

| ID    | Accession  | Name    | Site | ST    | cc Cap | rMLST | Comment                      |
|-------|------------|---------|------|-------|--------|-------|------------------------------|
| 57328 | ERR2847670 | AR00145 | A    | 11    | 11 W   | 0.94  |                              |
| 57335 | ERR2847773 | AR00283 | A    | 11149 | 11 W   | 0.96  |                              |
| 57340 | ERR2847715 | AR00416 | A    | 11    | 11 W   | 1.00  |                              |
| 57349 | ERR2847566 | AR00463 | A    | 11    | 11 W   | 1.00  |                              |
| 57352 | ERR2847788 | AR00510 | A    | 11    | 11 W   | 1.00  |                              |
| 57355 | ERR2847774 | AR00542 | A    | 11    | 11 W   | 1.00  |                              |
| 57356 | ERR2847793 | AR00564 | A    | 11    | 11 W   | 1.00  |                              |
| 57358 | ERR2847706 | AR00612 | A    | 11    | 11 W   | 1.00  |                              |
| 57359 | ERR2847560 | AR00633 | A    | 11    | 11 W   | 1.00  |                              |
| 57360 | ERR2847400 | AR00638 | A    | 11    | 11 W   | 1.00  |                              |
| 57361 | ERR2847438 | AR00680 | A    | 11    | 11 W   | 0.96  |                              |
| 60034 | ERR2847487 | AR01589 | B    | 11    | 11 W   | 0.96  |                              |
| 60036 | ERR2847753 | AR01602 | B    | 11    | 11 W   | 0.96  |                              |
| 60070 | ERR2847688 | AR02792 | B    | 11    | 11 W   | 0.96  |                              |
| 60074 | ERR2847800 | AR02917 | B    | 11    | 11 W   | 0.96  |                              |
| 60092 | ERR2847677 | AR03106 | B    | 11    | 11 W   | 0.94  |                              |
| 60138 | ERR2847433 | AR03835 | B    | 11    | 11 W   | 0.96  |                              |
| 60170 | ERR2847689 | AR04006 | C    | 11    | 11 W   | 0.96  |                              |
| 60220 | ERR2847806 | AR04805 | C    | 11    | 11 W   | 1.00  |                              |
| 60230 | ERR2847711 | AR07365 | D    | 11    | 11 W   | 1.00  |                              |
| 60237 | ERR2847633 | AR05068 | C    | 11    | 11 W   | 0.96  |                              |
| 60294 | ERR2847355 | AR07558 | D    | 11    | 11 W   | 1.00  |                              |
| 60310 | ERR2847379 | AR07119 | C    | 11    | 11 W   | 0.96  |                              |
| 60314 | ERR2847746 | AR04768 | C    | 11    | 11 W   | 0.96  |                              |
| 60319 | ERR2847777 | AR02217 | B    | 11    | 11 W   | 0.96  |                              |
| 60330 | ERR2847776 | AR05906 | C    | 7849  | 11 W   | 0.96  |                              |
| 60411 | ERR2847443 | AR03130 | B    | 11    | 11 W   | 0.96  |                              |
| 61211 | ERR2847607 | AR04366 | C    | 11    | 11 W   | 0.96  |                              |
| 60347 | ERR2847809 | AR06071 | D    | 35    | 35 -   | 1.00  | <i>ctrABCDEF, cseABCDEFG</i> |
| 60362 | ERR2847653 | AR04894 | C    | 35    | 35 B   | 1.00  |                              |
| 60398 | ERR2847392 | AR06734 | D    | 35    | 35 -   | 1.00  | <i>ctrABCDEF, cseBCDEFG</i>  |
| 60408 | ERR2847763 | AR07466 | D    | 35    | 35 C   | 0.98  |                              |
| 60417 | ERR2847458 | AR06849 | D    | 35    | 35 B   | 0.98  |                              |
| 61201 | ERR2847474 | AR04285 | C    | 35    | 35 -   | 1.00  | <i>ctrEF</i>                 |
| 60057 | ERR2847543 | AR02037 | B    | 53    | 53 cnl | 0.96  |                              |
| 60058 | ERR2847558 | AR02067 | B    | 53    | 53 cnl | 0.96  |                              |
| 60068 | ERR2847615 | AR02730 | B    | 53    | 53 cnl | 0.96  |                              |
| 60094 | ERR2847527 | AR03148 | B    | 7389  | 53 cnl | 0.96  |                              |
| 60098 | ERR2847767 | AR03534 | B    | 53    | 53 cnl | 0.96  |                              |
| 60100 | ERR2847794 | AR03399 | B    | 53    | 53 cnl | 0.96  |                              |
| 60101 | ERR2847766 | AR03449 | B    | 53    | 53 cnl | 0.96  |                              |
| 60106 | ERR2847506 | AR03586 | B    | 53    | 53 cnl | 0.98  |                              |
| 60109 | ERR2847609 | AR03613 | B    | 53    | 53 cnl | 0.98  |                              |
| 60121 | ERR2847448 | AR03741 | B    | 53    | 53 cnl | 0.96  |                              |
| 60127 | ERR2847625 | AR03805 | B    | 53    | 53 cnl | 0.98  |                              |
| 60135 | ERR2847425 | AR03493 | B    | 53    | 53 cnl | 0.96  |                              |
| 60183 | ERR2847572 | AR04623 | C    | 53    | 53 cnl | 0.96  |                              |
| 60205 | ERR2847646 | AR04510 | C    | 53    | 53 cnl | 0.94  |                              |
| 60206 | ERR2847480 | AR04546 | C    | 53    | 53 cnl | 0.96  |                              |

|       |            |         |   |       |         |                                   |
|-------|------------|---------|---|-------|---------|-----------------------------------|
| 60208 | ERR2847697 | AR04603 | C | 53    | 53 cnl  | 0.96                              |
| 60216 | ERR2847412 | AR04729 | C | 53    | 53 cnl  | 0.96                              |
| 60226 | ERR2847791 | AR04867 | C | 53    | 53 cnl  | 0.96                              |
| 60246 | ERR2847592 | AR05252 | C | 53    | 53 cnl  | 0.96                              |
| 60248 | ERR2847346 | AR05264 | C | 53    | 53 cnl  | 0.96                              |
| 60266 | ERR2847368 | AR05849 | C | 53    | 53 cnl  | 0.98                              |
| 60309 | ERR2847453 | AR07116 | C | 53    | 53 cnl  | 0.94                              |
| 60317 | ERR2847701 | AR01529 | B | 53    | 53 cnl  | 0.96                              |
| 60329 | ERR2847726 | AR05858 | C | 53    | 53 cnl  | 0.96                              |
| 60342 | ERR2847538 | AR06004 | C | 53    | 53 cnl  | 0.96                              |
| 60354 | ERR2847734 | AR01790 | B | 53    | 53 cnl  | 0.96                              |
| 60357 | ERR2847700 | AR03575 | B | 53    | 53 cnl  | 0.98                              |
| 60360 | ERR2847702 | AR04301 | C | 53    | 53 cnl  | 0.96                              |
| 60390 | ERR2847403 | AR05875 | C | 11594 | 53 cnl  | 0.94                              |
| 60407 | ERR2847498 | AR07198 | C | 53    | 53 cnl  | 0.94                              |
| 61200 | ERR2847406 | AR04284 | C | 53    | 53 cnl  | 0.94                              |
| 61202 | ERR2847817 | AR04302 | C | 53    | 53 cnl  | 0.94                              |
| 61203 | ERR2847439 | AR04304 | C | 53    | 53 cnl  | 0.96                              |
| 61204 | ERR2847469 | AR04311 | C | 53    | 53 cnl  | 0.96                              |
| 61205 | ERR2847580 | AR04321 | C | 53    | 53 cnl  | 0.94                              |
| 61206 | ERR2847486 | AR04322 | C | 53    | 53 cnl  | 0.94                              |
| 61210 | ERR2847347 | AR04320 | C | 53    | 53 cnl  | 0.94                              |
| 61212 | ERR2847483 | AR04373 | C | 53    | 53 cnl  | 0.96                              |
| 60405 | ERR2847619 | AR07183 | C | 767   | 167 Y   | 0.98                              |
| 57336 | ERR2847492 | AR00302 | A | 8447  | 175 C   | 0.98                              |
| 60134 | ERR2847472 | AR03481 | B | 175   | 175 -   | 1.00 <i>ctrBCDEF</i>              |
| 60143 | ERR2847761 | AR03921 | C | 175   | 175 -   | 1.00 <i>ctrBCDEF</i>              |
| 60308 | ERR2847547 | AR05331 | C | 175   | 175 -   | 1.00 <i>ctrBCDEF</i>              |
| 60403 | ERR2847725 | AR07092 | C | 8447  | 175 C   | 0.98                              |
| 61207 | ERR2847707 | AR04332 | C | 175   | 175 -   | 1.00 <i>ctrBCDEF</i>              |
| 60231 | ERR2847571 | AR07612 | D | 178   | 178 -   | 0.98 <i>ctrABCDEF, cseABCDEFG</i> |
| 57594 | ERR2847419 | AR05983 | C | 181   | 181 X   | 0.95                              |
| 60125 | ERR2847422 | AR03791 | B | 181   | 181 X   | 1.00                              |
| 60147 | ERR2847650 | AR04095 | C | 181   | 181 X   | 0.97                              |
| 60158 | ERR2847554 | AR04144 | C | 181   | 181 X   | 0.97                              |
| 60161 | ERR2847383 | AR04170 | C | 181   | 181 X   | 0.97                              |
| 60164 | ERR2847693 | AR04192 | C | 181   | 181 X   | 0.97                              |
| 60270 | ERR2847533 | AR06369 | D | 11591 | 181 X   | 1.00                              |
| 60284 | ERR2847784 | AR06955 | D | 11591 | 181 X   | 1.00                              |
| 60287 | ERR2847389 | AR07307 | D | 11591 | 181 X   | 1.00                              |
| 60291 | ERR2847588 | AR07515 | D | 11591 | 181 X   | 1.00                              |
| 60295 | ERR2847373 | AR07578 | D | 11591 | 181 X   | 1.00                              |
| 60344 | ERR2847739 | AR06027 | C | 181   | 181 X   | 0.95                              |
| 60373 | ERR2847804 | AR05771 | C | 11591 | 181 X   | 1.00                              |
| 56759 | ERR2847692 | AR05971 | C | 192   | 192 cnl | 0.98                              |
| 57315 | ERR2847363 | AR00033 | A | 192   | 192 cnl | 0.98                              |
| 57316 | ERR2847562 | AR00053 | A | 192   | 192 cnl | 0.98                              |
| 57317 | ERR2847651 | AR00060 | A | 192   | 192 cnl | 0.98                              |
| 57319 | ERR2847579 | AR00093 | A | 192   | 192 cnl | 0.98                              |
| 57320 | ERR2847644 | AR00160 | A | 192   | 192 cnl | 0.98                              |

|       |            |         |   |     |         |      |
|-------|------------|---------|---|-----|---------|------|
| 57321 | ERR2847494 | AR00161 | A | 192 | 192 cnl | 0.98 |
| 57322 | ERR2847552 | AR00173 | A | 192 | 192 cnl | 0.98 |
| 57323 | ERR2847570 | AR00115 | A | 192 | 192 cnl | 0.98 |
| 57324 | ERR2847656 | AR00123 | A | 192 | 192 cnl | 0.98 |
| 57325 | ERR2847551 | AR00126 | A | 192 | 192 cnl | 0.98 |
| 57327 | ERR2847719 | AR00134 | A | 192 | 192 cnl | 0.98 |
| 57329 | ERR2847352 | AR00182 | A | 192 | 192 cnl | 0.98 |
| 57330 | ERR2847740 | AR00167 | A | 192 | 192 cnl | 0.98 |
| 57332 | ERR2847786 | AR00238 | A | 192 | 192 cnl | 0.98 |
| 57333 | ERR2847348 | AR00249 | A | 192 | 192 cnl | 0.98 |
| 57334 | ERR2847526 | AR00259 | A | 192 | 192 cnl | 0.96 |
| 57338 | ERR2847591 | AR00335 | A | 192 | 192 cnl | 0.98 |
| 57339 | ERR2847758 | AR00356 | A | 192 | 192 cnl | 0.98 |
| 57341 | ERR2847384 | AR00440 | A | 192 | 192 cnl | 0.96 |
| 57342 | ERR2847611 | AR00441 | A | 192 | 192 cnl | 0.98 |
| 57344 | ERR2847510 | AR00453 | A | 192 | 192 cnl | 0.96 |
| 57345 | ERR2847610 | AR00454 | A | 192 | 192 cnl | 0.96 |
| 57346 | ERR2847818 | AR00388 | A | 192 | 192 cnl | 0.96 |
| 57350 | ERR2847759 | AR00470 | A | 192 | 192 cnl | 0.98 |
| 57351 | ERR2847783 | AR00482 | A | 192 | 192 cnl | 0.88 |
| 57353 | ERR2847768 | AR00515 | A | 192 | 192 cnl | 0.96 |
| 57354 | ERR2847418 | AR00540 | A | 192 | 192 cnl | 0.98 |
| 57362 | ERR2847663 | AR00685 | A | 192 | 192 cnl | 0.96 |
| 57364 | ERR2847361 | AR00697 | A | 192 | 192 cnl | 0.98 |
| 57365 | ERR2847367 | AR00712 | A | 192 | 192 cnl | 0.98 |
| 57366 | ERR2847362 | AR00713 | A | 192 | 192 cnl | 0.98 |
| 57367 | ERR2847417 | AR00733 | A | 192 | 192 cnl | 0.98 |
| 57368 | ERR2847522 | AR00737 | A | 192 | 192 cnl | 0.98 |
| 57369 | ERR2847785 | AR00744 | A | 192 | 192 cnl | 0.98 |
| 57370 | ERR2847742 | AR00747 | A | 192 | 192 cnl | 0.96 |
| 57371 | ERR2847584 | AR00750 | A | 192 | 192 cnl | 0.98 |
| 57372 | ERR2847620 | AR00760 | A | 192 | 192 cnl | 0.98 |
| 57373 | ERR2847602 | AR00761 | A | 192 | 192 cnl | 0.98 |
| 57374 | ERR2847747 | AR00765 | A | 192 | 192 cnl | 0.98 |
| 57375 | ERR2847604 | AR00771 | A | 192 | 192 cnl | 0.98 |
| 57376 | ERR2847431 | AR00772 | A | 192 | 192 cnl | 0.98 |
| 57592 | ERR2847540 | AR05973 | C | 192 | 192 cnl | 0.98 |
| 57974 | ERR2847671 | AR00777 | A | 192 | 192 cnl | 0.98 |
| 57975 | ERR2847822 | AR00784 | A | 192 | 192 cnl | 0.98 |
| 57977 | ERR2847667 | AR00786 | A | 192 | 192 cnl | 0.98 |
| 57979 | ERR2847757 | AR00926 | A | 192 | 192 cnl | 0.98 |
| 57980 | ERR2847755 | AR00946 | A | 192 | 192 cnl | 0.98 |
| 57981 | ERR2847722 | AR00951 | A | 192 | 192 cnl | 0.98 |
| 57983 | ERR2847441 | AR00917 | A | 192 | 192 cnl | 0.98 |
| 57985 | ERR2847810 | AR00941 | A | 192 | 192 cnl | 0.98 |
| 57986 | ERR2847415 | AR00909 | A | 192 | 192 cnl | 0.98 |
| 57987 | ERR2847748 | AR00981 | A | 192 | 192 cnl | 0.98 |
| 57988 | ERR2847428 | AR00928 | A | 192 | 192 cnl | 0.98 |
| 57989 | ERR2847497 | AR00910 | A | 192 | 192 cnl | 0.98 |
| 57990 | ERR2847716 | AR01045 | A | 192 | 192 cnl | 0.98 |

|       |            |         |   |     |         |      |
|-------|------------|---------|---|-----|---------|------|
| 57991 | ERR2847581 | AR00954 | A | 192 | 192 cnl | 0.98 |
| 57992 | ERR2847654 | AR00923 | A | 192 | 192 cnl | 0.98 |
| 57993 | ERR2847732 | AR00993 | A | 192 | 192 cnl | 0.98 |
| 57994 | ERR2847593 | AR01000 | A | 192 | 192 cnl | 0.98 |
| 57995 | ERR2847465 | AR01007 | A | 192 | 192 cnl | 0.98 |
| 57996 | ERR2847718 | AR01017 | A | 192 | 192 cnl | 0.96 |
| 57998 | ERR2847436 | AR01192 | A | 192 | 192 cnl | 0.98 |
| 57999 | ERR2847513 | AR01201 | A | 192 | 192 cnl | 0.98 |
| 58000 | ERR2847605 | AR01202 | A | 192 | 192 cnl | 0.97 |
| 58001 | ERR2847787 | AR01207 | A | 192 | 192 cnl | 0.98 |
| 58002 | ERR2847754 | AR01209 | A | 192 | 192 cnl | 0.98 |
| 58003 | ERR2847632 | AR01260 | A | 192 | 192 cnl | 0.98 |
| 60030 | ERR2847613 | AR01263 | A | 192 | 192 cnl | 0.98 |
| 60031 | ERR2847555 | AR01271 | A | 192 | 192 cnl | 0.98 |
| 60033 | ERR2847519 | AR01579 | B | 192 | 192 cnl | 0.98 |
| 60035 | ERR2847504 | AR01595 | B | 192 | 192 cnl | 0.98 |
| 60037 | ERR2847614 | AR01609 | B | 192 | 192 cnl | 0.98 |
| 60038 | ERR2847550 | AR01617 | B | 192 | 192 cnl | 0.98 |
| 60039 | ERR2847399 | AR01623 | B | 192 | 192 cnl | 0.98 |
| 60041 | ERR2847808 | AR01683 | B | 192 | 192 cnl | 0.98 |
| 60042 | ERR2847466 | AR01690 | B | 192 | 192 cnl | 0.98 |
| 60043 | ERR2847624 | AR01696 | B | 192 | 192 cnl | 0.98 |
| 60044 | ERR2847664 | AR01717 | B | 192 | 192 cnl | 0.98 |
| 60045 | ERR2847662 | AR01718 | B | 192 | 192 cnl | 0.98 |
| 60046 | ERR2847499 | AR01740 | B | 192 | 192 cnl | 0.98 |
| 60047 | ERR2847445 | AR01742 | B | 192 | 192 cnl | 0.98 |
| 60048 | ERR2847463 | AR01764 | B | 192 | 192 cnl | 0.98 |
| 60050 | ERR2847545 | AR01768 | B | 192 | 192 cnl | 0.98 |
| 60052 | ERR2847813 | AR01806 | B | 192 | 192 cnl | 0.98 |
| 60053 | ERR2847561 | AR01848 | B | 192 | 192 cnl | 0.98 |
| 60054 | ERR2847637 | AR01857 | B | 192 | 192 cnl | 0.98 |
| 60055 | ERR2847574 | AR01883 | B | 192 | 192 cnl | 0.96 |
| 60059 | ERR2847820 | AR02128 | B | 192 | 192 cnl | 0.98 |
| 60062 | ERR2847600 | AR02163 | B | 192 | 192 cnl | 0.98 |
| 60064 | ERR2847520 | AR02354 | B | 192 | 192 cnl | 0.98 |
| 60065 | ERR2847612 | AR02675 | B | 192 | 192 cnl | 0.96 |
| 60066 | ERR2847736 | AR02559 | B | 192 | 192 cnl | 0.98 |
| 60067 | ERR2847798 | AR02565 | B | 192 | 192 cnl | 0.98 |
| 60071 | ERR2847596 | AR02861 | B | 192 | 192 cnl | 0.96 |
| 60072 | ERR2847396 | AR02866 | B | 192 | 192 cnl | 0.96 |
| 60073 | ERR2847359 | AR02889 | B | 192 | 192 cnl | 0.98 |
| 60075 | ERR2847790 | AR02931 | B | 192 | 192 cnl | 0.98 |
| 60076 | ERR2847351 | AR02933 | B | 192 | 192 cnl | 0.98 |
| 60077 | ERR2847516 | AR02940 | B | 192 | 192 cnl | 0.98 |
| 60078 | ERR2847737 | AR02946 | B | 192 | 192 cnl | 0.98 |
| 60079 | ERR2847760 | AR02967 | B | 192 | 192 cnl | 0.98 |
| 60080 | ERR2847358 | AR02982 | B | 192 | 192 cnl | 0.98 |
| 60081 | ERR2847462 | AR02991 | B | 192 | 192 cnl | 0.96 |
| 60086 | ERR2847585 | AR03037 | B | 192 | 192 cnl | 0.98 |
| 60087 | ERR2847424 | AR03038 | B | 192 | 192 cnl | 0.98 |

|       |            |         |   |     |         |      |
|-------|------------|---------|---|-----|---------|------|
| 60089 | ERR2847536 | AR03067 | B | 192 | 192 cnl | 0.98 |
| 60090 | ERR2847709 | AR03082 | B | 192 | 192 cnl | 0.98 |
| 60091 | ERR2847595 | AR03094 | B | 192 | 192 cnl | 0.98 |
| 60093 | ERR2847672 | AR03114 | B | 192 | 192 cnl | 0.98 |
| 60097 | ERR2847586 | AR03522 | B | 192 | 192 cnl | 0.98 |
| 60107 | ERR2847446 | AR03604 | B | 192 | 192 cnl | 0.98 |
| 60108 | ERR2847357 | AR03609 | B | 192 | 192 cnl | 0.98 |
| 60110 | ERR2847476 | AR03615 | B | 192 | 192 cnl | 0.98 |
| 60111 | ERR2847756 | AR03621 | B | 192 | 192 cnl | 0.98 |
| 60112 | ERR2847802 | AR03622 | B | 192 | 192 cnl | 0.98 |
| 60113 | ERR2847779 | AR03627 | B | 192 | 192 cnl | 0.98 |
| 60114 | ERR2847643 | AR03631 | B | 192 | 192 cnl | 0.98 |
| 60115 | ERR2847647 | AR03635 | B | 192 | 192 cnl | 0.98 |
| 60116 | ERR2847456 | AR03662 | B | 192 | 192 cnl | 0.98 |
| 60117 | ERR2847622 | AR03700 | B | 192 | 192 cnl | 0.98 |
| 60118 | ERR2847723 | AR03706 | B | 192 | 192 cnl | 0.98 |
| 60119 | ERR2847501 | AR03710 | B | 192 | 192 cnl | 0.98 |
| 60120 | ERR2847752 | AR03739 | B | 192 | 192 cnl | 0.98 |
| 60122 | ERR2847795 | AR03770 | B | 192 | 192 cnl | 0.98 |
| 60123 | ERR2847807 | AR03776 | B | 192 | 192 cnl | 0.98 |
| 60124 | ERR2847569 | AR03787 | B | 192 | 192 cnl | 0.96 |
| 60126 | ERR2847397 | AR03792 | B | 192 | 192 cnl | 0.96 |
| 60128 | ERR2847479 | AR03807 | B | 192 | 192 cnl | 0.96 |
| 60129 | ERR2847735 | AR03812 | B | 192 | 192 cnl | 0.98 |
| 60130 | ERR2847565 | AR03816 | B | 192 | 192 cnl | 0.98 |
| 60131 | ERR2847678 | AR03820 | B | 192 | 192 cnl | 0.98 |
| 60132 | ERR2847599 | AR03822 | B | 192 | 192 cnl | 0.98 |
| 60136 | ERR2847713 | AR03499 | B | 192 | 192 cnl | 0.98 |
| 60139 | ERR2847380 | AR03864 | B | 192 | 192 cnl | 0.98 |
| 60140 | ERR2847816 | AR03872 | B | 192 | 192 cnl | 0.98 |
| 60142 | ERR2847666 | AR03920 | C | 192 | 192 cnl | 0.98 |
| 60144 | ERR2847687 | AR03951 | C | 192 | 192 cnl | 0.98 |
| 60145 | ERR2847491 | AR03953 | C | 192 | 192 cnl | 0.98 |
| 60146 | ERR2847686 | AR03978 | C | 192 | 192 cnl | 0.98 |
| 60148 | ERR2847548 | AR04097 | C | 192 | 192 cnl | 0.98 |
| 60149 | ERR2847475 | AR04102 | C | 192 | 192 cnl | 0.98 |
| 60150 | ERR2847557 | AR04103 | C | 192 | 192 cnl | 0.98 |
| 60151 | ERR2847493 | AR04114 | C | 192 | 192 cnl | 0.98 |
| 60152 | ERR2847694 | AR04116 | C | 192 | 192 cnl | 0.98 |
| 60153 | ERR2847372 | AR04117 | C | 192 | 192 cnl | 0.98 |
| 60154 | ERR2847770 | AR04122 | C | 192 | 192 cnl | 0.98 |
| 60155 | ERR2847638 | AR04131 | C | 192 | 192 cnl | 0.98 |
| 60156 | ERR2847503 | AR04132 | C | 192 | 192 cnl | 0.98 |
| 60157 | ERR2847771 | AR04133 | C | 192 | 192 cnl | 0.98 |
| 60159 | ERR2847603 | AR04160 | C | 192 | 192 cnl | 0.98 |
| 60160 | ERR2847684 | AR04162 | C | 192 | 192 cnl | 0.98 |
| 60162 | ERR2847626 | AR04176 | C | 192 | 192 cnl | 0.98 |
| 60165 | ERR2847675 | AR04208 | C | 192 | 192 cnl | 0.98 |
| 60166 | ERR2847617 | AR04213 | C | 192 | 192 cnl | 0.98 |
| 60167 | ERR2847435 | AR04215 | C | 192 | 192 cnl | 0.98 |

|       |            |         |   |     |         |      |
|-------|------------|---------|---|-----|---------|------|
| 60168 | ERR2847437 | AR04242 | C | 192 | 192 cnl | 0.96 |
| 60169 | ERR2847528 | AR03983 | C | 192 | 192 cnl | 0.98 |
| 60171 | ERR2847655 | AR04244 | C | 192 | 192 cnl | 0.98 |
| 60172 | ERR2847796 | AR04456 | C | 192 | 192 cnl | 0.98 |
| 60174 | ERR2847608 | AR04468 | C | 192 | 192 cnl | 0.98 |
| 60175 | ERR2847642 | AR04469 | C | 192 | 192 cnl | 0.98 |
| 60176 | ERR2847815 | AR04472 | C | 192 | 192 cnl | 0.98 |
| 60180 | ERR2847676 | AR04506 | C | 192 | 192 cnl | 0.98 |
| 60204 | ERR2847659 | AR04363 | C | 192 | 192 cnl | 0.98 |
| 60207 | ERR2847408 | AR04597 | C | 192 | 192 cnl | 0.98 |
| 60209 | ERR2847365 | AR04661 | C | 192 | 192 cnl | 0.98 |
| 60210 | ERR2847819 | AR04662 | C | 192 | 192 cnl | 0.98 |
| 60212 | ERR2847714 | AR04693 | C | 192 | 192 cnl | 0.96 |
| 60213 | ERR2847745 | AR04706 | C | 192 | 192 cnl | 0.98 |
| 60214 | ERR2847691 | AR04707 | C | 192 | 192 cnl | 0.98 |
| 60215 | ERR2847478 | AR04709 | C | 192 | 192 cnl | 0.98 |
| 60217 | ERR2847772 | AR04732 | C | 192 | 192 cnl | 0.98 |
| 60219 | ERR2847531 | AR04775 | C | 192 | 192 cnl | 0.98 |
| 60222 | ERR2847559 | AR04816 | C | 192 | 192 cnl | 0.96 |
| 60225 | ERR2847640 | AR04859 | C | 192 | 192 cnl | 0.96 |
| 60233 | ERR2847353 | AR07702 | D | 192 | 192 cnl | 0.98 |
| 60234 | ERR2847629 | AR04890 | C | 192 | 192 cnl | 0.98 |
| 60235 | ERR2847799 | AR05064 | C | 192 | 192 cnl | 0.98 |
| 60236 | ERR2847568 | AR05065 | C | 192 | 192 cnl | 0.98 |
| 60238 | ERR2847824 | AR05072 | C | 192 | 192 cnl | 0.98 |
| 60239 | ERR2847641 | AR05100 | C | 192 | 192 cnl | 0.98 |
| 60240 | ERR2847356 | AR05106 | C | 192 | 192 cnl | 0.98 |
| 60241 | ERR2847386 | AR05204 | C | 192 | 192 cnl | 0.98 |
| 60242 | ERR2847460 | AR05220 | C | 192 | 192 cnl | 0.98 |
| 60243 | ERR2847523 | AR05233 | C | 192 | 192 cnl | 0.98 |
| 60244 | ERR2847542 | AR05235 | C | 192 | 192 cnl | 0.98 |
| 60245 | ERR2847535 | AR05236 | C | 192 | 192 cnl | 0.98 |
| 60247 | ERR2847594 | AR05259 | C | 192 | 192 cnl | 0.98 |
| 60249 | ERR2847378 | AR05298 | C | 192 | 192 cnl | 0.98 |
| 60250 | ERR2847717 | AR05301 | C | 192 | 192 cnl | 0.98 |
| 60251 | ERR2847524 | AR05309 | C | 192 | 192 cnl | 0.98 |
| 60252 | ERR2847452 | AR05311 | C | 192 | 192 cnl | 0.98 |
| 60253 | ERR2847797 | AR05337 | C | 192 | 192 cnl | 0.98 |
| 60254 | ERR2847738 | AR05343 | C | 192 | 192 cnl | 0.98 |
| 60257 | ERR2847402 | AR05576 | C | 192 | 192 cnl | 0.98 |
| 60259 | ERR2847699 | AR05578 | C | 192 | 192 cnl | 0.98 |
| 60260 | ERR2847601 | AR05601 | C | 192 | 192 cnl | 0.98 |
| 60262 | ERR2847764 | AR05765 | C | 192 | 192 cnl | 0.98 |
| 60263 | ERR2847673 | AR05796 | C | 192 | 192 cnl | 0.98 |
| 60267 | ERR2847512 | AR05896 | C | 192 | 192 cnl | 0.98 |
| 60268 | ERR2847597 | AR05899 | C | 192 | 192 cnl | 0.98 |
| 60274 | ERR2847451 | AR06633 | D | 192 | 192 cnl | 0.98 |
| 60278 | ERR2847370 | AR06867 | D | 192 | 192 cnl | 0.98 |
| 60282 | ERR2847696 | AR06919 | D | 192 | 192 cnl | 0.98 |
| 60283 | ERR2847721 | AR06953 | D | 192 | 192 cnl | 0.98 |

|       |            |         |   |       |         |      |
|-------|------------|---------|---|-------|---------|------|
| 60285 | ERR2847496 | AR06997 | D | 192   | 192 cnl | 0.98 |
| 60296 | ERR2847395 | AR04359 | C | 192   | 192 cnl | 0.98 |
| 60297 | ERR2847583 | AR04521 | C | 192   | 192 cnl | 0.98 |
| 60298 | ERR2847350 | AR04573 | C | 192   | 192 cnl | 0.98 |
| 60300 | ERR2847782 | AR04839 | C | 192   | 192 cnl | 0.98 |
| 60304 | ERR2847364 | AR05007 | C | 192   | 192 cnl | 0.98 |
| 60305 | ERR2847470 | AR05079 | C | 192   | 192 cnl | 0.98 |
| 60307 | ERR2847409 | AR05227 | C | 192   | 192 cnl | 0.98 |
| 60311 | ERR2847381 | AR07154 | C | 192   | 192 cnl | 0.98 |
| 60316 | ERR2847681 | AR01022 | A | 192   | 192 cnl | 0.98 |
| 60318 | ERR2847657 | AR01691 | B | 192   | 192 cnl | 0.98 |
| 60320 | ERR2847724 | AR02932 | B | 192   | 192 cnl | 0.98 |
| 60321 | ERR2847394 | AR03134 | B | 192   | 192 cnl | 0.96 |
| 60322 | ERR2847366 | AR03645 | B | 192   | 192 cnl | 0.98 |
| 60324 | ERR2847712 | AR03777 | B | 192   | 192 cnl | 0.98 |
| 60325 | ERR2847639 | AR03778 | B | 192   | 192 cnl | 0.96 |
| 60328 | ERR2847750 | AR05830 | C | 192   | 192 cnl | 0.98 |
| 60332 | ERR2847658 | AR05916 | C | 11642 | 192 cnl | 0.98 |
| 60333 | ERR2847762 | AR05928 | C | 192   | 192 cnl | 0.98 |
| 60335 | ERR2847391 | AR05941 | C | 192   | 192 cnl | 0.98 |
| 60336 | ERR2847695 | AR05950 | C | 192   | 192 cnl | 0.98 |
| 60337 | ERR2847680 | AR05958 | C | 192   | 192 cnl | 0.98 |
| 60338 | ERR2847411 | AR05962 | C | 192   | 192 cnl | 0.98 |
| 60339 | ERR2847385 | AR05969 | C | 11598 | 192 cnl | 0.98 |
| 60340 | ERR2847382 | AR05990 | C | 192   | 192 cnl | 0.98 |
| 60341 | ERR2847744 | AR06000 | C | 192   | 192 cnl | 0.98 |
| 60345 | ERR2847563 | AR06056 | D | 192   | 192 cnl | 0.98 |
| 60348 | ERR2847801 | AR00041 | A | 192   | 192 cnl | 0.98 |
| 60349 | ERR2847705 | AR00058 | A | 192   | 192 cnl | 0.98 |
| 60350 | ERR2847387 | AR00228 | A | 192   | 192 cnl | 0.98 |
| 60351 | ERR2847511 | AR00492 | A | 192   | 192 cnl | 0.98 |
| 60352 | ERR2847525 | AR00742 | A | 192   | 192 cnl | 0.98 |
| 60355 | ERR2847464 | AR02966 | B | 192   | 192 cnl | 0.98 |
| 60356 | ERR2847423 | AR03497 | B | 192   | 192 cnl | 0.98 |
| 60358 | ERR2847668 | AR03610 | B | 192   | 192 cnl | 0.98 |
| 60361 | ERR2847575 | AR04668 | C | 192   | 192 cnl | 0.98 |
| 60364 | ERR2847623 | AR05175 | C | 192   | 192 cnl | 0.98 |
| 60366 | ERR2847669 | AR05234 | C | 192   | 192 cnl | 0.98 |
| 60367 | ERR2847457 | AR05342 | C | 192   | 192 cnl | 0.98 |
| 60369 | ERR2847459 | AR05678 | C | 192   | 192 cnl | 0.98 |
| 60374 | ERR2847621 | AR05772 | C | 192   | 192 cnl | 0.98 |
| 60375 | ERR2847376 | AR05791 | C | 192   | 192 cnl | 0.98 |
| 60376 | ERR2847488 | AR05878 | C | 192   | 192 cnl | 0.98 |
| 60377 | ERR2847606 | AR05879 | C | 192   | 192 cnl | 0.98 |
| 60378 | ERR2847461 | AR05609 | C | 192   | 192 cnl | 0.98 |
| 60379 | ERR2847537 | AR05626 | C | 192   | 192 cnl | 0.96 |
| 60380 | ERR2847374 | AR05634 | C | 192   | 192 cnl | 0.98 |
| 60381 | ERR2847454 | AR05638 | C | 192   | 192 cnl | 0.98 |
| 60382 | ERR2847482 | AR05640 | C | 192   | 192 cnl | 0.98 |
| 60383 | ERR2847450 | AR05641 | C | 192   | 192 cnl | 0.98 |

|       |            |         |   |           |     |     |                     |
|-------|------------|---------|---|-----------|-----|-----|---------------------|
| 60384 | ERR2847789 | AR05652 | C | 192       | 192 | cnl | 0.98                |
| 60385 | ERR2847401 | AR05654 | C | 192       | 192 | cnl | 0.98                |
| 60386 | ERR2847567 | AR05673 | C | 192       | 192 | cnl | 0.98                |
| 60388 | ERR2847649 | AR05863 | C | 192       | 192 | cnl | 0.98                |
| 60389 | ERR2847630 | AR05871 | C | 192       | 192 | cnl | 0.98                |
| 60391 | ERR2847502 | AR05890 | C | 192       | 192 | cnl | 0.98                |
| 60392 | ERR2847345 | AR05893 | C | 192       | 192 | cnl | 0.98                |
| 60393 | ERR2847682 | AR06524 | D | 192       | 192 | cnl | 0.98                |
| 60397 | ERR2847375 | AR06606 | D | 192       | 192 | cnl | 0.98                |
| 60400 | ERR2847769 | AR06832 | D | 192       | 192 | cnl | 0.98                |
| 60401 | ERR2847803 | AR06851 | D | 192       | 192 | cnl | 0.98                |
| 60402 | ERR2847349 | AR07088 | C | 192       | 192 | cnl | 0.98                |
| 60409 | ERR2847432 | AR00107 | A | 192       | 192 | cnl | 0.98                |
| 60410 | ERR2847473 | AR01252 | A | 192       | 192 | cnl | 0.98                |
| 60412 | ERR2847398 | AR05623 | C | 192       | 192 | cnl | 0.98                |
| 60419 | ERR2847573 | AR07222 | C | 192       | 192 | cnl | 0.97                |
| 61208 | ERR2847661 | AR04337 | C | 192       | 192 | cnl | 0.98                |
| 61209 | ERR2847509 | AR04344 | C | 192       | 192 | cnl | 0.98                |
| 61213 | ERR2847467 | AR04411 | C | 192       | 192 | cnl | 0.98                |
| 61214 | ERR2847780 | AR04430 | C | 192       | 192 | cnl | 0.98                |
| 61215 | ERR2847440 | AR04431 | C | 192       | 192 | cnl | 0.98                |
| 61216 | ERR2847449 | AR04441 | C | 192       | 192 | cnl | 0.98                |
| 61217 | ERR2847377 | AR04445 | C | 192       | 192 | cnl | 0.98                |
| 61220 | ERR2847518 | AR04473 | C | 192       | 192 | cnl | 0.98                |
| 60049 | ERR2847481 | AR01767 | B | 198       | 198 | cnl | 0.96                |
| 60095 | ERR2847587 | AR03165 | B | 198       | 198 | cnl | 0.96                |
| 60096 | ERR2847660 | AR03204 | B | 198       | 198 | cnl | 0.94                |
| 60104 | ERR2847781 | AR03583 | B | 11741     | 198 | cnl | 0.94                |
| 60277 | ERR2847420 | AR06696 | D | 11741     | 198 | cnl | 0.94                |
| 60290 | ERR2847507 | AR07487 | D | 198       | 198 | cnl | 0.96                |
| 60396 | ERR2847434 | AR06582 | D | 11741     | 198 | cnl | 0.94                |
| 60069 | ERR2847508 | AR02746 | B | 207 41/44 | X   |     | 0.98 truncated csxA |
| 60221 | ERR2847652 | AR04810 | C | 207 41/44 | X   |     | 0.98                |
| 60224 | ERR2847812 | AR04857 | C | 207 41/44 | X   |     | 0.98                |
| 60264 | ERR2847529 | AR05827 | C | 207 41/44 | X   |     | 0.98                |
| 60302 | ERR2847521 | AR04939 | C | 207 41/44 | X   |     | 0.98                |
| 60327 | ERR2847590 | AR04038 | C | 207 41/44 | X   |     | 0.98                |
| 60363 | ERR2847765 | AR05174 | C | 207 41/44 | X   |     | 0.98                |
| 60365 | ERR2847616 | AR05196 | C | 207 41/44 | X   |     | 0.98                |
| 57326 | ERR2847410 | AR00128 | A | 2075      | 53  | cnl | 0.96                |
| 57337 | ERR2847546 | AR00329 | A | 2075      | 53  | cnl | 0.96                |
| 57343 | ERR2847743 | AR00451 | A | 2075      | 53  | cnl | 0.96                |
| 57347 | ERR2847698 | AR00457 | A | 2075      | 53  | cnl | 0.96                |
| 57357 | ERR2847447 | AR00593 | A | 2075      | 53  | cnl | 0.96                |
| 57363 | ERR2847821 | AR00689 | A | 2075      | 53  | cnl | 0.96                |
| 60099 | ERR2847369 | AR03573 | B | 2075      | 53  | cnl | 0.94                |
| 60211 | ERR2847354 | AR04686 | C | 2075      | 53  | cnl | 0.96                |
| 57318 | ERR2847429 | AR00087 | A | 2880      | 167 | Y   | 1.00                |
| 57331 | ERR2847532 | AR00226 | A | 2880      | 167 | Y   | 1.00                |
| 57978 | ERR2847710 | AR00823 | A | 2880      | 167 | Y   | 1.00                |



|       |            |         |   |       |       |                            |
|-------|------------|---------|---|-------|-------|----------------------------|
| 57997 | ERR2847405 | AR01096 | A | 2880  | 167 Y | 1.00                       |
| 60040 | ERR2847703 | AR01632 | B | 2880  | 167 Y | 1.00                       |
| 60061 | ERR2847426 | AR02148 | B | 2880  | 167 Y | 1.00                       |
| 60133 | ERR2847778 | AR03469 | B | 2880  | 167 Y | 1.00                       |
| 60137 | ERR2847430 | AR03832 | B | 2880  | 167 Y | 0.98                       |
| 60256 | ERR2847421 | AR05574 | C | 2880  | 167 Y | 1.00                       |
| 60279 | ERR2847407 | AR06891 | D | 2880  | 167 Y | 1.00                       |
| 60281 | ERR2847444 | AR06911 | D | 2880  | 167 Y | 1.00                       |
| 60323 | ERR2847505 | AR03733 | B | 2880  | 167 Y | 1.00                       |
| 60359 | ERR2847665 | AR04108 | C | 2880  | 167 Y | 1.00                       |
| 60368 | ERR2847515 | AR05676 | C | 2880  | 167 Y | 1.00                       |
| 60371 | ERR2847775 | AR05691 | C | 2880  | 167 Y | 1.00                       |
| 60372 | ERR2847544 | AR05726 | C | 2880  | 167 Y | 1.00                       |
| 60414 | ERR2847455 | AR05692 | C | 2880  | 167 Y | 1.00                       |
| 57377 | ERR2847733 | AR00773 | A | 11372 | 181 X | 1.00                       |
| 60051 | ERR2847413 | AR01788 | B | 11372 | 181 X | 0.98                       |
| 60056 | ERR2847390 | AR01997 | B | 11372 | 181 X | 1.00                       |
| 60082 | ERR2847468 | AR03004 | B | 11372 | 181 X | 1.00                       |
| 60083 | ERR2847598 | AR03005 | B | 11372 | 181 X | 1.00                       |
| 60084 | ERR2847495 | AR03006 | B | 11372 | 181 X | 1.00                       |
| 60085 | ERR2847484 | AR03027 | B | 11372 | 181 X | 1.00                       |
| 60088 | ERR2847427 | AR03066 | B | 11372 | 181 X | 1.00                       |
| 60102 | ERR2847731 | AR03467 | B | 11372 | 181 X | 1.00 del <i>ctrABCD</i>    |
| 60103 | ERR2847679 | AR03579 | B | 11372 | 181 X | 1.00                       |
| 60105 | ERR2847690 | AR03585 | B | 11372 | 181 X | 1.00 truncated <i>csxC</i> |
| 60141 | ERR2847631 | AR03881 | B | 11372 | 181 X | 1.00                       |
| 60173 | ERR2847648 | AR04459 | C | 11372 | 181 X | 1.00                       |
| 60177 | ERR2847485 | AR04497 | C | 11372 | 181 X | 1.00                       |
| 60178 | ERR2847393 | AR04498 | C | 11372 | 181 X | 1.00                       |
| 60179 | ERR2847578 | AR04499 | C | 11372 | 181 X | 1.00                       |
| 60181 | ERR2847517 | AR04538 | C | 11372 | 181 X | 1.00                       |
| 60182 | ERR2847814 | AR04575 | C | 11372 | 181 X | 1.00                       |
| 60218 | ERR2847627 | AR04759 | C | 11372 | 181 X | 1.00                       |
| 60227 | ERR2847589 | AR04873 | C | 11372 | 181 X | 1.00                       |
| 60232 | ERR2847634 | AR07672 | D | 11372 | 181 X | 1.00                       |
| 60255 | ERR2847729 | AR05567 | C | 11372 | 181 X | 1.00                       |
| 60269 | ERR2847728 | AR06069 | D | 11372 | 181 X | 1.00                       |
| 60271 | ERR2847388 | AR06384 | D | 11372 | 181 X | 1.00                       |
| 60272 | ERR2847685 | AR06385 | D | 11372 | 181 X | 1.00 del <i>csxA</i>       |
| 60275 | ERR2847618 | AR06637 | D | 11372 | 181 X | 1.00                       |
| 60276 | ERR2847811 | AR06686 | D | 11372 | 181 X | 1.00                       |
| 60288 | ERR2847645 | AR07436 | D | 11372 | 181 X | 1.00                       |
| 60292 | ERR2847539 | AR07550 | D | 11372 | 181 X | 1.00                       |
| 60293 | ERR2847577 | AR07556 | D | 11372 | 181 X | 1.00                       |
| 60299 | ERR2847490 | AR04607 | C | 11372 | 181 X | 1.00                       |
| 60301 | ERR2847534 | AR04843 | C | 11372 | 181 X | 1.00                       |
| 60303 | ERR2847530 | AR04961 | C | 11372 | 181 X | 1.00                       |
| 60326 | ERR2847553 | AR03794 | B | 11372 | 181 X | 1.00                       |
| 60331 | ERR2847416 | AR05911 | C | 11372 | 181 X | 1.00                       |
| 60334 | ERR2847704 | AR05932 | C | 11372 | 181 X | 1.00                       |

|       |            |           |    |       |           |      |                              |
|-------|------------|-----------|----|-------|-----------|------|------------------------------|
| 60343 | ERR2847471 | AR06022   | C  | 11372 | 181 X     | 1.00 |                              |
| 60346 | ERR2847805 | AR06066   | D  | 11372 | 181 X     | 1.00 |                              |
| 60353 | ERR2847730 | AR00962   | A  | 11372 | 181 X     | 0.92 |                              |
| 60394 | ERR2847683 | AR06528   | D  | 11372 | 181 X     | 1.00 |                              |
| 60399 | ERR2847549 | AR06775   | D  | 11372 | 181 X     | 1.00 |                              |
| 60404 | ERR2847628 | AR07160   | C  | 11372 | 181 X     | 1.00 |                              |
| 60415 | ERR2847636 | AR06573   | D  | 11372 | 181 X     | 1.00 |                              |
| 60416 | ERR2847727 | AR06758   | D  | 11372 | 181 X     | 1.00 |                              |
| 60418 | ERR2847751 | AR07123   | C  | 11372 | 181 X     | 1.00 |                              |
| 61199 | ERR2847489 | AR04263   | C  | 11372 | 181 X     | 1.00 | truncated csxA               |
| 61218 | ERR2847500 | AR04454   | C  | 11372 | 181 X     | 1.00 |                              |
| 61219 | ERR2847564 | AR04455   | C  | 11372 | 181 X     | 1.00 |                              |
| 61221 | ERR2847371 | AR04500   | C  | 11372 | 181 X     | 0.97 |                              |
| 60163 | ERR2847541 | AR04181   | C  | 11587 | 11587 cnl | 0.92 |                              |
| 60228 | ERR2847708 | AR04888   | C  | 11592 | 103 C     | 0.94 |                              |
| 60387 | ERR2847404 | AR05862   | C  | 11592 | 103 C     | 0.94 |                              |
| 60395 | ERR2847556 | AR06559   | D  | 11592 | 103 C     | 0.94 |                              |
| 60273 | ERR2847741 | AR06631   | D  | 11593 | 11593 cnl | 0.94 |                              |
| 60258 | ERR2847720 | AR05577   | C  | 11595 | 11595 cnl | 0.9  |                              |
| 60306 | ERR2847576 | AR05104   | C  | 11595 | 11595 cnl | 0.9  |                              |
| 60313 | ERR2847635 | AR04739   | C  | 11595 | 11595 cnl | 0.9  |                              |
| 60315 | ERR2847674 | AR04786   | C  | 11595 | 11595 cnl | 0.9  |                              |
| 60406 | ERR2847442 | AR07194   | C  | 11595 | 11595 cnl | 0.9  |                              |
| 60370 | ERR2847749 | AR05679   | C  | 11597 | 11597 cnl | 0.92 |                              |
| 60413 | ERR2847477 | AR05683   | C  | 11597 | 11597 cnl | 0.92 |                              |
| 60229 | ERR2847582 | AR07320   | D  | 11617 | 11617 cnl | 0.96 |                              |
| 60286 | ERR2847823 | AR07230   | D  | 11617 | 11617 cnl | 0.96 |                              |
| 60223 | ERR2847360 | AR04828   | C  | 11638 | 11638 cnl | 0.94 |                              |
| 60280 | ERR2847514 | AR06897   | D  | 11638 | 11638 cnl | 0.94 |                              |
| 56376 | ERR2847414 | OL24904   | BF | 192   | 192 cnl   | 1.00 | ST-192 outgroup              |
| 44922 | ERR2847792 | AR1258_T2 | E  | NA    | NA        | 0.78 | <i>N. lactamica</i> outgroup |

**ST1** – Strains sequenced as part of this study, including BIGS identifiers (ID), ENA accession numbers, strain names, site of sampling (Kebele, anonymized to A, B, C and D, with E being Ethiopia and BF being Burkina Faso), ST, clonal complex (cc), capsule type (*cnl* = capsule null, dash is non-groupable), *Neisseria meningitidis* rMLST identity, and a comment field, which includes info on outgroups (two strains), truncated capsule genes, which capsule genes are present (for the non-groupable) and putatively identified contamination.

| Start     | Stop      | No. | NEIS      | Product                                                                           |
|-----------|-----------|-----|-----------|-----------------------------------------------------------------------------------|
| 281 248   | 284 416   | 1   | NEIS0580  | argininosuccinate lyase ( <i>argH</i> )                                           |
|           |           |     | NEIS0581  | glucose 1-phosphate uridylyltransferase ( <i>galU</i> )                           |
|           |           |     | NEIS0582  | putative deoxyribonucleotide triphosphate pyrophosphatase                         |
|           |           |     | NEIS0583  | hypothetical protein                                                              |
|           |           |     | NEIS0584  | inorganic pyrophosphatase                                                         |
| 550 039   | 553 915   | 280 | NEIS0922  | 5-methyltetrahydropteroyltriglutamate-- homocysteine S-methyltransferase          |
|           |           |     | NEISp0923 | Antioxidant <i>AhpC</i> TSA family glutaredoxin                                   |
| 817 076   | 818 423   | 14  | NEIS1201  | Hypothetical protein                                                              |
| 1 201 698 | 1 210 600 | 280 | NEIS1552  | Hypothetical                                                                      |
|           |           |     | NEIS1553  | Lipid A phosphoethanolamine transferase ( <i>lptA</i> )                           |
|           |           |     | NEIS1554  | phosphoserine aminotransferase ( <i>serC</i> )                                    |
|           |           |     | NEIS1555  | Hypothetical                                                                      |
|           |           |     | NEIS1556  | transcription elongation factor <i>NusA</i>                                       |
|           |           |     | NEIS1557  | translation initiation factor IF-2                                                |
| 1 268 266 | 1 271 180 | 280 | NEIS1606  | L-asparaginase                                                                    |
|           |           |     | NEIS1607  | <i>DedA</i> family integral membrane protein                                      |
|           |           |     | NEIS1608  | phosphoglucosamine mutase                                                         |
| 1 349 043 | 1 359 255 | 280 | NEIS1690  | Transferrin binding protein A - iron acquisition from transferrin ( <i>tbpA</i> ) |
|           |           |     | NEIS1692  | glutamate racemase                                                                |
|           |           |     | NEIS1693  | hypothetical protein                                                              |
|           |           |     | NEIS1694  | N-acetylmuramoyl-L-alanine amidase                                                |
|           |           |     | NEIS1695  | hypothetical protein                                                              |
|           |           |     | NEIS1697  | hypothetical protein                                                              |
| 1 455 581 | 1 455 668 | 1   | NEIS1806  | zinc-binding protein                                                              |
| 1 484 192 | 1 487 684 | 280 | NEIS1838  | type IV biogenesis protein ( <i>pilG</i> )                                        |
|           |           |     | NEIS1839  | type IV prepilin like protein leader peptide processing enzyme ( <i>pilD</i> )    |
|           |           |     | NEIS1841  | hypothetical protein                                                              |
|           |           |     | NEIS1842  | Hypothetical                                                                      |
|           |           |     | NEIS1844  | type IV biogenesis protein ( <i>pilF</i> )                                        |
| 1 509 299 | 1 509 342 | 1   | None      |                                                                                   |
| 1 626 438 | 1 628 646 | 280 | NEIS0190  | ribosomal large subunit pseudouridine synthase                                    |
|           |           |     | NEIS3161  | hypothetical protein                                                              |
|           |           |     | NEIS0187  | ribonuclease E                                                                    |
| 1 663 616 | 1 663 661 | 2   | NEIS0158  | DNA-directed RNA polymerase subunit alpha                                         |
| 1 663 616 | 1 663 661 | 1   | NEIS0158  | DNA-directed RNA polymerase subunit alpha                                         |
| 1 676 911 | 1 677 193 | 1   | None      |                                                                                   |
| 1 746 557 | 1 749 359 | 3   | NEIS0037  | hypothetical protein                                                              |
|           |           |     | NEIS0036  | type IV pilus retraction ATPase PilT ( <i>pilT1</i> )                             |
|           |           |     | NEIS0035  | PilT-like protein ( <i>pilU</i> )                                                 |
| 1 746 557 | 1 749 359 | 1   | NEIS0037  | hypothetical protein                                                              |
|           |           |     | NEIS0036  | type IV pilus retraction ATPase PilT ( <i>pilT1</i> )                             |
|           |           |     | NEIS0035  | PilT-like protein ( <i>pilU</i> )                                                 |
| 1 747 385 | 1 747 401 | 1   | NEIS0036  | type IV pilus retraction ATPase PilT ( <i>pilT1</i> )                             |

**ST2** – Recombination fragments identified within ST-192, with start and stop coordinates according to the 2 064 402 nt whole-genome alignment, number of strains that had the recombination, and which genes were involved.