | CT | TA | CT | G |
| Ireland-2001 | I13 | C  | GA | A  | C  | G  | T  | C  | T  | CT | G |
| Ireland-2001 | I14 | CT | G  | GA | C  | G  | T  | C  | T  | CT | G |
| Ireland-2001 | I15 | C  | G  | A  | CT | G  | TC | C  | T  | T  |   |
| Ireland-2001 | I16 | C  | GA | A  | C  | G  | T  | C  | T  | CT | G |
| Ireland-2002 | I17 | C  | G  | A  | C  | G  | TC | C  | TA | CT |   |
| Ireland-2002 | I18 | C  | G  | A  | CT | G  | TC | C  | T  |    |   |
| Ireland-2002 | I19 | CT | GA | GA | T  | A  | C  | C  | T  |    |   |
| Ireland-2001 | I2  | C  | G  | GA | CT | GA | T  | C  | T  | T  |   |
| Ireland-2002 | I20 | CT | A  | GA | CT | A  | C  | C  | T  | T  | G |
| Ireland-2002 | I21 | CT | G  | A  | T  | G  | C  | C  | T  | C  |   |
| Ireland-2002 | I22 | CT | G  | GA | CT | A  | TC | CT | T  | T  |   |
| Ireland-2002 | I23 | C  | G  | A  | CT | G  | C  | CT | T  | C  |   |
| Ireland-2002 | I24 | C  | G  | A  | C  | G  | TC | C  | T  | C  | G |
| Ireland-2002 | I25 | C  | GA | GA | T  | G  | TC | C  | T  | CT | G |
| Ireland-2002 | I26 | C  | GA | GA | T  | G  | TC | C  | T  | CT | G |
| Ireland-2002 | I27 | C  | G  | GA | CT |    | C  | C  | T  | T  | G |
| Ireland-2002 | I28 | C  |    | GA | CT | G  | TC | CT | T  | C  | G |

|              |      |    |    |    |    |    |    |    |    |    |   |
|--------------|------|----|----|----|----|----|----|----|----|----|---|
| Ireland-2002 | I29  | C  | G  | A  | C  | G  | T  | CT | T  | T  |   |
| Ireland-2001 | I3   | T  | GA | GA | C  | G  | TC | C  | T  | CT | G |
| Ireland-2002 | I30  | C  | G  | A  | C  | G  | TC | C  | T  | T  |   |
| Ireland-2002 | I31  | CT | G  | GA | CT |    | TC | C  | T  | CT |   |
| Ireland-2002 | I32  | C  | GA | A  | CT | G  | T  | C  | T  | CT | G |
| Ireland-2001 | I4   |    |    | GA | C  | G  | C  | CT | TA | C  | G |
| Ireland-2001 | I5   | C  | G  | A  | C  | G  | C  | CT | TA | CT | G |
| Ireland-2001 | I6   | C  | G  | GA | T  | G  | TC | CT | T  | C  | G |
| Ireland-2001 | I7   | CT | G  | A  | C  | G  | T  | C  | TA | T  |   |
| Ireland-2001 | I8   | C  | G  | A  | C  | A  | TC | C  | T  | C  | G |
| Ireland-2001 | I9   | CT | G  | A  | T  |    | T  | CT | T  | C  | G |
| Norway-1998  | N1   | C  |    | G  | CT |    | C  |    | T  | CT | G |
| Norway-1998  | N10  | C  | G  | A  | C  | G  | C  | T  | A  | C  |   |
| Norway-1998  | N100 | C  | G  | GA |    | GA | C  | T  | TA | C  |   |
| Norway-1998  | N101 | CT | G  | G  | CT | G  | TC | CT | T  | C  |   |
| Norway-1998  | N102 | C  | GA | GA | C  | G  | C  | CT | TA | C  | G |
| Norway-1998  | N103 | C  | GA | GA | T  | G  | T  | T  | T  | C  | G |
| Norway-1998  | N104 | C  | A  | G  | T  | G  | TC | T  | T  | C  | G |
| Norway-1998  | N105 | C  | GA | G  | T  | G  | TC | CT | T  | C  | G |
| Norway-1998  | N106 | CT | G  | A  | C  | G  | C  | C  | T  | C  | G |
| Norway-1998  | N107 | C  | GA |    | CT | G  | TC |    | TA | C  | G |
| Norway-1998  | N108 | C  | GA | G  | CT | G  | TC | CT | T  | CT | G |
| Norway-1998  | N109 | C  | G  | GA | CT | G  | C  | C  | T  | C  | G |
| Norway-1998  | N11  | C  | GA | GA | CT | G  | C  | CT | TA | CT | G |
| Norway-1998  | N110 | C  |    | GA | C  | GA | C  |    | TA | C  | G |
| Norway-1998  | N111 | C  | G  | G  | CT | G  | T  | CT | T  | C  | G |
| Norway-1998  | N112 | C  |    | GA |    | G  | TC |    | T  |    | G |
| Norway-1998  | N113 | CT | GA | GA | CT | G  | TC | T  | TA | C  | G |
| Norway-1998  | N114 | C  | GA | GA | CT | G  | TC | CT | T  | C  | G |
| Norway-1998  | N115 | CT |    | GA | CT | G  | TC | C  | TA | CT | G |
| Norway-1998  | N116 | C  |    | A  |    | G  | C  | CT | TA | CT | G |
| Norway-1998  | N117 | C  | GA | GA | C  | G  | C  | CT | TA | C  | G |
| Norway-1998  | N118 | CT | A  | GA | CT | G  | C  | CT | T  | C  | G |
| Norway-1998  | N119 | C  | G  | G  | CT | G  | TC | C  | T  | CT | G |
| Norway-1998  | N12  | C  |    | GA | T  | G  | TC | CT | TA | C  | G |
| Norway-1998  | N120 | C  | G  |    | CT | G  | C  | CT | TA |    | G |
| Norway-1998  | N121 | C  | G  | G  |    | G  | TC | CT | T  | CT |   |
| Norway-1998  | N122 | CT | GA | GA | CT | G  | TC | CT | TA | C  | G |
| Norway-1998  | N123 | C  | G  | GA | C  | G  | C  | CT | TA | CT | G |

|             |      |    |    |    |    |    |    |    |    |    |   |
|-------------|------|----|----|----|----|----|----|----|----|----|---|
| Norway-1998 | N124 | CT |    | G  | C  | A  | T  | CT | TA |    |   |
| Norway-1998 | N125 | C  | GA | GA | C  |    | C  | CT | T  | CT | G |
| Norway-1998 | N126 | CT | G  | G  | CT | G  | TC | C  | T  | CT | G |
| Norway-1998 | N127 | C  | G  |    | C  | G  | C  | T  | TA | C  |   |
| Norway-1998 | N128 | C  | G  | A  | C  | G  | C  | CT | A  | CT | G |
| Norway-1998 | N129 | CT | G  | GA | CT | G  | TC | CT | T  | C  |   |
| Norway-1998 | N13  | C  | G  | GA |    | G  | C  | CT | TA | CT | G |
| Norway-1998 | N130 | CT |    |    | CT | G  | TC | CT | TA | C  |   |
| Norway-1998 | N131 | C  | G  | GA |    | G  | TC | T  | TA | C  | G |
| Norway-1998 | N132 | C  | GA | GA |    | G  | TC | T  | TA | C  | G |
| Norway-1998 | N133 | C  | G  | GA | CT | G  | TC | C  | T  | CT | G |
| Norway-1998 | N134 | C  | A  | GA | C  | G  | TC | C  | T  | CT | G |
| Norway-1998 | N135 | CT | GA | G  |    | G  | TC | T  | T  |    | G |
| Norway-1998 | N136 | C  | G  | GA |    | G  | TC |    | TA | C  | G |
| Norway-1998 | N137 | CT | G  | G  | CT | G  | T  | CT | T  | T  | G |
| Norway-1998 | N138 | C  | GA | GA | C  | G  | TC | T  | TA | T  | G |
| Norway-1998 | N139 | T  | GA | GA | C  | GA | C  | C  | TA | CT | G |
| Norway-1998 | N14  |    |    |    |    |    |    |    |    |    |   |
| Norway-1998 | N140 | C  | GA | GA | CT | G  | T  | CT | T  | C  | G |
| Norway-1998 | N141 | C  | G  | A  | C  | G  |    | CT | TA | CT | G |
| Norway-1998 | N142 | CT | GA | G  | T  | G  | TC | CT | T  | C  | G |
| Norway-1998 | N143 | C  | GA | A  | C  | G  | C  | CT | TA | CT | G |
| Norway-1998 | N144 | C  | G  | G  | T  | G  | T  | T  | T  | C  | G |
| Norway-1998 | N145 | CT | G  | A  | C  | G  | TC | CT | TA | C  |   |
| Norway-1998 | N146 | C  | A  | G  | T  | G  | TC | CT | T  | CT |   |
| Norway-1998 | N147 | C  | G  | A  | C  | G  | TC | CT | T  | C  |   |
| Norway-1998 | N148 | CT | GA | G  | T  | G  | T  | T  | T  | C  |   |
| Norway-1998 | N149 | CT | A  | GA | CT | G  | T  | T  | TA | C  |   |
| Norway-1998 | N15  |    |    |    |    |    |    |    |    |    |   |
| Norway-1998 | N150 | C  | GA | G  | CT | G  | TC | CT | T  | CT |   |
| Norway-1998 | N151 | C  | GA | A  | T  | G  | TC | CT | T  | CT | G |
| Norway-1998 | N152 | CT | G  | A  | C  | G  | C  | CT | TA | C  |   |
| Norway-1998 | N153 | C  | A  | G  | CT | G  | TC | CT | T  | C  |   |
| Norway-1998 | N154 | C  | G  | GA |    | G  | TC | CT | TA | C  |   |
| Norway-1998 | N155 | C  | GA | G  | CT | G  | T  | CT | T  | C  |   |
| Norway-1998 | N156 | C  | G  | GA |    | G  | T  | T  | TA | C  |   |
| Norway-1998 | N157 | C  | GA | GA |    | G  | TC | T  | TA | CT | G |
| Norway-1998 | N158 | C  | GA | A  | C  | G  | C  | C  | T  | CT | G |
| Norway-1998 | N159 | C  | GA | GA | CT | G  | TC | CT | T  |    | G |

|             |      |    |    |    |    |    |    |    |    |    |   |
|-------------|------|----|----|----|----|----|----|----|----|----|---|
| Norway-1998 | N16  | C  | GA | GA |    | G  | TC | CT |    | C  | G |
| Norway-1998 | N160 | C  | G  | GA |    | G  | TC | T  | TA | C  |   |
| Norway-1998 | N17  | C  | GA | G  | CT |    |    | C  | T  | CT | G |
| Norway-1998 | N18  | C  | G  | GA | CT | G  | C  | C  | T  | CT | G |
| Norway-1998 | N19  | T  | GA | G  | C  | G  | TC | C  | T  | CT | G |
| Norway-1998 | N2   | C  |    | A  |    | G  | TC | CT | A  |    | G |
| Norway-1998 | N20  | C  | GA | GA | C  | GA | TC | CT | TA | C  | G |
| Norway-1998 | N21  | C  | GA | G  |    | G  | TC | CT | T  | CT | G |
| Norway-1998 | N22  | C  | G  | GA | CT | GA | T  | CT | T  | CT | G |
| Norway-1998 | N23  | T  | A  | GA | C  |    | C  | C  | T  | CT |   |
| Norway-1998 | N24  |    |    |    |    |    |    |    |    |    |   |
| Norway-1998 | N25  | C  | A  | G  | T  | G  | TC | CT | T  | C  |   |
| Norway-1998 | N26  | C  | G  | G  | CT | G  | TC | CT | T  | C  | G |
| Norway-1998 | N27  | C  | G  | GA | CT | G  | TC | T  | TA | C  | G |
| Norway-1998 | N28  | CT | G  | GA | T  | GA | T  | C  | T  |    | G |
| Norway-1998 | N29  | CT | G  | GA | CT | G  | C  | CT | T  | C  | G |
| Norway-1998 | N3   | C  | G  |    | C  | G  | T  | CT | T  | C  | G |
| Norway-1998 | N30  | C  | G  | G  | C  | GA | TC | C  | T  | C  | G |
| Norway-1998 | N31  | C  | GA | GA |    | G  | C  | CT | TA | C  | G |
| Norway-1998 | N32  | C  | G  | GA | T  | G  | C  | C  | TA |    | G |
| Norway-1998 | N33  | CT | G  | GA | C  | G  | TC | CT | TA | CT | G |
| Norway-1998 | N34  | CT | G  | A  | C  | G  | C  | T  | A  | C  | G |
| Norway-1998 | N35  | C  | G  | GA | C  | G  | C  | T  | TA | CT | G |
| Norway-1998 | N36  | C  | G  | GA | CT | G  | C  | C  | TA | CT | G |
| Norway-1998 | N37  | C  | GA | G  | C  | G  | C  | CT | TA | C  | G |
| Norway-1998 | N38  | C  | GA | A  |    | G  | C  | CT | TA |    | G |
| Norway-1998 | N39  | C  | G  | G  | T  | G  | T  | T  | T  | C  | G |
| Norway-1998 | N4   | C  | G  | G  |    | G  | TC | CT |    | CT |   |
| Norway-1998 | N40  | CT | G  | G  | CT | GA | C  | C  | T  | C  | G |
| Norway-1998 | N41  | T  | GA | G  | T  | G  | T  | T  | T  | C  | G |
| Norway-1998 | N42  |    |    | GA | C  | G  |    | T  | T  | C  | G |
| Norway-1998 | N43  |    |    | A  |    | G  | C  | T  | A  | C  | G |
| Norway-1998 | N44  | C  | G  | A  | CT | G  |    | CT | T  | C  |   |
| Norway-1998 | N45  | C  | GA | GA |    | G  | C  | CT | TA | C  | G |
| Norway-1998 | N46  | C  | GA | GA | C  | G  | C  | C  | T  | C  | G |
| Norway-1998 | N47  | CT | G  |    | C  | G  | C  | C  | TA | CT | G |
| Norway-1998 | N48  | C  | A  | G  | CT | G  | TC | T  | T  | C  | G |
| Norway-1998 | N49  | C  | G  |    | C  | G  | T  | CT | TA | CT | G |
| Norway-1998 | N5   | C  | G  | GA | CT | G  | TC | CT | TA | CT |   |

|             |     |    |    |    |    |    |    |    |    |    |   |
|-------------|-----|----|----|----|----|----|----|----|----|----|---|
| Norway-1998 | N50 | C  | G  | GA | C  | GA | TC | T  | TA | C  | G |
| Norway-1998 | N51 | C  | GA | GA | C  |    | TC | C  | T  | C  | G |
| Norway-1998 | N52 | C  | G  | G  | CT | G  | T  | CT | T  | C  | G |
| Norway-1998 | N53 | CT | G  | GA | C  | G  | TC | CT | TA | C  | G |
| Norway-1998 | N54 | CT | GA | GA | C  | G  | TC | CT | T  | C  | G |
| Norway-1998 | N55 | T  | A  | G  | T  | G  | T  | T  | T  | C  | G |
| Norway-1998 | N56 | CT | G  | G  | C  | G  | T  | C  | T  | CT | G |
| Norway-1998 | N57 | C  | G  | GA | C  | G  | C  | CT | TA | C  | G |
| Norway-1998 | N58 | C  | GA | GA | C  | G  | C  | C  | T  | CT | G |
| Norway-1998 | N59 | T  | A  | GA | CT | G  | T  | CT | T  | CT | G |
| Norway-1998 | N6  | T  | G  | A  | C  | G  | C  | T  | A  | C  |   |
| Norway-1998 | N60 | C  | GA | GA |    | G  | TC | T  | TA | C  | G |
| Norway-1998 | N61 | C  |    | GA | CT | G  | TC | CT | TA | C  | G |
| Norway-1998 | N62 | C  | A  | G  | T  | G  | TC | CT | T  |    |   |
| Norway-1998 | N63 | CT |    | GA |    | G  |    | CT | TA | C  | G |
| Norway-1998 | N64 | C  | G  | A  | C  | G  | C  | CT | TA | CT |   |
| Norway-1998 | N65 | CT | G  | A  | C  | G  | C  | CT | TA | C  | G |
| Norway-1998 | N66 | C  | G  | GA | C  | G  | TC | CT | TA | C  | G |
| Norway-1998 | N67 | CT | G  | A  | C  | G  | C  | T  | A  | C  | G |
| Norway-1998 | N68 | C  | G  | G  | C  | G  | T  | C  | T  | C  | G |
| Norway-1998 | N69 | C  | G  | A  | C  | G  | C  | CT | TA | C  | G |
| Norway-1998 | N7  | C  | A  | GA | T  | G  | T  | T  | T  | C  |   |
| Norway-1998 | N70 | C  | G  | A  |    | G  | C  | CT | TA | CT | G |
| Norway-1998 | N71 | C  | G  | GA |    | G  | TC | T  | TA | C  |   |
| Norway-1998 | N72 |    | G  | GA |    | G  | C  | T  | TA | C  | G |
| Norway-1998 | N73 | C  | G  | G  | C  | G  | TC | C  | T  | C  | G |
| Norway-1998 | N74 | C  | GA | G  | CT | G  | TC | C  | T  | C  | G |
| Norway-1998 | N75 | CT | GA | A  | C  | G  | C  | CT | TA | C  |   |
| Norway-1998 | N76 | C  | G  | GA | C  | G  | TC | C  | T  | CT | G |
| Norway-1998 | N77 | C  | G  | A  | C  | G  | TC | C  | T  | C  |   |
| Norway-1998 | N78 | C  | G  | GA | C  | G  | TC | CT | TA | C  | G |
| Norway-1998 | N79 | CT | G  | GA | C  | G  | T  |    | T  | C  | G |
| Norway-1998 | N8  | C  |    |    |    |    | TC | CT | TA | CT | G |
| Norway-1998 | N80 | C  | GA | GA | CT | G  | C  | CT | T  |    | G |
| Norway-1998 | N81 | C  |    | GA | CT | A  | T  |    | T  | C  |   |
| Norway-1998 | N82 | C  | G  | GA |    | G  | TC | T  | TA | C  |   |
| Norway-1998 | N83 | C  | GA | G  | CT | G  | TC | CT | T  | CT |   |
| Norway-1998 | N84 | C  |    | GA |    | G  | C  | CT | T  | C  | G |
| Norway-1998 | N85 |    | GA |    | C  | G  | TC | CT | TA | C  | G |

|                 |     |    |    |    |    |    |    |    |    |    |   |
|-----------------|-----|----|----|----|----|----|----|----|----|----|---|
| Norway-1998     | N86 | C  | A  |    | CT | G  |    | T  | T  |    |   |
| Norway-1998     | N87 |    |    | GA | C  | G  |    | T  | TA | C  |   |
| Norway-1998     | N88 |    | GA | GA |    | G  | TC | CT | TA | C  | G |
| Norway-1998     | N89 | CT | GA | G  | CT | G  | TC | CT | T  | C  | G |
| Norway-1998     | N9  | CT | G  | GA | C  | G  | C  | T  | TA | C  | G |
| Norway-1998     | N90 | C  | GA | GA | C  | G  | C  | CT | TA | C  | G |
| Norway-1998     | N91 | C  | A  | GA | C  | G  | T  | C  | T  | CT | G |
| Norway-1998     | N92 | C  | GA | GA | CT |    | TC | CT | T  | CT | G |
| Norway-1998     | N93 | C  | G  | A  |    | G  | C  | CT | TA | C  | G |
| Norway-1998     | N94 | C  | G  | A  | C  | G  | TC | CT | TA | C  | G |
| Norway-1998     | N95 | CT | G  | G  | C  | G  | C  |    |    | CT | G |
| Norway-1998     | N96 | CT | G  | GA |    | G  | C  | CT | TA | C  |   |
| Norway-1998     | N97 | C  | G  | A  | C  | G  | TC | T  | TA | CT | G |
| Norway-1998     | N98 | C  | GA | GA | CT | G  | TC | CT | T  | C  | G |
| Norway-1998     | N99 | C  | GA | A  | C  | G  | C  | T  | A  | C  |   |
| Scotland-2002_a | S1  | C  | G  | A  | T  | G  | C  | C  | TA | CT | G |
| Scotland-2002_a | S10 | C  | G  | A  | CT | G  | TC | CT | TA | C  | G |
| Scotland-2002_a | S11 | CT | G  | A  | CT | G  | TC | C  | TA | C  | G |
| Scotland-2002_a | S12 | CT |    | A  | CT | G  | TC | C  | TA | C  | G |
| Scotland-2002_a | S13 | C  | G  | A  | CT | G  | C  | CT | A  | C  | G |
| Scotland-2002_a | S14 | C  | G  | A  | T  | G  | C  | C  | A  | C  | G |
| Scotland-2002_a | S15 | CT | G  | A  | T  | G  | TC | C  | TA | CT | G |
| Scotland-2002_a | S16 | C  | G  | A  | T  | G  | TC | C  | TA | C  | G |
| Scotland-2002_a | S17 | C  | G  | A  | T  | G  | C  | C  | A  | C  | G |
| Scotland-2002_a | S18 | C  | G  | A  | CT | G  | C  | C  | TA | C  | G |
| Scotland-2002_a | S19 | C  | G  | A  | CT | G  | TC | C  |    | C  | G |
| Scotland-2002_a | S2  | C  | G  | GA | CT | GA | C  | C  | T  | C  |   |
| Scotland-2002_a | S20 | C  | G  | A  | T  | G  | C  | C  | A  | C  | G |
| Scotland-2002_a | S21 | C  | A  | GA | CT | G  | T  | CT | TA | CT | G |
| Scotland-2002_a | S22 | C  | GA | GA | CT | G  | TC | C  | TA | CT | G |
| Scotland-2002_a | S23 | C  | G  | A  | CT | G  | TC | C  | A  | C  | G |
| Scotland-2002_a | S24 | C  | G  | A  | T  | G  | TC | C  | T  | C  | G |
| Scotland-2002_a | S25 | C  | G  | A  | CT | G  | C  | C  | TA | C  | G |
| Scotland-2002_a | S26 | C  | GA | A  | T  | G  | C  | C  | A  | C  | G |
| Scotland-2002_a | S27 | C  | G  | A  | T  | GA | C  | C  | T  | C  | G |
| Scotland-2002_a | S28 | C  | GA | GA | T  | G  | TC | CT | TA | CT | G |
| Scotland-2002_a | S29 | T  | G  | GA | T  | G  | C  | C  | T  | C  | G |
| Scotland-2002_a | S3  | C  |    |    | T  | G  | C  | C  | TA | C  | G |
| Scotland-2002_a | S30 | C  | GA | A  | CT | G  | TC | C  | A  | C  | G |

|                 |     |    |    |    |    |    |    |    |    |    |   |
|-----------------|-----|----|----|----|----|----|----|----|----|----|---|
| Scotland-2002_a | S31 | C  | GA | GA | CT | G  | C  | CT | TA | CT | G |
| Scotland-2002_a | S32 | C  | G  | A  | T  | G  | C  | C  | TA | C  | G |
| Scotland-2002_a | S33 | C  | G  | A  | C  | G  | C  | C  | T  | C  | G |
| Scotland-2002_a | S34 | C  | G  | A  | CT | G  | TC | C  |    | CT |   |
| Scotland-2002_a | S35 | C  | G  | GA | T  | G  | C  | C  | TA | CT | G |
| Scotland-2002_a | S36 | C  | G  | A  | T  | G  | C  | C  | TA | C  | G |
| Scotland-2002_a | S37 | C  | GA | GA | CT | G  | C  | C  | T  | C  | G |
| Scotland-2002_a | S38 | C  | GA | GA | T  | G  | T  | C  | T  | T  | G |
| Scotland-2002_a | S39 | C  | GA | A  | T  | GA | C  | C  | T  | C  | G |
| Scotland-2002_a | S4  | C  | GA | A  | CT | G  | C  | C  | TA | C  | G |
| Scotland-2002_a | S40 | C  | G  | GA | CT | G  | TC | C  | TA | CT |   |
| Scotland-2002_a | S41 | CT | GA | A  | T  | G  | C  | CT | TA | C  | G |
| Scotland-2002_a | S42 | C  | GA | A  | CT | G  | C  | C  | TA | CT |   |
| Scotland-2002_a | S43 | C  | GA | G  | C  | G  | TC | C  | T  | CT | G |
| Scotland-2002_a | S44 | C  | G  | A  | CT | G  |    |    | A  | C  | G |
| Scotland-2002_a | S45 | C  | G  | A  | CT | G  | TC | C  | TA | CT | G |
| Scotland-2002_a | S46 | C  | G  | A  | T  | G  | C  | C  | A  | C  | A |
| Scotland-2002_a | S47 | C  | G  | A  | CT | G  | TC | C  | TA | CT | G |
| Scotland-2002_a | S48 | C  | G  | A  | CT | G  | TC | C  | TA | CT | G |
| Scotland-2002_a | S49 | C  | G  | GA | CT | GA | C  | CT | TA | C  | G |
| Scotland-2002_a | S5  | CT | G  | A  | CT | G  | C  | C  | T  | C  | G |
| Scotland-2002_a | S50 | CT | G  | A  | CT | G  | TC | C  | TA | CT | G |
| Scotland-2002_a | S51 | CT | GA | A  | T  | G  | C  | C  | TA | CT | G |
| Scotland-2002_a | S52 | C  | GA | GA | T  | G  | TC | CT | T  | C  | G |
| Scotland-2002_a | S53 | C  | G  | A  | T  | G  | C  | C  | T  | C  | G |
| Scotland-2002_a | S54 | C  | GA | GA | T  | GA | C  | C  | TA | CT | G |
| Scotland-2002_a | S55 | C  | G  | A  | CT | G  | TC | C  |    | C  | G |
| Scotland-2002_a | S56 | C  | G  | A  | C  | G  | TC | CT | T  | CT | G |
| Scotland-2002_a | S57 | C  |    | GA | T  | G  | TC | C  | TA | CT | G |
| Scotland-2002_a | S58 | C  | G  | A  | T  | G  | C  | C  | T  | CT | G |
| Scotland-2002_a | S59 | C  |    | A  | CT | G  | TC | C  | TA | CT | G |
| Scotland-2002_a | S6  | C  | G  | A  | T  | G  |    | C  |    | C  |   |
| Scotland-2002_a | S60 | C  | G  | GA | CT | G  | C  | CT | TA | C  | G |
| Scotland-2002_a | S7  | C  | G  | A  |    | G  | C  | C  | A  | C  | G |
| Scotland-2002_a | S8  | CT | G  | A  | CT | G  | TC | C  | TA | C  | G |
| Scotland-2002_a | S9  | C  | G  | A  | T  | G  | C  | C  | TA | C  | G |