

Appendix 8 Chemical analysis data of stream sediments

(5)

| Element | SN | N | 1A | ND | AU | NO | CR | RU | LA | LU | NO | SK | YB | TR | U | Y | SC |
|-----------|-----|-----|-----|-----|-----|------|------|------|------|------|-----|-------|------|-----|-----|-----|-----|
| Units | PPH | PPH | PPH | PPH | PPB | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH |
| 451 B-149 | 16 | <4 | <1 | 15 | <5 | <5 | 61 | 0.6 | 33 | 0.5 | 25 | 3.6 | 0.9 | 16 | 2.9 | 28 | 2.9 |
| 452 B-150 | 16 | <4 | 2 | 11 | <5 | <5 | 34 | 0.4 | 18 | 0.35 | 14 | 2.1 | <0.5 | 8.6 | 2 | 16 | 2.1 |
| 453 B-151 | 229 | 55 | 5 | 22 | <5 | 0 | 63 | 0.2 | 35 | 0.63 | 26 | 4 | 0.9 | 24 | 7.1 | 30 | 1.9 |
| 454 B-152 | 102 | 56 | 5 | 22 | <5 | 0 | 60 | 0.3 | 24 | 0.59 | 20 | 2.9 | <0.5 | 22 | 6.8 | 26 | 2.4 |
| 455 B-153 | <5 | <4 | 1 | 10 | <5 | <5 | 73 | 0.8 | 39 | 0.5 | 28 | 4.5 | 0.6 | 17 | 2.5 | 25 | 1.8 |
| 456 B-154 | <5 | <4 | <1 | 7 | <5 | <5 | 41 | 0.4 | 32 | 0.4 | 21 | 2.5 | <0.5 | 10 | 1.8 | 18 | 1.8 |
| 457 B-155 | <5 | <4 | <1 | 8 | <5 | <5 | 49 | 0.4 | 25 | 0.39 | 18 | 2.8 | 0.7 | 13 | 1.6 | 21 | 1.3 |
| 458 B-156 | <5 | <4 | <1 | 10 | <5 | <5 | 35 | 0.4 | 20 | 0.32 | 15 | 2.2 | <0.5 | 9.4 | 1.8 | 16 | 2.9 |
| 459 B-157 | <5 | <4 | <1 | 9 | <5 | <5 | 55 | 0.5 | 31 | 0.42 | 25 | 3.3 | <0.5 | 14 | 1.4 | 20 | 3.1 |
| 460 B-158 | <5 | <4 | <1 | 10 | <5 | <5 | 41 | 0.5 | 23 | 0.44 | 17 | 2.6 | <0.5 | 11 | 2.3 | 20 | 2.7 |
| 461 B-159 | <5 | <4 | <1 | 8 | <5 | <5 | 40 | 0.5 | 20 | 0.4 | 14 | 2.3 | 0.5 | 9.6 | 1.9 | 15 | 2.5 |
| 462 B-160 | <5 | <4 | <1 | 7 | <5 | <5 | 54 | 0.5 | 30 | 0.35 | 21 | 3.1 | <0.5 | 13 | 1.4 | 15 | 1.6 |
| 463 B-161 | 78 | 5 | 6 | 30 | <5 | 0 | 67 | 0.4 | 32 | 0.62 | 23 | 3.6 | <0.5 | 33 | 8.5 | 33 | 5.3 |
| 464 B-162 | 34 | <4 | <1 | 6 | <5 | <5 | 34 | 0.3 | 20 | 0.38 | 19 | 2.1 | <0.5 | 11 | 2.5 | 10 | 1.9 |
| 465 B-163 | 19 | <4 | 4 | 24 | <5 | 0 | 24 | <0.2 | 11 | 0.35 | 5 | 1.3 | <0.5 | 15 | 5.2 | 18 | 2.1 |
| 466 B-164 | 6 | <4 | <1 | 10 | <5 | <5 | 24 | 0.3 | 13 | 0.25 | 8 | 1.4 | <0.5 | 7.9 | 1.8 | 7 | 1.9 |
| 467 B-165 | 286 | 23 | 15 | 74 | <5 | 0 | 320 | 1 | 170 | 3.86 | 150 | 22 | 4.5 | 130 | 35 | 233 | 5.8 |
| 468 B-166 | 53 | 35 | 2 | 9 | <5 | <5 | 30 | 0.3 | 21 | 0.32 | 18 | 2.1 | <0.5 | 9.5 | 2.7 | 12 | 2.8 |
| 469 B-167 | 85 | 26 | 2 | 9 | <5 | 0 | 29 | 0.3 | 18 | 0.24 | 15 | 1.8 | <0.5 | 8 | 3.4 | 10 | 2.1 |
| 470 B-168 | 101 | 29 | 21 | 83 | <5 | 0 | 89 | 0.5 | 45 | 0.95 | 34 | 6.2 | 1.3 | 44 | 17 | 62 | 4.6 |
| 471 B-169 | <5 | <4 | <1 | 10 | <5 | <5 | 32 | 0.4 | 17 | 0.27 | 14 | 2 | <0.5 | 5.6 | 0.9 | 17 | 4 |
| 472 B-170 | <5 | <4 | <1 | 12 | <5 | <5 | 20 | 0.3 | 11 | 0.45 | <5 | 1.3 | <0.5 | 6 | 2.8 | 20 | 1.8 |
| 473 B-171 | <5 | <4 | 1 | 14 | <5 | <5 | 36 | 0.6 | 20 | 0.49 | 17 | 2.3 | <0.5 | 9.1 | 1.7 | 19 | 4.6 |
| 474 B-172 | <5 | <4 | <1 | 11 | <5 | <5 | 21 | 0.4 | 12 | 0.37 | 13 | 1.4 | <0.5 | 6 | 1.7 | 15 | 3.1 |
| 475 B-173 | <5 | <4 | <1 | 11 | <5 | <5 | 28 | 0.4 | 15 | 0.41 | 16 | 1.7 | <0.5 | 7.6 | 2.3 | 14 | 2.3 |
| 476 B-174 | <5 | <4 | <1 | 12 | <5 | <5 | 13 | 0.2 | 6 | 0.49 | 7 | 0.9 | <0.5 | 6.3 | 2 | 20 | 2.5 |
| 477 B-175 | <5 | <4 | 1 | 13 | <5 | <5 | 44 | 0.7 | 23 | 0.38 | 17 | 3.3 | <0.5 | 9.6 | 1.7 | 19 | 4.5 |
| 478 B-176 | <5 | <4 | 1 | 12 | <5 | <5 | 41 | 0.7 | 21 | 0.34 | 16 | 3 | <0.5 | 9.1 | 1.5 | 19 | 4.4 |
| 479 B-177 | <5 | <4 | <1 | 13 | <5 | <5 | 38 | 0.7 | 19 | 0.41 | 17 | 2.8 | <0.5 | 8.9 | 1.6 | 19 | 5 |
| 480 B-178 | <5 | <4 | <1 | 15 | <5 | <5 | 48 | 0.6 | 23 | 0.43 | 20 | 3.4 | 0.5 | 10 | 1.8 | 20 | 4.4 |
| 481 B-179 | <5 | <4 | 2 | 29 | 5 | 0 | 56 | 0.8 | 27 | 0.61 | 22 | 3.8 | 0.7 | 10 | 3.1 | 28 | 6.1 |
| 482 B-180 | <5 | <4 | <1 | 10 | <5 | <5 | 47 | 0.5 | 24 | 0.35 | 19 | 3 | 0.6 | 10 | 2.3 | 15 | 1.3 |
| 483 B-181 | <5 | <4 | <1 | 10 | <5 | <5 | 51 | 0.5 | 27 | 0.38 | 21 | 3.4 | <0.5 | 11 | 2.1 | 18 | 1 |
| 484 B-182 | <5 | <4 | 2 | 15 | <5 | <5 | 53 | 0.6 | 19 | 0.52 | 15 | 2.7 | <0.5 | 11 | 2.9 | 19 | 6 |
| 485 B-183 | <5 | <4 | <1 | 8 | <5 | <5 | 39 | 0.5 | 21 | 0.32 | 15 | 2.8 | <0.5 | 9.3 | 1 | 12 | 1.8 |
| 486 B-184 | <5 | <4 | <1 | 12 | <5 | <5 | 46 | 0.6 | 23 | 0.39 | 19 | 3.1 | <0.5 | 11 | 1.9 | 18 | 4.3 |
| 487 B-185 | <5 | <4 | 1 | 11 | 7 | <5 | 93 | 0.9 | 47 | 0.63 | 38 | 6.3 | <0.5 | 19 | 3 | 29 | 3.1 |
| 488 B-186 | <5 | <4 | <1 | 7 | <5 | <5 | 50 | 0.5 | 27 | 0.39 | 20 | 3.3 | <0.5 | 11 | 3 | 19 | 1.1 |
| 489 B-187 | <5 | <4 | <1 | 7 | <5 | <5 | 55 | 0.7 | 28 | 0.38 | 21 | 3.7 | <0.5 | 11 | 1.8 | 18 | 2.3 |
| 490 B-188 | <5 | <4 | <1 | 10 | <5 | <5 | 70 | 0.8 | 34 | 0.48 | 28 | 4.6 | 0.6 | 14 | 2.1 | 21 | 2.9 |
| 491 B-189 | <5 | <4 | <1 | 8 | <5 | <5 | 41 | <0.2 | 21 | 0.3 | 18 | 2.8 | <0.5 | 8.3 | 1.4 | 13 | 2.2 |
| 492 B-190 | <5 | <4 | <1 | 8 | <5 | <5 | 45 | 0.5 | 25 | 0.35 | 16 | 3.2 | <0.5 | 11 | 1.4 | 16 | 2.5 |
| 493 B-191 | 74 | <4 | 5 | 34 | <5 | 0 | 200 | 1.2 | 99 | 3.4 | 69 | 16 | 3 | 58 | 17 | 159 | 3.5 |
| 494 B-192 | 73 | 4 | 5 | 28 | <5 | 0 | 100 | 0.6 | 50 | 1.73 | 41 | 8 | 1.3 | 28 | 11 | 71 | 2.3 |
| 495 B-193 | <5 | <4 | 3 | 22 | <5 | 0 | 54 | 0.6 | 26 | 1.31 | 16 | 4.3 | 0.9 | 20 | 10 | 52 | 2.7 |
| 496 B-194 | <5 | <4 | <1 | 10 | <5 | <5 | 12 | <0.2 | 6 | 0.34 | <5 | 1 | <0.5 | 3.7 | 1.5 | 12 | 1.8 |
| 497 B-195 | 11 | <4 | 3 | 15 | <5 | 0 | 70 | <0.2 | 32 | 1.45 | 22 | 5.3 | 0.9 | 18 | 9.1 | 44 | 2.2 |
| 498 B-196 | <5 | <4 | 3 | 15 | <5 | 0 | 25 | 0.4 | 12 | 0.74 | 10 | 1.9 | <0.5 | 10 | 6.6 | 22 | 2.5 |
| 499 B-197 | <5 | <4 | <1 | 9 | <5 | <5 | 34 | 0.4 | 23 | 0.37 | 17 | 2.5 | <0.5 | 9.8 | 3 | 9 | 4.8 |
| 500 B-198 | 11 | <4 | 6 | 25 | <5 | 0 | 57 | 0.6 | 24 | 1.39 | 14 | 3.6 | <0.5 | 18 | 13 | 40 | 6.4 |
| 501 B-199 | 17 | 11 | 11 | 84 | <5 | 0 | 120 | 1.3 | 56 | 3.73 | 41 | 8.4 | 2.1 | 54 | 47 | 116 | 8 |
| 502 B-200 | 24 | <4 | 12 | 61 | 15 | 0 | 100 | 1.1 | 45 | 4.23 | 48 | 7.5 | 2.2 | 58 | 42 | 132 | 8.7 |
| 503 B-201 | 21 | <4 | 11 | 58 | <5 | 0 | 80 | 1.5 | 39 | 3.28 | 29 | 6.4 | 1.9 | 44 | 28 | 102 | 9.3 |
| 504 B-202 | 20 | 13 | 11 | 56 | <5 | 0 | 91 | 1.5 | 44 | 3.53 | 39 | 6.9 | <0.5 | 48 | 35 | 105 | 8.2 |
| 505 B-203 | 23 | 9 | 9 | 48 | <5 | 0 | 110 | 1.2 | 52 | 2.94 | 45 | 8.2 | 1.9 | 40 | 26 | 101 | 6.7 |
| 506 B-204 | 12 | <4 | <1 | 10 | <5 | <5 | 49 | 0.5 | 26 | 0.37 | 19 | 3.4 | <0.5 | 12 | 2.2 | 14 | 1.6 |
| 507 B-205 | <5 | <4 | <1 | 9 | <5 | <5 | 32 | 0.4 | 16 | 0.22 | 14 | 2.2 | <0.5 | 6.3 | 1 | 9 | 2.1 |
| 508 B-206 | <5 | <4 | <1 | 12 | <5 | <5 | 47 | 0.8 | 28 | 0.35 | 19 | 3.1 | <0.5 | 12 | 2.3 | 15 | 2.3 |
| 509 B-207 | <5 | <4 | <1 | 11 | <5 | <5 | 63 | 0.7 | 36 | 0.42 | 22 | 3.9 | 0.5 | 14 | 2.5 | 20 | 2.3 |
| 510 B-208 | <5 | <4 | <1 | 8 | <5 | <5 | 41 | 0.6 | 22 | 0.27 | 15 | 2.5 | <0.5 | 9.6 | 1.5 | 13 | 1.7 |
| 511 B-209 | <5 | <4 | <1 | 17 | <5 | <5 | 76 | 1 | 45 | 0.48 | 30 | 4.7 | 0.8 | 20 | 3.6 | 23 | 3.4 |
| 512 B-210 | <5 | <4 | <1 | 11 | <5 | <5 | 59 | 0.7 | 33 | 0.38 | 23 | 3.6 | 0.6 | 16 | 2.2 | 19 | 2.2 |
| 513 B-211 | <5 | <4 | <1 | 10 | <5 | <5 | 55 | 0.7 | 34 | 0.36 | 21 | 3.6 | <0.5 | 16 | 2 | 20 | 2.6 |
| 514 B-212 | <5 | 7 | 6 | 49 | <5 | 0 | 600 | 0.7 | 360 | 0.57 | 220 | 39 | 3.7 | 330 | 20 | 59 | 2.4 |
| 515 B-213 | 6 | <7 | 53 | 15 | 0 | 2800 | 2.8 | 1700 | 1.64 | 970 | 140 | 12 | 1300 | 74 | 159 | 5.2 | |
| 516 B-214 | <5 | <4 | <1 | 11 | <5 | 0 | 300 | 0.9 | 170 | 0.8 | 120 | 22 | 3 | 160 | 15 | 57 | 1.3 |
| 517 B-215 | <5 | <4 | 5 | 27 | 9 | 0 | 1500 | 2.9 | 940 | 2.57 | 530 | 88 | 12 | 710 | 56 | 183 | 3.1 |
| 518 B-216 | 6 | <4 | 6 | 60 | <5 | 0 | 480 | 1 | 290 | 0.82 | 160 | 33 | 3.6 | 240 | 19 | 72 | 3.4 |
| 519 B-217 | <5 | <4 | <1 | 11 | <5 | <5 | 53 | 0.7 | 30 | 0.41 | 23 | 3.4 | <0.5 | 14 | 2.7 | 25 | 3.3 |
| 520 B-218 | <5 | <4 | <1 | 9 | <5 | <5 | 48 | 0.6 | 28 | 0.41 | 23 | 3.2 | 0.6 | 13 | 2.8 | 20 | 3.2 |
| 521 B-219 | <5 | <4 | <1 | 12 | <5 | 0 | 180 | 1.4 | 110 | 0.99 | 76 | 12 | 1.5 | 58 | 7 | 54 | 3 |
| 522 B-220 | <5 | <4 | 1 | 11 | <5 | 0 | 72 | 0.9 | 41 | 0.57 | 28 | 4.6 | <0.5 | 19 | 3.4 | 28 | 3.1 |
| 523 B-221 | <5 | <4 | <1 | 11 | <5 | <5 | 50 | 0.8 | 30 | 0.38 | 26 | 3.4 | <0.5 | 14 | 2.3 | 19 | 3.5 |
| 524 B-222 | <5 | <4 | <1 | 11 | <5 | <5 | 85 | 0.9 | 49 | 0.55 | 36 | 5.5 | 0.6 | 26 | 4.2 | 27 | 2.7 |
| 525 B-223 | <5 | <4 | <1 | 11 | <5 | <5 | 63 | 0.7 | 35 | 0.46 | 24 | 3.9 | 0.8 | 17 | 2 | 22 | 2.6 |
| 526 B-224 | <5 | <4 | <1 | 9 | <5 | <5 | 37 | 0.5 | 21 | 0.29 | 14 | 2.4 | 0.6 | 9.9 | 1.4 | 18 | 2.1 |
| 527 B-225 | <5 | <4 | <1 | 9 | <5 | <5 | 38 | 0.6 | 20 | 0.24 | 15 | 2.4 | 0.8 | 9.2 | 1.9 | 13 | 2.7 |
| 528 B-226 | <5 | 6 | <1 | 13 | <5 | <5 | 67 | 0.9 | 39 | 0.5 | 22 | 4.4 | <0.5 | 20 | 4.3 | 22 | 3.6 |
| 529 B-227 | <5 | <4 | <1 | 11 | <5 | <5 | 56 | 0.8 | 32 | 0.37 | 23 | 3.7 | <0.6 | 14 | 2.9 | 18 | 4.3 |
| 530 B-228 | 66 | 8 | 6 | 28 | <5 | 0 | 42 | 0.5 | 19 | 1.77 | 15 | 3.2 | 1.2 | 15 | 13 | 60 | 2.5 |
| 531 B-229 | 75 | 10 | 7 | 29 | <5 | 0 | 51 | 0.8 | 25 | 2.16 | 16 | 3.9 | 1.3 | 17 | 16 | 74 | 4.9 |
| 532 B-230 | 47 | <4 | 7 | 33 | <5 | 0 | 42 | 0.7 | 20 | 2.01 | 16 | 3.5</ | | | | | |

Appendix 8 Chemical analysis data of stream sediments

(6)

| Element Unit | SN PPH | W PPH | TA PPH | NB PPH | AU PPH | HO PPH | CS PPH | RU PPH | LA PPH | LU PPH | ND PPH | SH PPH | TS PPH | TH PPH | U PPH | Y PPH | SC PPH |
|-----------------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|-----------|
| 564 B-262 | <5 | <4 | <1 | 10 | <5 | <5 | 61 | 0.6 | 36 | 0.35 | 20 | 3.7 | <0.5 | 14 | 1.8 | 17 | 2.7 |
| 565 B-263 | <6 | <4 | <1 | 12 | <5 | <5 | 78 | 0.7 | 41 | 0.57 | 31 | 4.5 | 0.6 | 18 | 2.6 | 24 | 1.9 |
| 566 B-264 | <6 | <4 | <1 | 12 | <5 | <5 | 67 | 0.8 | 33 | 0.48 | 23 | 3.9 | 0.7 | 17 | 2.7 | 27 | 2.4 |
| 567 B-265 | <5 | <4 | <1 | 6 | <5 | <5 | 65 | 0.6 | 35 | 0.43 | 25 | 3.8 | 0.6 | 16 | 1.9 | 16 | 2 |
| 568 B-266 | <6 | <4 | <1 | 7 | <5 | <5 | 70 | 0.8 | 36 | 0.5 | 24 | 4 | 0.7 | 15 | 2.5 | 19 | 2.3 |
| 569 B-267 | <5 | <4 | <1 | 14 | <5 | <5 | 150 | 1.2 | 84 | 0.65 | 66 | 8.7 | 1 | 34 | 4 | 34 | 3.4 |
| 570 B-268 | <5 | <4 | <1 | 8 | <5 | <5 | 39 | 0.4 | 20 | 0.26 | 15 | 2.2 | <0.5 | 8.6 | 1.8 | 11 | 1.6 |
| 571 B-269 | <6 | <4 | <1 | 10 | <5 | 6 | 67 | 0.8 | 39 | 0.4 | 27 | 4.2 | 0.6 | 17 | 2.2 | 20 | 2.7 |
| 572 B-270 | 10 | <4 | 4 | 46 | <5 | 0 | 110 | 0.5 | 56 | 0.81 | 36 | 7.2 | 1.1 | 35 | 4.8 | 47 | 4.4 |
| 573 B-271 | 29 | 13 | 8 | 42 | <5 | 0 | 150 | 1.2 | 77 | 2.35 | 47 | 12 | 2.6 | 42 | 15 | 125 | 9.2 |
| 574 B-272 | 35 | <4 | 9 | 52 | 5 | 0 | 320 | 1.6 | 160 | 5.72 | 110 | 24 | 6.8 | 81 | 22 | 312 | 11 |
| 575 B-273 | 40 | 24 | 11 | 66 | <5 | 0 | 230 | <0.2 | 110 | 5.36 | 73 | 18 | 5.6 | 59 | 15 | 255 | 9.1 |
| 576 B-274 | 44 | <4 | 8 | 41 | <5 | 0 | 200 | 1.1 | 100 | 2.94 | 64 | 15 | 4.6 | 53 | 14 | 178 | 9 |
| 577 B-275 | <5 | <4 | <1 | 9 | <5 | 0 | 81 | 0.7 | 46 | 0.49 | 25 | 5.2 | 0.9 | 20 | 2.9 | 28 | 2 |
| 578 B-276 | <5 | <4 | <1 | 9 | <5 | <5 | 28 | 0.4 | 15 | 0.33 | 11 | 1.9 | <0.5 | 6.7 | 1.4 | 12 | 1.8 |
| 579 B-277 | <5 | <4 | <1 | 8 | <5 | <5 | 31 | 0.4 | 16 | 0.27 | 12 | 1.9 | <0.5 | 6.7 | 0.6 | 11 | 1.6 |
| 580 B-278 | <5 | <4 | <1 | 10 | <5 | <5 | 36 | 0.4 | 18 | 0.32 | 12 | 2.3 | <0.5 | 8.6 | 1.1 | 13 | 2.4 |
| 581 B-279 | <5 | <4 | <1 | 9 | <5 | <5 | 52 | <0.2 | 31 | 0.33 | 16 | 3.5 | <0.5 | 12 | 1.7 | 17 | 2.8 |
| 582 B-280 | <5 | <4 | <1 | 10 | <5 | <5 | 48 | 0.6 | 28 | 0.32 | 16 | 3.3 | <0.5 | 11 | 1.9 | 18 | 3.1 |
| 583 B-281 | <5 | <4 | <1 | 9 | <5 | <5 | 50 | 0.6 | 27 | 0.29 | 12 | 3.2 | <0.5 | 10 | 1.9 | 20 | 2 |
| 584 B-282 | <5 | <4 | <1 | 11 | <5 | <5 | 57 | 0.7 | 30 | 0.3 | 22 | 3.6 | <0.5 | 12 | 2.2 | 17 | 3.4 |
| 585 B-283 | <5 | <4 | <1 | 7 | <5 | <5 | 52 | 0.6 | 29 | 0.3 | 20 | 3.3 | <0.5 | 11 | 1.7 | 16 | 2.4 |
| 586 B-284 | <5 | <4 | <1 | 9 | <5 | <5 | 61 | 0.6 | 33 | 0.4 | 24 | 3.8 | <0.5 | 15 | 2.4 | 18 | 2.4 |
| 587 B-285 | <5 | <4 | <1 | 9 | <5 | <5 | 48 | 0.6 | 27 | 0.31 | 16 | 3.1 | 0.5 | 11 | 1.6 | 14 | 2.4 |
| 588 B-286 | <5 | <4 | <1 | 9 | <5 | <5 | 62 | 0.7 | 35 | 0.44 | 21 | 4 | <0.5 | 14 | 2.5 | 21 | 2.1 |
| 589 B-287 | <5 | <4 | <1 | 11 | <5 | <5 | 58 | 0.7 | 32 | 0.31 | 18 | 3.7 | <0.5 | 14 | 2.4 | 18 | 3 |
| 590 B-288 | <5 | <4 | <1 | 10 | <5 | <5 | 52 | 0.7 | 29 | 0.31 | 19 | 3.5 | 0.7 | 11 | 1.6 | 18 | 3.2 |
| 591 B-289 | <5 | <4 | 4 | 44 | <5 | 0 | 210 | <0.2 | 97 | 0.76 | 56 | 13 | 1.2 | 280 | 23 | 50 | 4.4 |
| 592 B-290 | 6 | <4 | 9 | 62 | <5 | 0 | 260 | 1.8 | 100 | 2.05 | 63 | 14 | 1.5 | 450 | 65 | 73 | 8.9 |
| 593 B-291 | 5 | <4 | 8 | 49 | <5 | 0 | 220 | 1.5 | 100 | 2.08 | 64 | 14 | 2 | 430 | 70 | 66 | 9 |
| 594 B-292 | 9 | <4 | 6 | 55 | <5 | 0 | 310 | 1.1 | 150 | 1.56 | 99 | 21 | 2.8 | 320 | 33 | 78 | 6 |
| 595 B-293 | 17 | 15 | 8 | 45 | 6 | 0 | 60 | 0.8 | 24 | 1.93 | 17 | 4.3 | 1.6 | 74 | 31 | 85 | 6.7 |
| 596 B-294 | 13 | 9 | 6 | 38 | <5 | 0 | 48 | 0.6 | 14 | 1.65 | 11 | 2.7 | <0.5 | 41 | 20 | 66 | 4.6 |
| 597 B-295 | 29 | 16 | 8 | 30 | <5 | 0 | 73 | <0.2 | 30 | 4.5 | 11 | 5.1 | 1.6 | 62 | 49 | 118 | 4.7 |
| 598 B-296 | 57 | 24 | 9 | 39 | 6 | 0 | 170 | 0.9 | 83 | 3.75 | 53 | 13 | 3.1 | 89 | 38 | 168 | 4.4 |
| 599 B-297 | 42 | <4 | 15 | 60 | <5 | 0 | 109 | 1.1 | 44 | 4.07 | 30 | 8.2 | 3.1 | 46 | 27 | 162 | 4.9 |
| 600 B-298 | 9 | 8 | 5 | 28 | <5 | 0 | 41 | 0.6 | 21 | 1.24 | 14 | 3.1 | 0.8 | 22 | 9.6 | 34 | 7.7 |
| 601 C-001 | 47 | <4 | 9 | 40 | <5 | 0 | 270 | 0.9 | 140 | 3.26 | 91 | 22 | 5.5 | 120 | 23 | 219 | 4.4 |
| 602 C-002 | 77 | 13 | 10 | 41 | <5 | 0 | 370 | 0.9 | 199 | 5.28 | 120 | 31 | 7.4 | 160 | 27 | 291 | 4.8 |
| 603 C-003 | 28 | <4 | 7 | 34 | <5 | 0 | 220 | 0.8 | 110 | 3.08 | 73 | 18 | 4.3 | 99 | 16 | 157 | 5.1 |
| 604 C-004 | 72 | 17 | 14 | 42 | <5 | 0 | 310 | 0.8 | 150 | 5.12 | 150 | 23 | 5.9 | 140 | 32 | 225 | 5.2 |
| 605 C-005 | 17 | 8 | 5 | 26 | <5 | 0 | 140 | 0.7 | 69 | 1.94 | 59 | 9.7 | 2.3 | 61 | 13 | 89 | 5.3 |
| 606 C-006 | 30 | 13 | 7 | 33 | <5 | 0 | 200 | 0.8 | 100 | 2.82 | 88 | 15 | 3.2 | 95 | 18 | 126 | 5.8 |
| 607 C-007 | 29 | <4 | 5 | 29 | <5 | 0 | 180 | 0.6 | 87 | 2.27 | 68 | 13 | 2.7 | 81 | 14 | 112 | 4.9 |
| 608 C-008 | 20 | 9 | 5 | 28 | <5 | 0 | 180 | 0.9 | 87 | 2.46 | 69 | 12 | 2.6 | 83 | 15 | 102 | 7.5 |
| 609 C-009 | 13 | 7 | 1 | 12 | <5 | <5 | 25 | 0.3 | 12 | 0.51 | 12 | 1.6 | <0.5 | 6.8 | 1.4 | 16 | 2.1 |
| 610 C-010 | 39 | 34 | <1 | 15 | <5 | <5 | 57 | 0.6 | 26 | 0.44 | 20 | 3 | 0.6 | 14 | 2.7 | 18 | 7.5 |
| 611 C-011 | 10 | 11 | <1 | 12 | <5 | 0 | 32 | 0.5 | 19 | 0.78 | 16 | 2.3 | 0.7 | 11 | 4 | 22 | 4.3 |
| 612 C-012 | 38 | 10 | 9 | 42 | <5 | 0 | 330 | 1 | 160 | 4.58 | 130 | 24 | 5.7 | 170 | 29 | 206 | 5.8 |
| 613 C-013 | 16 | <4 | 3 | 17 | <5 | <5 | 65 | 0.7 | 31 | 0.57 | 27 | 3.6 | 0.9 | 18 | 3.2 | 20 | 9.1 |
| 614 C-014 | 25 | 8 | 7 | 38 | <5 | 0 | 193 | 0.8 | 98 | 2.3 | 82 | 14 | 3.1 | 98 | 17 | 111 | 6.7 |
| 615 C-015 | 34 | 9 | 6 | 39 | <5 | 0 | 250 | 0.7 | 130 | 1.91 | 98 | 17 | 2.8 | 120 | 15 | 98 | 4.8 |
| 616 C-016 | 28 | 16 | 15 | 153 | <5 | 0 | 520 | 1.4 | 280 | 7.65 | 220 | 39 | 7.9 | 320 | 60 | 305 | 9.2 |
| 617 C-017 | <5 | <4 | <1 | 10 | <5 | <5 | 23 | 0.3 | 13 | 0.31 | 12 | 1.5 | <0.5 | 6.9 | 1.5 | 11 | 1.4 |
| 618 C-018 | <5 | <4 | <1 | 8 | <5 | <5 | 32 | 0.3 | 18 | 0.4 | 12 | 1.8 | <0.5 | 8.1 | 1.9 | 11 | 1.1 |
| 619 C-019 | <5 | <4 | <1 | 8 | <5 | <5 | 46 | 0.5 | 26 | 0.47 | 21 | 2.7 | <0.5 | 10 | 2.6 | 15 | 1.1 |
| 620 C-020 | <5 | <4 | <1 | 7 | <5 | <5 | 14 | 0.2 | 6 | 0.19 | 6 | 0.6 | <0.5 | 4.4 | 0.8 | 5 | 1.5 |
| 621 C-021 | <5 | <4 | <1 | 7 | <5 | <5 | 36 | 0.4 | 18 | 0.46 | 15 | 2.1 | <0.5 | 9.8 | 2.4 | 14 | 2.1 |
| 622 C-022 | <5 | <4 | <1 | 8 | <5 | <5 | 30 | 0.4 | 15 | 0.41 | 12 | 1.7 | <0.5 | 7.3 | 1.9 | 13 | 1.2 |
| 623 C-023 | <5 | <4 | <1 | 23 | <5 | 0 | 55 | 0.7 | 33 | 0.57 | 23 | 3.4 | <0.5 | 14 | 2.8 | 7 | 6 |
| 624 C-024 | 31 | 16 | 5 | 26 | <5 | 0 | 210 | 0.6 | 110 | 2.38 | 96 | 13 | 2.1 | 73 | 19 | 74 | 3.7 |
| 625 C-025 | 25 | 14 | 7 | 30 | <5 | 0 | 320 | 0.9 | 170 | 3.51 | 129 | 19 | 3 | 110 | 30 | 109 | 4.7 |
| 626 C-026 | 11 | 11 | 7 | 31 | <5 | 0 | 230 | 0.6 | 120 | 2.74 | 83 | 14 | 2.6 | 85 | 23 | 95 | 4.7 |
| 627 C-027 | 18 | 17 | 9 | 47 | <5 | 0 | 360 | 1.1 | 200 | 3.81 | 160 | 23 | 3.6 | 130 | 29 | 150 | 6.7 |
| 628 C-028 | 17 | <4 | 9 | 58 | <5 | 0 | 350 | 0.9 | 209 | 3.23 | 150 | 22 | 3.2 | 140 | 24 | 149 | 6.2 |
| 629 C-029 | 5 | 11 | 5 | 28 | <5 | 0 | 140 | 0.8 | 68 | 2.46 | 55 | 7.8 | 1.4 | 55 | 22 | 75 | 4.4 |
| 630 C-030 | 14 | 17 | 8 | 31 | <5 | 0 | 260 | 1.2 | 140 | 4.92 | 110 | 15 | 2.8 | 110 | 48 | 149 | 5.8 |
| 631 C-031 | 14 | 15 | 8 | 37 | <5 | 0 | 170 | 1 | 95 | 3.67 | 65 | 10 | 2 | 90 | 37 | 114 | 6.1 |
| 632 C-032 | <5 | <4 | 2 | 14 | <5 | 0 | 32 | 0.3 | 16 | 0.76 | 17 | 1.9 | <0.5 | 10 | 6.2 | 21 | 2.1 |
| 633 C-033 | <5 | <4 | 2 | 13 | <5 | 0 | 28 | 0.5 | 11 | 0.71 | 8 | 1.3 | <0.5 | 9.2 | 6.5 | 17 | 2.4 |
| 634 C-034 | <5 | <4 | <1 | 13 | <5 | <5 | 45 | 0.5 | 23 | 0.37 | 17 | 2.5 | <0.5 | 9.3 | 1.9 | 16 | 1.7 |
| 635 C-035 | 50 | <4 | <1 | 13 | <5 | <5 | 62 | 0.8 | 32 | 0.37 | 30 | 4.3 | <0.5 | 12 | 3.4 | 22 | 2 |
| 636 C-036 | <5 | <4 | <1 | 6 | <5 | <5 | 31 | 0.5 | 15 | 0.25 | 13 | 2.3 | <0.5 | 7.3 | 1.5 | 22 | 1.7 |
| 637 C-037 | <5 | <4 | <1 | 14 | <5 | <5 | 39 | 0.5 | 21 | 0.3 | 13 | 3.1 | <0.5 | 10 | 2.7 | 21 | 2 |
| 638 C-038 | <5 | <4 | <1 | 9 | <5 | <5 | 53 | 0.8 | 26 | 0.27 | 22 | 3.8 | <0.5 | 8.9 | 1.8 | 21 | 2.5 |
| 639 C-039 | <5 | <4 | <1 | 11 | <5 | <5 | 73 | 0.9 | 37 | 0.36 | 34 | 4.9 | <0.5 | 14 | 1.9 | 21 | 3.5 |
| 640 C-040 | 19 | <4 | <1 | 14 | <5 | <5 | 82 | 0.8 | 42 | 0.59 | 30 | 5.8 | 0.7 | 17 | 2.6 | 28 | 3.1 |
| 641 C-041 | 8 | <4 | <1 | 8 | <5 | <5 | 58 | 0.8 | 29 | 0.34 | 21 | 4.2 | <0.5 | 12 | 2.6 | 25 | 2.1 |
| 642 C-042 | 7 | <4 | 1 | 12 | <5 | <5 | 65 | 0.7 | 33 | 0.28 | 27 | 4.5 | <0.5 | 12 | 2.4 | 27 | 3 |
| 643 C-043 | <5 | <4 | <1 | 10 | <5 | 5 | 46 | 0.6 | 25 | 0.2 | 20 | 3.4 | <0.5 | 9.8 | 2.2 | 18 | 1.9 |
| 644 C-044 | <5 | 6 | 1 | 13 | <5 | <5 | 43 | 0.6 | 22 | 0.21 | 19 | 2.8 | <0.5 | 8.4 | 1.9 | 14 | 2.7 |
| 645 C-045 | <5 | <4 | <1 | 10 | <5 | <5 | 43 | 0.5 | 23 | 0.24 | 15 | 3.1 | <0.5 | 8.8 | 1.8 | 13 | 2.2 |
| 646 C-046 | <5 | <4 | 1 | 12 | <5 | <5 | 68 | 0.8 | 36 | | | | | | | | |

Appendix 8 Chemical analysis data of stream sediments

(7)

| Bicent Units | SN PPH | N PPH | TA PPH | HB PPH | AU PPB | HO PPH | CB PPH | BU PPH | LA PPH | LU PPH | KD PPH | SH PPH | TB PPH | TH PPH | U PPH | Y PPH | SC PPH |
|-----------------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|-----------|
| 677 C-078 | 106 | 12 | 8 | 33 | <5 | 0 | 190 | 0.8 | 100 | 2.98 | 78 | 15 | 3.1 | 110 | 24 | 154 | 3.2 |
| 678 C-079 | 266 | 16 | 20 | 69 | <5 | 0 | 460 | 0.8 | 240 | 6.32 | 170 | 37 | 8.1 | 260 | 48 | 347 | 4.2 |
| 679 C-080 | 240 | <4 | 14 | 45 | <5 | 0 | 380 | 1.1 | 200 | 4.48 | 150 | 30 | 6.8 | 200 | 33 | 234 | 3.9 |
| 680 C-081 | 798 | <4 | 23 | 59 | <5 | 0 | 520 | 0.7 | 290 | 5.45 | 180 | 36 | 8.7 | 260 | 47 | 286 | 4.7 |
| 681 C-082 | 49 | <4 | 4 | 23 | <5 | 7 | 68 | 0.8 | 31 | 1.96 | 28 | 4.6 | 1.3 | 21 | 13 | 66 | 4.9 |
| 682 C-083 | 24 | 17 | 6 | 29 | <5 | 0 | 61 | 0.9 | 29 | 2.17 | 19 | 4.6 | 1.4 | 25 | 15 | 78 | 5 |
| 683 C-084 | 50 | 21 | 5 | 30 | 8 | 0 | 65 | 0.8 | 27 | 1.98 | 21 | 4.3 | 1.4 | 23 | 13 | 73 | 5.8 |
| 684 C-085 | 35 | 14 | 4 | 27 | <5 | 0 | 52 | 0.6 | 22 | 1.17 | 19 | 3.4 | 0.9 | 17 | 7.7 | 48 | 6.2 |
| 685 C-086 | 11 | 21 | 6 | 28 | <5 | 0 | 73 | 0.9 | 33 | 2.69 | 23 | 5.4 | 1.7 | 35 | 21 | 98 | 4.8 |
| 686 C-087 | 37 | 47 | 13 | 55 | <5 | 0 | 98 | 1 | 45 | 5.43 | 31 | 7.2 | 3.6 | 49 | 39 | 199 | 5.7 |
| 687 C-088 | 40 | 67 | 18 | 69 | <5 | 0 | 240 | 2.1 | 110 | 8.81 | 75 | 17 | 6 | 85 | 58 | 289 | 10 |
| 688 C-089 | 51 | 15 | 4 | 19 | <5 | <5 | 43 | 0.7 | 23 | 0.8 | 18 | 3.2 | 0.8 | 13 | 3.8 | 31 | 4.9 |
| 689 C-090 | 48 | <4 | 4 | 16 | 6 | 0 | 46 | 0.6 | 26 | 0.84 | 17 | 3.4 | 0.9 | 12 | 5.2 | 30 | 4.2 |
| 690 C-091 | 22 | <4 | 4 | 21 | <5 | 0 | 130 | 0.9 | 69 | 1.82 | 48 | 9 | 1.6 | 51 | 19 | 61 | 4.4 |
| 691 C-092 | 73 | 42 | 10 | 17 | 6 | 0 | 1200 | 1.8 | 770 | 6.32 | 410 | 81 | 15 | 460 | 60 | 398 | 5 |
| 692 C-093 | 13 | 17 | 1 | 19 | <5 | <5 | 81 | 1 | 43 | 0.76 | 34 | 5.5 | 0.9 | 26 | 4.1 | 32 | 3.9 |
| 693 C-094 | <5 | 6 | <1 | 8 | <5 | <5 | 30 | 0.6 | 17 | 6.43 | 14 | 2.2 | <0.5 | 8.8 | 2 | 17 | 2.3 |
| 694 C-095 | <5 | 9 | <1 | 17 | <5 | <5 | 47 | 0.7 | 26 | 0.53 | 22 | 3.4 | <0.5 | 13 | 2.8 | 19 | 2.7 |
| 695 C-096 | 12 | 15 | 2 | 28 | <5 | <5 | 61 | 0.9 | 32 | 0.75 | 24 | 4.2 | 0.8 | 20 | 3.9 | 31 | 3.9 |
| 696 C-097 | 12 | 8 | 1 | 16 | <5 | 0 | 52 | 0.8 | 30 | 0.59 | 23 | 3.7 | 0.7 | 15 | 3.1 | 23 | 2.8 |
| 697 C-098 | <5 | 6 | 2 | 15 | <5 | 0 | 59 | 0.7 | 29 | 0.72 | 23 | 3.8 | <0.5 | 19 | 5.8 | 23 | 4.4 |
| 698 C-099 | <5 | 5 | 1 | 12 | <5 | <5 | 27 | 0.5 | 17 | 0.47 | 11 | 2.2 | <0.5 | 9 | 3.3 | 15 | 3.5 |
| 699 C-100 | <5 | 5 | <1 | 13 | <5 | <5 | 25 | 0.4 | 14 | 0.41 | 10 | 1.7 | <0.5 | 6.3 | 2.4 | 16 | 2.9 |
| 700 C-101 | <5 | <4 | <1 | 8 | <5 | <5 | 28 | 0.4 | 14 | 0.34 | 9 | 1.8 | <0.5 | 6.4 | 1.5 | 13 | 3.2 |
| 701 C-102 | <5 | 6 | <1 | 12 | <5 | <5 | 30 | 0.5 | 15 | 0.38 | 13 | 1.8 | <0.5 | 6.8 | 1.8 | 15 | 3.3 |
| 702 C-103 | 97 | 4 | 3 | 14 | <5 | 0 | 54 | 0.4 | 26 | 1.43 | 19 | 4.2 | 1.4 | 14 | 4.8 | 63 | 2.1 |
| 703 C-104 | 11 | <4 | <1 | 14 | <5 | <5 | 32 | 0.5 | 17 | 0.41 | 10 | 2.1 | <0.5 | 7.6 | 2.1 | 14 | 3.6 |
| 704 C-105 | 12 | 4 | 1 | 16 | <5 | <5 | 32 | 0.5 | 18 | 0.41 | 12 | 2.1 | 0.5 | 8.6 | 2.6 | 17 | 4.4 |
| 705 C-106 | 5 | 6 | 1 | 16 | <5 | <5 | 73 | 1 | 41 | 0.58 | 29 | 5 | 0.5 | 12 | 2.4 | 24 | 4.8 |
| 706 C-107 | 6 | <4 | 1 | 15 | <5 | <5 | 36 | 0.5 | 19 | 0.51 | 12 | 2.3 | <0.5 | 8.9 | 2.9 | 19 | 3.7 |
| 707 C-108 | <5 | <4 | <1 | 10 | <5 | <5 | 33 | 0.4 | 16 | 0.44 | 12 | 2 | <0.5 | 7.7 | 2.1 | 13 | 3.1 |
| 708 C-109 | <5 | <4 | <1 | 13 | <5 | 0 | 40 | 0.7 | 21 | 0.46 | 16 | 2.5 | <0.5 | 10 | 2.8 | 16 | 5.3 |
| 709 C-110 | <5 | 6 | 1 | 12 | <5 | <5 | 32 | 0.4 | 17 | 0.33 | 14 | 2.1 | <0.5 | 7.8 | 1.7 | 14 | 3.7 |
| 710 C-111 | <5 | <4 | 1 | 15 | <5 | 5 | 35 | 0.6 | 18 | 0.41 | 14 | 2.1 | <0.5 | 8.6 | 2 | 15 | 5.3 |
| 711 C-112 | <5 | <4 | <1 | 13 | <5 | <5 | 32 | 0.5 | 17 | 0.32 | 11 | 2.1 | <0.5 | 8.6 | 1.4 | 13 | 4.5 |
| 712 C-113 | <5 | 5 | <1 | 12 | <5 | <5 | 29 | 0.5 | 15 | 0.33 | 10 | 1.8 | <0.5 | 7.9 | 2 | 11 | 3.8 |
| 713 C-114 | <5 | 7 | 1 | 16 | <5 | 0 | 43 | 0.5 | 22 | 0.68 | 18 | 2.7 | <0.5 | 9.8 | 3.8 | 21 | 4.1 |
| 714 C-115 | <5 | 5 | <1 | 11 | <5 | <5 | 38 | 0.6 | 21 | 0.4 | 15 | 2.5 | <0.5 | 9.8 | 2.4 | 12 | 5.3 |
| 715 C-116 | <5 | 8 | 2 | 21 | <5 | 0 | 61 | 0.6 | 29 | 1.06 | 21 | 3.9 | 0.8 | 15 | 5 | 34 | 5 |
| 716 C-117 | 31 | <4 | 5 | 24 | <5 | 0 | 190 | 0.8 | 100 | 2.57 | 70 | 14 | 2.8 | 66 | 16 | 122 | 3.6 |
| 717 C-118 | 35 | 10 | 4 | 22 | <5 | 0 | 180 | 0.7 | 96 | 2.26 | 72 | 13 | 2.6 | 62 | 14 | 114 | 3.1 |
| 718 C-119 | 48 | 17 | 6 | 27 | <5 | 0 | 320 | 1 | 180 | 3.55 | 120 | 23 | 4.5 | 110 | 22 | 163 | 3.5 |
| 719 C-120 | 28 | 12 | 4 | 24 | <5 | 0 | 160 | 0.7 | 83 | 1.93 | 64 | 11 | 2.1 | 53 | 11 | 96 | 3 |
| 720 C-121 | 30 | 12 | 4 | 21 | <5 | 0 | 200 | 0.8 | 100 | 2.41 | 77 | <4 | 2.6 | 69 | 15 | 115 | 3.3 |
| 721 C-122 | 24 | 6 | 1 | 13 | <5 | <5 | 29 | <0.2 | 16 | 0.45 | 12 | 2 | <0.5 | 8 | 2.7 | 18 | 2.8 |
| 722 C-123 | 66 | 9 | 5 | 24 | <5 | <5 | 60 | 0.4 | 31 | 0.94 | 21 | 3.7 | 0.8 | 15 | 4 | 37 | 3.4 |
| 723 C-124 | 78 | 10 | 4 | 23 | <5 | 0 | 69 | 0.5 | 34 | 1.2 | 29 | 4.4 | 1 | 18 | 5.7 | 49 | 3.6 |
| 724 C-125 | 41 | 7 | 4 | 20 | <5 | 0 | 55 | 0.6 | 29 | 0.72 | 19 | 3.4 | 0.5 | 13 | 3.8 | 29 | 3.5 |
| 725 C-126 | <5 | <4 | 3 | 22 | <5 | 0 | 100 | 0.6 | 53 | 1.4 | 39 | 7.1 | 1.4 | 34 | 8.6 | 64 | 3.3 |
| 726 C-127 | 65 | 12 | 6 | 18 | <5 | 0 | 71 | 0.6 | 40 | 0.95 | 28 | 4.7 | 1 | 17 | 5.4 | 37 | 4.5 |
| 727 C-128 | 91 | 12 | 6 | 22 | <5 | 0 | 69 | 0.6 | 38 | 0.94 | 30 | 4.5 | 1 | 17 | 5.1 | 36 | 4.3 |
| 728 C-129 | 12 | 11 | 3 | 17 | <5 | <5 | 63 | 0.7 | 34 | 0.64 | 26 | 4 | 0.6 | 13 | 4.2 | 31 | 5.1 |
| 729 C-130 | 77 | 7 | 4 | 12 | <5 | <5 | 52 | 0.6 | 28 | 0.58 | 18 | 3.3 | 0.6 | 13 | 3.5 | 20 | 3.8 |
| 730 C-131 | 89 | 10 | 4 | 20 | <5 | 0 | 53 | 0.6 | 29 | 0.45 | 17 | 3.6 | <0.5 | 15 | 3.1 | 29 | 4.6 |
| 731 C-132 | 30 | 16 | 4 | 28 | <5 | 0 | 130 | 1.2 | 66 | 1.08 | 49 | 9.4 | 1.6 | 33 | 11 | 63 | 9.8 |
| 732 C-133 | 35 | 16 | 3 | 28 | <5 | 0 | 140 | 1.4 | 71 | 0.95 | 55 | 10 | <0.5 | 36 | 12 | 58 | 12 |
| 733 C-134 | 36 | 5 | 3 | 16 | <5 | 0 | 48 | 0.6 | 29 | 0.37 | 21 | 3.5 | <0.5 | 14 | 3 | 20 | 5.3 |
| 734 C-135 | 144 | 13 | 5 | 16 | <5 | 0 | 55 | 0.6 | 31 | 0.78 | 18 | 3.9 | <0.5 | 14 | 4 | 32 | 4.8 |
| 735 C-136 | 69 | <4 | 5 | 16 | <5 | <5 | 54 | 0.6 | 33 | 0.37 | 22 | 3.8 | <0.5 | 16 | 4 | 17 | 4.8 |
| 736 C-137 | <5 | <4 | <1 | 11 | <5 | <5 | 23 | 0.4 | 12 | 0.16 | 9 | 1.6 | <0.5 | 6.2 | 1.2 | 6 | 3.5 |
| 737 C-138 | 54 | 12 | 5 | 17 | <5 | <5 | 50 | 0.6 | 27 | 0.46 | 18 | 3.3 | <0.5 | 12 | 4.1 | 25 | 4.9 |
| 738 C-139 | 126 | <4 | 7 | 13 | <5 | <5 | 47 | 0.5 | 27 | 0.36 | 23 | 3.2 | <0.5 | 12 | 3 | 16 | 3.6 |
| 739 C-140 | 178 | 20 | 10 | 39 | <5 | 0 | 190 | 1 | 97 | 2.09 | 69 | 13 | 2.6 | 56 | 13 | 102 | 6.9 |
| 740 C-141 | <5 | <4 | <1 | 11 | <5 | <5 | 49 | 0.6 | 26 | 0.37 | 16 | 3.3 | <0.5 | 13 | 2.4 | 19 | 3 |
| 741 C-142 | <5 | <4 | <1 | 9 | <5 | <5 | 25 | 0.3 | 14 | 0.15 | 9 | 1.8 | <0.5 | 5.6 | 1.3 | 6 | 1.3 |
| 742 C-143 | <5 | <4 | 1 | 9 | <5 | <5 | 52 | 0.5 | 25 | 0.34 | 19 | 3.5 | <0.5 | 11 | 1 | 16 | 4.4 |
| 743 C-144 | <5 | <4 | <1 | 11 | <5 | <5 | 54 | 0.7 | 30 | 0.37 | 20 | 3.9 | <0.5 | 12 | 2.2 | 18 | 4.1 |
| 744 C-145 | <5 | <4 | <1 | 11 | <5 | <5 | 45 | 0.5 | 25 | 0.27 | 17 | 2.9 | <0.5 | 8.9 | 1.4 | 17 | 1.8 |
| 745 C-146 | <5 | <4 | 1 | 11 | <5 | <5 | 57 | 0.5 | 29 | 0.34 | 21 | 3.7 | 0.6 | 14 | 2.3 | 17 | 4.8 |
| 746 C-147 | 35 | 16 | 7 | 48 | 8 | 0 | 97 | 0.6 | 47 | 2.66 | 31 | 7.4 | 2.5 | 26 | 6.9 | 109 | 7.7 |
| 747 C-148 | 85 | 20 | 7 | 59 | <5 | 0 | 170 | 1.2 | 88 | 4.1 | 56 | 14 | 4.6 | 48 | 16 | 188 | 9.9 |
| 748 C-149 | 27 | 22 | 7 | 58 | <5 | 0 | 140 | 1.3 | 78 | 1.73 | 51 | 10 | 2 | 37 | 12 | 81 | 13 |
| 749 C-150 | 45 | 20 | 9 | 50 | <5 | 0 | 240 | 0.5 | 120 | 5.31 | 87 | 18 | 5.9 | 64 | 18 | 249 | 9.5 |
| 750 C-151 | 21 | <4 | 5 | 35 | <5 | 0 | 190 | <0.2 | 100 | 1.93 | 63 | 14 | 2.5 | 46 | 15 | 98 | 11 |
| 751 C-152 | 14 | 6 | 2 | 19 | <5 | <5 | 44 | 0.3 | 23 | 0.58 | 15 | 3 | 0.6 | 13 | 2.9 | 26 | 3.4 |
| 752 C-153 | <5 | <4 | 2 | 21 | <5 | 0 | 69 | 0.6 | 34 | 0.97 | 24 | 5 | 1.1 | 23 | 5.9 | 47 | 3.9 |
| 753 C-154 | 73 | 13 | 8 | 39 | <5 | 0 | 110 | 0.4 | 57 | 0.93 | 35 | 7.4 | <0.5 | 35 | 5.9 | 47 | 6.2 |
| 754 C-155 | 9 | <4 | 4 | 29 | <5 | 0 | 120 | 0.7 | 59 | 1.87 | 37 | 8.8 | 2.1 | 44 | 12 | 91 | 4.1 |
| 755 C-156 | 75 | 17 | 6 | 38 | <5 | 0 | 100 | 0.5 | 53 | 2.05 | 33 | 7.6 | 1.8 | 26 | 8.6 | 94 | 6.4 |
| 756 C-157 | 25 | <4 | 17 | 118 | <5 | 0 | 316 | 0.7 | 158 | 1.33 | 98 | 20 | 3.1 | 106 | 9.8 | 74 | 6.9 |
| 757 C-158 | <5 | <4 | 3 | 26 | <5 | 0 | 110 | <0.2 | 60 | 1.42 | 40 | 8.7 | 2.2 | 39 | 8 | 77 | 3.5 |
| 758 C-159 | <5 | 9 | 2 | 21 | <5 | 0 | 110 | 0.6 | 58 | 1.38 | 40 | 8.4 | 1.7 | 40 | 11 | 66 | 4.1 |
| 759 C-160 | <5 | <4 | <1 | 14 | <5 | <5 | 10 | 0.2 | 5 | 0.35 | <5 | 0.8 | <0.5 | 5 | 2 | 14 | 1.7 |
| 760 C-161 | <5 | <4 | 2 | 14 | <5 | 0 | 29 | | | | | | | | | | |

Appendix 8 Chemical analysis data of stream sediments

(8)

| Element Units | SN PPH | W PPH | TA PPH | NB PPH | AU PPH | NO PPH | CR PPH | CU PPH | LA PPH | LU PPH | ND PPH | SH PPH | TB PPH | TH PPH | U PPH | Y PPH | SC PPH |
|------------------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|-----------|
| 790 C-191 | 19 | <4 | 11 | 47 | <5 | 0 | 1000 | 4.4 | 590 | 9.54 | 470 | 75 | 12 | 350 | 36 | 465 | 4.4 |
| 791 C-192 | 77 | <4 | 3 | 27 | <5 | 0 | 61 | 0.4 | 30 | 1.33 | 18 | 4.3 | 1.1 | 20 | 5.2 | 78 | 2.7 |
| 792 C-193 | 25 | <4 | 2 | 18 | <5 | <5 | 19 | 0.3 | 10 | 0.49 | 8 | 1.3 | <0.5 | 6 | 2.3 | 20 | 2 |
| 793 C-194 | 58 | <4 | <1 | 8 | <5 | <5 | 30 | 0.4 | 17 | 0.29 | 14 | 1.9 | <0.5 | 6.8 | 1.1 | 19 | 1.9 |
| 794 C-195 | 30 | 11 | 8 | 64 | <5 | 0 | 140 | 1.3 | 71 | 3.51 | 55 | 13 | 3.3 | 34 | 11 | 177 | 5.1 |
| 795 C-196 | 51 | <4 | 10 | 80 | <5 | <5 | 120 | 1 | 47 | 0.82 | 37 | 7.2 | 1 | 18 | 5.1 | 62 | 8.1 |
| 796 C-197 | <6 | <4 | <1 | 17 | <5 | <5 | 56 | 0.9 | 21 | 0.3 | 13 | 2.9 | <0.5 | 8.1 | 1.1 | <2 | 2.5 |
| 797 C-198 | 6 | <4 | <1 | 8 | <5 | <5 | 17 | <0.2 | 5 | 0.28 | 6 | 0.6 | <0.5 | 2.9 | 1.3 | <2 | 1.4 |
| 798 C-199 | <5 | <4 | 1 | 35 | <5 | 7 | 52 | 0.8 | 21 | 0.29 | 15 | 2.9 | <0.5 | 7.9 | 1.2 | 7 | 2.8 |
| 799 C-200 | 23 | 7 | 7 | 59 | <5 | 7 | 230 | 1.6 | 84 | 4.01 | 63 | 15 | 4.1 | 46 | 12 | 232 | 4.9 |
| 800 C-201 | <6 | <4 | <1 | 12 | <5 | <5 | 61 | 1.5 | 22 | 0.4 | 20 | 3.1 | 0.5 | 9.4 | 1.8 | 16 | 3.5 |
| 801 C-202 | <5 | <4 | <1 | 11 | <5 | <5 | 58 | 0.6 | 30 | 0.41 | 19 | 4 | <0.5 | 13 | 1.4 | 21 | 4.3 |
| 802 C-203 | 29 | <4 | <1 | 10 | <5 | 19 | 67 | 0.7 | 33 | 0.54 | 24 | 4.5 | 0.7 | 15 | 3.1 | 27 | 2.5 |
| 803 C-204 | <5 | <4 | <1 | 5 | <5 | 59 | 59 | 0.6 | 29 | 0.44 | 24 | 3.8 | <0.5 | 11 | 1.8 | 18 | 2.2 |
| 804 C-205 | <6 | <4 | <1 | 9 | <5 | 34 | 34 | 0.3 | 17 | 0.35 | 12 | 2.1 | <0.5 | 7.5 | 1.4 | 13 | 2.3 |
| 805 C-206 | 11 | <4 | <1 | 9 | <5 | 38 | 38 | 0.6 | 20 | 0.33 | 20 | 2.7 | <0.5 | 7.2 | 1.7 | 15 | 2.8 |
| 806 C-207 | 9 | <4 | <1 | 13 | <5 | 60 | 60 | 0.6 | 29 | 0.41 | 23 | 4.3 | 0.8 | 13 | 2.2 | 20 | 6.3 |
| 807 C-208 | 15 | <4 | <1 | 8 | <5 | 9 | 48 | 0.6 | 23 | 0.34 | 20 | 3.3 | <0.5 | 8.4 | 2 | 17 | 3.6 |
| 808 C-209 | 75 | 18 | 8 | 58 | <5 | 12 | 200 | 1 | 92 | 4.84 | 70 | 16 | 4.6 | 47 | 15 | 225 | 7.2 |
| 809 C-210 | 32 | 11 | 8 | 59 | <5 | 10 | 270 | <0.2 | 140 | 2.45 | 95 | 19 | 2.5 | 87 | 13 | 114 | 7.5 |
| 810 C-211 | 25 | 15 | 5 | 58 | <5 | 0 | 240 | 1.1 | 110 | 6.25 | 87 | 20 | 5.4 | 58 | 18 | 283 | 7.6 |
| 811 C-212 | 46 | <4 | 8 | 63 | <5 | 10 | 190 | 1.3 | 100 | 2.56 | 75 | 16 | 2.7 | 47 | 19 | 121 | 11 |
| 812 C-213 | 42 | 15 | 5 | 46 | <5 | 0 | 250 | 1.7 | 120 | 4.19 | 100 | 20 | 4 | 61 | 18 | 214 | 10 |
| 813 C-214 | 62 | <4 | 6 | 78 | <5 | 12 | 670 | 1.3 | 350 | 1.33 | 250 | 41 | 2.6 | 250 | 19 | 84 | 7.1 |
| 814 C-215 | <5 | <4 | <1 | 9 | <5 | <5 | 64 | 0.9 | 32 | 0.47 | 20 | 4.4 | 0.9 | 13 | 2.1 | 21 | 2.5 |
| 815 C-216 | <5 | <4 | 2 | 9 | <5 | 11 | 75 | 0.9 | 36 | 0.45 | 21 | 5.1 | <0.5 | 15 | 2.9 | 22 | 3.7 |
| 816 C-217 | <5 | <4 | <1 | 8 | <5 | 13 | 38 | 0.5 | 19 | 0.3 | 15 | 2.6 | <0.5 | 7.6 | 1.1 | 13 | 1.9 |
| 817 C-218 | <5 | <4 | <1 | 14 | <5 | 30 | 30 | 0.4 | 17 | 0.34 | 9 | 2.3 | <0.5 | 6.3 | 1.6 | 13 | 1.6 |
| 818 C-219 | 7 | <4 | <1 | 7 | <5 | 57 | 57 | 0.6 | 23 | 0.4 | 25 | 3.9 | <0.5 | 11 | 1.7 | 24 | 3.2 |
| 819 C-220 | <5 | <4 | <1 | 11 | <5 | 51 | 51 | 0.6 | 26 | 0.35 | 21 | 3.5 | <0.5 | 10 | 1.4 | 18 | 2.9 |
| 820 C-221 | 56 | <4 | <1 | 10 | <5 | 16 | 53 | 0.7 | 27 | 0.44 | 20 | 3.8 | <0.5 | 11 | 2.2 | 20 | 4.4 |
| 821 C-222 | 19 | <4 | <1 | <2 | <5 | 11 | 63 | 0.8 | 29 | 0.44 | 23 | 4.1 | <0.5 | 13 | 2.6 | 21 | 4.5 |
| 822 C-223 | <5 | <4 | 1 | 11 | <5 | 70 | 70 | 1.1 | 36 | 0.49 | 32 | 5 | <0.5 | 14 | 2.1 | 17 | 6.2 |
| 823 C-224 | 26 | <4 | <1 | 16 | <5 | 7 | 63 | 0.9 | 33 | 0.51 | 23 | 4.7 | <0.5 | 13 | 2.5 | 23 | 2.2 |
| 824 C-225 | <5 | <4 | <1 | 4 | <5 | 49 | 49 | 0.7 | 24 | 0.41 | 19 | 3.3 | <0.5 | 8.9 | 2.2 | 23 | 2.9 |
| 825 C-226 | <5 | <4 | 1 | 9 | <5 | 9 | 62 | 0.8 | 30 | 0.44 | 23 | 4.2 | <0.5 | 12 | 2.3 | 17 | 2.1 |
| 826 C-227 | <5 | <4 | <1 | 9 | <5 | 35 | 35 | 0.5 | 20 | 0.32 | 14 | 2.1 | <0.5 | 7.9 | 1.4 | 19 | 1.7 |
| 827 C-228 | 6 | <4 | <1 | 8 | <5 | 29 | 29 | 0.4 | 14 | 0.45 | 10 | 1.7 | 0.5 | 7.9 | 2.1 | 21 | 1.6 |
| 828 C-229 | <5 | <4 | <1 | 5 | <5 | 46 | 46 | 0.6 | 22 | 0.41 | 15 | 2.5 | <0.5 | 11 | 2 | 16 | 3.1 |
| 829 C-230 | 17 | <4 | <1 | <2 | <5 | 50 | 50 | 0.5 | 25 | 0.45 | 17 | 2.8 | <0.5 | 11 | 2.1 | 29 | 3.1 |
| 830 C-231 | 6 | <4 | <1 | 12 | <5 | 47 | 47 | 0.6 | 25 | 0.32 | 17 | 2.8 | <0.5 | 9.8 | 1.6 | 21 | 2.9 |
| 831 C-232 | <5 | <4 | <1 | 9 | <5 | 44 | 44 | 0.4 | 19 | 0.28 | 15 | 2.2 | <0.5 | 7.6 | 1.4 | 12 | 3.2 |
| 832 C-233 | <5 | <4 | <1 | 5 | <5 | 35 | 35 | 0.4 | 19 | 0.47 | 12 | 2.2 | <0.5 | 8.6 | 2.3 | 25 | 1.8 |
| 833 C-234 | 17 | 10 | 8 | 44 | <5 | 0 | 250 | 0.6 | 140 | 3.38 | 100 | >17 | 3.4 | 110 | 19 | 175 | 2.9 |
| 834 C-235 | 57 | 7 | 4 | 33 | <5 | 0 | 150 | 0.4 | 78 | 2.01 | 61 | 9.9 | 2.2 | 62 | 12 | 93 | 2.6 |
| 835 C-236 | <5 | <4 | <1 | 8 | <5 | <5 | 46 | 0.5 | 26 | 0.45 | 21 | 2.8 | 0.6 | 10 | 1.9 | 19 | 2.8 |
| 836 C-237 | 27 | 7 | 3 | 24 | <5 | 0 | 98 | 0.5 | 49 | 1.35 | 35 | 6.2 | 1.2 | 39 | 7.6 | 63 | 2.5 |
| 837 C-238 | 26 | <4 | 4 | 23 | <5 | 0 | 87 | 0.4 | 47 | 1.39 | 39 | 5.8 | 1.2 | 37 | 7.4 | 67 | 2.8 |
| 838 C-239 | 17 | 4 | 2 | 15 | <5 | 0 | 51 | 0.3 | 22 | 0.72 | 17 | 2.9 | <0.5 | 18 | 4.1 | 34 | 2.7 |
| 839 C-240 | 58 | 7 | 4 | 25 | <5 | 0 | 110 | 0.5 | 59 | 1.44 | 42 | 7.3 | 1.4 | 48 | 9.4 | 79 | 2.6 |
| 840 C-241 | 27 | <4 | 2 | 14 | <5 | 50 | 50 | 0.4 | 26 | 0.56 | 20 | 3.1 | 0.6 | 17 | 3.5 | 29 | 2.5 |
| 841 C-242 | <5 | <4 | 2 | 11 | <5 | 32 | 32 | 0.3 | 15 | 0.31 | 11 | 1.8 | <0.5 | 11 | 2.6 | 14 | 2.5 |
| 842 C-243 | 12 | 5 | 2 | 19 | <5 | 63 | 63 | 0.4 | 33 | 0.98 | 24 | 4.2 | 0.8 | 26 | 5.3 | 47 | 2.7 |
| 843 C-244 | 40 | 6 | 4 | 20 | <5 | 5 | 85 | 0.5 | 42 | 0.94 | 37 | 5.3 | 1.1 | 33 | 5.5 | 48 | 3.2 |
| 844 C-245 | 57 | 8 | 5 | 28 | <5 | 0 | 140 | 0.5 | 69 | 1.83 | 56 | 8.9 | 2.1 | 58 | 12 | 95 | 2.8 |
| 845 C-246 | 10 | <4 | 2 | 15 | <5 | 48 | 48 | 0.4 | 23 | 0.49 | 17 | 2.8 | 0.6 | 16 | 2.9 | 25 | 3.7 |
| 846 C-247 | <5 | <4 | <1 | 9 | <5 | 48 | 48 | 0.4 | 26 | 0.73 | 21 | 2.9 | 0.6 | 15 | 2.4 | 29 | 1.8 |
| 847 C-248 | <5 | <4 | <1 | 7 | <5 | 57 | 57 | 0.5 | 30 | 0.44 | 25 | 3.1 | <0.5 | 13 | 1.6 | 17 | 3.1 |
| 848 C-249 | 7 | <4 | <1 | <2 | <5 | 31 | 31 | 0.4 | 17 | 0.23 | 12 | 1.9 | <0.5 | 6.6 | 1.3 | 13 | 2.1 |
| 849 C-250 | 7 | <4 | <1 | 13 | <5 | 48 | 48 | 0.6 | 22 | 0.45 | 16 | 2.8 | <0.5 | 9.5 | 1.5 | 22 | 2.9 |
| 850 C-251 | 55 | <4 | <1 | 5 | <5 | 31 | 31 | 0.4 | 16 | 0.29 | 13 | 1.8 | <0.5 | 6.8 | 1.4 | 18 | 1.3 |
| 851 C-252 | <5 | <4 | <1 | 8 | <5 | 42 | 42 | 0.6 | 24 | 0.36 | 17 | 2.5 | <0.5 | 9.5 | 1.6 | 20 | 2.8 |
| 852 C-253 | <5 | <4 | <1 | 7 | <5 | 39 | 39 | 0.4 | 20 | 0.31 | 16 | 2.2 | <0.5 | 8.7 | 1.2 | 16 | 1.7 |
| 853 C-254 | <5 | <4 | <1 | 10 | <5 | 49 | 49 | 0.5 | 27 | 0.41 | 23 | 3.1 | <0.5 | 12 | 1.5 | 20 | 2.8 |
| 854 C-255 | <5 | <4 | <1 | 4 | <5 | 25 | 25 | 0.3 | 13 | 0.31 | 11 | 1.6 | <0.5 | 6.9 | 0.7 | 17 | 1.9 |
| 855 C-256 | 24 | <4 | <1 | 9 | <5 | 43 | 43 | 0.4 | 21 | 0.5 | 15 | 2.4 | <0.5 | 12 | 2.3 | 20 | 2.9 |
| 856 C-257 | 10 | <4 | <1 | 11 | <5 | 52 | 52 | 0.6 | 21 | 0.46 | 20 | 3 | <0.5 | 12 | 1.7 | 20 | 4.1 |
| 857 C-258 | 30 | <4 | <1 | 12 | <5 | 81 | 81 | 0.7 | 41 | 0.63 | 29 | 4.5 | <0.5 | 18 | 3.4 | 22 | 3 |
| 858 C-259 | 24 | <4 | <1 | 9 | 6 | 50 | 50 | 0.5 | 28 | 0.45 | 23 | 3.1 | 0.5 | 14 | 2.7 | 22 | 3.1 |
| 859 C-260 | 13 | <4 | <1 | 12 | <5 | 52 | 52 | 0.6 | 26 | 0.43 | 21 | 2.9 | <0.5 | 11 | 2.3 | 23 | 4.8 |
| 860 C-261 | <5 | <4 | 1 | 10 | <5 | 57 | 57 | 0.7 | 30 | 0.4 | 26 | 3.4 | 0.6 | 13 | 1.6 | 19 | 5 |
| 861 C-262 | 50 | <4 | <1 | 11 | <5 | 130 | 130 | 0.8 | 72 | 0.82 | 57 | 7.1 | 1 | 34 | 5.2 | 40 | 2.4 |
| 862 C-263 | <5 | <4 | <1 | 12 | <5 | 58 | 58 | 0.6 | 33 | 0.47 | 23 | 3.4 | 0.6 | 15 | 2.7 | 20 | 1.9 |
| 863 C-264 | <5 | <4 | <1 | 9 | <5 | 33 | 33 | 0.3 | 19 | 0.3 | 16 | 2.1 | <0.5 | 9 | 1.3 | 13 | 2.2 |
| 864 C-265 | 8 | <4 | <1 | 10 | <5 | 40 | 40 | 0.4 | 22 | 0.37 | 14 | 2.3 | <0.5 | 9.5 | 1.7 | 15 | 1.7 |
| 865 C-266 | <5 | <4 | <1 | 11 | <5 | 67 | 67 | 0.7 | 34 | 0.45 | 27 | 3.6 | <0.5 | 16 | 2.2 | 23 | 2.3 |
| 866 C-267 | <5 | <4 | <1 | 10 | <5 | 55 | 55 | 0.6 | 29 | 0.48 | 25 | 3.3 | <0.5 | 14 | 2.3 | 19 | 2.9 |
| 867 C-268 | <5 | <4 | <1 | 10 | <5 | 39 | 39 | 0.4 | 21 | 0.4 | 19 | 2.3 | <0.5 | 10 | 1.7 | 17 | 1.5 |
| 868 C-269 | <5 | <4 | <1 | 8 | <5 | 43 | 43 | 0.5 | 22 | 0.28 | 16 | 2.3 | <0.5 | 8.3 | 0.9 | 18 | 3 |
| 869 C-270 | <5 | <4 | <1 | 11 | <5 | 49 | 49 | 0.5 | 26 | 0.41 | 24 | 2.6 | 0.7 | 12 | 2.4 | 19 | 2.6 |
| 870 C-271 | <5 | <4 | <1 | 7 | <5 | 53 | 53 | 0.5 | 29 | 0.39 | 18 | 3 | <0.5 | 13 | 2.1 | 18 | 2.2 |
| 871 C-272 | 13 | <4 | <1 | 9 | <5 | 47 | 47 | 0.5 | 26 | 0.35 | 17 | 2.7 | <0.5 | 13 | 2 | 20 | 2.1 |
| 872 C-273 | <5</ | | | | | | | | | | | | | | | | |

Appendix 8 Chemical analysis data of stream sediments

(9)

| Element Units | SN PPH | M PPH | TA PPH | NB PPH | AU PPH | MO PPH | CB PPH | BU PPH | LA PPH | LU PPH | ND PPH | SH PPH | TB PPH | TH PPH | U PPH | Y PPH | SC PPH |
|------------------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|-----------|
| 903 C-304 | 9 | <4 | <1 | 10 | <5 | <5 | 23 | 0.5 | 14 | 0.19 | 8 | 1.7 | <0.5 | 4.6 | 0.8 | 11 | 2.4 |
| 904 C-305 | <5 | <4 | <1 | 11 | <5 | <5 | 47 | 0.6 | 25 | 0.28 | 17 | 2.9 | 0.6 | 9.6 | 1.6 | 18 | 3.8 |
| 905 C-306 | <5 | <4 | <1 | 11 | <5 | <5 | 45 | 0.7 | 24 | 0.25 | 17 | 2.9 | <0.5 | 8.7 | 0.8 | 19 | 3.9 |
| 906 C-307 | <5 | <4 | <1 | 10 | <5 | <5 | 38 | 0.6 | 21 | 0.26 | 15 | 2.5 | <0.5 | 7.3 | 1.6 | 17 | 3 |
| 907 C-308 | <5 | <4 | <1 | 9 | <5 | <5 | 30 | 0.6 | 15 | 0.24 | 11 | 1.9 | <0.5 | 5.8 | 0.7 | 14 | 3 |
| 908 C-309 | <5 | <4 | <1 | 11 | <5 | <5 | 32 | 0.6 | 17 | 0.23 | 11 | 2.1 | <0.5 | 6.3 | 1.4 | 15 | 3.1 |
| 909 D-001 | 6 | <4 | <1 | 11 | <6 | <5 | 65 | 0.6 | 29 | 0.3 | 17 | 3.6 | <0.5 | 9.9 | 1.3 | 19 | 4 |
| 910 D-002 | <5 | <4 | 1 | 12 | <5 | <5 | 51 | 0.7 | 29 | 0.29 | 19 | 3.4 | <0.5 | 11 | 1.7 | 18 | 4.6 |
| 911 D-003 | <5 | <4 | <1 | 10 | <5 | <5 | 49 | 0.7 | 27 | 0.35 | 18 | 3.3 | <0.5 | 9.9 | 1.6 | 16 | 4.5 |
| 912 D-004 | <5 | <4 | <1 | 13 | <5 | <5 | 53 | 0.7 | 29 | 0.36 | 16 | 3.6 | 0.5 | 13 | 1.7 | 25 | 5.3 |
| 913 D-005 | <5 | <4 | <1 | 11 | <5 | <5 | 48 | 0.8 | 27 | 0.35 | 15 | 3.3 | <0.5 | 8.9 | 1.7 | 20 | 4.3 |
| 914 D-006 | <5 | <4 | <1 | 12 | <5 | <5 | 55 | 0.7 | 31 | 0.36 | 19 | 3.8 | <0.5 | 11 | 1.7 | 23 | 4.7 |
| 915 D-007 | <5 | <4 | 1 | 14 | <5 | <5 | 58 | 0.8 | 33 | 0.44 | 19 | 4.1 | <0.5 | 11 | 1.7 | 30 | 4.6 |
| 916 D-008 | <5 | <4 | <1 | 11 | <5 | <5 | 54 | 0.6 | 30 | 0.44 | 16 | 3.5 | <0.5 | 12 | 1.9 | 26 | 2.1 |
| 917 D-009 | <5 | <4 | <1 | 11 | 5 | <5 | 53 | 0.6 | 28 | 0.35 | 19 | 3.3 | <0.5 | 12 | 2.1 | 22 | 2.6 |
| 918 D-010 | <5 | <4 | <1 | 9 | 6 | <5 | 32 | 0.4 | 17 | 0.36 | 11 | 2.1 | 0.5 | 7.5 | 1.9 | 19 | 1.3 |
| 919 D-011 | <5 | <4 | <1 | 9 | <5 | <5 | 21 | 0.3 | 12 | 0.2 | 6 | 1.5 | <0.5 | 5.1 | 0.7 | 6 | 1.3 |
| 920 D-012 | <5 | <4 | <1 | 13 | <5 | <5 | 70 | 0.8 | 38 | 0.5 | 25 | 4.5 | <0.5 | 16 | 2.4 | 22 | 3.2 |
| 921 D-013 | <5 | <4 | <1 | 12 | <5 | <5 | 56 | 0.7 | 30 | 0.4 | 23 | 3.7 | <0.5 | 12 | 1.3 | 18 | 3.6 |
| 922 D-014 | <5 | <4 | <1 | 12 | <5 | <5 | 55 | 0.6 | 33 | 0.42 | 19 | 3.8 | 0.7 | 14 | 2.3 | 21 | 2.5 |
| 923 D-015 | <5 | <4 | 1 | 11 | <5 | <5 | 68 | 0.4 | 32 | 0.39 | 22 | 3.7 | 0.5 | 13 | 1.7 | 18 | 2.3 |
| 924 D-016 | <5 | <4 | <1 | 7 | <5 | <5 | 37 | 0.5 | 21 | 0.35 | 15 | 2.5 | <0.5 | 7.8 | 1.2 | 10 | 2.5 |
| 925 D-017 | <5 | <4 | <1 | 11 | <5 | <5 | 67 | 0.8 | 38 | 0.6 | 26 | 4.4 | 1 | 15 | 2.1 | 20 | 2.4 |
| 926 D-018 | <5 | <4 | <1 | 9 | <5 | <5 | 31 | 0.5 | 17 | 0.25 | 14 | 2.1 | <0.5 | 6 | 0.8 | 12 | 1.7 |
| 927 D-019 | <5 | 5 | 1 | 14 | <5 | <5 | 65 | 0.6 | 37 | 0.52 | 22 | 4.1 | <0.5 | 15 | 2.3 | 21 | 2.7 |
| 928 D-020 | <5 | <4 | <1 | 12 | <5 | <5 | 26 | 0.4 | 14 | 0.35 | 9 | 1.8 | <0.5 | 5.3 | 1.7 | 13 | 1.7 |
| 929 D-021 | <5 | <4 | <1 | 10 | <5 | <5 | 40 | 0.5 | 24 | 0.41 | 15 | 2.8 | <0.5 | 10 | 1.6 | 14 | 4.3 |
| 930 D-022 | <5 | <4 | 1 | 11 | <5 | <5 | 42 | 0.5 | 24 | 0.41 | 13 | 2.8 | <0.5 | 9.7 | 1.3 | 15 | 2.2 |
| 931 D-023 | <5 | <4 | <1 | 9 | <5 | <5 | 28 | 0.3 | 16 | 0.27 | 9 | 1.8 | <0.5 | 6 | 1.1 | 10 | 1 |
| 932 D-024 | <5 | <4 | <1 | 11 | <5 | <5 | 40 | 0.5 | 22 | 0.44 | 12 | 2.6 | <0.5 | 8.9 | 2.4 | 12 | 1.7 |
| 933 D-025 | <5 | <4 | <1 | 12 | <5 | <5 | 34 | 0.4 | 15 | 0.25 | 12 | 1.7 | <0.5 | 9.3 | 2 | 11 | 4.6 |
| 934 D-026 | <5 | <4 | <1 | 9 | <5 | <5 | 17 | 0.2 | 8 | 0.22 | 6 | 1.1 | <0.5 | 4.8 | 1 | 8 | 1.8 |
| 935 D-027 | <5 | <4 | <1 | 9 | <5 | <5 | 18 | 0.4 | 11 | 0.23 | 7 | 1.3 | <0.5 | 4.5 | 1.2 | 7 | 1.4 |
| 936 D-028 | <5 | <4 | <1 | 9 | <5 | <5 | 24 | 0.3 | 13 | 0.23 | 9 | 1.4 | <0.5 | 5.6 | 1.3 | 8 | 1.3 |
| 937 D-029 | <5 | <4 | <1 | 6 | <5 | <5 | 14 | 0.3 | 8 | 0.19 | 5 | 0.9 | <0.5 | 4.7 | 0.9 | 7 | 1.5 |
| 938 D-030 | <5 | <4 | <1 | 9 | <5 | <5 | 24 | 0.4 | 13 | 0.27 | 8 | 1.6 | <0.5 | 5.5 | 1 | 8 | 2 |
| 939 D-031 | <5 | <4 | <1 | 10 | <5 | <5 | 23 | 0.4 | 13 | 0.34 | 6 | 1.6 | <0.5 | 5.7 | 1 | 15 | 1.4 |
| 940 D-032 | <5 | <4 | <1 | 14 | <5 | 5 | 15 | 0.4 | 8 | 0.41 | 5 | 1.1 | <0.5 | 4.2 | 1.4 | 16 | 2.1 |
| 941 D-033 | <5 | <4 | <1 | 12 | <5 | <5 | 51 | 0.5 | 29 | 0.42 | 19 | 3.4 | <0.5 | 13 | 1.5 | 19 | 1.8 |
| 942 D-034 | <5 | <4 | <1 | 9 | <5 | 0 | 120 | 0.9 | 70 | 0.75 | 42 | 7.7 | 1.1 | 29 | 3.7 | 33 | 2 |
| 943 D-035 | <5 | <4 | <1 | 10 | <5 | <5 | 48 | 0.6 | 28 | 0.45 | 19 | 3.2 | 0.8 | 14 | 2.4 | 22 | 1.9 |
| 944 D-036 | <5 | <4 | <1 | 10 | <5 | <5 | 130 | 1 | 71 | 0.67 | 48 | 8 | <0.5 | 37 | 3.6 | 36 | 4 |
| 945 D-037 | 274 | <4 | 12 | 35 | <5 | 0 | 340 | 0.9 | 180 | 3.56 | 139 | 25 | 4.9 | 130 | 27 | 169 | 3.8 |
| 946 D-038 | 9 | <4 | 3 | 16 | <5 | 0 | 100 | 0.6 | 55 | 1.38 | 34 | 6.8 | 1.2 | 35 | 11 | 48 | 3 |
| 947 D-039 | 31 | 10 | 3 | 17 | 7 | 0 | 200 | 0.8 | 110 | 2.1 | 66 | 13 | 1.9 | 70 | 18 | 73 | 3.7 |
| 948 D-040 | 8 | <4 | 2 | 20 | <5 | 0 | 110 | 0.6 | 61 | 1.3 | 33 | 7.4 | 0.9 | 40 | 12 | 52 | 3.2 |
| 949 D-041 | 54 | 18 | 8 | 36 | <5 | 0 | 250 | 1.1 | 140 | 4 | 82 | 16 | 4 | 88 | 26 | 211 | 5.1 |
| 950 D-042 | 24 | 5 | 3 | 15 | <5 | 0 | 130 | 0.6 | 71 | 1.37 | 41 | 8.5 | 1.3 | 50 | 15 | 47 | 2.9 |
| 951 D-043 | 20 | 9 | 3 | 16 | <5 | 0 | 150 | 0.6 | 80 | 1.35 | 45 | 9.7 | 1.9 | 50 | 11 | 46 | 4.4 |
| 952 D-044 | <5 | <4 | 1 | 10 | <5 | 0 | 98 | 0.6 | 56 | 0.75 | 38 | 7 | <0.5 | 37 | 7.5 | 34 | 2.9 |
| 953 D-045 | <5 | 7 | 3 | 15 | <5 | 0 | 47 | 0.8 | 26 | 0.96 | 16 | 3.1 | <0.5 | 19 | 11 | 25 | 3.3 |
| 954 D-046 | 12 | 6 | 2 | 14 | <5 | 0 | 44 | 0.5 | 25 | 0.93 | 20 | 3 | <0.5 | 17 | 10 | 25 | 3 |
| 955 D-047 | 18 | 9 | 12 | 32 | <5 | 0 | 60 | <0.2 | 22 | 3.59 | 13 | 3.4 | 1.4 | 50 | 47 | 100 | 5.3 |
| 956 D-048 | <5 | 5 | 2 | 12 | <5 | 0 | 36 | 0.5 | 18 | 0.77 | 12 | 2.4 | <0.5 | 12 | 8.7 | 15 | 3 |
| 957 D-049 | <5 | 4 | 2 | 14 | <5 | 0 | 28 | 0.5 | 15 | 0.57 | 11 | 1.9 | <0.5 | 10 | 6.8 | 20 | 2.2 |
| 958 D-050 | 36 | <4 | 1 | 7 | <5 | <5 | 29 | 0.4 | 15 | 0.5 | 13 | 1.8 | <0.5 | 10 | 5 | 11 | 1.8 |
| 959 D-051 | <5 | <4 | <1 | 9 | <5 | <5 | 12 | 0.3 | 7 | 0.17 | 6 | 0.8 | <0.5 | 3.8 | 1.4 | 7 | 1.3 |
| 960 D-052 | <5 | <4 | <1 | 9 | <5 | <5 | 26 | <0.2 | 14 | 0.35 | 11 | 1.6 | <0.5 | 8.1 | 2.5 | 7 | 1.9 |
| 961 D-053 | <5 | <4 | <1 | 12 | <5 | <5 | 29 | 0.5 | 16 | 0.25 | 10 | 1.9 | <0.5 | 7.3 | 1.6 | 10 | 4.4 |
| 962 D-054 | <5 | 5 | <1 | 11 | <5 | <5 | 41 | 0.7 | 22 | 0.35 | 16 | 2.5 | <0.5 | 12 | 2.5 | 12 | 3.6 |
| 963 D-055 | <5 | <4 | <1 | 8 | <5 | <5 | 35 | 0.4 | 15 | 0.33 | 12 | 1.8 | <0.5 | 9.5 | 2.6 | 8 | 2.2 |
| 964 D-056 | <5 | 5 | <1 | 11 | <5 | <5 | 23 | 0.4 | 12 | 0.34 | 7 | 1.3 | <0.5 | 7.2 | 3.1 | 9 | 2.4 |
| 965 D-057 | <5 | 5 | 1 | 14 | <5 | <5 | 43 | 0.6 | 23 | 0.34 | 12 | 2.8 | <0.5 | 11 | 2.4 | 13 | 6.6 |
| 966 D-058 | <5 | 4 | 1 | 11 | <5 | <5 | 39 | 0.6 | 18 | 0.29 | 12 | 2.2 | <0.5 | 9.2 | 1.9 | 10 | 4.9 |
| 967 D-059 | <5 | 7 | 3 | 21 | 6 | 0 | 110 | 1.1 | 62 | 1.5 | 41 | 8.8 | 2.1 | 36 | 6.9 | 72 | 4.3 |
| 968 D-060 | <5 | 5 | 2 | 12 | <5 | 0 | 31 | 0.4 | 15 | 0.97 | 9 | 2.4 | 0.9 | 11 | 4.3 | 49 | 1.3 |
| 969 D-061 | <5 | 7 | 2 | 18 | <5 | 0 | 77 | 0.7 | 40 | 1.68 | 34 | 6.1 | 1.9 | 25 | 6.9 | 89 | 3 |
| 970 D-062 | 8 | <4 | <1 | 62 | 6 | 0 | 440 | 1.1 | 320 | 9.19 | 200 | 40 | 9.2 | 150 | 26 | 435 | 7.3 |
| 971 D-063 | <5 | 5 | <1 | 12 | <5 | <5 | 46 | 0.7 | 26 | 0.42 | 19 | 3.3 | 0.9 | 12 | 2.5 | 20 | 4 |
| 972 D-064 | <5 | 11 | 2 | 27 | <5 | 0 | 73 | 0.9 | 41 | 0.58 | 34 | 5.6 | 1 | 17 | 3.2 | 30 | 7.6 |
| 973 D-065 | 12 | 17 | 8 | 43 | <5 | 0 | 560 | 1.8 | 350 | 5.16 | 170 | 39 | 8.5 | 180 | 24 | 277 | 9.4 |
| 974 D-066 | <5 | 6 | 1 | 17 | <5 | <5 | 65 | 0.9 | 38 | 0.48 | 28 | 4.7 | 1 | 17 | 2.4 | 23 | 6.2 |
| 975 D-067 | <5 | 9 | 2 | 22 | <5 | <5 | 74 | 1.1 | 41 | 0.42 | 29 | 5.3 | 1 | 18 | 2.6 | 24 | 9.9 |
| 976 D-068 | <5 | 7 | 1 | 20 | <5 | <5 | 34 | 0.5 | 17 | 0.37 | 11 | 2.4 | <0.5 | 10 | 1.6 | 18 | 4.4 |
| 977 D-069 | <5 | 13 | 3 | 20 | <5 | <5 | 140 | 1.9 | 70 | 0.9 | 43 | 9.1 | 1.8 | 34 | 6 | 24 | 14 |
| 978 D-070 | 19 | <4 | 1 | 10 | <5 | <5 | 15 | 0.4 | 9 | 0.39 | 7 | 1.2 | <0.5 | 4.9 | 1.8 | 13 | 1.5 |
| 979 D-071 | 53 | <4 | 3 | 11 | <5 | <5 | 10 | 0.3 | 5 | 0.35 | <5 | 0.7 | <0.5 | 4.9 | 1.9 | 9 | 2 |
| 980 D-072 | <5 | <4 | <1 | 13 | <5 | <5 | 29 | 0.6 | 14 | 0.4 | 12 | 2 | <0.5 | 11 | 2 | 17 | 5.5 |
| 981 D-073 | 35 | 14 | 6 | 31 | <5 | 0 | 300 | 1.6 | 190 | 3.3 | 100 | 21 | 4.8 | 140 | 22 | 172 | 5.6 |
| 982 D-074 | 14 | 4 | 1 | 21 | <5 | <5 | 39 | 0.9 | 22 | 0.61 | 19 | 3.2 | 0.9 | 11 | 2.8 | 26 | 6 |
| 983 D-075 | <5 | 5 | <1 | 15 | <5 | <5 | 28 | 0.6 | 15 | 0.44 | 10 | 2 | 0.7 | 9 | 2.5 | 22 | 4.6 |
| 984 D-076 | <5 | 5 | 1 | 20 | <5 | 0 | 42 | 0.8 | 24 | 0.58 | 14 | 3.3 | <0.5 | 15 | 3.4 | 26 | 6.4 |
| 985 D-077 | 27 | 16 | 4 | 58 | <5 | | | | | | | | | | | | |

Appendix 8 Chemical analysis data of stream sediments

(10)

| Element | SW | N | TA | NB | AP | HO | CS | EU | LA | LU | NO | SM | TB | TH | U | Y | SC |
|------------|------|------|-----|-----|-----|-----|-----|------|-----|------|-----|-----|--------|-----|-----|-----|-----|
| Units | PPH | PPH | PPH | PPH | PPB | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH |
| 1016 D-108 | <5 | <4 | 1 | 8 | 8 | <5 | 71 | 0.9 | 41 | 0.55 | 27 | 4.4 | <0.5 | 19 | 3.3 | 22 | 4.1 |
| 1017 D-109 | <5 | <4 | <1 | 11 | <5 | <5 | 39 | 0.4 | 21 | 0.33 | 14 | 2.4 | 0.6 | 11 | 2 | 0 | 2.2 |
| 1018 D-110 | <5 | <4 | <1 | 11 | <5 | <5 | 40 | 0.6 | 23 | 0.31 | 13 | 2.6 | <0.5 | 12 | 2.3 | 0 | 2.8 |
| 1019 D-111 | <5 | <4 | <1 | 8 | <5 | <5 | 29 | 0.4 | 16 | 0.26 | 10 | 1.8 | <0.5 | 9 | 1.9 | 9 | 2.6 |
| 1020 D-112 | <5 | <4 | <1 | 11 | <5 | <5 | 42 | 0.6 | 22 | 0.35 | 14 | 2.4 | 0.5 | 12 | 2.5 | 11 | 3.9 |
| 1021 D-113 | <5 | <4 | <1 | 3 | <5 | <5 | 28 | 0.4 | 16 | 0.27 | 11 | 1.8 | <0.5 | 7.2 | 1.5 | 9 | 1.2 |
| 1022 D-114 | <5 | <4 | <1 | 13 | <5 | 0 | 72 | 0.8 | 44 | 0.52 | 30 | 4.8 | 0.6 | 20 | 3.5 | 20 | 2.7 |
| 1023 D-115 | <5 | <4 | <1 | 9 | <5 | 0 | 48 | 0.7 | 27 | 0.31 | 17 | 3.2 | <0.5 | 11 | 2 | 13 | 3 |
| 1024 D-116 | <5 | <4 | <1 | 10 | <5 | 0 | 89 | 0.8 | 49 | 0.56 | 34 | 5.2 | <0.5 | 21 | 3.9 | 23 | 1.8 |
| 1025 D-117 | <5 | <4 | <1 | 9 | <5 | <5 | 46 | 0.5 | 24 | 0.31 | 17 | 2.7 | <0.5 | 9.4 | 1.7 | 12 | 1.8 |
| 1026 D-118 | <5 | <4 | <1 | 6 | <5 | <5 | 41 | 0.4 | 23 | 0.34 | 15 | 2.5 | <0.5 | 10 | 2 | 15 | 1.4 |
| 1027 D-119 | <5 | <4 | <1 | 7 | <5 | <5 | 31 | 0.3 | 16 | 0.25 | 11 | 1.8 | <0.5 | 7.2 | 1.4 | 9 | 1.3 |
| 1028 D-120 | <5 | <4 | <1 | 8 | <5 | 0 | 79 | 0.7 | 44 | 0.49 | 31 | 4.6 | 0.5 | 19 | 3.4 | 22 | 2.2 |
| 1029 D-121 | <5 | <4 | <1 | 4 | <5 | <5 | 48 | 0.5 | 27 | 0.27 | 19 | 2.9 | <0.5 | 11 | 1.6 | 13 | 1.9 |
| 1030 D-122 | <5 | <4 | <1 | 8 | <5 | <5 | 50 | 0.6 | 28 | 0.28 | 20 | 3 | <0.5 | 12 | 1.6 | 13 | 2.6 |
| 1031 D-123 | <5 | <4 | <1 | 8 | <5 | <5 | 71 | 0.8 | 40 | 0.42 | 27 | 4.2 | <0.5 | 16 | 2.8 | 20 | 1.5 |
| 1032 D-124 | 301 | 26 | 12 | 57 | <5 | 0 | 130 | <0.2 | 68 | 1.05 | 44 | 9.4 | 1.8 | 59 | 17 | 91 | 3.9 |
| 1033 D-125 | 168 | 5 | 7 | 24 | <5 | <5 | 55 | 0.4 | 29 | 0.35 | 21 | 3.8 | 0.8 | 21 | 3.4 | 23 | 3 |
| 1034 D-126 | 48 | 11 | 10 | 67 | <5 | 0 | 530 | 0.5 | 320 | 2.05 | 200 | 41 | 5.6 | 180 | 16 | 168 | 4.6 |
| 1035 D-127 | 367 | 19 | 27 | 48 | <5 | <5 | 170 | 0.6 | 97 | 0.88 | 60 | 13 | 1.9 | 60 | 7.6 | 67 | 3.5 |
| 1036 D-128 | 232 | 18 | 19 | 48 | <5 | 0 | 57 | <0.2 | 31 | 0.66 | 20 | 4.3 | 1 | 22 | 8.4 | 43 | 3.7 |
| 1037 D-129 | 397 | 17 | 28 | 44 | <5 | 0 | 37 | 0.4 | 20 | 0.68 | 13 | 2.9 | 0.7 | 11 | 5.9 | 30 | 3.2 |
| 1038 D-130 | 68 | 6 | 6 | 22 | <5 | 0 | 130 | 0.4 | 72 | 0.62 | 45 | 9.4 | 1.3 | 48 | 5.4 | 44 | 4.6 |
| 1039 D-131 | 26 | <4 | 4 | 46 | 7 | 0 | 880 | 0.8 | 450 | 3.58 | 400 | 71 | 9.2 | 330 | 25 | 274 | 3 |
| 1040 D-132 | 12 | <4 | 6 | 45 | <5 | 0 | 680 | 0.7 | 400 | 2.69 | 310 | 51 | 7.2 | 260 | 24 | 193 | 2.9 |
| 1041 D-133 | <5 | <4 | 1 | 12 | <5 | 5 | 46 | 0.4 | 23 | 0.42 | 15 | 3 | <0.5 | 12 | 3 | 23 | 2.1 |
| 1042 D-134 | <5 | <4 | <1 | 7 | <5 | <5 | 44 | 0.5 | 23 | 0.34 | 17 | 2.7 | <0.5 | 9 | 1.5 | 18 | 2 |
| 1043 D-135 | <5 | <4 | <1 | 9 | <5 | <5 | 48 | 0.4 | 27 | 0.31 | 21 | 3 | <0.5 | 12 | 2.2 | 15 | 1.8 |
| 1044 D-136 | <5 | <4 | <1 | 13 | <5 | <5 | 38 | 0.4 | 19 | 0.38 | 14 | 2.3 | 0.5 | 10 | 2.3 | 18 | 1.8 |
| 1045 D-137 | <5 | <4 | <1 | 8 | <5 | <5 | 43 | 0.5 | 22 | 0.41 | 19 | 2.6 | <0.5 | 10 | 2.2 | 18 | 1.3 |
| 1046 D-138 | <5 | <4 | <1 | 8 | <5 | <5 | 12 | <0.2 | 6 | 0.13 | <5 | 0.8 | <0.5 | 3 | 0.6 | 5 | 1.4 |
| 1047 D-139 | <5 | <4 | <1 | 10 | <5 | <5 | 18 | 0.3 | 10 | 0.31 | 8 | 1.2 | <0.5 | 4.3 | 1.4 | 14 | 1.5 |
| 1048 D-140 | <5 | <4 | <1 | 14 | <5 | <5 | 20 | 0.4 | 9 | 0.4 | 7 | 1.1 | <0.5 | 5 | 1.2 | 15 | 2.1 |
| 1049 D-141 | <5 | <4 | <1 | 8 | <5 | <5 | 11 | 0.3 | 6 | 0.17 | <5 | 0.8 | <0.5 | 3.5 | 1.1 | 5 | 1.5 |
| 1050 D-142 | <5 | <4 | <1 | 16 | <5 | <5 | 21 | 0.5 | 10 | 0.44 | 9 | 1.3 | <0.5 | 6.2 | 2 | 18 | 3.8 |
| 1051 D-143 | <5 | <4 | <1 | 12 | <5 | <5 | 29 | 0.4 | 9 | 0.41 | 8 | 1.2 | <0.5 | 7.4 | 2 | 16 | 4.1 |
| 1052 D-144 | <5 | <4 | <1 | 6 | <5 | <5 | 28 | 0.5 | 14 | 0.35 | 9 | 1.8 | <0.5 | 7.4 | 1.9 | 18 | 4.4 |
| 1053 D-145 | <5 | <4 | <1 | 11 | <5 | <5 | 24 | 0.4 | 13 | 0.26 | 11 | 1.5 | <0.5 | 5.5 | 1.2 | 10 | 3.1 |
| 1054 D-146 | 161 | 48 | 6 | 21 | <5 | <5 | 39 | 0.4 | 21 | 0.38 | 17 | 2.7 | <0.5 | 9 | 1.8 | 17 | 1.7 |
| 1055 D-147 | 56 | 15 | 3 | 15 | <5 | <5 | 68 | 0.7 | 37 | 0.45 | 26 | 4.2 | 0.5 | 15 | 2.9 | 23 | 1.8 |
| 1056 D-148 | <5 | <4 | <1 | 9 | <5 | <5 | 45 | 0.4 | 25 | 0.31 | 16 | 2.8 | <0.5 | 10 | 1.6 | 14 | 1.2 |
| 1057 D-149 | 17 | 7 | 2 | 18 | <5 | <5 | 69 | 0.6 | 38 | 0.42 | 27 | 4.1 | <0.5 | 16 | 2.3 | 23 | 2.8 |
| 1058 D-150 | 5 | 6 | 1 | 16 | <5 | <5 | 51 | 0.5 | 26 | 0.3 | 20 | 2.9 | <0.5 | 11 | 1.8 | 16 | 2.6 |
| 1059 D-151 | 3306 | 1400 | 170 | 219 | <5 | <5 | 130 | <0.2 | 67 | 2 | 56 | 14 | 3.6 | 50 | 9 | 90 | 6.5 |
| 1060 D-152 | 3549 | 1300 | 150 | 190 | <5 | <5 | 120 | <0.2 | 61 | 1.58 | 57 | 12 | 2.9 | 41 | 7.5 | 79 | 5.9 |
| 1061 D-153 | 7 | <4 | 1 | 11 | <5 | <5 | 54 | 0.5 | 30 | 0.44 | 25 | 3.1 | 0.7 | 12 | 1.8 | 20 | 2.2 |
| 1062 D-154 | <5 | <4 | <1 | 12 | <5 | <5 | 90 | 0.7 | 49 | 0.58 | 37 | 4.9 | 0.7 | 21 | 3.3 | 22 | 2.7 |
| 1063 D-155 | <5 | <4 | <1 | 14 | <5 | <5 | 74 | 0.6 | 42 | 0.56 | 32 | 4.2 | 0.6 | 19 | 2.8 | 21 | 1.5 |
| 1064 D-156 | 1186 | 460 | 73 | 128 | <5 | <5 | 100 | 0.6 | 53 | 1.62 | 41 | 9.5 | 2 | 34 | 5.6 | 79 | 3.9 |
| 1065 D-157 | 26 | 16 | 5 | 42 | <5 | 0 | 58 | 0.7 | 52 | 2.12 | 43 | 7.1 | 2.1 | 28 | 11 | 99 | 5.9 |
| 1066 D-158 | 23 | 17 | 6 | 43 | <5 | 0 | 83 | 0.4 | 40 | 2.49 | 35 | 6 | 2.3 | 23 | 10 | 119 | 5.4 |
| 1067 D-159 | 54 | 23 | 8 | 47 | <5 | 0 | 110 | 0.7 | 52 | 3.5 | 49 | 8.1 | 3.2 | 28 | 13 | 161 | 6.3 |
| 1068 D-160 | 37 | 17 | 6 | 44 | <5 | 0 | 92 | 0.7 | 48 | 2.33 | 44 | 6.9 | 1.8 | 25 | 10 | 104 | 6.3 |
| 1069 D-161 | 21 | 22 | 7 | 50 | <5 | 0 | 84 | 0.5 | 43 | 2.96 | 37 | 6.2 | 2.1 | 24 | 10 | 136 | 6.4 |
| 1070 D-162 | <5 | <4 | <1 | 10 | <5 | <5 | 21 | 0.3 | 11 | 0.17 | 10 | 1.2 | <0.5 | 4.5 | 1 | 8 | 1.5 |
| 1071 D-163 | 44 | <4 | <1 | 9 | <5 | <5 | 27 | 0.3 | 14 | 0.32 | 9 | 1.6 | <0.5 | 8.1 | 1.5 | 12 | 2 |
| 1072 D-164 | 34 | <4 | <1 | 9 | <5 | <5 | 36 | 0.4 | 20 | 0.35 | 16 | 2.1 | <0.5 | 8.8 | 1.9 | 14 | 1.6 |
| 1073 D-165 | 14 | <4 | <1 | 6 | <5 | <5 | 35 | 0.4 | 19 | 0.31 | 14 | 2 | <0.5 | 8 | 1.2 | 13 | 1.4 |
| 1074 D-166 | <5 | <4 | <1 | 12 | <5 | <5 | 35 | 0.4 | 20 | 0.38 | 9 | 2 | 0.5 | 9.6 | 1.9 | 12 | 1.8 |
| 1075 D-167 | 123 | <4 | <1 | 7 | <5 | <5 | 40 | 0.4 | 21 | 0.39 | 15 | 2.3 | <0.5 | 8.9 | 1.8 | 13 | 1.8 |
| 1076 D-168 | 30 | <4 | <1 | 7 | <5 | <5 | 29 | 0.3 | 15 | 0.36 | 11 | 1.6 | <0.5 | 7.6 | 1.6 | 15 | 1.1 |
| 1077 D-169 | <5 | <4 | <1 | 10 | <5 | <5 | 29 | 0.4 | 16 | 0.28 | 12 | 1.7 | <0.5 | 7 | 1.1 | 11 | 1.9 |
| 1078 D-170 | <5 | <4 | <1 | 8 | <5 | <5 | 13 | 0.2 | 7 | 0.14 | <5 | 0.8 | <0.5 | 2.9 | 0.5 | 4 | 1.1 |
| 1079 D-171 | 24 | <4 | <1 | 5 | <5 | <5 | 33 | 0.4 | 17 | 0.34 | 14 | 1.9 | <0.5 | 7.8 | 1.5 | 12 | 1.7 |
| 1080 D-172 | <5 | <4 | <1 | 7 | <5 | <5 | 39 | 0.5 | 19 | 0.39 | 13 | 2.2 | <0.5 | 9.2 | 1.4 | 15 | 3.1 |
| 1081 D-173 | 11 | <4 | <1 | 8 | <5 | <5 | 30 | 0.4 | 17 | 0.36 | 14 | 1.8 | <0.5 | 6.8 | 1.6 | 14 | 1.5 |
| 1082 D-174 | 70 | <4 | <1 | 7 | <5 | <5 | 27 | 0.4 | 15 | 0.35 | 14 | 1.6 | <0.5 | 6.1 | 1.3 | 11 | 2.3 |
| 1083 D-175 | 10 | <4 | <1 | 9 | <5 | <5 | 25 | 0.4 | 13 | 0.38 | 9 | 1.4 | <0.5 | 5 | 1.4 | 16 | 1.4 |
| 1084 D-176 | <5 | <4 | <1 | 8 | <5 | <5 | 51 | 0.8 | 23 | 0.75 | 11 | 2.6 | <0.5 | 11 | 3.3 | 12 | 4.9 |
| 1085 D-177 | <5 | <4 | <1 | 11 | <5 | <5 | 22 | 0.3 | 11 | 0.32 | <5 | 1.2 | <0.5 | 3.8 | 1.5 | 12 | 1.9 |
| 1086 D-178 | <5 | <4 | <1 | 10 | <5 | <5 | 23 | 0.4 | 10 | 0.37 | 7 | 1.2 | <0.5 | 4 | 1.2 | 17 | 2.2 |
| 1087 D-179 | <5 | 7 | <1 | 19 | <5 | <5 | 33 | 0.4 | 18 | 0.5 | 14 | 2 | <0.5 | 8.4 | 2.3 | 19 | 1.3 |
| 1088 D-180 | <5 | <4 | <1 | 13 | <5 | <5 | 31 | 0.4 | 17 | 0.41 | 9 | 1.8 | <0.5 | 7.7 | 1.9 | 22 | 1.6 |
| 1089 D-181 | <5 | <4 | <1 | 2 | <5 | <5 | 31 | 0.3 | 17 | 0.28 | 12 | 1.8 | <0.5 | 7 | 1.3 | 13 | 1.1 |
| 1090 D-182 | <5 | <4 | <1 | 7 | <5 | <5 | 25 | 0.3 | 14 | 0.24 | 9 | 1.4 | <0.5 | 5.2 | 1.3 | 9 | 1.1 |
| 1091 D-183 | <5 | <4 | <1 | 9 | <5 | <5 | 32 | 0.4 | 19 | 0.27 | 14 | 1.9 | <0.5 | 7.9 | 1.2 | 13 | 1.5 |
| 1092 D-184 | <5 | <4 | <1 | 12 | <5 | <5 | 39 | 0.3 | 15 | 0.5 | 11 | 1.8 | <0.5 | 9.7 | 2 | 21 | 2.4 |
| 1093 D-185 | <5 | <4 | <1 | 7 | <5 | <5 | 28 | 0.4 | 14 | 0.31 | 9 | 1.6 | <0.5 | 8.4 | 2 | 15 | 2.9 |
| 1094 D-186 | 6 | <4 | <1 | 10 | <5 | <5 | 60 | 0.5 | 33 | 0.44 | 25 | 3.5 | 0.6 | 16 | 2.7 | 17 | 2 |
| 1095 D-187 | <5 | <4 | <1 | 15 | <5 | <5 | 51 | 0.7 | 26 | 0.38 | 18 | 3.4 | 0.5 | 11 | 2.3 | 18 | 1.7 |
| 1096 D-188 | 10 | <4 | <1 | 9 | <5 | <5 | 13 | 0.2 | 7 | 0.23 | <5 | 1 | <0.5</ | | | | |

Appendix 8 Chemical analysis data of stream sediments

(11)

| Element | SN | W | TA | NO | AO | HO | CR | BU | LA | LU | MO | SH | TB | TH | U | Y | SC |
|------------|------|-----|-----|-----|-----|-----|-----|------|-----|------|-----|-----|------|-----|-----|-----|-----|
| Units | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM |
| 1129 D-221 | 189 | 33 | 27 | 87 | <5 | 0 | 93 | 0.6 | 40 | 1.97 | 35 | 10 | 2.4 | 40 | 23 | 139 | 3.4 |
| 1130 D-222 | 367 | 77 | 32 | 148 | <5 | 0 | 220 | <0.2 | 110 | 2.03 | 74 | 19 | 2.8 | 93 | 26 | 147 | 7.5 |
| 1131 D-223 | 1741 | 350 | 66 | 233 | <5 | 0 | 540 | <0.2 | 280 | 6.46 | 230 | 41 | 8.5 | 240 | 65 | 427 | 9.7 |
| 1132 D-224 | 285 | 53 | 32 | 141 | <5 | 0 | 110 | <0.2 | 52 | 1.46 | 51 | 7.7 | 1.2 | 45 | 21 | 95 | 5.2 |
| 1133 D-225 | 493 | 69 | 40 | 136 | <5 | 0 | 180 | <0.2 | 97 | 1.62 | 78 | 13 | 2.4 | 80 | 32 | 131 | 4.7 |
| 1134 D-226 | 729 | 89 | 34 | 110 | 7 | 0 | 160 | 0.8 | 85 | 1.67 | 59 | 12 | 2.8 | 70 | 27 | 109 | 5.4 |
| 1135 D-227 | 848 | 180 | 38 | 145 | <5 | 0 | 400 | <0.2 | 210 | 3.52 | 170 | 30 | 5.1 | 180 | 45 | 250 | 6.6 |
| 1136 D-228 | 1867 | 220 | 100 | 266 | <5 | 0 | 220 | <0.2 | 110 | 4.02 | 98 | 18 | 5.1 | 82 | 39 | 277 | 6.9 |
| 1137 E-001 | 52 | 10 | 3 | 22 | 7 | 0 | 130 | 0.7 | 69 | 1.69 | 46 | 8.7 | 1.4 | 41 | 7.9 | 92 | 3.6 |
| 1138 E-002 | 25 | 7 | 2 | 25 | <5 | 0 | 92 | 0.6 | 49 | 2.03 | 39 | 6.6 | 1.8 | 26 | 5.8 | 91 | 3.2 |
| 1139 E-003 | 6 | 6 | 2 | 22 | <5 | 0 | 84 | 0.9 | 35 | 0.47 | 34 | 4.2 | <0.5 | 15 | 3.1 | 35 | 8.5 |
| 1140 E-004 | <5 | 5 | 2 | 18 | 8 | <5 | 49 | 0.8 | 26 | 0.42 | 23 | 3 | <0.5 | 11 | 1.9 | 23 | 4.9 |
| 1141 E-005 | <5 | 5 | 2 | 18 | <5 | <5 | 70 | 0.9 | 37 | 0.57 | 31 | 4.5 | <0.5 | 14 | 2 | 25 | 7 |
| 1142 E-006 | <5 | 6 | 1 | 15 | 5 | <5 | 62 | 0.8 | 34 | 0.59 | 25 | 4.1 | 0.6 | 13 | 2.6 | 28 | 6.2 |
| 1143 E-007 | <5 | 6 | 1 | 18 | <5 | <5 | 56 | 0.8 | 29 | 0.63 | 24 | 3.5 | <0.5 | 11 | 2 | 29 | 4.7 |
| 1144 E-008 | <5 | 5 | <1 | 12 | <5 | <5 | 35 | 0.4 | 19 | 0.35 | 9 | 2.3 | 0.7 | 8.1 | 1.6 | 18 | 4.2 |
| 1145 E-009 | <5 | <4 | 1 | 14 | <5 | <5 | 46 | 0.7 | 24 | 0.51 | 21 | 2.8 | <0.5 | 9 | 2.1 | 21 | 5.5 |
| 1146 E-010 | 19 | 15 | 7 | 27 | <5 | 0 | 87 | <0.2 | 46 | 3.46 | 37 | 5.3 | 1.2 | 56 | 60 | 76 | 4.9 |
| 1147 E-011 | <5 | <4 | <1 | 9 | 5 | <5 | 33 | 0.4 | 16 | 0.38 | 7 | 2.1 | 0.6 | 7.6 | 1.6 | 13 | 4.1 |
| 1148 E-012 | 7 | <4 | <1 | 11 | <5 | <5 | 47 | 0.6 | 23 | 0.45 | 18 | 2.5 | 0.5 | 11 | 1.9 | 19 | 3.6 |
| 1149 E-013 | <5 | <4 | <1 | 8 | <5 | <5 | 46 | 0.5 | 24 | 0.36 | 19 | 2.7 | <0.5 | 8.5 | 1.2 | 17 | 2.7 |
| 1150 E-014 | 7 | 4 | <1 | 15 | <5 | 0 | 130 | 0.8 | 73 | 0.97 | 63 | 8 | 1.4 | 34 | 6.6 | 44 | 3 |
| 1151 E-015 | 6 | <4 | 1 | 10 | <5 | <5 | 52 | 0.6 | 28 | 0.35 | 21 | 3.2 | 0.6 | 9 | 2 | 14 | 4.4 |
| 1152 E-016 | <5 | <4 | 2 | 13 | <5 | <5 | 80 | 0.9 | 46 | 0.54 | 37 | 5 | <0.5 | 16 | 2.9 | 25 | 5.4 |
| 1153 E-017 | <5 | 5 | 2 | 17 | <5 | 0 | 83 | 0.6 | 47 | 0.87 | 33 | 4.6 | 0.8 | 19 | 4.3 | 35 | 2.2 |
| 1154 E-018 | <5 | 5 | <1 | 12 | <5 | 0 | 74 | 0.7 | 41 | 0.68 | 33 | 4.2 | <0.5 | 15 | 3.6 | 28 | 2.6 |
| 1155 E-019 | <5 | <4 | <1 | 13 | <5 | <5 | 61 | 0.6 | 29 | 0.5 | 23 | 3.1 | 0.6 | 13 | 2.3 | 23 | 1.7 |
| 1156 E-020 | <5 | <4 | <1 | 12 | <5 | <5 | 34 | 0.5 | 19 | 0.41 | 13 | 2 | <0.5 | 7.4 | 1.8 | 12 | 2.1 |
| 1157 E-021 | <5 | <4 | <1 | 11 | <5 | <5 | 44 | 0.5 | 24 | 0.4 | 11 | 2.5 | <0.5 | 9 | 2.4 | 17 | 3.2 |
| 1158 E-022 | <5 | <4 | <1 | 15 | <5 | <5 | 60 | 0.8 | 35 | 0.5 | 23 | 3.7 | <0.5 | 12 | 3 | 20 | 4.4 |
| 1159 E-023 | <5 | <4 | <1 | 11 | <5 | <5 | 54 | 0.7 | 32 | 0.47 | 22 | 3.4 | <0.5 | 11 | 2.1 | 19 | 3.5 |
| 1160 E-024 | <5 | <4 | <1 | 13 | <5 | <5 | 56 | 0.6 | 34 | 0.51 | 25 | 3.6 | 0.8 | 14 | 3 | 20 | 3.7 |
| 1161 E-025 | <5 | 4 | <1 | 14 | <5 | <5 | 76 | 0.7 | 41 | 0.68 | 37 | 4.4 | 0.7 | 18 | 3.3 | 31 | 2.7 |
| 1162 E-026 | 8 | <4 | <1 | 12 | <5 | <5 | 44 | 0.8 | 26 | 0.32 | 12 | 2.9 | 0.8 | 10 | 2.1 | 19 | 3.3 |
| 1163 E-027 | <5 | 5 | 1 | 14 | <5 | <5 | 87 | 0.9 | 51 | 0.47 | 31 | 6 | <0.5 | 19 | 3 | 31 | 8.1 |
| 1164 E-028 | <5 | <4 | 1 | 15 | 6 | <5 | 43 | <0.2 | 24 | 0.28 | 18 | 2.9 | <0.5 | 10 | 1.9 | 18 | 2.4 |
| 1165 E-029 | <5 | <4 | <1 | 10 | <5 | <5 | 36 | 0.5 | 20 | 0.22 | 12 | 2.3 | <0.5 | 8 | 1.4 | 14 | 2.1 |
| 1166 E-030 | <5 | <4 | <1 | 8 | <5 | <5 | 20 | 0.4 | 13 | 0.12 | 7 | 1.5 | 0.6 | 4.3 | 1.2 | 9 | 2.2 |
| 1167 E-031 | 26 | <4 | 1 | 11 | <5 | <5 | 38 | 0.6 | 24 | 0.26 | 11 | 2.6 | <0.5 | 8.2 | 1.5 | 16 | 2.1 |
| 1168 E-032 | 37 | <4 | <1 | 11 | 200 | <5 | 50 | 0.5 | 34 | 0.37 | 16 | 3.6 | 0.8 | 11 | 2 | 20 | 2.6 |
| 1169 E-033 | <5 | <4 | <1 | 11 | <5 | <5 | 41 | 0.7 | 23 | 0.29 | 16 | 2.7 | <0.5 | 7.3 | 1.6 | 17 | 2.4 |
| 1170 E-034 | <5 | <4 | <1 | 10 | <5 | <5 | 45 | 0.7 | 27 | 0.27 | 18 | 3 | 0.7 | 9.3 | 2.4 | 17 | 2.7 |
| 1171 E-035 | <5 | <4 | <1 | 11 | <5 | <5 | 56 | 0.8 | 35 | 0.37 | 19 | 4.1 | 1.1 | 13 | 2.2 | 22 | 2.8 |
| 1172 E-036 | <5 | <4 | <1 | 7 | <5 | <5 | 22 | 0.4 | 14 | 0.25 | 9 | 4.4 | <0.5 | 3.9 | 1.4 | 15 | 1.6 |
| 1173 E-037 | <5 | <4 | <1 | 12 | <5 | <5 | 57 | <0.2 | 33 | 0.36 | 15 | 3.7 | <0.5 | 13 | 2.7 | 23 | 2.5 |
| 1174 E-038 | <5 | <4 | <1 | 11 | <5 | <5 | 44 | 0.6 | 24 | 0.23 | 18 | 2.8 | <0.5 | 8.4 | 1.1 | 16 | 2.7 |
| 1175 E-039 | <5 | <4 | <1 | 10 | <5 | <5 | 53 | 0.7 | 29 | 0.26 | 13 | 3.5 | <0.5 | 11 | 1.7 | 19 | 3.9 |
| 1176 E-040 | 174 | 23 | 7 | 28 | <5 | 0 | 84 | <0.2 | 46 | 0.69 | 25 | 5.9 | 1.1 | 24 | 6.4 | 45 | 3.1 |
| 1177 E-041 | 68 | 9 | 4 | 18 | <5 | <5 | 44 | <0.2 | 26 | 0.37 | 17 | 3.2 | <0.5 | 13 | 3.3 | 22 | 3 |
| 1178 E-042 | 36 | 5 | 2 | 14 | <5 | <5 | 38 | <0.2 | 22 | 0.28 | 13 | 2.7 | <0.5 | 12 | 3.1 | 16 | 3.2 |
| 1179 E-043 | 51 | 5 | 2 | 13 | <5 | <5 | 31 | <0.2 | 18 | 0.25 | 5 | 2.2 | <0.5 | 9.7 | 2.3 | 17 | 2.6 |
| 1180 E-044 | 108 | 9 | 5 | 18 | <5 | 0 | 35 | <0.2 | 19 | 0.33 | 12 | 2.5 | <0.5 | 11 | 3.3 | 22 | 1.9 |
| 1181 E-045 | 112 | 10 | 4 | 16 | <5 | 5 | 37 | <0.2 | 22 | 0.33 | 14 | 2.7 | <0.5 | 13 | 2.4 | 23 | 2.7 |
| 1182 E-046 | 28 | 5 | 2 | 18 | <5 | <5 | 45 | <0.2 | 30 | 0.37 | 23 | 3.5 | <0.5 | 14 | 2.7 | 27 | 4.6 |
| 1183 E-047 | 52 | 7 | 4 | 18 | <5 | <5 | 39 | <0.2 | 24 | 0.38 | 15 | 2.9 | <0.5 | 13 | 3.2 | 24 | 3.2 |
| 1184 E-048 | 9 | 4 | 2 | 14 | <5 | <5 | 37 | <0.2 | 22 | 0.25 | 15 | 2.6 | <0.5 | 10 | 2 | 17 | 2.9 |
| 1185 E-049 | 78 | 6 | 4 | 16 | <5 | <5 | 42 | <0.2 | 26 | 0.56 | 17 | 3.2 | <0.5 | 14 | 3.4 | 32 | 2.6 |
| 1186 E-050 | 7 | <4 | <1 | 8 | <5 | <5 | 17 | <0.2 | 10 | 0.11 | <5 | 1.1 | <0.5 | 5.9 | 1 | 6 | 2.5 |
| 1187 E-051 | 46 | 6 | 4 | 17 | <5 | 0 | 29 | <0.2 | 17 | 0.34 | 10 | 2.1 | <0.5 | 11 | 3.2 | 24 | 3 |
| 1188 E-052 | 46 | 5 | 4 | 18 | <5 | 0 | 35 | <0.2 | 21 | 0.41 | 11 | 2.6 | 0.8 | 13 | 4.1 | 26 | 3 |
| 1189 E-053 | 117 | 8 | 6 | 33 | <5 | <5 | 64 | <0.2 | 37 | 0.83 | 23 | 5.2 | <0.5 | 30 | 7.9 | 58 | 4.8 |
| 1190 E-054 | 26 | 22 | 2 | 13 | <5 | 0 | 100 | 0.4 | 67 | 0.63 | 38 | 7.1 | <0.5 | 27 | 4.1 | 43 | 2.4 |
| 1191 E-055 | 6 | <4 | <1 | 8 | <5 | <5 | 40 | <0.2 | 25 | 0.27 | 14 | 2.8 | <0.5 | 8.6 | 1 | 17 | 2.1 |
| 1192 E-056 | 35 | 9 | 3 | 14 | <5 | 0 | 270 | 1.1 | 180 | 1.16 | 110 | 18 | 1.8 | 74 | 7.7 | 88 | 3.3 |
| 1193 E-057 | 13 | 7 | <1 | 12 | <5 | 0 | 110 | <0.2 | 71 | 0.56 | 46 | 7.6 | <0.5 | 29 | 3.1 | 38 | 2.9 |
| 1194 E-058 | <5 | <4 | <1 | 8 | <5 | <5 | 34 | <0.2 | 21 | 0.26 | 14 | 2.5 | <0.5 | 7.8 | 1.5 | 21 | 2.6 |
| 1195 E-059 | <5 | <4 | <1 | 8 | <5 | <5 | 39 | 0.4 | 25 | 0.25 | 15 | 3.1 | <0.5 | 9.2 | 1.4 | 14 | 3.1 |
| 1196 E-060 | 20 | <4 | <1 | 8 | <5 | <5 | 30 | <0.2 | 19 | 0.25 | 11 | 2.1 | <0.5 | 7.1 | 1.8 | 13 | 1.6 |
| 1197 E-061 | <5 | <4 | <1 | 9 | <5 | <5 | 39 | <0.2 | 26 | 0.28 | 18 | 3 | 0.7 | 9.2 | 1.9 | 25 | 3.3 |
| 1198 E-062 | <5 | <4 | <1 | 6 | <5 | <5 | 26 | 0.3 | 12 | 0.23 | 8 | 1.5 | <0.5 | 5.9 | 1.2 | 14 | 2.1 |
| 1199 E-063 | <5 | <4 | <1 | 13 | <5 | <5 | 48 | 0.6 | 27 | 0.41 | 22 | 3.2 | 0.8 | 12 | 2.8 | 21 | 4.4 |
| 1200 E-064 | 10 | <4 | <1 | 10 | <5 | <5 | 54 | 0.7 | 28 | 0.35 | 21 | 3.2 | <0.5 | 12 | 1.6 | 19 | 4.3 |
| 1201 E-065 | 10 | <4 | <1 | 12 | <5 | <5 | 64 | 0.8 | 35 | 0.47 | 23 | 4.2 | 0.8 | 16 | 2.6 | 24 | 5.1 |
| 1202 E-066 | 235 | 34 | 27 | 60 | <5 | 0 | 50 | <0.2 | 20 | 0.34 | 11 | 2.8 | <0.5 | 18 | 4.4 | 40 | 4.9 |
| 1203 E-067 | 1053 | 70 | 100 | 146 | <5 | 0 | 89 | <0.2 | 47 | 0.64 | 32 | 6.3 | 1.1 | 35 | 8.9 | 62 | 3.5 |
| 1204 E-068 | 1960 | 130 | 110 | 149 | <5 | 0 | 120 | 0.6 | 58 | 0.85 | 39 | 8.5 | <0.5 | 49 | 13 | 80 | 4 |
| 1205 E-069 | 1862 | 140 | 100 | 134 | <5 | 0 | 120 | <0.2 | 55 | 0.95 | 34 | 8.2 | <0.5 | 47 | 14 | 75 | 3.7 |
| 1206 E-070 | 761 | 72 | 59 | 107 | <5 | 0 | 77 | <0.2 | 36 | 0.76 | 26 | 5.6 | <0.5 | 30 | 9.2 | 67 | 6.3 |
| 1207 E-071 | 281 | 24 | 14 | 43 | <5 | 0 | 61 | 0.5 | 31 | 0.49 | 25 | 4.1 | <0.5 | 23 | 7.4 | 36 | 3.3 |
| 1208 E-072 | 181 | 32 | 15 | 52 | <5 | 0 | 59 | <0.2 | 24 | 0.37 | 20 | 3.4 | <0.5 | 25 | 6.6 | 40 | 5.4 |
| 1209 E-073 | 348 | 22 | 23 | 51 | <5 | 0 | 51 | 0.4 | 25 | 0.35 | 19 | 3.4 | <0.5 | 17 | 5 | 31 | 3.3 |

Appendix 8 Chemical analysis data of stream sediments

(12)

| Element | SH | N | TA | NO | AU | MO | CR | RU | LA | LU | ND | SM | TH | U | Y | SC |
|------------|------|-----|-----|-----|-----|-----|------|------|------|-------|-----|-----|------|-----|-----|------|
| Units | PPM | PPM | PPM | PPM | PPB | PPB | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM |
| 1242 B-108 | 769 | 110 | 58 | 127 | <5 | 0 | 430 | <0.2 | 240 | 4.35 | 140 | 32 | 8.1 | 180 | 39 | 243 |
| 1243 B-107 | 114 | 27 | 15 | 51 | <5 | 0 | 120 | 0.7 | 58 | 1.34 | 32 | 8.9 | 2.2 | 64 | 15 | 72 |
| 1244 B-108 | 8158 | 440 | 260 | 368 | <7 | 0 | 2100 | 1.5 | 1500 | 15.08 | 940 | 170 | 31 | 850 | 110 | 1150 |
| 1245 B-109 | 193 | 17 | 6 | 28 | <5 | 0 | 450 | <0.2 | 270 | 2.65 | 140 | 31 | 5.2 | 170 | 35 | 128 |
| 1246 B-110 | 22 | 8 | 5 | 19 | <5 | 0 | 450 | <0.2 | 150 | 2.4 | 96 | 20 | 2.9 | 100 | 31 | 91 |
| 1247 B-111 | 23 | <4 | 7 | 25 | <5 | 0 | 1300 | <0.2 | 830 | 7.47 | 440 | 85 | 13 | 430 | 78 | 304 |
| 1248 B-112 | 19 | <4 | 10 | 23 | <5 | 0 | 1200 | <0.2 | 810 | 6.73 | 360 | 84 | 12 | 420 | 73 | 270 |
| 1249 B-113 | 14 | <4 | 5 | 26 | <5 | 0 | 550 | <0.2 | 340 | 3.68 | 170 | 38 | 6.5 | 190 | 41 | 169 |
| 1250 B-114 | <6 | <4 | <1 | 12 | <5 | 0 | 82 | 0.8 | 47 | 0.51 | 34 | 5.7 | 0.8 | 26 | 5 | 24 |
| 1251 B-115 | <5 | <4 | <1 | 9 | <5 | <5 | 45 | 0.6 | 24 | 0.4 | 15 | 2.8 | <0.5 | 14 | 2.3 | 16 |
| 1252 B-116 | <5 | <4 | <1 | 10 | <5 | 0 | 87 | 0.8 | 50 | 0.56 | 33 | 5.5 | <0.5 | 24 | 4.5 | 23 |
| 1253 B-117 | <5 | <4 | <1 | 12 | <5 | 0 | 80 | 0.9 | 49 | 0.48 | 34 | 5.3 | 0.9 | 25 | 3.6 | 21 |
| 1254 B-118 | <5 | <4 | <1 | 18 | <5 | 0 | 140 | 1.3 | 60 | 0.86 | 59 | 9 | 1.2 | 39 | 6.8 | 36 |
| 1255 B-119 | <5 | <4 | 1 | 14 | <5 | <5 | 92 | 1.3 | 54 | 0.82 | 43 | 6 | <0.5 | 26 | 4.7 | 24 |
| 1256 B-120 | <5 | <4 | 2 | 15 | <5 | 0 | 73 | 0.8 | 41 | 0.56 | 20 | 4.7 | <0.5 | 20 | 2.6 | 26 |
| 1257 B-121 | <5 | <4 | <1 | 17 | <5 | 0 | 74 | 1 | 43 | 0.49 | 32 | 4.8 | 0.9 | 21 | 4.1 | 22 |
| 1258 B-122 | <5 | <4 | <1 | 8 | <5 | <5 | 39 | 0.5 | 21 | 0.28 | 12 | 2.4 | <0.5 | 12 | 1.5 | 11 |
| 1259 B-123 | <5 | <4 | <1 | 11 | <5 | <5 | 51 | 0.8 | 29 | 0.34 | 20 | 3.4 | 0.6 | 13 | 2.5 | 19 |
| 1260 B-124 | <5 | <4 | <1 | 16 | <5 | <5 | 77 | 1 | 46 | 0.54 | 31 | 5.2 | <0.5 | 22 | 3.5 | 27 |
| 1261 B-125 | 42 | 17 | 8 | 60 | <5 | 0 | 150 | 1.1 | 80 | 3.7 | 66 | 12 | 4.2 | 44 | 14 | 258 |
| 1262 B-126 | 46 | 34 | 12 | 55 | <5 | 0 | 190 | 1 | 95 | 6.4 | 55 | 17 | 1.1 | 58 | 20 | 298 |
| 1263 B-127 | 18 | 30 | 13 | 53 | <5 | 0 | 180 | 1.3 | 91 | 5.38 | 55 | 15 | 5.6 | 54 | 18 | 284 |
| 1264 B-128 | 53 | 27 | 9 | 47 | <5 | 0 | 170 | 1.3 | 86 | 4.68 | 66 | 14 | 5.3 | 55 | 15 | 233 |
| 1265 B-129 | <5 | 7 | <1 | 12 | <5 | 0 | 53 | 0.6 | 29 | 0.54 | 26 | 3.5 | 0.8 | 14 | 3.5 | 23 |
| 1266 B-130 | 26 | 5 | <1 | 9 | <5 | <5 | 55 | 0.7 | 28 | 0.4 | 18 | 3.1 | <0.5 | 13 | 2.6 | 13 |
| 1267 B-131 | 11 | 6 | 1 | 10 | <5 | 0 | 59 | 0.8 | 33 | 0.54 | 24 | 3.9 | 0.8 | 17 | 3.4 | 24 |
| 1268 B-132 | 93 | 9 | <1 | 8 | <5 | <5 | 56 | 0.9 | 32 | 0.39 | 22 | 3.6 | <0.5 | 14 | 2.4 | 14 |
| 1269 B-133 | 22 | <4 | <1 | 8 | <5 | <5 | 36 | <0.2 | 20 | 0.3 | 15 | 2.6 | <0.5 | 7.9 | 1.4 | 16 |
| 1270 B-134 | 35 | <4 | <1 | 9 | <5 | <5 | 49 | 0.6 | 26 | 0.4 | 21 | 3.4 | 0.6 | 10 | 1.6 | 21 |
| 1271 B-135 | 20 | <4 | <1 | 9 | <5 | <5 | 39 | 0.5 | 21 | 0.31 | 15 | 2.7 | <0.5 | 7.1 | 1.6 | 14 |
| 1272 B-136 | <5 | <4 | <1 | 10 | <5 | <5 | 30 | 0.5 | 16 | 0.29 | 12 | 2.2 | <0.5 | 5.8 | 1.4 | 14 |
| 1273 B-137 | 72 | 10 | 14 | 63 | <5 | 0 | 540 | 0.6 | 270 | 3.38 | 189 | 44 | 7.8 | 210 | 26 | 256 |
| 1274 B-138 | 80 | 8 | 9 | 50 | <5 | 0 | 260 | <0.2 | 120 | 3.06 | 82 | 22 | 5.4 | 100 | 23 | 215 |
| 1275 B-139 | 117 | 11 | 16 | 75 | <5 | 0 | 510 | <0.2 | 250 | 4.42 | 160 | 43 | 7.8 | 210 | 31 | 337 |
| 1276 B-140 | 71 | 11 | 15 | 72 | <5 | 0 | 320 | 0.7 | 150 | 2.87 | 140 | 26 | 5.6 | 130 | 21 | 205 |
| 1277 B-141 | 17 | 5 | 7 | 41 | <5 | 0 | 310 | 0.6 | 150 | 2.31 | 100 | 24 | 3.2 | 120 | 16 | 150 |
| 1278 B-142 | 80 | <4 | 6 | 31 | <5 | 0 | 110 | <0.2 | 54 | 1.06 | 38 | 9.1 | 1.7 | 43 | 6.5 | 70 |
| 1279 B-143 | 438 | 7 | 11 | 55 | <5 | 0 | 320 | <0.2 | 150 | 3.43 | 110 | 26 | 5.6 | 120 | 16 | 250 |
| 1280 B-144 | 300 | 7 | 6 | 28 | <5 | 0 | 84 | <0.2 | 41 | 0.8 | 34 | 6.8 | 1.6 | 33 | 6 | 57 |
| 1281 B-145 | 167 | 23 | 8 | 28 | <5 | 0 | 83 | 0.5 | 39 | 0.74 | 35 | 6.6 | <0.5 | 24 | 6.5 | 40 |
| 1282 B-146 | 208 | 19 | 21 | 44 | 7 | 0 | 98 | 0.6 | 48 | 0.95 | 37 | 8.7 | <0.5 | 28 | 8.8 | 66 |
| 1283 B-147 | 332 | 27 | 36 | 61 | <5 | 0 | 120 | 0.6 | 57 | 1.12 | 48 | 11 | <0.5 | 36 | 9.2 | 67 |
| 1284 B-148 | 56 | 8 | 6 | 26 | <5 | 0 | 130 | 0.7 | 62 | 0.95 | 52 | 10 | 1.7 | 36 | 8.7 | 52 |
| 1285 B-149 | 109 | 6 | 8 | 25 | <5 | 0 | 64 | 0.5 | 30 | 1.05 | 28 | 5.3 | 1.3 | 17 | 7.6 | 54 |
| 1286 B-150 | <5 | <4 | 1 | 12 | <5 | <5 | 56 | 0.7 | 30 | 0.43 | 22 | 4 | <0.5 | 12 | 1.7 | 23 |
| 1287 B-151 | <5 | <4 | <1 | 8 | <5 | <5 | 38 | 0.5 | 17 | 0.28 | 13 | 2.3 | <0.5 | 6.7 | 1 | 11 |
| 1288 B-152 | <5 | <4 | <1 | 6 | <5 | <5 | 30 | 0.4 | 14 | 0.24 | 9 | 2 | <0.5 | 5.7 | 1 | 12 |
| 1289 B-153 | <5 | <4 | <1 | 7 | <5 | <5 | 36 | 0.5 | 18 | 0.3 | 13 | 2.6 | <0.5 | 7 | 1.4 | 13 |
| 1290 B-154 | 27 | <4 | <1 | 6 | <5 | <5 | 29 | 0.3 | 14 | 0.21 | 14 | 2 | <0.5 | 5 | 1 | 10 |
| 1291 B-155 | 7 | <4 | <1 | 8 | <5 | <5 | 35 | 0.6 | 19 | 0.29 | 14 | 2.5 | <0.5 | 6.3 | 1.1 | 13 |
| 1292 B-156 | <5 | <4 | <1 | 9 | <5 | <5 | 60 | 0.7 | 29 | 0.55 | 20 | 4 | <0.5 | 12 | 2.3 | 25 |
| 1293 B-157 | <5 | <4 | <1 | 8 | <5 | <5 | 37 | 0.6 | 19 | 0.37 | 13 | 2.7 | <0.5 | 7.4 | 1.6 | 16 |
| 1294 B-158 | <5 | <4 | <1 | 8 | <5 | <5 | 37 | 0.5 | 18 | 0.26 | 15 | 2.3 | <0.5 | 7 | 1.3 | 13 |
| 1295 B-159 | <5 | <4 | <1 | 7 | <5 | <5 | 37 | 0.5 | 18 | 0.27 | 15 | 2.4 | <0.5 | 7.2 | 1.4 | 13 |
| 1296 B-160 | <5 | <4 | <1 | 6 | <5 | <5 | 28 | 0.4 | 15 | 0.25 | 11 | 1.9 | <0.5 | 5.8 | 1 | 13 |
| 1297 B-161 | <5 | <4 | <1 | 7 | <5 | <5 | 31 | 0.5 | 17 | 0.26 | 11 | 2.2 | <0.5 | 6.4 | 1.2 | 13 |
| 1298 B-162 | <5 | <4 | <1 | 7 | <5 | <5 | 29 | 0.4 | 14 | 0.23 | 12 | 2 | <0.5 | 5.3 | 1.2 | 12 |
| 1299 B-163 | <5 | <4 | <1 | 4 | <5 | <5 | 16 | 0.3 | 9 | 0.17 | 5 | 1.1 | <0.5 | 3.4 | 0.7 | 6 |
| 1300 B-164 | <5 | <4 | <1 | 3 | <5 | <5 | 15 | 0.2 | 8 | 0.16 | 6 | 1.1 | <0.5 | 2.8 | 0.9 | 7 |
| 1301 B-165 | 97 | <4 | 1 | 12 | <5 | <5 | 61 | 0.8 | 31 | 0.51 | 20 | 4.1 | <0.5 | 11 | 1.6 | 22 |
| 1302 B-166 | 716 | 23 | <1 | 9 | <5 | <5 | 25 | 0.5 | 13 | 0.21 | 11 | 1.8 | <0.5 | 5.1 | 1.4 | 10 |
| 1303 B-167 | 486 | 15 | <1 | 9 | <5 | <5 | 28 | 0.3 | 14 | 0.2 | 15 | 2 | <0.5 | 6.1 | 1.3 | 11 |
| 1304 B-168 | 697 | 21 | <1 | 9 | <5 | <5 | 22 | 0.4 | 12 | 0.14 | 7 | 1.5 | <0.5 | 4.9 | 1.3 | 9 |
| 1305 B-169 | 941 | 38 | <1 | 11 | <5 | <5 | 25 | 0.5 | 12 | 0.14 | 8 | 1.5 | <0.5 | 7.8 | 1.8 | 6 |
| 1306 B-170 | 242 | 21 | <1 | 10 | <5 | <5 | 27 | 0.4 | 14 | 0.23 | 9 | 1.7 | <0.5 | 7.4 | 1.5 | 11 |
| 1307 B-171 | 19 | <4 | <1 | 9 | <5 | <5 | 49 | 0.7 | 26 | 0.3 | 17 | 3 | 0.7 | 11 | 2 | 15 |
| 1308 B-172 | 477 | 25 | <1 | 10 | <5 | <5 | 32 | 0.6 | 17 | 0.37 | 11 | 2 | <0.5 | 9.3 | 3 | 12 |
| 1309 B-173 | 26 | 12 | 5 | 40 | <5 | 0 | 350 | 0.7 | 210 | 2.69 | 120 | 25 | 4.4 | 170 | 22 | 189 |
| 1310 B-174 | <5 | 19 | 11 | 51 | <5 | 0 | 740 | 1.4 | 450 | 5.24 | 220 | 51 | 10 | 350 | 43 | 411 |
| 1311 B-175 | 21 | 9 | 6 | 43 | <5 | 0 | 440 | 0.8 | 260 | 2.7 | 150 | 30 | 5.9 | 210 | 25 | 197 |
| 1312 B-176 | 31 | <4 | <1 | 7 | <5 | <5 | 29 | 0.5 | 16 | 0.27 | 11 | 1.9 | <0.5 | 7.5 | 1.8 | 18 |
| 1313 B-177 | 17 | 11 | 9 | 42 | <5 | 0 | 530 | <0.2 | 300 | 3.54 | 170 | 36 | 6 | 240 | 29 | 198 |
| 1314 B-178 | 77 | 21 | 10 | 56 | <5 | 0 | 910 | 1.3 | 550 | 6.2 | 330 | 62 | 13 | 430 | 52 | 387 |
| 1315 B-179 | 103 | 17 | 11 | 55 | <5 | 0 | 910 | 1.1 | 550 | 5.94 | 290 | 62 | 14 | 430 | 50 | 379 |
| 1316 B-180 | 39 | 9 | 9 | 44 | <5 | 0 | 460 | 1.1 | 270 | 3.6 | 150 | 33 | 7.2 | 220 | 31 | 236 |
| 1317 B-181 | 18 | <4 | 6 | 37 | <5 | 0 | 370 | 0.9 | 210 | 2.53 | 120 | 25 | 5.6 | 170 | 21 | 167 |
| 1318 B-182 | 97 | 10 | 9 | 51 | <5 | 0 | 170 | 0.9 | 87 | 3.29 | 60 | 14 | 3.5 | 170 | 34 | 205 |
| 1319 B-183 | 23 | 6 | 6 | 37 | <5 | 0 | 91 | 0.6 | 44 | 0.96 | 36 | 6.6 | 1.5 | 78 | 16 | 72 |
| 1320 B-184 | 24 | 16 | 10 | 61 | <5 | 0 | 330 | 1.5 | 190 | 4.79 | 89 | 24 | 6.4 | 300 | 51 | 285 |
| 1321 B-185 | 21 | 10 | 9 | 58 | <5 | 0 | 310 | 1 | 170 | 4.82 | 100 | 21 | 6.3 | 260 | 45 | 278 |
| 1322 B-186 | 13 | 7 | 6 | 42 | <5 | 0 | 180 | 0.8 | 98 | 2.24 | 63 | 14 | 3.3 | 170 | 24 | 149 |
| 1323 F-091 | 19 | 8 | 2 | 20 | 5 | 0 | 81 | 1 | 43 | 0.93 | 31 | 5.6 | 1 | 29 | 7.5 | 41 |
| 1324 F-092 | <5 | 7 | 1 | 20 | <5 | <5 | 58 | 0.8 | 30 | 0.67 | 22 | 3.8 | <0.5 | 16 | 3.9 | 28 |
| 1325 F-093 | <5 | <4 | <1 | 12 | <5 | <5 | 27 | 0.4 | 13 | 0.22 | 9 | 1.6 | <0.5 | 7.5 | 1.3 | 4 |
| 1326 F-094 | <5 | <4 | <1 | 13 | <5 | <5 | 30 | 0.5 | 15 | 0.26 | 9 | 1.8 | <0.5 | 7.9 | 1.7 | 7 |
| 1327 F-095 | <5 | 5 | <1 | 17 | <5 | <5 | 50 | 0.8 | 27 | 0.4 | 20 | 3.3 | <0.5 | 13 | 2.7 | 17 |
| 1328 F-096 | 8 | | | | | | | | | | | | | | | |

Appendix 8 Chemical analysis data of stream sediments

(13)

| Element | SN | W | TA | NB | AU | MO | CE | RU | LA | CU | ND | SM | TB | TH | U | Y | SC |
|------------|------|------|-----|-----|-----|-----|------|------|-----|------|-----|-----|------|-----|-----|-----|-----|
| Unit | PPM | PPM | PPM | PPM | PPB | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM |
| 1355 P-033 | 10 | 4 | <1 | 15 | <5 | <5 | 46 | 0.7 | 26 | 0.35 | 20 | 3.1 | 0.6 | 11 | 1.8 | 18 | 3.2 |
| 1356 P-034 | <5 | 6 | <1 | 13 | <5 | <5 | 65 | 0.9 | 40 | 0.48 | 29 | 4.8 | <0.5 | 16 | 3 | 23 | 4.8 |
| 1357 P-035 | 17 | 4 | 1 | 13 | <5 | <5 | 44 | 0.7 | 25 | 0.46 | 20 | 3.1 | <0.5 | 12 | 2.1 | 19 | 2.5 |
| 1358 P-036 | <5 | 6 | 1 | 13 | <5 | <5 | 63 | 0.8 | 30 | 0.36 | 18 | 3.5 | <0.5 | 13 | 1.9 | 22 | 5.3 |
| 1359 P-039 | <5 | 6 | 1 | 18 | <5 | <5 | 51 | <0.2 | 28 | 0.44 | 20 | 3.3 | <0.5 | 15 | 2.9 | 22 | 4.2 |
| 1360 P-040 | <5 | <4 | <1 | 13 | <5 | <5 | 57 | 0.7 | 32 | 0.4 | 24 | 3.9 | <0.5 | 13 | 2.1 | 22 | 6.3 |
| 1361 P-041 | <5 | <4 | 1 | 13 | <5 | <5 | 52 | 0.9 | 30 | 0.39 | 21 | 3.7 | <0.5 | 13 | 2.2 | 21 | 4.3 |
| 1362 P-042 | <5 | <4 | <1 | 12 | <5 | <5 | 22 | 0.5 | 13 | 0.36 | 9 | 1.6 | 0.5 | 7 | 2.2 | 16 | 2.7 |
| 1363 P-043 | <5 | <4 | <1 | 31 | <5 | <5 | 19 | 0.5 | 11 | 0.38 | 6 | 1.3 | <0.5 | 7.4 | 2.5 | 16 | 1.6 |
| 1364 P-044 | <5 | <4 | <1 | 25 | <5 | <5 | 20 | 0.5 | 11 | 0.32 | 8 | 1.3 | <0.5 | 5.8 | 1.6 | 2 | 2.4 |
| 1365 P-045 | <5 | <4 | <1 | 10 | <5 | 6 | 18 | 0.4 | 9 | 0.34 | 9 | 1.1 | <0.5 | 6.4 | 2.1 | 14 | 2.1 |
| 1366 P-046 | <5 | <4 | <1 | 10 | <5 | <5 | 26 | 0.5 | 14 | 0.39 | 9 | 1.8 | <0.5 | 7.9 | 2.3 | 13 | 2.8 |
| 1367 P-047 | <5 | <4 | 1 | 12 | <5 | <5 | 22 | 0.5 | 12 | 0.3 | 12 | 1.6 | 0.5 | 7 | 1.8 | 13 | 3.5 |
| 1368 P-048 | <5 | <4 | <1 | 9 | <5 | <5 | 13 | 0.3 | 7 | 0.21 | <5 | 0.8 | <0.5 | 4.7 | 1.4 | 9 | 2.3 |
| 1369 P-049 | 29 | <4 | 1 | 15 | <5 | <5 | 54 | 0.8 | 30 | 0.33 | 20 | 3.4 | <0.5 | 12 | 2.2 | 20 | 5.9 |
| 1370 P-050 | <5 | <4 | <1 | 15 | <5 | <5 | 11 | 0.4 | 6 | 0.41 | <5 | 0.8 | <0.5 | 5 | 2.4 | 10 | 2.2 |
| 1371 P-051 | <5 | <4 | <1 | <2 | <5 | <5 | 48 | 0.9 | 27 | 0.41 | 18 | 3.2 | <0.5 | 13 | 3.1 | 12 | 4.2 |
| 1372 P-052 | <5 | <4 | <1 | 10 | <5 | <5 | 50 | 0.8 | 27 | 0.36 | 19 | 3.3 | <0.5 | 11 | 1.9 | 19 | 4.5 |
| 1373 P-053 | <5 | <4 | 1 | 10 | <5 | <5 | 49 | 0.7 | 28 | 0.4 | 19 | 3.1 | 0.9 | 12 | 2.7 | 17 | 3.6 |
| 1374 P-054 | <5 | 5 | <1 | 15 | <5 | <5 | 88 | 1.2 | 49 | 0.58 | 35 | 5.3 | <0.5 | 19 | 3.7 | 24 | 5 |
| 1375 P-055 | <5 | <4 | 1 | 12 | <5 | <5 | 57 | 0.8 | 32 | 0.41 | 25 | 3.6 | <0.5 | 14 | 2.6 | 19 | 4.3 |
| 1376 P-056 | <5 | <4 | <1 | 14 | <5 | <5 | 49 | 0.8 | 27 | 0.47 | 20 | 3.2 | <0.5 | 14 | 3.3 | 15 | 3.1 |
| 1377 P-057 | <5 | <4 | <1 | 10 | 6 | <5 | 48 | 0.8 | 26 | 0.35 | 22 | 3.1 | 0.7 | 11 | 2 | 16 | 4.7 |
| 1378 P-058 | <5 | <4 | <1 | 15 | <5 | 0 | 100 | 1.4 | 58 | 0.6 | 36 | 6.1 | <0.5 | 23 | 4.4 | 26 | 5.9 |
| 1379 P-059 | <5 | <4 | <1 | 11 | 6 | <5 | 54 | 0.9 | 30 | 0.34 | 22 | 3.4 | <0.5 | 12 | 2.5 | 16 | 5.7 |
| 1380 P-060 | <5 | <4 | <1 | 12 | <5 | <5 | 56 | 0.7 | 32 | 0.43 | 16 | 3.5 | 0.8 | 14 | 2.3 | 20 | 4.7 |
| 1381 P-061 | <5 | <4 | <1 | 10 | <5 | <5 | 51 | 0.7 | 27 | 0.38 | 21 | 3.2 | 0.6 | 12 | 2.6 | 18 | 5.3 |
| 1382 P-062 | 73 | 34 | 7 | 19 | 11 | 0 | 1200 | 1.1 | 580 | 8.23 | 490 | 7.4 | 1.1 | 340 | 52 | 432 | 3.8 |
| 1383 P-063 | <5 | 7 | 3 | 14 | <5 | 0 | 110 | <0.2 | 53 | 1.84 | 38 | 7.8 | 1.8 | 41 | 12 | 78 | 2.2 |
| 1384 P-064 | 14 | 18 | 6 | 23 | <5 | 0 | 720 | 1 | 460 | 7.68 | 330 | 52 | 9.4 | 240 | 36 | 357 | 4.3 |
| 1385 P-065 | 17 | <4 | 5 | 20 | <5 | 0 | 620 | <0.2 | 350 | 5.77 | 230 | 43 | 8.4 | 220 | 40 | 295 | 4.9 |
| 1386 P-066 | 16 | <4 | 5 | 22 | <5 | 0 | 470 | 1.3 | 270 | 4.56 | 170 | 32 | 6.5 | 180 | 31 | 225 | 4.8 |
| 1387 P-067 | 25 | 17 | 7 | 21 | <5 | 0 | 750 | 1.5 | 440 | 6.44 | 270 | 52 | 11 | 280 | 38 | 327 | 5.3 |
| 1388 P-068 | 19 | <4 | 3 | 21 | <5 | 0 | 380 | <0.2 | 220 | 5.28 | 110 | 25 | 8.5 | 150 | 26 | 243 | 5.9 |
| 1389 P-069 | 34 | 35 | 5 | 16 | <5 | 0 | 1200 | 1.1 | 620 | 6.08 | 490 | 78 | 11 | 350 | 34 | 335 | 4.2 |
| 1390 P-070 | 36 | <4 | 4 | 16 | <5 | 0 | 680 | <0.2 | 380 | 4.4 | 270 | 49 | 8.3 | 220 | 30 | 257 | 3.9 |
| 1391 P-071 | 7 | 9 | 4 | 21 | <5 | 0 | 110 | 0.7 | 84 | 1.66 | 36 | 8.8 | 1.8 | 54 | 16 | 82 | 3.6 |
| 1392 P-072 | 14 | 10 | 7 | 27 | <5 | 0 | 96 | <0.2 | 59 | 2.88 | 39 | 7.2 | 1.9 | 53 | 36 | 97 | 4.2 |
| 1393 P-073 | <5 | 9 | 3 | 17 | <5 | 0 | 130 | <0.2 | 71 | 1.95 | 52 | 9.9 | 1.7 | 47 | 18 | 82 | 2.4 |
| 1394 P-074 | 18 | 22 | 6 | 21 | <5 | 0 | 730 | 1.9 | 400 | 5.4 | 300 | 51 | 7.3 | 200 | 40 | 238 | 5 |
| 1395 P-075 | <5 | 7 | 2 | 18 | <5 | 0 | 79 | 0.9 | 41 | 0.69 | 28 | 5.1 | <0.5 | 27 | 6.4 | 28 | 5.8 |
| 1396 P-076 | <5 | <4 | <1 | 9 | <5 | <5 | 37 | 0.7 | 20 | 0.3 | 16 | 2.4 | <0.5 | 9.5 | 1.9 | 11 | 2 |
| 1397 P-077 | <5 | <4 | 1 | 15 | <5 | 0 | 50 | 1 | 30 | 0.48 | 20 | 3.7 | <0.5 | 21 | 5.5 | 20 | 7.3 |
| 1398 P-078 | <5 | 8 | 2 | 21 | <5 | 0 | 54 | 1 | 30 | 0.53 | 21 | 8.6 | <0.5 | 30 | 7.7 | 22 | 6.7 |
| 1399 P-079 | <5 | 6 | 2 | 16 | <5 | 0 | 49 | 0.8 | 26 | 0.47 | 20 | 3.1 | <0.5 | 17 | 5.3 | 17 | 6.3 |
| 1400 P-080 | <5 | 9 | 1 | 18 | <5 | <5 | 52 | 0.9 | 27 | 0.52 | 17 | 3.3 | <0.5 | 24 | 5.2 | 19 | 3.2 |
| 1401 P-081 | <5 | 11 | 2 | 18 | <5 | <5 | 50 | <0.2 | 22 | 0.49 | 13 | 2.7 | <0.5 | 27 | 7.2 | 17 | 6 |
| 1402 P-082 | <5 | 18 | 3 | 22 | <5 | 0 | 64 | <0.2 | 31 | 0.61 | 22 | 3.3 | <0.5 | 31 | 7.9 | 18 | 8.2 |
| 1403 P-083 | <5 | 12 | <1 | 17 | <5 | 0 | 65 | 0.9 | 35 | 0.56 | 26 | 4.1 | <0.5 | 21 | 4.4 | 22 | 6.8 |
| 1404 P-084 | <5 | 6 | <1 | 13 | <5 | <5 | 60 | 0.7 | 29 | 0.51 | 25 | 3.4 | <0.5 | 15 | 2.4 | 16 | 5.3 |
| 1405 P-085 | <5 | 34 | 3 | 27 | <5 | 0 | 70 | 0.8 | 36 | 0.9 | 23 | 3.4 | <0.5 | 81 | 13 | 27 | 4.8 |
| 1406 P-086 | 10 | 25 | 3 | 29 | <5 | 0 | 62 | 0.9 | 33 | 0.73 | 23 | 3.5 | <0.5 | 72 | 16 | 25 | 5.6 |
| 1407 P-087 | <5 | 30 | 2 | 27 | <5 | 0 | 68 | 1.1 | 35 | 1.14 | 29 | 3.7 | <0.5 | 100 | 23 | 34 | 6.3 |
| 1408 P-088 | <5 | 7 | 2 | 14 | <5 | 0 | 35 | 0.5 | 18 | 0.55 | 16 | 2 | <0.5 | 22 | 6.1 | 14 | 3.6 |
| 1409 P-089 | <5 | 10 | 2 | 16 | <5 | 0 | 33 | 0.7 | 20 | 0.61 | <5 | 2.1 | <0.5 | 29 | 7.8 | 17 | 3.5 |
| 1410 P-090 | <5 | <4 | <1 | 9 | <5 | 0 | 42 | 0.5 | 20 | 0.6 | 15 | 2.1 | 0.6 | 14 | 3.3 | 17 | 2.9 |
| 1411 P-091 | 9 | 15 | 3 | 22 | <5 | 0 | 47 | 0.7 | 25 | 0.64 | 19 | 2.6 | <0.5 | 31 | 9.8 | 23 | 4.3 |
| 1412 P-092 | <5 | 10 | 1 | 15 | <5 | 0 | 41 | 0.5 | 20 | 0.48 | 14 | 2.3 | <0.5 | 15 | 4.5 | 15 | 3.8 |
| 1413 P-093 | 14 | 42 | 4 | 37 | <5 | 0 | 78 | 1.2 | 44 | 0.97 | 35 | 4.2 | <0.5 | 58 | 18 | 31 | 6.2 |
| 1414 P-094 | 10 | 20 | 3 | 29 | <5 | 0 | 55 | 1 | 31 | 0.82 | 30 | 3.2 | <0.5 | 44 | 14 | 29 | 5.7 |
| 1415 P-095 | 19 | 5 | 2 | 14 | <5 | 0 | 98 | 0.6 | 52 | 1.09 | 44 | 5.4 | <0.5 | 29 | 8.6 | 30 | 2.8 |
| 1416 P-096 | <5 | 4 | 2 | 18 | 5 | 0 | 88 | 0.6 | 48 | 1.16 | 40 | 6 | 0.9 | 25 | 9.5 | 30 | 3.5 |
| 1417 P-097 | <5 | <4 | 1 | 11 | <5 | 0 | 79 | 0.7 | 43 | 0.71 | 36 | 4.4 | <0.5 | 22 | 4.4 | 23 | 2.9 |
| 1418 P-098 | <5 | <4 | 1 | 14 | <5 | 0 | 64 | <0.2 | 34 | 0.58 | 32 | 3.4 | <0.5 | 14 | 3.9 | 18 | 4 |
| 1419 P-099 | <5 | <4 | 1 | 13 | <5 | 0 | 38 | 0.4 | 20 | 0.49 | 20 | 2 | <0.5 | 10 | 4.1 | 13 | 2.8 |
| 1420 P-100 | <5 | <4 | 1 | 14 | <5 | <5 | 38 | 0.4 | 20 | 0.47 | 15 | 2.2 | <0.5 | 9.6 | 3 | 15 | 2.8 |
| 1421 P-101 | <5 | <4 | 2 | 15 | <5 | 0 | 49 | 0.5 | 25 | 0.5 | 22 | 2.7 | <0.5 | 13 | 3.5 | 17 | 4.5 |
| 1422 P-102 | <5 | <4 | 1 | 10 | <5 | <5 | 59 | 0.5 | 32 | 0.44 | 30 | 3.4 | <0.5 | 14 | 1.8 | 19 | 1.7 |
| 1423 P-103 | <5 | <4 | <1 | 8 | <5 | <5 | 42 | 0.5 | 22 | 0.3 | 17 | 2.3 | <0.5 | 8.8 | 0.9 | 11 | 1.4 |
| 1424 P-104 | <5 | <4 | <1 | 9 | <5 | <5 | 76 | 0.6 | 41 | 0.49 | 29 | 4.2 | <0.5 | 19 | 2.1 | 20 | 1.7 |
| 1425 P-105 | <5 | <4 | <1 | 10 | <5 | <5 | 47 | 0.6 | 26 | 0.33 | 18 | 2.6 | <0.5 | 11 | 1.8 | 13 | 2.2 |
| 1426 P-106 | <5 | <4 | <1 | 9 | <5 | <5 | 48 | 0.6 | 25 | 0.36 | 16 | 2.7 | <0.5 | 11 | 1.8 | 13 | 2.6 |
| 1427 P-107 | 23 | 9 | 1 | 15 | <5 | <5 | 47 | 0.4 | 23 | 0.5 | 20 | 2.6 | <0.5 | 12 | 2.4 | 17 | 2.1 |
| 1428 P-108 | <5 | <4 | <1 | 13 | <5 | <5 | 21 | 0.3 | 12 | 0.3 | 11 | 1.3 | 0.5 | 6.4 | 1.9 | 10 | 1.5 |
| 1429 P-109 | <5 | <4 | <1 | 12 | <5 | <5 | 19 | <0.2 | 6 | 0.18 | 7 | 0.7 | <0.5 | 3.5 | 0.5 | 1 | 1.1 |
| 1430 P-110 | 14 | 5 | 1 | 20 | <5 | <5 | 48 | 0.5 | 25 | 0.67 | 21 | 2.9 | <0.5 | 13 | 2.9 | 21 | 2.1 |
| 1431 P-111 | 6 | 6 | 2 | 21 | <5 | <5 | 49 | <0.2 | 23 | 0.48 | 17 | 2.8 | <0.5 | 11 | 1.7 | 17 | 4.8 |
| 1432 P-112 | 2391 | 780 | 78 | 117 | <5 | <5 | 110 | 0.6 | 53 | 1.25 | 43 | 9.4 | 1.9 | 37 | 5.6 | 58 | 4.8 |
| 1433 P-113 | 2634 | 1100 | 110 | 165 | <5 | <5 | 84 | <0.2 | 39 | 1.06 | 28 | 8.2 | <0.5 | 30 | 4.8 | 61 | 4.5 |
| 1434 P-114 | 2102 | 910 | 90 | 122 | <5 | 6 | 69 | <0.2 | 33 | 0.84 | 35 | 6.6 | 1.5 | 24 | 4.8 | 46 | 4.2 |
| 1435 P-115 | 1308 | 150 | 186 | <5 | <5 | <5 | 160 | <0.2 | 70 | 1.69 | 71 | 15 | 2.8 | 53 | 7.2 | 80 | 5.2 |
| 1436 P-116 | 3864 | 25 | | | | | | | | | | | | | | | |

Appendix 8 Chemical analysis data of stream sediments

(14)

| Element | SW | N | TA | NB | AU | HO | CB | BU | LA | LU | ND | SH | TB | TH | U | Y | SC |
|------------|-------|-----|-----|-----|-----|-----|------|------|-----|-------|-----|-----|------|-----|------|-----|-----|
| Units | PPH | PPH | PPH | PPH | PPB | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH |
| 1468 F-148 | <5 | <4 | <1 | 14 | <5 | <5 | 84 | 1.1 | 41 | 0.49 | 30 | 5.7 | <0.5 | 18 | 3.2 | 24 | 7.4 |
| 1469 F-149 | <5 | <4 | <1 | 16 | <5 | <5 | 84 | 1.3 | 44 | 0.52 | 32 | 6.1 | <0.5 | 18 | 2 | 21 | 8.3 |
| 1470 F-150 | <5 | <4 | <1 | 11 | <5 | <5 | 59 | 0.8 | 28 | 0.34 | 15 | 3.9 | <0.5 | 10 | 1.4 | 18 | 5.6 |
| 1471 F-151 | <5 | <4 | <1 | 13 | <5 | <5 | 79 | 1 | 38 | 0.51 | 24 | 5.1 | <0.5 | 15 | 2.1 | 22 | 5.9 |
| 1472 F-152 | <5 | <4 | <1 | 11 | <5 | <5 | 50 | 0.6 | 26 | 0.42 | 14 | 3.7 | <0.5 | 11 | 2 | 16 | 4.7 |
| 1473 F-153 | <5 | <4 | 2 | 12 | <5 | <5 | 54 | 0.5 | 28 | 0.34 | 26 | 3.7 | <0.5 | 10 | 1.5 | 17 | 5.4 |
| 1474 G-001 | <5 | <4 | <1 | 15 | 8 | <5 | 110 | 1.1 | 58 | 0.64 | 41 | 7.4 | <0.5 | 20 | 3 | 30 | 6.2 |
| 1475 G-002 | <5 | <4 | <1 | 13 | 5 | <5 | 69 | 1.1 | 35 | 0.51 | 31 | 4.7 | <0.5 | 14 | 2.1 | 21 | 6.4 |
| 1476 G-003 | <5 | <4 | <1 | 11 | <5 | <5 | 60 | 1 | 32 | 0.47 | 23 | 4.5 | <0.5 | 12 | 1.9 | 19 | 5.7 |
| 1477 G-004 | <5 | <4 | <1 | 11 | <5 | 5 | 65 | 1 | 33 | 0.45 | 23 | 4.5 | 0.8 | 12 | <0.5 | 17 | 5.5 |
| 1478 G-005 | <5 | <4 | <1 | 12 | <5 | <5 | 66 | 0.8 | 35 | 0.41 | 30 | 4.7 | <0.5 | 11 | 2 | 21 | 5.8 |
| 1479 G-006 | <5 | <4 | <1 | 15 | <5 | 0 | 95 | 0.9 | 48 | 0.55 | 36 | 6.1 | <0.5 | 21 | 2.6 | 25 | 6.3 |
| 1480 G-007 | <5 | 4 | 1 | 15 | <5 | <5 | 67 | 0.8 | 35 | 0.46 | 28 | 4.6 | <0.5 | 14 | 2.1 | 24 | 6.4 |
| 1481 G-008 | <5 | <4 | 1 | 15 | 8 | <5 | 65 | 0.7 | 31 | 0.41 | 30 | 4.5 | <0.5 | 14 | 3 | 21 | 4.5 |
| 1482 G-009 | <5 | <4 | <1 | 13 | <5 | <5 | 77 | 1 | 40 | 0.52 | 35 | 5.2 | <0.5 | 13 | <0.5 | 23 | 5.1 |
| 1483 G-010 | <5 | <4 | 1 | 11 | <5 | <5 | 77 | 0.8 | 39 | 0.45 | 28 | 5.4 | <0.5 | 13 | 2.3 | 20 | 5.9 |
| 1484 G-011 | <5 | <4 | <1 | 6 | <5 | <5 | 14 | 0.3 | 6 | 0.1 | 7 | 0.9 | <0.5 | 2.7 | 0.9 | 4 | 0.7 |
| 1485 G-012 | <5 | <4 | <1 | 9 | <5 | <5 | 38 | 0.6 | 18 | 0.29 | 18 | 2.5 | <0.5 | 7.7 | 1.4 | 12 | 2 |
| 1486 G-013 | <5 | <4 | <1 | 10 | <5 | <5 | 28 | 0.4 | 13 | 0.22 | 16 | 1.8 | 0.6 | 5.8 | 1.3 | 10 | 1.4 |
| 1487 G-014 | <5 | <4 | 1 | 10 | <5 | <5 | 25 | 0.4 | 12 | 0.19 | 15 | 1.6 | <0.5 | 4.8 | <0.5 | 8 | 1.3 |
| 1488 G-015 | <5 | <4 | <1 | 10 | <5 | <5 | 22 | 0.4 | 11 | 0.3 | 8 | 1.5 | <0.5 | 5.7 | 1.1 | 9 | 1.2 |
| 1489 G-016 | <5 | <4 | <1 | 10 | <5 | <5 | 18 | 0.3 | 10 | 0.24 | 18 | 1.5 | <0.5 | 4.4 | 0.9 | 9 | 1.6 |
| 1490 G-017 | <5 | <4 | <1 | 11 | <5 | <5 | 41 | 0.6 | 20 | 0.32 | 16 | 3 | <0.5 | 9.5 | 1.9 | 14 | 3.6 |
| 1491 G-018 | <5 | <4 | <1 | 11 | <5 | <5 | 14 | 0.3 | 6 | 0.28 | <5 | 1 | <0.5 | 5.9 | 1.5 | 8 | 1.8 |
| 1492 G-019 | <5 | <4 | <1 | 13 | <5 | <5 | 45 | 0.7 | 22 | 0.53 | 18 | 3.2 | <0.5 | 9.5 | 2.2 | 19 | 1.7 |
| 1493 G-020 | <5 | <4 | <1 | 14 | <5 | <5 | 35 | 0.4 | 11 | 0.41 | <5 | 1.6 | <0.5 | 5.9 | 1.7 | 13 | 1.4 |
| 1494 G-021 | 81 | 9 | 11 | 49 | 7 | 0 | 719 | 1.5 | 359 | 5.33 | 320 | 55 | 11 | 350 | 44 | 285 | 6.4 |
| 1495 G-022 | 37 | 4 | 4 | 31 | <5 | 0 | 226 | 0.8 | 110 | 1.42 | 96 | 17 | 2.6 | 110 | 13 | 71 | 4.4 |
| 1496 G-023 | 16 | <4 | 3 | 31 | <5 | 0 | 250 | 1 | 120 | 2.64 | 119 | 21 | 4.1 | 110 | 14 | 146 | 4.6 |
| 1497 G-024 | 243 | 22 | 19 | 64 | <5 | 0 | 820 | 1.6 | 400 | 3.85 | 370 | 61 | 9.9 | 450 | 55 | 247 | 5.7 |
| 1498 G-025 | 60 | <4 | 10 | 42 | <5 | 0 | 390 | 1.5 | 190 | 2.41 | 170 | 30 | 3.5 | 220 | 30 | 136 | 6.2 |
| 1499 G-026 | 14 | <4 | 5 | 35 | <5 | 0 | 239 | 0.7 | 109 | 0.89 | 85 | 15 | 2 | 140 | 22 | 54 | 3.9 |
| 1500 G-027 | <5 | <4 | 3 | 33 | <5 | 0 | 340 | 0.8 | 170 | 1.04 | 150 | 26 | 3.2 | 160 | 19 | 76 | 3.1 |
| 1501 G-028 | 50 | <4 | 15 | 67 | <7 | 0 | 1400 | 1.8 | 710 | 1.71 | 580 | 89 | 8 | 580 | 52 | 139 | 7.1 |
| 1502 G-029 | 40 | 10 | 9 | 61 | <5 | 0 | 320 | 1.2 | 150 | 1.71 | 140 | 24 | 4 | 210 | 33 | 168 | 6.5 |
| 1503 G-030 | 242 | 19 | 24 | 62 | <5 | 0 | 490 | <0.2 | 260 | 3.12 | 170 | 36 | 6.3 | 190 | 27 | 186 | 7.2 |
| 1504 G-031 | 27 | <4 | 2 | 17 | <5 | <5 | 37 | 0.5 | 21 | 0.34 | 14 | 2.6 | <0.5 | 7.6 | 1.9 | 14 | 4.2 |
| 1505 G-032 | <5 | <4 | <1 | 9 | <5 | <5 | 15 | 0.2 | 9 | 0.13 | 8 | 1.1 | <0.5 | 3.9 | 0.6 | 6 | 2.2 |
| 1506 G-033 | 10 | <4 | 4 | 24 | <5 | 0 | 200 | <0.2 | 100 | 1.01 | 74 | 14 | 2.4 | 85 | 12 | 60 | 3.7 |
| 1507 G-034 | 100 | 14 | 19 | 80 | <5 | 0 | 560 | 1.5 | 280 | 4.98 | 190 | 42 | 9 | 290 | 33 | 326 | 5.3 |
| 1508 G-035 | 19 | <4 | <1 | 16 | <5 | <5 | 35 | 0.5 | 22 | 0.36 | 13 | 2.4 | <0.5 | 8.1 | 2 | 13 | 3.3 |
| 1509 G-036 | 32 | <4 | 1 | 12 | <5 | <5 | 43 | 0.7 | 25 | 0.41 | 15 | 3.1 | 0.6 | 9.8 | 1.6 | 17 | 2.2 |
| 1510 G-037 | 120 | 5 | 2 | 17 | <5 | <5 | 52 | 0.8 | 32 | 0.5 | 20 | 3.6 | <0.5 | 12 | 1.9 | 20 | 3.5 |
| 1511 G-038 | 207 | 14 | 8 | 22 | <5 | 0 | 83 | 0.8 | 47 | 0.84 | 29 | 6.4 | 1.2 | 24 | 4.3 | 34 | 3.1 |
| 1512 G-039 | <5 | <4 | 1 | 8 | <5 | <5 | 58 | 0.6 | 34 | 0.39 | 20 | 3.9 | <0.5 | 13 | 1.2 | 18 | 2 |
| 1513 G-040 | <5 | <4 | <1 | 10 | <5 | <5 | 35 | 0.4 | 19 | 0.32 | 10 | 2.3 | <0.5 | 9.4 | 2.3 | 12 | 3.1 |
| 1514 G-041 | <5 | <4 | 1 | 10 | <5 | 6 | 43 | 0.5 | 24 | 0.37 | 15 | 3 | <0.5 | 12 | <0.5 | 15 | 2 |
| 1515 G-042 | <5 | <4 | <1 | 8 | <5 | <5 | 51 | 0.6 | 27 | 0.37 | 21 | 3.1 | 0.8 | 12 | 2.3 | 15 | 2 |
| 1516 G-043 | <5 | <4 | <1 | 9 | <5 | <5 | 95 | 0.8 | 51 | 0.54 | 34 | 5.7 | <0.5 | 22 | 3.8 | 26 | 2.2 |
| 1517 G-044 | <5 | <4 | <1 | 10 | <5 | <5 | 140 | 1 | 79 | 0.67 | 52 | 8.3 | <0.5 | 36 | 4.8 | 29 | 2.2 |
| 1518 G-045 | <5 | <4 | 1 | 10 | <5 | <5 | 96 | 0.8 | 55 | 0.64 | 32 | 6.2 | <0.5 | 24 | 3 | 23 | 2.8 |
| 1519 G-046 | <5 | <4 | <1 | 10 | <5 | <5 | 52 | 0.5 | 29 | 0.35 | 20 | 3.3 | <0.5 | 10 | 1.5 | 17 | 2.3 |
| 1520 G-047 | <5 | <4 | <1 | 9 | <5 | 0 | 71 | 0.8 | 41 | 0.45 | 25 | 4.5 | <0.5 | 18 | 3.2 | 23 | 2 |
| 1521 G-048 | <5 | <4 | <1 | 9 | <5 | <5 | 69 | 0.7 | 39 | 0.45 | 22 | 4.3 | <0.5 | 17 | 1.9 | 20 | 2 |
| 1522 G-049 | <5 | <4 | <1 | 11 | <5 | <5 | 68 | 0.6 | 32 | 0.33 | 22 | 3.5 | <0.5 | 13 | 1.9 | 17 | 1.7 |
| 1523 G-050 | <5 | <4 | <1 | 10 | <5 | <5 | 76 | 0.8 | 42 | 0.4 | 26 | 4.7 | <0.5 | 18 | 2.1 | 18 | 1.9 |
| 1524 G-051 | <5 | <4 | 1 | 15 | <5 | <5 | 60 | 0.6 | 32 | 0.43 | 25 | 3.6 | <0.5 | 14 | 1.7 | 17 | 1.8 |
| 1525 G-052 | 3061 | 170 | 140 | 158 | <5 | 0 | 92 | <0.2 | 40 | 0.62 | <5 | 6.1 | <0.5 | 32 | 8.4 | 63 | 7 |
| 1526 G-053 | 9593 | 460 | 330 | 329 | <5 | <5 | 170 | <0.2 | 84 | 1.11 | 42 | 13 | <0.5 | 58 | 17 | 114 | 7.5 |
| 1527 G-054 | 3171 | 160 | 150 | 174 | <5 | 0 | 95 | <0.2 | 46 | 0.85 | 26 | 7.1 | <0.5 | 33 | 8 | 60 | 6.2 |
| 1528 G-055 | 8069 | 400 | 380 | 337 | <5 | <5 | 230 | <0.2 | 110 | 1.53 | 57 | 17 | <0.5 | 81 | 18 | 86 | 8 |
| 1529 G-056 | 46 | <4 | 2 | 13 | <5 | <5 | 37 | 0.5 | 21 | 0.22 | 15 | 2.5 | 0.6 | 7.9 | 1.4 | 12 | 2.2 |
| 1530 G-057 | 1700 | 85 | 90 | 140 | <5 | <5 | 110 | <0.2 | 56 | 1.12 | 23 | 8.6 | 2.1 | 42 | 10 | 77 | 7.2 |
| 1531 G-058 | 420 | 28 | 30 | 58 | <5 | 0 | 35 | <0.2 | 19 | 0.42 | 13 | 2.8 | <0.5 | 11 | 3.9 | 28 | 3.7 |
| 1532 G-059 | 1798 | 92 | 100 | 126 | <5 | <5 | 72 | <0.2 | 32 | 0.53 | 17 | 4.7 | <0.5 | 24 | 6.8 | 52 | 6.2 |
| 1533 G-060 | 319 | 18 | 14 | 32 | <5 | <5 | 42 | 0.5 | 25 | 0.41 | 18 | 3.2 | <0.5 | 9.9 | 2.5 | 23 | 2.8 |
| 1534 G-061 | 5105 | 220 | 240 | 249 | <5 | <5 | 130 | <0.2 | 63 | 0.76 | 23 | 9.2 | <0.5 | 44 | 12 | 88 | 6.5 |
| 1535 G-062 | 1380 | 92 | 28 | 71 | <5 | <5 | 120 | <0.2 | 42 | 1 | 24 | 6.6 | 2 | 33 | 6.8 | 36 | 10 |
| 1536 G-063 | 7122 | 290 | 280 | 222 | <5 | <5 | 120 | <0.2 | 56 | 0.17 | 41 | 8.5 | <0.5 | 40 | 10 | 53 | 8.1 |
| 1537 G-064 | 11223 | 270 | 440 | 250 | <5 | <5 | 79 | <0.2 | 48 | <0.05 | 8 | 6.2 | <0.5 | 29 | 9 | 10 | 8.4 |
| 1538 G-065 | 1560 | 87 | 110 | 136 | <5 | <5 | 67 | 0.5 | 32 | 0.49 | 14 | 4.6 | <0.5 | 26 | 5.4 | 60 | 6.1 |
| 1539 G-066 | <5 | <4 | 1 | 15 | <5 | <5 | 41 | 0.6 | 22 | 0.45 | 13 | 2.4 | <0.5 | 9.7 | 2.1 | 14 | 3.6 |
| 1540 G-067 | <5 | <4 | 1 | 16 | <5 | <5 | 58 | 0.9 | 31 | 0.54 | 21 | 3.4 | <0.5 | 14 | 3 | 21 | 4.7 |
| 1541 G-068 | <5 | <4 | <1 | 17 | <5 | <5 | 58 | 0.7 | 32 | 0.5 | 22 | 3.6 | <0.5 | 13 | 2.8 | 21 | 5.5 |
| 1542 G-069 | <5 | <4 | 2 | 14 | <5 | <5 | 58 | 0.7 | 30 | 0.46 | 25 | 3.4 | <0.5 | 14 | 2 | 21 | 5.3 |
| 1543 G-070 | <5 | <4 | 2 | 18 | <5 | <5 | 55 | 0.7 | 32 | 0.44 | 23 | 3.3 | <0.5 | 12 | 2.2 | 19 | 4.8 |
| 1544 G-071 | <5 | <4 | <1 | 20 | <5 | <5 | 58 | 0.7 | 32 | 0.51 | 21 | 3.8 | <0.5 | 14 | <0.5 | 21 | 5.8 |
| 1545 G-072 | 8 | <4 | 2 | 21 | <5 | <5 | 67 | 1 | 37 | 0.46 | 30 | 4.3 | <0.5 | 15 | 2 | 28 | 7.5 |
| 1546 G-073 | <5 | <4 | <1 | 21 | <5 | <5 | 68 | 0.9 | 36 | 0.63 | 33 | 4.1 | <0.5 | 14 | 3 | 28 | 5.5 |
| 1547 G-074 | <5 | <4 | 2 | 12 | <5 | 0 | 110 | 0.7 | 66 | 1.04 | 53 | 6.9 | 1.2 | 33 | 4.4 | 39 | 1.7 |
| 1548 G-075 | <5 | <4 | <1 | | | | | | | | | | | | | | |

Appendix 8 Chemical analysis data of stream sediments

(15)

| Element | SR | Y | TA | NB | AU | MO | CR | BU | LA | LU | NO | SM | TB | TH | U | Y | SC |
|------------|-----|-----|-----|-----|-----|-----|------|------|-----|------|-----|-----|------|------|-----|-----|-----|
| Units | PPH | PPH | PPH | PPH | PPB | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH |
| 1581 G-108 | 27 | 16 | 6 | 46 | <5 | 0 | 200 | 1.3 | 107 | 3.6 | 74 | 15 | 4.3 | 55 | 17 | 226 | 9.3 |
| 1582 G-109 | 31 | <4 | <1 | 12 | <5 | 0 | 65 | 0.6 | 27 | 0.51 | 22 | 3.4 | 0.6 | 13 | 2.7 | 27 | 2.3 |
| 1583 G-110 | <5 | <4 | <1 | 9 | <5 | 0 | 59 | 0.7 | 31 | 0.5 | 23 | 3.7 | 0.8 | 15 | 3 | 26 | 1.8 |
| 1584 G-111 | <5 | <4 | <1 | 12 | <5 | <5 | 75 | 0.8 | 40 | 0.49 | 31 | 4.7 | 0.7 | 18 | 3.5 | 28 | 3 |
| 1585 G-112 | <5 | <4 | <1 | 8 | <5 | <5 | 49 | 0.6 | 26 | 0.34 | 15 | 3.1 | <0.5 | 12 | 1.6 | 15 | 3.9 |
| 1586 G-113 | 24 | <4 | <1 | 12 | <5 | 0 | 110 | 1.1 | 58 | 0.56 | 42 | 6.4 | 1 | 26 | 2.2 | 34 | 5.2 |
| 1587 G-114 | <5 | <4 | <1 | 10 | <5 | 0 | 68 | 0.6 | 29 | 0.44 | 18 | 3.4 | <0.5 | 14 | 3.3 | 22 | 3.2 |
| 1588 G-115 | <5 | <4 | <1 | 14 | <5 | <5 | 78 | 0.9 | 39 | 0.65 | 28 | 4.7 | 1 | 18 | 3.2 | 30 | 3.6 |
| 1589 G-116 | <5 | <4 | <1 | 12 | <5 | <5 | 68 | 0.8 | 35 | 0.45 | 30 | 4.2 | <0.5 | 15 | 2.6 | 25 | 4.8 |
| 1590 G-117 | <5 | <4 | <1 | 13 | <5 | <5 | 54 | 0.7 | 28 | 0.42 | 24 | 3.4 | 0.8 | 12 | 2 | 23 | 3.5 |
| 1591 G-118 | <5 | <4 | <1 | 11 | <5 | <5 | 53 | 0.6 | 28 | 0.37 | 24 | 3.4 | 0.6 | 12 | 1.3 | 21 | 3.8 |
| 1592 G-119 | <5 | <4 | <1 | 9 | <5 | <5 | 41 | 0.5 | 22 | 0.39 | 16 | 2.7 | <0.5 | 9.8 | 2.4 | 18 | 2.8 |
| 1593 G-120 | <5 | <4 | <1 | 10 | <5 | <5 | 44 | 0.6 | 24 | 0.32 | 17 | 2.8 | <0.5 | 10 | 1.5 | 19 | 3.3 |
| 1594 G-121 | 149 | <4 | 24 | 87 | <6 | 0 | 1000 | <0.2 | 590 | 12.3 | 400 | 7.3 | 11 | 320 | 120 | 530 | 6.4 |
| 1595 G-122 | 12 | <4 | 5 | 34 | <5 | 0 | 150 | 0.7 | 78 | 2.11 | 63 | 10 | 2.1 | 49 | 18 | 99 | 4 |
| 1596 G-123 | 8 | <4 | 11 | 33 | <5 | 0 | 410 | 1.6 | 210 | 4.65 | 150 | 27 | 4.4 | 130 | 45 | 197 | 4.7 |
| 1597 G-124 | 7 | 12 | 7 | 28 | <5 | 0 | 140 | 0.8 | 66 | 3.34 | 54 | 9 | 2.2 | 57 | 36 | 137 | 3.2 |
| 1598 G-125 | 44 | 11 | 12 | 65 | 10 | 0 | 290 | 1.2 | 150 | 3.92 | 120 | 20 | 3 | 99 | 42 | 161 | 7.6 |
| 1599 G-126 | 158 | 24 | 15 | 59 | <5 | 0 | 410 | 1.8 | 210 | 5.73 | 160 | 28 | 4.6 | 130 | 58 | 225 | 4.3 |
| 1600 G-127 | 76 | 16 | 12 | 56 | 16 | 0 | 230 | <0.2 | 110 | 5.41 | 88 | 15 | 3.7 | 81 | 44 | 237 | 4.8 |
| 1601 G-128 | 103 | 8 | 5 | 24 | <5 | 0 | 68 | 0.9 | 34 | 1.5 | 24 | 4.1 | 0.8 | 24 | 15 | 41 | 7 |
| 1602 G-129 | 103 | 19 | 11 | 45 | 16 | 0 | 270 | <0.2 | 130 | 4.66 | 98 | 18 | 3.8 | 97 | 46 | 184 | 4.6 |
| 1603 G-130 | 103 | 11 | 10 | 33 | <5 | 0 | 300 | 1.4 | 160 | 3.99 | 110 | 20 | 3.7 | 95 | 39 | 98 | 4.2 |
| 1604 G-131 | 6 | 12 | 11 | 54 | <5 | 0 | 97 | <0.2 | 43 | 3.4 | 32 | 6.7 | 1.9 | 57 | 34 | 165 | 4.6 |
| 1605 G-132 | 14 | 11 | 4 | 22 | <5 | 0 | 110 | 1.1 | 52 | 0.61 | 40 | 6 | 1 | 22 | 4.1 | 36 | 3.9 |
| 1606 G-133 | 58 | 14 | 3 | 23 | <5 | 0 | 160 | 1.1 | 89 | 1.08 | 69 | 9.1 | <0.5 | 44 | 6.3 | 58 | 2.3 |
| 1607 G-134 | 6 | <4 | <1 | 15 | 10 | <5 | 68 | 0.6 | 36 | 0.52 | 27 | 3.6 | <0.5 | 17 | 3 | 22 | 1.4 |
| 1608 G-135 | 11 | 10 | 2 | 20 | 46 | 0 | 160 | 1 | 90 | 1.05 | 69 | 9 | 1.2 | 44 | 6.4 | 46 | 2.5 |
| 1609 G-136 | <5 | <4 | 1 | 17 | 11 | <5 | 37 | 0.4 | 19 | 0.27 | 14 | 2 | <0.5 | 9.2 | 1.8 | 10 | 1.7 |
| 1610 G-137 | 19 | <4 | 2 | 16 | <5 | <5 | 88 | 0.6 | 49 | 0.62 | 38 | 5 | <0.5 | 23 | 2.9 | 28 | 3 |
| 1611 G-138 | <5 | <4 | 1 | 15 | <5 | 5 | 110 | 1 | 55 | 0.71 | 45 | 5.7 | 1.2 | 27 | 2.8 | 29 | 4.2 |
| 1612 G-139 | 20 | <4 | 4 | 12 | <5 | <5 | 79 | 0.9 | 43 | 0.6 | 37 | 4.6 | <0.5 | 22 | 3 | 25 | 3.2 |
| 1613 G-140 | <5 | <4 | 1 | 8 | 8 | <5 | 110 | 0.9 | 57 | 0.64 | 36 | 5.8 | <0.5 | 25 | 3.1 | 36 | 2.9 |
| 1614 G-141 | <5 | <4 | <1 | 13 | <5 | 0 | 84 | 0.6 | 45 | 0.5 | 35 | 4.6 | <0.5 | 20 | 2.9 | 30 | 2.4 |
| 1615 G-142 | <5 | <4 | <1 | 12 | <5 | <5 | 58 | 0.7 | 28 | 0.42 | 20 | 3 | <0.5 | 12 | 1.8 | 20 | 4.1 |
| 1616 G-143 | <5 | <4 | <1 | 13 | <5 | <5 | 54 | 0.7 | 29 | 0.42 | 24 | 3.2 | <0.5 | 12 | 1.3 | 22 | 3.5 |
| 1617 G-144 | <5 | <4 | 1 | 9 | <5 | <5 | 35 | 0.5 | 19 | 0.28 | 16 | 2 | <0.5 | 7.2 | 1.4 | <2 | 2.4 |
| 1618 G-145 | 8 | <4 | <1 | 19 | <5 | <5 | 56 | 0.8 | 28 | 0.49 | 27 | 3 | <0.5 | 11 | 2.2 | 11 | 2.3 |
| 1619 G-146 | <5 | <4 | <1 | 9 | <5 | 5 | 42 | 0.5 | 23 | 0.31 | 18 | 2.6 | 0.8 | 9.7 | 1.8 | 15 | 3.4 |
| 1620 G-147 | <5 | <4 | <1 | 13 | <5 | <5 | 63 | 0.7 | 32 | 0.54 | 24 | 3.7 | 0.7 | 14 | 2 | 23 | 3 |
| 1621 G-148 | <5 | <4 | <1 | 10 | <5 | <5 | 52 | 0.6 | 25 | 0.37 | 22 | 2.9 | <0.5 | 10 | 1.7 | 16 | 3.4 |
| 1622 G-149 | <5 | <4 | <1 | 12 | <5 | <5 | 56 | 0.6 | 30 | 0.52 | 28 | 3.5 | <0.5 | 13 | 2.9 | 21 | 3.2 |
| 1623 G-150 | <5 | <4 | <1 | 11 | <5 | <5 | 54 | 0.6 | 29 | 0.49 | 25 | 3.2 | <0.5 | 14 | 2.7 | 20 | 3.4 |
| 1624 G-151 | <5 | <4 | <1 | 12 | <5 | <5 | 68 | 0.8 | 35 | 0.59 | 27 | 3.8 | 0.6 | 17 | 3.2 | 22 | 3.8 |
| 1625 G-152 | <5 | <4 | <1 | 10 | <5 | <5 | 50 | 0.6 | 28 | 0.49 | 35 | 3.1 | <0.5 | 13 | 2.2 | 21 | 2.4 |
| 1626 G-153 | <5 | <4 | <1 | 12 | <5 | <5 | 71 | 0.8 | 38 | 0.58 | 30 | 4.4 | <0.5 | 17 | 4.3 | 27 | 3.8 |
| 1627 G-154 | <5 | <4 | <1 | 10 | <5 | <5 | 61 | 0.7 | 29 | 0.45 | 25 | 3.3 | <0.5 | 13 | 2 | 19 | 4 |
| 1628 G-155 | <5 | <4 | <1 | 12 | <5 | <5 | 68 | 0.9 | 36 | 0.49 | 30 | 4.1 | <0.5 | 17 | 2.5 | 22 | 4.8 |
| 1629 G-156 | <5 | <4 | <1 | 10 | 6 | <5 | 61 | 0.6 | 32 | 0.48 | 24 | 3.6 | 0.7 | 14 | 3.1 | 21 | 3.6 |
| 1630 G-157 | <5 | <4 | <1 | 11 | <5 | <5 | 63 | 0.7 | 34 | 0.54 | 25 | 3.8 | 0.8 | 15 | 3.1 | 22 | 2.8 |
| 1631 G-158 | <5 | <4 | <1 | 10 | <5 | <5 | 72 | 0.8 | 39 | 0.53 | 32 | 4.2 | <0.5 | 17 | 3.3 | 23 | 3.7 |
| 1632 G-159 | <5 | <4 | 2 | 9 | <5 | <5 | 69 | 0.6 | 38 | 0.5 | 28 | 4.2 | 0.7 | 16 | 3.3 | 20 | 3.2 |
| 1633 G-160 | 19 | 24 | 11 | 93 | <8 | 0 | 1300 | 1.5 | 660 | 10.3 | 570 | 92 | 15 | 590 | 55 | 497 | 6.6 |
| 1634 G-161 | 9 | <4 | 6 | 43 | <5 | 0 | 860 | 1 | 480 | 1 | 360 | 48 | 4 | 390 | 26 | 93 | 3.4 |
| 1635 G-163 | <5 | <5 | 5 | 48 | 9 | 0 | 1500 | 1.1 | 870 | 2.21 | 600 | 82 | 9.3 | 810 | 62 | 149 | 4.8 |
| 1636 G-164 | <5 | <4 | 11 | 89 | <6 | 0 | 880 | 1.2 | 470 | 4.76 | 390 | 61 | 9.8 | 680 | 66 | 305 | 4.6 |
| 1637 G-165 | 11 | <4 | 7 | 55 | <5 | 0 | 580 | 0.6 | 300 | 3.29 | 250 | 40 | 6 | 240 | 21 | 197 | 2.6 |
| 1638 G-166 | 18 | 35 | 10 | 84 | 9 | 0 | 1200 | 1.6 | 770 | 5.39 | 460 | 84 | 13 | 1500 | 150 | 328 | 7.3 |
| 1639 G-167 | 13 | <4 | 3 | 26 | <5 | 0 | 680 | 0.8 | 430 | 1.28 | 230 | 38 | 5.9 | 360 | 28 | 114 | 3.3 |
| 1640 G-168 | 13 | 33 | 9 | 61 | 8 | 0 | 1300 | <0.2 | 880 | 3.24 | 430 | 83 | 9.3 | 840 | 64 | 239 | 4.3 |
| 1641 H-001 | 9 | <4 | <1 | 7 | <5 | <5 | 31 | 0.5 | 18 | 0.27 | 13 | 2.2 | <0.5 | 12 | 1.4 | 12 | 2.1 |
| 1642 H-002 | <5 | <4 | <1 | 12 | 8 | <5 | 57 | 0.8 | 31 | 0.35 | 25 | 3.6 | <0.5 | 15 | 2.9 | 17 | 2.8 |
| 1643 H-003 | <5 | <4 | <1 | 7 | <5 | <5 | 30 | 0.4 | 18 | 0.3 | 8 | 2.2 | <0.5 | 8.5 | 2.1 | 12 | 2.2 |
| 1644 H-004 | <5 | <4 | <1 | 10 | <5 | <5 | 36 | 0.6 | 22 | 0.31 | 19 | 2.7 | <0.5 | 10 | 1.4 | 16 | 2.4 |
| 1645 H-005 | <5 | <4 | <1 | 9 | <5 | <5 | 37 | 0.6 | 21 | 0.34 | 17 | 2.5 | <0.5 | 11 | 2.7 | 13 | 2.3 |
| 1646 H-006 | <5 | <4 | <1 | 7 | 5 | <5 | 28 | 0.5 | 17 | 0.27 | 10 | 2 | 0.8 | 8 | 2 | 15 | 1.9 |
| 1647 H-007 | 59 | <4 | <1 | 8 | <5 | <5 | 37 | 0.5 | 20 | 0.34 | 14 | 2.5 | <0.5 | 10 | 1.5 | 14 | 2 |
| 1648 H-008 | <5 | 4 | <1 | 8 | <5 | <5 | 39 | 0.5 | 17 | 0.3 | 12 | 2.2 | <0.5 | 8.5 | 1.6 | 11 | 2.4 |
| 1649 H-009 | <5 | <4 | <1 | 6 | <5 | <5 | 24 | 0.4 | 15 | 0.29 | 10 | 1.8 | <0.5 | 6.9 | 1 | 12 | 2.5 |
| 1650 H-010 | <5 | <4 | <1 | 7 | <5 | <5 | 33 | 0.5 | 18 | 0.29 | 15 | 2.3 | <0.5 | 8.5 | 1.5 | 14 | 2.2 |
| 1651 H-011 | <5 | <4 | <1 | 9 | <5 | <5 | 40 | 0.7 | 21 | 0.31 | 18 | 2.6 | <0.5 | 10 | 2.6 | 16 | 3.3 |
| 1652 H-012 | <5 | <4 | <1 | 5 | <5 | <5 | 24 | 0.4 | 15 | 0.24 | 9 | 1.8 | <0.5 | 7.6 | 1.3 | 10 | 2 |
| 1653 H-013 | <5 | <4 | <1 | 7 | <5 | <5 | 28 | 0.6 | 16 | 0.29 | 10 | 2.1 | 0.6 | 8.4 | 1.4 | 13 | 2.3 |
| 1654 H-014 | <5 | <4 | <1 | 7 | <5 | <5 | 31 | 0.5 | 17 | 0.08 | 14 | 2.1 | <0.5 | 7.5 | 0.9 | 12 | 3.2 |
| 1655 H-015 | <5 | <4 | <1 | 9 | <5 | <5 | 42 | 0.6 | 23 | 0.31 | 17 | 2.8 | <0.5 | 10 | 1 | 16 | 4 |
| 1656 H-016 | <5 | <4 | <1 | 7 | <5 | <5 | 29 | 0.5 | 18 | 0.31 | 14 | 2.2 | <0.5 | 8.7 | 2.4 | 14 | 2.5 |
| 1657 H-017 | <5 | <4 | <1 | 7 | <5 | <5 | 23 | 0.3 | 13 | 0.27 | 9 | 1.6 | <0.5 | 6.6 | 1.5 | 11 | 1.9 |
| 1658 H-018 | 252 | 39 | 28 | 52 | <5 | 0 | 45 | 0.4 | 22 | 0.43 | 23 | 3.3 | <0.5 | 17 | 4.9 | 36 | 4.1 |
| 1659 H-019 | 9 | <4 | 2 | 16 | <5 | <5 | 53 | 0.8 | 31 | 0.46 | 21 | 3.6 | 0.6 | 15 | 2.4 | 23 | 2.1 |
| 1660 H-020 | <5 | <4 | 1 | 12 | <5 | 0 | 75 | 0.9 | 42 | 0.47 | 34 | 4.4 | 1 | 20 | 4.1 | 22 | 1.7 |
| 1661 H-021 | <5 | <4 | <1 | 10 | <5 | <5 | 38 | 0.5 | 22 | 0.23 | 18 | 2.5 | <0.5 | 12 | 1.8 | 11 | 2 |
| 1662 H-022 | <5 | <4 | <1 | | | | | | | | | | | | | | |

Appendix 8 Chemical analysis data of stream sediments

(16)

| Element | SN | Y | TA | NB | AO | HO | CR | BU | LA | LU | NO | SH | TB | TH | U | Y | SC |
|------------|-----|-----|-----|-----|-----|-----|-----|------|-----|------|-----|-----|------|-----|------|-----|-----|
| Units | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH | PPH |
| 1694 H-054 | <5 | <4 | <1 | 10 | <5 | <5 | 40 | 0.4 | 21 | 0.32 | 17 | 2.3 | <0.5 | 11 | 1.6 | 15 | 2 |
| 1695 H-055 | <5 | <4 | <1 | 7 | <5 | <5 | 46 | 0.4 | 25 | 0.28 | 14 | 2.8 | <0.5 | 10 | 1.7 | 15 | 1.8 |
| 1696 H-056 | <5 | <4 | <1 | 7 | <5 | <5 | 35 | 0.4 | 19 | 0.28 | 12 | 2.1 | <0.5 | 7.7 | 1.6 | 12 | 1.1 |
| 1697 H-057 | <5 | <4 | <1 | 7 | <5 | <5 | 60 | 0.5 | 33 | 0.32 | 26 | 3.5 | <0.5 | 15 | 2.1 | 16 | 1.3 |
| 1698 H-058 | <5 | <4 | <1 | 5 | <5 | <5 | 18 | 0.2 | 9 | 0.15 | 6 | 1 | <0.5 | 3.8 | 0.7 | 8 | 1.1 |
| 1699 H-059 | <5 | <4 | <1 | 7 | <5 | <5 | 38 | 0.4 | 21 | 0.27 | 15 | 2.3 | <0.5 | 9.3 | 1 | 14 | 2 |
| 1700 H-060 | <5 | <4 | <1 | 9 | <5 | <5 | 62 | 0.5 | 27 | 0.31 | 20 | 2.9 | <0.5 | 12 | 1.7 | 15 | 2.2 |
| 1701 H-061 | <5 | <4 | <1 | 14 | <5 | <5 | 37 | 0.5 | 19 | 0.35 | 17 | 2.3 | 0.5 | 9.2 | 2.2 | 18 | 1.8 |
| 1702 H-062 | <5 | <4 | <1 | 2 | <5 | <5 | 38 | 0.5 | 21 | 0.53 | 18 | 2.4 | <0.5 | 11 | 2.6 | 22 | 3.1 |
| 1703 H-063 | 668 | 28 | 20 | 68 | <5 | 0 | 750 | 1.3 | 420 | 1.3 | 350 | 51 | 8.9 | 240 | 69 | 433 | 5.2 |
| 1704 H-064 | 10 | <4 | 2 | 11 | <5 | 0 | 80 | 0.8 | 40 | 0.94 | 31 | 4.6 | 1.2 | 17 | 5.2 | 24 | 4.3 |
| 1705 H-065 | 19 | 8 | 3 | 21 | <5 | 0 | 84 | 0.7 | 47 | 1.27 | 35 | 5.5 | 1.2 | 22 | 6.4 | 50 | 2.3 |
| 1706 H-066 | <5 | <4 | <1 | 13 | <5 | <5 | 48 | 0.7 | 24 | 0.48 | 16 | 3 | <0.5 | 12 | 2.9 | 15 | 5.8 |
| 1707 H-067 | <5 | <4 | <1 | 10 | <5 | <5 | 35 | 0.5 | 18 | 0.34 | 14 | 2.3 | <0.5 | 8.5 | 1.5 | 14 | 4.9 |
| 1708 H-068 | <5 | <4 | <1 | 9 | <5 | <5 | 37 | 0.7 | 20 | 0.4 | 15 | 2.6 | <0.5 | 8.8 | <0.5 | 11 | 4.7 |
| 1709 H-069 | <5 | <4 | <1 | 11 | <5 | <5 | 51 | 0.6 | 22 | 0.45 | 19 | 2.7 | <0.5 | 10 | 1.8 | 20 | 5.4 |
| 1710 H-070 | <5 | <4 | <1 | 11 | <5 | <5 | 43 | 0.7 | 21 | 0.48 | 19 | 2.6 | <0.5 | 9.8 | 1.7 | 18 | 5.5 |
| 1711 H-071 | <5 | <4 | <1 | 13 | <5 | <5 | 54 | 0.8 | 25 | 0.48 | 25 | 3.2 | <0.5 | 11 | 2 | 22 | 6.5 |
| 1712 H-072 | <5 | <4 | <1 | 7 | <5 | <5 | 13 | 0.3 | 8 | 0.23 | 9 | 1 | <0.5 | 3.9 | 1.1 | 6 | 1.6 |
| 1713 H-073 | <5 | <4 | <1 | 8 | <5 | <5 | 24 | 0.5 | 12 | 0.31 | 13 | 1.6 | <0.5 | 5.1 | 1 | 12 | 3.1 |
| 1714 H-074 | <5 | <4 | <1 | 7 | <5 | <5 | 22 | 0.4 | 9 | 0.31 | 6 | 1.3 | <0.5 | 5.3 | 1 | 11 | 2.8 |
| 1715 H-075 | <5 | <4 | <1 | 11 | <5 | <5 | 28 | 0.4 | 12 | 0.33 | 10 | 1.7 | <0.5 | 5.3 | 1.3 | 13 | 3.3 |
| 1716 H-076 | <5 | 6 | <1 | 12 | <5 | <5 | 39 | 0.7 | 20 | 0.35 | 17 | 2.3 | 0.6 | 8.2 | 2.3 | 12 | 3.8 |
| 1717 H-077 | <5 | <4 | <1 | 9 | <5 | <5 | 43 | 0.6 | 23 | 0.34 | 19 | 2.7 | <0.5 | 9.2 | 1.8 | 13 | 2.9 |
| 1718 H-078 | <5 | <4 | <1 | 9 | <5 | <5 | 37 | 0.5 | 18 | 0.31 | 17 | 2.2 | <0.5 | 6.9 | 1.1 | 11 | 1.9 |
| 1719 H-079 | <5 | <4 | <1 | 10 | <5 | 5 | 42 | 0.5 | 21 | 0.55 | 14 | 2.4 | 0.6 | 9.9 | 2.4 | 16 | 1.8 |
| 1720 H-080 | <5 | <4 | <1 | 7 | <5 | <5 | 12 | <0.2 | 6 | 0.17 | 7 | 0.8 | <0.5 | 3 | 0.8 | 2 | 0.9 |
| 1721 H-081 | <5 | <4 | <1 | 6 | <5 | <5 | 35 | 0.4 | 18 | 0.31 | 16 | 2 | <0.5 | 7.7 | 1.6 | 11 | 1.1 |
| 1722 H-082 | <5 | <4 | <1 | 9 | <5 | <5 | 44 | 0.6 | 23 | 0.38 | 15 | 2.7 | 0.5 | 10 | 2.3 | 14 | 3 |
| 1723 H-083 | <5 | <4 | <1 | 12 | <5 | <5 | 90 | 1 | 48 | 0.62 | 38 | 5.6 | <0.5 | 19 | 2.3 | 26 | 6.6 |
| 1724 H-084 | <5 | <4 | <1 | 11 | <5 | 0 | 59 | 0.6 | 32 | 0.61 | 28 | 3.6 | 0.6 | 15 | 3 | 24 | 2.3 |
| 1725 H-085 | <5 | <4 | <1 | 10 | <5 | <5 | 53 | 0.5 | 27 | 0.4 | 21 | 3.2 | 0.6 | 13 | 2.4 | 17 | 3.4 |
| 1726 H-086 | <5 | <4 | <1 | 11 | <5 | <5 | 63 | 0.6 | 34 | 0.47 | 25 | 3.7 | 0.8 | 16 | 2.9 | 19 | 3.3 |
| 1727 H-087 | <5 | <4 | <1 | 10 | <5 | <5 | 45 | 0.6 | 24 | 0.32 | 19 | 2.8 | <0.5 | 11 | 1.2 | 15 | 2.5 |
| 1728 H-088 | <5 | <4 | <1 | 8 | <5 | <5 | 37 | 0.5 | 20 | 0.27 | 21 | 2.3 | <0.5 | 10 | 0.9 | 15 | 2 |
| 1729 H-089 | <5 | <4 | <1 | 9 | <5 | <5 | 44 | 0.5 | 22 | 0.39 | 15 | 2.7 | <0.5 | 11 | 2 | 14 | 3.6 |
| 1730 H-090 | <5 | <4 | <1 | 10 | <5 | <5 | 46 | 0.6 | 25 | 0.35 | 14 | 2.9 | <0.5 | 11 | 1.2 | 15 | 3.7 |
| 1731 H-091 | 130 | 11 | 9 | 34 | <5 | 7 | 140 | 0.4 | 72 | 1.28 | 57 | 9.8 | 1.9 | 54 | 11 | 79 | 3.3 |
| 1732 H-092 | <5 | <4 | <1 | 9 | <5 | <5 | 52 | 0.5 | 28 | 0.35 | 28 | 3.1 | 0.6 | 14 | <0.5 | 17 | 2.3 |
| 1733 H-093 | 393 | 22 | 22 | 37 | <5 | 0 | 110 | 1 | 59 | 1.53 | 48 | 9 | 2 | 38 | 16 | 73 | 5 |
| 1734 H-094 | 37 | <4 | 4 | 12 | <5 | 0 | 26 | <0.2 | 14 | 0.4 | 9 | 2.1 | 0.6 | 9.7 | 5.4 | 18 | 2.3 |
| 1735 H-095 | <5 | <4 | <1 | 7 | <5 | <5 | 43 | 0.7 | 24 | 0.35 | 17 | 3 | <0.5 | 12 | 2.3 | 14 | 2.4 |
| 1736 H-096 | <5 | <4 | <1 | 9 | <5 | <5 | 44 | 0.6 | 21 | 0.29 | 18 | 2.8 | <0.5 | 9.4 | 1.6 | 10 | 3.3 |
| 1737 H-097 | <5 | <4 | <1 | 8 | <5 | <5 | 47 | 0.5 | 25 | 0.38 | 19 | 2.9 | <0.5 | 14 | 2.1 | 12 | 2.6 |
| 1738 H-098 | <5 | <4 | <1 | 8 | <5 | <5 | 44 | 0.6 | 26 | 0.34 | 18 | 3 | <0.5 | 13 | 1.6 | 14 | 1.8 |
| 1739 H-099 | <5 | <4 | <1 | 8 | <5 | <5 | 62 | 0.9 | 35 | 0.44 | 28 | 4.1 | <0.5 | 19 | 3.8 | 14 | 1.6 |
| 1740 H-100 | 249 | 14 | 12 | 28 | <5 | 0 | 110 | 1.2 | 57 | 1.25 | 50 | 8.8 | 1.8 | 37 | 16 | 71 | 4.7 |
| 1741 H-101 | <5 | <4 | <1 | 8 | <5 | <5 | 52 | 0.8 | 30 | 0.34 | 22 | 3.6 | <0.5 | 14 | 1.9 | 16 | 2.1 |
| 1742 H-102 | <5 | <4 | <1 | 9 | <5 | <5 | 40 | 0.7 | 25 | 0.36 | 18 | 2.9 | <0.5 | 11 | 1.5 | 12 | 2.6 |
| 1743 H-103 | <5 | <4 | <1 | 9 | <5 | <5 | 31 | 0.5 | 17 | 0.26 | 13 | 2 | <0.5 | 9 | 2.2 | 11 | 1.5 |
| 1744 H-104 | <5 | <4 | <1 | 7 | <5 | 6 | 39 | 0.6 | 23 | 0.32 | 19 | 2.6 | <0.5 | 12 | 1.2 | 12 | 1.2 |
| 1745 H-105 | <5 | <4 | <1 | 10 | <5 | <5 | 57 | 0.7 | 30 | 0.38 | 20 | 3.6 | <0.5 | 14 | 2.6 | 15 | 3.2 |
| 1746 H-106 | <5 | <4 | <1 | 9 | <5 | 0 | 130 | 1.5 | 78 | 1 | 52 | 9 | 1.8 | 39 | 6.8 | 45 | 2.5 |
| 1747 H-107 | <5 | <4 | <1 | 10 | <5 | <5 | 38 | 0.6 | 19 | 0.38 | 14 | 2.4 | <0.5 | 10 | 2.1 | 12 | 2.3 |
| 1748 H-108 | <5 | <4 | <1 | 10 | <5 | <5 | 36 | 0.4 | 19 | 0.35 | 10 | 2.1 | <0.5 | 11 | 2 | 10 | 1.5 |
| 1749 H-109 | <5 | <4 | <1 | 14 | <5 | <5 | 50 | 0.8 | 28 | 0.46 | 18 | 3.4 | <0.5 | 15 | 2.8 | 15 | 1.7 |
| 1750 H-110 | 9 | 19 | 6 | 44 | <5 | 0 | 180 | 1.3 | 97 | 3.96 | 76 | 14 | 3.6 | 73 | 25 | 186 | 4.9 |
| 1751 H-111 | 6 | 6 | 4 | 27 | <5 | 0 | 57 | 0.7 | 31 | 1.52 | 22 | 4.9 | 1.5 | 24 | 10 | 68 | 3.7 |
| 1752 H-112 | 15 | 16 | 5 | 35 | <5 | 0 | 160 | 0.7 | 92 | 1.9 | 70 | 13 | 2.6 | 64 | 15 | 92 | 4.3 |
| 1753 H-113 | 19 | 18 | 4 | 34 | <5 | 0 | 100 | 0.9 | 48 | 3.02 | 41 | 7.7 | 2.8 | 61 | 16 | 144 | 6.7 |
| 1754 H-114 | 14 | 23 | 4 | 28 | <5 | 0 | 200 | 0.9 | 110 | 2.64 | 85 | 16 | 3.1 | 95 | 20 | 140 | 4.3 |
| 1755 H-115 | 13 | 9 | 4 | 24 | <5 | 0 | 59 | 0.8 | 28 | 1.66 | 23 | 4.6 | 1.6 | 27 | 10 | 78 | 3.8 |
| 1756 H-116 | 20 | <4 | 9 | 41 | <5 | 0 | 46 | 0.5 | 19 | 2.45 | 13 | 5.3 | 2.7 | 18 | 7.7 | 135 | 4.4 |
| 1757 H-117 | 7 | 9 | 3 | 20 | <5 | 0 | 52 | 0.5 | 27 | 1 | 22 | 3.9 | <0.5 | 26 | 8.1 | 49 | 3.2 |
| 1758 H-118 | 11 | <4 | 4 | 30 | <5 | 0 | 55 | 0.9 | 26 | 1.57 | 15 | 4.2 | 1.9 | 22 | 16 | 62 | 4.5 |
| 1759 H-119 | <5 | <4 | <1 | 17 | <5 | 6 | 44 | 0.8 | 23 | 0.56 | 20 | 3.4 | <0.5 | 12 | 2.9 | 26 | 5.3 |
| 1760 H-120 | <5 | <4 | <1 | 18 | <5 | 0 | 55 | 0.9 | 29 | 0.84 | 22 | 4.2 | 1 | 21 | 7 | 32 | 3.8 |
| 1761 H-121 | 11 | <4 | 6 | 35 | <5 | 0 | 72 | 1 | 31 | 1.83 | 19 | 5 | 1.8 | 36 | 20 | 67 | 8.4 |
| 1762 H-122 | 22 | <4 | 8 | 45 | <5 | 0 | 65 | 0.9 | 29 | 2.08 | 22 | 4.9 | 0.9 | 40 | 20 | 83 | 8.1 |
| 1763 H-123 | <5 | <4 | 2 | 14 | <5 | 0 | 55 | 1 | 28 | 0.61 | 18 | 3.7 | 0.9 | 15 | 4.5 | 25 | 5.4 |
| 1764 H-124 | <5 | <4 | <1 | 8 | <5 | <5 | 32 | 0.5 | 20 | 0.27 | 15 | 2.3 | <0.5 | 8.3 | 1.8 | 10 | 2.5 |
| 1765 H-125 | <5 | <4 | <1 | 7 | <5 | <5 | 42 | 0.8 | 23 | 0.31 | 13 | 2.6 | <0.5 | 11 | 2.8 | 12 | 2 |
| 1766 H-126 | <5 | <4 | <1 | 9 | <5 | <5 | 40 | 0.8 | 24 | 0.31 | 17 | 2.8 | <0.5 | 14 | 2.5 | 11 | 1.3 |
| 1767 H-127 | <5 | <4 | <1 | 7 | <5 | <5 | 27 | 0.7 | 15 | 0.25 | 10 | 1.8 | <0.5 | 7.6 | 1.8 | 8 | 2.4 |
| 1768 H-128 | <5 | <4 | <1 | 5 | <5 | <5 | 28 | 0.6 | 15 | 0.27 | 10 | 1.8 | <0.5 | 7.3 | 1.2 | 8 | 1.4 |
| 1769 H-129 | <5 | <4 | <1 | 6 | <5 | <5 | 34 | <0.2 | 21 | 0.28 | <5 | 2.5 | <0.5 | 11 | 1.6 | 10 | 1.4 |
| 1770 H-130 | <5 | <4 | <1 | 10 | <5 | <5 | 72 | 0.8 | 41 | 0.54 | 27 | 4.6 | <0.5 | 19 | 3.4 | 22 | 3.1 |
| 1771 H-131 | <5 | <4 | <1 | 6 | <5 | <5 | 44 | 0.7 | 22 | 0.29 | 19 | 2.5 | 0.8 | 9.9 | <0.5 | 12 | 3 |
| 1772 H-132 | <5 | <4 | <1 | 5 | <5 | <5 | 32 | 0.5 | 17 | 0.21 | 15 | 2 | <0.5 | 6.8 | 1.4 | 7 | 2 |
| 1773 H-133 | <5 | <4 | <1 | 6 | <5 | <5 | 46 | 0.7 | 25 | 0.35 | 12 | 2.8 | <0.5 | 11 | 1.7 | 13 | 2.3 |
| 1774 H-134 | <5 | <4 | <1 | 7 | <5 | 0 | 58 | 0.9 | 31 | 0.37 | 21 | 3.6 | 0.7 | 15 | 3.7 | 17 | |

Appendix 8 Chemical analysis data of stream sediments

(17)

| Element | SH | N | TA | NB | AU | HO | CR | BU | LA | LU | NO | SH | TB | TH | U | Y | SC |
|------------|------|-----|-----|-----|-----|-----|-----|------|-----|------|-----|------|------|-----|------|-----|-----|
| Units | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM |
| 1807 W-167 | <5 | <4 | <1 | 8 | <5 | <5 | 22 | 0.4 | 12 | 0.25 | 12 | 1.3 | <0.5 | 5.9 | 1.5 | 9 | 1.5 |
| 1808 W-168 | <5 | <4 | <1 | 15 | <5 | <5 | 57 | 1 | 34 | 0.46 | 26 | 4.5 | 1 | 14 | 2.6 | 21 | 8.4 |
| 1809 W-169 | <5 | <4 | <1 | 7 | <5 | 5 | 29 | 0.5 | 17 | 0.22 | 16 | 2.2 | <0.5 | 8.7 | <0.5 | 11 | 2.7 |
| 1810 W-170 | <5 | <4 | <1 | 7 | <5 | <5 | 35 | 0.5 | 18 | 0.31 | 15 | 2.3 | <0.5 | 9.4 | <0.5 | 10 | 2.9 |
| 1811 W-171 | <5 | <4 | <1 | 6 | <5 | <5 | 26 | 0.4 | 15 | 0.29 | 12 | 1.8 | <0.5 | 7 | 1.5 | 11 | 1.6 |
| 1812 W-172 | <5 | <4 | <1 | 6 | <5 | <5 | 27 | 0.4 | 16 | 0.19 | 10 | 1.8 | <0.5 | 7.6 | 1.1 | 9 | 2.2 |
| 1813 W-173 | <5 | <4 | <1 | 10 | <5 | <5 | 39 | 0.6 | 20 | 0.21 | 13 | 2.4 | <0.5 | 9.2 | 2 | 13 | 3.8 |
| 1814 W-174 | <5 | <4 | 1 | 7 | 6 | <5 | 36 | 0.5 | 20 | 0.31 | 21 | 2.5 | <0.5 | 10 | 1.8 | 10 | 3.7 |
| 1815 W-175 | <5 | <4 | <1 | 9 | <5 | <5 | 33 | 0.7 | 18 | 0.35 | 10 | 2.3 | 0.5 | 10 | 2.1 | 14 | 2 |
| 1816 W-176 | <5 | <4 | <1 | 10 | <5 | <5 | 36 | 0.5 | 18 | 0.3 | 19 | 2.1 | <0.5 | 9.6 | 1.3 | 13 | 2.7 |
| 1817 W-177 | <5 | <4 | <1 | 9 | <5 | <5 | 44 | 0.6 | 24 | 0.36 | 20 | 3 | <0.5 | 12 | 1.9 | 14 | 5 |
| 1818 W-178 | <5 | <4 | <1 | 11 | <5 | 0 | 34 | <0.2 | 18 | 0.35 | 12 | 2.2 | <0.5 | 10 | 2.8 | 13 | 3.5 |
| 1819 W-179 | <5 | <4 | <1 | 8 | <5 | <5 | 22 | <0.2 | 10 | 0.28 | 9 | 1.3 | <0.5 | 7.4 | 1.6 | 10 | 1.4 |
| 1820 W-180 | <5 | <4 | <1 | 6 | 7 | <5 | 16 | <0.2 | 9 | 0.09 | 5 | 1.1 | <0.5 | 5.6 | 1 | 5 | 2.1 |
| 1821 W-181 | <5 | <4 | <1 | 9 | <5 | 6 | 35 | 0.5 | 18 | 0.29 | 11 | 2.3 | <0.5 | 8.8 | 1.3 | 13 | 2.9 |
| 1822 W-182 | <5 | <4 | <1 | 9 | <5 | <5 | 32 | 0.5 | 18 | 0.31 | 9 | 2.2 | <0.5 | 9.5 | 1.8 | 11 | 2.1 |
| 1823 W-183 | <5 | <4 | <1 | 11 | <5 | <5 | 33 | 0.5 | 17 | 0.36 | 9 | 2.1 | <0.5 | 8.8 | 1.9 | 12 | 2.5 |
| 1824 W-184 | <5 | <4 | <1 | 11 | <5 | <5 | 49 | 0.8 | 26 | 0.5 | 20 | 3.5 | <0.5 | 15 | 1.9 | 21 | 2.9 |
| 1825 W-185 | <5 | <4 | <1 | 11 | <5 | <5 | 36 | 0.8 | 19 | 0.44 | 15 | 2.3 | <0.5 | 9.6 | 2.1 | 19 | 2.3 |
| 1826 W-186 | <5 | <4 | 1 | 10 | <5 | <5 | 31 | 0.6 | 17 | 0.35 | 21 | 2 | <0.5 | 9.6 | 2.3 | 16 | 2.5 |
| 1827 W-187 | 9 | 9 | 6 | 32 | <5 | 0 | 160 | 1 | 85 | 2.35 | 60 | 13 | 3.2 | 140 | 22 | 114 | 4.3 |
| 1828 W-188 | 29 | <4 | 7 | 25 | <5 | 0 | 140 | <0.2 | 66 | 1.91 | 51 | 9 | 1.8 | 60 | 7.8 | 35 | 1.9 |
| 1829 W-189 | 43 | <4 | 6 | 17 | <5 | <5 | 88 | <0.2 | 43 | 1.3 | 36 | 5.9 | 1.3 | 41 | 6 | 63 | 2 |
| 1830 W-190 | 55 | 25 | 15 | 128 | 32 | 9 | 610 | 1.1 | 330 | 2.77 | 250 | 40 | 6.2 | 600 | 63 | 178 | 12 |
| 1831 W-191 | 6 | 6 | 5 | 32 | 10 | 0 | 150 | <0.2 | 71 | 1.51 | 48 | 9.6 | <0.5 | 120 | 17 | 69 | 4.6 |
| 1832 K-001 | 12 | <4 | <1 | 22 | <5 | 0 | 350 | 1.2 | 190 | 2.54 | 120 | 22 | 3.4 | 120 | 28 | 112 | 4.3 |
| 1833 K-002 | 8 | 6 | <1 | 13 | 6 | <5 | 62 | 0.7 | 31 | 0.41 | 20 | 3.6 | <0.5 | 16 | 4.1 | 23 | 4.7 |
| 1834 K-003 | 87 | 7 | <4 | 16 | <5 | <5 | 97 | 0.8 | 38 | 0.64 | 31 | 4.9 | 1 | 25 | 5.1 | 31 | 5.3 |
| 1835 K-004 | <5 | <4 | <1 | 11 | <5 | <5 | 44 | 0.5 | 22 | 0.41 | 24 | 2.6 | <0.5 | 11 | 1.3 | 14 | 3.4 |
| 1836 K-005 | <5 | <4 | <1 | 9 | <5 | <5 | 43 | 0.6 | 21 | 0.22 | 25 | 2.4 | <0.5 | 8.6 | 2.3 | 10 | 3.4 |
| 1837 K-006 | <5 | 5 | <1 | 10 | <5 | <5 | 40 | 0.5 | 20 | 0.4 | 13 | 2.5 | <0.5 | 9.3 | 2.3 | 15 | 3.8 |
| 1838 K-007 | <5 | <4 | 1 | 12 | <5 | <5 | 66 | 0.8 | 28 | 0.52 | 24 | 3.3 | <0.5 | 13 | 3.6 | 20 | 4.4 |
| 1839 K-008 | <5 | <4 | 1 | 11 | <5 | <5 | 48 | 0.5 | 24 | 0.38 | 27 | 2.6 | <0.5 | 11 | 1.9 | 19 | 4.4 |
| 1840 K-009 | <5 | <4 | 2 | 13 | <5 | <5 | 42 | 0.7 | 21 | 0.26 | 17 | 2.6 | <0.5 | 11 | 2.2 | 19 | 5.5 |
| 1841 K-010 | <5 | <4 | <1 | 11 | <5 | <5 | 49 | 0.6 | 27 | 0.34 | 21 | 3.2 | <0.5 | 12 | 1.7 | 18 | 5.5 |
| 1842 K-011 | <5 | <4 | 1 | 12 | <5 | 7 | 54 | 0.6 | 28 | 0.28 | 24 | 3.3 | <0.5 | 12 | 1.6 | 19 | 4.5 |
| 1843 K-012 | <5 | <4 | <1 | 12 | <5 | <5 | 53 | 0.7 | 25 | 0.44 | 21 | 3.2 | <0.5 | 13 | 3 | 21 | 3.5 |
| 1844 K-013 | 20 | <4 | <1 | 11 | <5 | 8 | 52 | 0.7 | 29 | 0.32 | 23 | 3.4 | <0.5 | 12 | <0.6 | 18 | 2.7 |
| 1845 K-014 | 421 | <4 | 4 | 15 | <5 | <5 | 47 | 2 | 68 | 0.41 | 77 | 10 | 1.2 | 11 | 1.9 | 31 | 5.6 |
| 1846 K-015 | <5 | <4 | 2 | 8 | <5 | <5 | 39 | 0.5 | 19 | 0.27 | 9 | 2.1 | 0.5 | 8.6 | 1.7 | 17 | 1.4 |
| 1847 K-016 | <5 | <4 | <1 | 9 | <5 | <5 | 42 | 0.5 | 22 | 0.41 | 22 | 2.5 | <0.5 | 11 | 1.6 | 17 | 1.9 |
| 1848 K-017 | <5 | <4 | <1 | 14 | <5 | <5 | 47 | 0.1 | 25 | 0.28 | 23 | 2.9 | <0.5 | 11 | 2.6 | 17 | 2.3 |
| 1849 K-018 | <5 | <4 | 1 | 13 | <5 | <5 | 53 | 0.8 | 30 | 0.46 | 19 | 3.5 | <0.5 | 11 | 1.7 | 16 | 3.6 |
| 1850 K-019 | <5 | <4 | <1 | 11 | <5 | <5 | 36 | 0.4 | 19 | 0.34 | 17 | <0.2 | <0.5 | 8 | 1.5 | 15 | 2 |
| 1851 K-020 | <5 | <4 | <1 | 12 | <5 | <5 | 33 | 0.5 | 19 | 0.24 | 22 | 2.3 | <0.5 | 8.9 | 1.5 | 14 | 1.9 |
| 1852 K-021 | <5 | <4 | <1 | 11 | 8 | <5 | 40 | 0.5 | 21 | 0.34 | 14 | 2.4 | 0.6 | 10 | 1.7 | 13 | 2.2 |
| 1853 K-022 | <5 | <4 | <1 | 12 | 6 | 7 | 34 | 0.5 | 20 | 0.23 | 17 | 2.3 | <0.5 | 8.7 | 1.2 | 14 | 2.8 |
| 1854 K-023 | <5 | 40 | 9 | 11 | <5 | 0 | 50 | 0.5 | 40 | 0.54 | 24 | 3 | <0.5 | 18 | 8 | 14 | 2.8 |
| 1855 K-024 | <5 | <4 | <1 | 12 | <5 | <5 | 53 | 0.7 | 29 | 0.4 | 24 | 3.4 | <0.5 | 13 | 2.2 | 17 | 3.7 |
| 1856 K-025 | <5 | <4 | <1 | 11 | <5 | <5 | 35 | 0.4 | 20 | 0.36 | 14 | 2.2 | <0.5 | 8.9 | 1.4 | 10 | 1.5 |
| 1857 K-026 | <5 | <4 | <1 | 10 | <5 | <5 | 33 | 0.4 | 18 | 0.28 | 9 | 2 | <0.5 | 8.2 | 0.9 | 11 | 1.1 |
| 1858 K-027 | <5 | <4 | 1 | 17 | <5 | 0 | 91 | 0.7 | 54 | 0.73 | 43 | 6 | <0.5 | 25 | 4.4 | 32 | 2.2 |
| 1859 K-028 | <5 | <4 | 1 | 15 | <5 | <5 | 69 | 0.7 | 39 | 0.53 | 31 | 4.1 | 1 | 17 | 3.4 | 23 | 1.9 |
| 1860 K-029 | <5 | <4 | <1 | 12 | <5 | <5 | 43 | 0.5 | 23 | 0.34 | 13 | 2.3 | <0.5 | 11 | 2.4 | 12 | 2.6 |
| 1861 K-030 | <5 | <4 | <1 | 12 | <5 | <5 | 36 | 0.4 | 18 | 0.26 | 17 | 2.1 | 0.6 | 8.4 | 1.2 | 14 | 2 |
| 1862 K-031 | <5 | <4 | 1 | 13 | <5 | <5 | 37 | 0.5 | 22 | 0.35 | 14 | 2.4 | 0.7 | 9.4 | 2 | 13 | 2.5 |
| 1863 K-032 | <5 | <4 | 1 | 13 | <5 | 6 | 39 | 0.6 | 21 | 0.25 | 18 | 2.5 | <0.5 | 9 | 1.8 | 13 | 3.3 |
| 1864 K-033 | <5 | <4 | <1 | 15 | <5 | <5 | 44 | 0.6 | 23 | 0.4 | 14 | 2.5 | <0.5 | 9.5 | 2 | 13 | 3.2 |
| 1865 K-034 | <5 | <4 | <1 | 14 | <5 | <5 | 29 | 0.4 | 17 | 0.1 | 12 | 1.8 | <0.5 | 7.2 | 0.8 | 9 | 3.6 |
| 1866 K-035 | 75 | 10 | 5 | 29 | <5 | 0 | 109 | 0.7 | 50 | 1.19 | 36 | 6.6 | 1.1 | 37 | 6.4 | 61 | 3.3 |
| 1867 K-036 | 1670 | 67 | 3 | 31 | <5 | 0 | 110 | 1.1 | 58 | 1.13 | 39 | 6.3 | 1.5 | 25 | 5.9 | 48 | 3.6 |
| 1868 K-037 | 338 | 16 | 3 | 36 | <5 | <5 | 90 | 0.9 | 47 | 0.87 | 28 | 5.2 | 1 | 21 | 5.5 | 37 | 3.3 |
| 1869 K-038 | 190 | 18 | 2 | 29 | <5 | 0 | 71 | 0.8 | 36 | 0.81 | 30 | 4 | 0.7 | 16 | 3.9 | 30 | 4.1 |
| 1870 K-039 | 53 | 7 | 2 | 25 | <5 | 0 | 61 | 0.6 | 31 | 0.49 | 27 | 3.4 | 0.7 | 13 | 3.9 | 31 | 2.7 |
| 1871 K-040 | 50 | 9 | 1 | 29 | <5 | 0 | 68 | 0.5 | 29 | 0.62 | 27 | 3.6 | 0.7 | 16 | 3.7 | 25 | 4.9 |
| 1872 K-041 | 12 | 6 | 2 | 23 | <5 | <5 | 48 | 0.6 | 23 | 0.58 | 17 | 2.7 | <0.5 | 12 | 3.4 | 22 | 5.3 |
| 1873 K-042 | 32 | 11 | 1 | 17 | <5 | <5 | 48 | 0.8 | 20 | 0.33 | 20 | 2.6 | <0.5 | 13 | 2 | 20 | 6.5 |
| 1874 K-043 | 82 | 9 | 7 | 37 | <5 | 0 | 240 | 0.7 | 120 | 2.85 | 95 | 16 | 3.3 | 110 | 16 | 172 | 2.8 |
| 1875 K-044 | <5 | 5 | 2 | 21 | <5 | <5 | 46 | 0.5 | 18 | 0.42 | <5 | 2.1 | <0.5 | 9.6 | 2.9 | 18 | 3.8 |
| 1876 K-045 | <5 | 5 | 1 | 18 | <5 | <5 | 34 | 0.5 | 15 | 0.4 | 10 | 1.9 | <0.5 | 8.1 | 0.5 | 10 | 2.5 |
| 1877 K-046 | <5 | <4 | <1 | 18 | <5 | <5 | 22 | 0.4 | 9 | 0.31 | 7 | 1.2 | <0.5 | 5.3 | 1.2 | 10 | 2.4 |
| 1878 K-047 | <5 | <4 | 2 | 20 | <5 | <5 | 42 | 0.5 | 16 | 0.28 | 18 | 2 | <0.5 | 9.4 | 2.4 | 14 | 4.6 |
| 1879 K-048 | 27 | 5 | 2 | 26 | <5 | <5 | 42 | 0.7 | 20 | 0.53 | 18 | 2.4 | 0.7 | 9.1 | 4.3 | 22 | 2.8 |
| 1880 K-049 | <5 | <4 | <1 | 24 | <5 | 5 | 37 | 0.6 | 16 | 0.43 | 10 | 2 | <0.5 | 8.7 | 2.7 | 20 | 3.1 |
| 1881 K-050 | 11 | <4 | 3 | 21 | <5 | 5 | 48 | 0.9 | 23 | 0.74 | 18 | 3 | 0.9 | 11 | 3.9 | 27 | 5.4 |
| 1882 K-051 | <5 | <4 | <1 | 22 | <5 | <5 | 43 | 0.6 | 18 | 0.41 | 11 | 2.2 | 0.6 | 9.1 | 2 | 15 | 4 |
| 1883 K-052 | <5 | 9 | 4 | 28 | <5 | 0 | 170 | 1.2 | 87 | 2.33 | 71 | 12 | 2.1 | 52 | 8.5 | 103 | 4.4 |
| 1884 K-053 | 14 | 5 | 2 | 20 | <5 | 0 | 120 | 0.7 | 62 | 1.47 | 53 | 8.2 | 1.4 | 36 | 7.5 | 70 | 3.8 |
| 1885 K-054 | 33 | 9 | 4 | 27 | <5 | 0 | 250 | 0.9 | 130 | 2.15 | 100 | 17 | 3.1 | 77 | 7.3 | 129 | 4.3 |
| 1886 K-055 | <5 | 7 | 3 | 25 | <5 | 0 | 190 | 0.8 | 97 | 2.44 | 68 | 13 | 3.1 | 57 | 7.3 | 124 | 3.9 |
| 1887 K-056 | <5 | 7 | 3 | 36 | <5 | 0 | 210 | 1 | 110 | 2.63 | 94 | 15 | 3.5 | 65 | 12 | 165 | 4.5 |
| 1888 K-057 | <5 | | | | | | | | | | | | | | | | |

Appendix 8 Chemical analysis data of stream sediments

(18)

| Element | SM | W | TA | NB | AU | MO | CB | BU | LA | CU | NO | SM | TB | TH | U | Y | SC |
|------------|------|-----|-----|-----|-----|-----|------|------|-----|------|-----|-----|------|-----|-----|-----|-----|
| Units | PPM | PPM | PPM | PPM | PPB | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM |
| 1920 K-089 | 43 | <4 | <1 | 19 | <5 | <5 | 59 | 0.7 | 32 | 0.41 | 24 | 3.4 | <0.5 | 13 | 1.8 | 14 | 2.1 |
| 1921 K-090 | 289 | 85 | 26 | 114 | 5 | 0 | 120 | 0.6 | 52 | 1.23 | 32 | 7.9 | 1.5 | 50 | 16 | 72 | 7.2 |
| 1922 K-091 | 80 | 27 | 16 | 64 | <5 | 0 | 76 | <0.2 | 40 | 0.75 | 29 | 5.6 | 1.3 | 40 | 16 | 54 | 4.4 |
| 1923 K-092 | 67 | 31 | 12 | 48 | <5 | 0 | 90 | 0.6 | 45 | 0.67 | 36 | 6.3 | 1.5 | 44 | 15 | 50 | 3.6 |
| 1924 K-093 | 69 | 32 | 18 | 71 | <5 | 0 | 130 | 0.9 | 67 | 1.03 | 42 | 9.5 | 2 | 64 | 23 | 72 | 4.1 |
| 1925 K-094 | 75 | 21 | 17 | 71 | <5 | 0 | 120 | <0.2 | 62 | 0.82 | 40 | 10 | 1.8 | 65 | 24 | 70 | 3.8 |
| 1926 K-095 | 73 | 21 | 15 | 69 | <5 | 0 | 110 | <0.2 | 58 | 0.8 | 42 | 8 | 2.1 | 62 | 24 | 70 | 3.9 |
| 1927 K-096 | <5 | 5 | 3 | 33 | <5 | 0 | 61 | 0.5 | 30 | 1.12 | 23 | 4.1 | 0.9 | 27 | 7.1 | 44 | 3.5 |
| 1928 K-097 | 29 | <4 | 7 | 29 | <6 | 0 | 1300 | 2.1 | 780 | 5.33 | 460 | 85 | 12 | 400 | 43 | 324 | 3.5 |
| 1929 K-098 | 20 | 14 | 5 | 38 | <5 | 0 | 200 | 0.9 | 100 | 3 | 74 | 14 | 3.3 | 75 | 22 | 169 | 3.7 |
| 1930 K-099 | 9 | 9 | 5 | 35 | 5 | 0 | 130 | 0.9 | 68 | 2.2 | 48 | 9.5 | 2.4 | 51 | 18 | 115 | 3.7 |
| 1931 K-100 | 13 | 9 | 6 | 35 | <5 | 0 | 240 | 0.8 | 130 | 2.75 | 98 | 18 | 3.4 | 86 | 17 | 173 | 3.2 |
| 1932 K-101 | 60 | 32 | 8 | 43 | <5 | 0 | 250 | <0.2 | 130 | 6.13 | 87 | 18 | 5.9 | 93 | 38 | 305 | 5 |
| 1933 K-102 | 23 | 12 | 6 | 35 | <5 | 0 | 180 | 0.9 | 88 | 2.68 | 62 | 12 | 2.3 | 63 | 18 | 153 | 3.1 |
| 1934 K-103 | 13 | 15 | 5 | 39 | <5 | 0 | 190 | <0.2 | 92 | 2.63 | 67 | 12 | 2.7 | 71 | 20 | 157 | 3.5 |
| 1935 K-104 | <5 | <4 | <1 | 13 | <5 | <5 | 47 | 0.5 | 24 | 0.34 | 16 | 2.5 | <0.5 | 11 | 2 | 15 | 1.6 |
| 1936 K-105 | <5 | <4 | <1 | 11 | <5 | 0 | 70 | 0.6 | 40 | 0.43 | 29 | 4.1 | 0.7 | 18 | 3 | 20 | 1.4 |
| 1937 K-106 | <5 | <4 | <1 | 14 | <5 | <5 | 38 | 0.5 | 20 | 0.41 | 14 | 2.1 | <0.5 | 9.2 | 1.6 | 15 | 2.4 |
| 1938 K-107 | <5 | <4 | <1 | 35 | <5 | 0 | 100 | 0.8 | 59 | 0.55 | 42 | 6.1 | 0.9 | 27 | 3.8 | 30 | 2.3 |
| 1939 K-108 | <5 | <4 | <1 | 29 | <5 | 0 | 95 | 0.8 | 52 | 0.6 | 37 | 5.4 | 0.9 | 25 | 3.9 | 22 | 1.7 |
| 1940 K-109 | <5 | <4 | <1 | 25 | <5 | <5 | 54 | 0.6 | 27 | 0.33 | 18 | 2.9 | <0.5 | 11 | 2 | 10 | 1.7 |
| 1941 K-110 | <5 | <4 | <1 | 25 | <5 | <5 | 61 | 0.6 | 34 | 0.41 | 22 | 3.5 | <0.5 | 15 | 2.2 | 13 | 1.5 |
| 1942 K-111 | <5 | <4 | <1 | 14 | <5 | <5 | 45 | 0.5 | 24 | 0.33 | 17 | 2.6 | <0.5 | 10 | 1.6 | <2 | 1.6 |
| 1943 K-112 | <5 | <4 | <1 | 12 | <5 | <5 | 26 | 0.3 | 14 | 0.21 | 12 | 1.5 | <0.5 | 6 | 1 | 4 | 1.2 |
| 1944 K-113 | <5 | <4 | <1 | 19 | <5 | 5 | 40 | 0.6 | 18 | 0.5 | 15 | 2.3 | <0.5 | 11 | 2.3 | 18 | 3.8 |
| 1945 K-114 | 16 | <4 | <1 | 23 | <5 | <5 | 38 | 0.6 | 19 | 0.5 | 12 | 2.2 | <0.5 | 8.3 | 2.6 | 17 | 3.5 |
| 1946 K-115 | <5 | <4 | <1 | 22 | <5 | <5 | 45 | 0.6 | 24 | 0.45 | 15 | 2.7 | <0.5 | 10 | 2.4 | 18 | 2.4 |
| 1947 K-116 | 6 | 6 | 3 | 30 | <5 | 0 | 99 | 0.6 | 47 | 2.16 | 34 | 6.7 | 2.4 | 36 | 11 | 133 | 3 |
| 1948 K-117 | <5 | <4 | <1 | 17 | <5 | <5 | 11 | 0.3 | 6 | 0.38 | 6 | 0.8 | <0.5 | 3.9 | 2.1 | 16 | 2.8 |
| 1949 K-118 | 9 | 16 | 6 | 19 | <5 | 0 | 91 | 0.6 | 46 | 3.55 | 45 | 6.4 | 0.9 | 74 | 62 | 81 | 5.2 |
| 1950 K-119 | 20 | 21 | 8 | 17 | 5 | 0 | 90 | <0.2 | 47 | 4.11 | 40 | 5.6 | <0.5 | 70 | 65 | 92 | 5.9 |
| 1951 K-120 | 10 | 19 | 6 | 18 | <5 | 0 | 92 | <0.2 | 43 | 3.69 | 32 | 5.3 | 1.2 | 68 | 59 | 78 | 5.4 |
| 1952 K-121 | 9 | 10 | 5 | 32 | <5 | 0 | 51 | 0.6 | 24 | 1.18 | 18 | 3.1 | 0.9 | 21 | 13 | 48 | 4.4 |
| 1953 K-122 | 14 | 13 | 7 | 16 | <5 | 0 | 210 | <0.2 | 110 | 3.84 | 79 | 14 | <0.5 | 150 | 64 | 108 | 4.9 |
| 1954 K-123 | 8 | 7 | 3 | 16 | <5 | 0 | 36 | 0.5 | 14 | 1 | 11 | 1.9 | <0.5 | 13 | 10 | 31 | 5.8 |
| 1955 K-124 | 654 | 200 | 28 | 47 | <5 | <5 | 110 | 0.9 | 56 | 0.76 | 42 | 7.2 | 1.4 | 27 | 4.3 | 40 | 3.4 |
| 1956 K-125 | 1247 | 85 | 78 | 116 | <5 | 0 | 100 | 0.5 | 48 | 0.88 | 38 | 6.9 | 1.4 | 37 | 9.3 | 67 | 4 |
| 1957 K-126 | 39 | 8 | 3 | 20 | <5 | 0 | 200 | 1.5 | 110 | 1.04 | 60 | 12 | 1.7 | 51 | 6.6 | 49 | 3.3 |
| 1958 K-127 | 388 | 140 | 21 | 37 | <5 | <5 | 69 | 0.6 | 36 | 0.56 | 23 | 4.9 | 1.2 | 17 | 3.3 | 29 | 2.9 |
| 1959 K-128 | 221 | 28 | 23 | 52 | <5 | 5 | 45 | <0.2 | 15 | 0.22 | 9 | 2.3 | <0.5 | 14 | 3.3 | 33 | 3.8 |
| 1960 K-129 | 427 | 50 | 35 | 64 | <5 | 0 | 60 | 0.4 | 27 | 0.45 | 20 | 3.9 | <0.5 | 20 | 5.8 | 36 | 4.3 |
| 1961 K-130 | 2610 | 230 | 120 | 153 | <5 | 0 | 160 | 1.2 | 82 | 1.23 | 59 | 12 | 2.4 | 55 | 14 | 68 | 3.6 |
| 1962 K-131 | 752 | 77 | 47 | 72 | <5 | 0 | 72 | 0.5 | 33 | 0.64 | 28 | 4.9 | 1.1 | 24 | 5.9 | 46 | 4.5 |
| 1963 K-132 | 510 | 35 | 36 | 62 | <5 | 0 | 140 | 0.6 | 65 | 1.09 | 55 | 12 | 1.5 | 42 | 10 | 65 | 4 |
| 1964 K-133 | 447 | 28 | 38 | 58 | <5 | 0 | 110 | 0.6 | 56 | 0.91 | 40 | 9 | 1.2 | 38 | 10 | 57 | 4 |
| 1965 K-134 | 875 | 41 | 61 | 91 | <5 | 0 | 180 | 0.7 | 91 | 1.31 | 68 | 15 | 1.9 | 62 | 16 | 37 | 5.4 |
| 1966 K-135 | 315 | 22 | 29 | 56 | <5 | 0 | 150 | 0.8 | 76 | 1.22 | 61 | 12 | <0.5 | 47 | 13 | 76 | 5.3 |
| 1967 K-136 | 1314 | 47 | 81 | 123 | <5 | 0 | 130 | 0.6 | 66 | 1.04 | 50 | 13 | 1.7 | 47 | 11 | 83 | 2.8 |
| 1968 K-137 | <5 | <4 | <1 | 8 | <5 | <5 | 42 | 0.5 | 23 | 0.32 | 16 | 2.5 | <0.5 | 8.5 | 1.4 | 16 | 2.2 |
| 1969 K-138 | <5 | <4 | <1 | 6 | <5 | <5 | 23 | 0.3 | 12 | 0.25 | 10 | 1.4 | <0.5 | 6.2 | 1.2 | 8 | 1.1 |
| 1970 K-139 | <5 | <4 | <1 | 8 | <5 | <5 | 39 | 0.4 | 20 | 0.3 | 14 | 2.3 | <0.5 | 8.4 | 1.7 | 10 | 1.4 |
| 1971 K-140 | <5 | <4 | <1 | 8 | <5 | <5 | 48 | 0.7 | 27 | 0.35 | 15 | 3 | 0.6 | 11 | 1.7 | 15 | 2.5 |
| 1972 K-141 | <5 | <4 | <1 | 9 | <5 | <5 | 52 | 0.6 | 27 | 0.35 | 19 | 3.1 | <0.5 | 12 | 1.4 | 15 | 2.7 |
| 1973 K-142 | <5 | <4 | <1 | 8 | <5 | <5 | 58 | 0.7 | 37 | 0.4 | 25 | 4.2 | 1.1 | 16 | 2.3 | 19 | 3.5 |
| 1974 K-143 | <5 | <4 | <1 | 8 | <5 | <5 | 45 | 0.6 | 25 | 0.31 | 16 | 2.8 | <0.5 | 11 | 1.9 | 13 | 4.1 |
| 1975 K-144 | <5 | <4 | <1 | 7 | <5 | <5 | 40 | 0.4 | 22 | 0.3 | 12 | 2.5 | 0.6 | 10 | 1.8 | 13 | 3.7 |
| 1976 K-145 | <5 | <4 | <1 | 7 | <5 | 5 | 48 | 0.5 | 28 | 0.34 | 19 | 2.9 | 0.6 | 11 | 2.3 | 14 | 3 |
| 1977 K-146 | <5 | <4 | <1 | 10 | <5 | <5 | 29 | 0.5 | 14 | 0.25 | 7 | 1.7 | <0.5 | 6.1 | 1.2 | 8 | 3.4 |
| 1978 K-147 | <5 | <4 | 1 | 10 | <5 | <5 | 31 | 0.5 | 13 | 0.25 | 11 | 1.7 | <0.5 | 7 | 1.6 | 8 | 4.3 |
| 1979 K-148 | <5 | <4 | <1 | 10 | <5 | <5 | 24 | 0.4 | 12 | 0.27 | 7 | 1.5 | <0.5 | 5.3 | 1.8 | 10 | 3.9 |
| 1980 K-149 | <5 | <4 | <1 | 7 | <5 | <5 | 21 | 0.3 | 11 | 0.2 | 8 | 1.2 | <0.5 | 5.3 | 1.3 | 4 | 2.2 |
| 1981 K-150 | <5 | <4 | 1 | 12 | <5 | <5 | 33 | 0.5 | 15 | 0.25 | 12 | 1.8 | <0.5 | 7.9 | 1.6 | 8 | 4.3 |
| 1982 K-151 | <5 | <4 | <1 | 10 | <5 | <5 | 42 | 0.6 | 20 | 0.28 | 15 | 2.2 | <0.5 | 7.4 | 1.7 | 9 | 4.4 |
| 1983 K-152 | <5 | 5 | <1 | 8 | <5 | 6 | 59 | 0.9 | 30 | 0.39 | 26 | 3.4 | <0.5 | 11 | 1.5 | 16 | 6.9 |
| 1984 K-153 | <5 | 5 | <1 | 11 | <5 | <5 | 69 | 0.6 | 34 | 0.4 | 27 | 4.5 | <0.5 | 15 | 2.4 | 23 | 2 |
| 1985 K-154 | <5 | <4 | 1 | 13 | <5 | <5 | 100 | 0.9 | 57 | 0.62 | 38 | 6.2 | 0.8 | 27 | 3.9 | 26 | 2.8 |
| 1986 K-155 | <5 | <4 | <1 | 9 | <5 | <5 | 100 | 0.9 | 58 | 0.57 | 38 | 6.1 | 0.9 | 28 | 4.1 | 12 | 2.6 |
| 1987 K-156 | <5 | <4 | <1 | 7 | <5 | <5 | 75 | 0.6 | 43 | 0.5 | 30 | 4.5 | <0.5 | 20 | 2.9 | 23 | 1.3 |
| 1988 K-157 | <5 | <4 | <1 | 7 | <5 | <5 | 49 | 0.5 | 27 | 0.29 | 20 | 2.9 | <0.5 | 12 | 1.6 | 11 | 1.8 |
| 1989 K-158 | <5 | <4 | <1 | 8 | <5 | <5 | 58 | 0.5 | 30 | 0.35 | 21 | 3.2 | <0.5 | 13 | 2.3 | 18 | 1.3 |
| 1990 K-159 | <5 | <4 | <1 | 12 | <5 | <5 | 50 | 0.5 | 27 | 0.37 | 14 | 2.8 | <0.5 | 12 | 2.4 | 14 | 1.6 |
| 1991 K-160 | <5 | <4 | <1 | 11 | <5 | <5 | 67 | 0.6 | 37 | 0.41 | 26 | 3.9 | <0.5 | 16 | 2.7 | 17 | 1.9 |
| 1992 K-161 | <5 | <4 | <1 | 9 | <5 | <5 | 45 | 0.5 | 24 | 0.29 | 14 | 2.7 | 0.5 | 10 | 2.1 | 14 | 2.6 |
| 1993 K-162 | <5 | <4 | <1 | 14 | <5 | 0 | 85 | 0.9 | 47 | 0.58 | 36 | 5.3 | <0.5 | 20 | 3.5 | 28 | 4.8 |
| 1994 K-163 | <5 | <4 | 1 | 16 | <5 | <5 | 73 | 0.8 | 38 | 0.63 | 25 | 4.4 | 0.7 | 16 | 2.2 | 23 | 5.3 |
| 1995 K-164 | <5 | <4 | 1 | 16 | <5 | <5 | 65 | 0.7 | 34 | 0.41 | 24 | 3.9 | <0.5 | 14 | 2.1 | 18 | 5.9 |
| 1996 K-165 | <5 | <4 | 1 | 16 | <5 | 0 | 83 | 0.8 | 47 | 0.67 | 35 | 5.1 | <0.5 | 21 | 3.6 | 23 | 3.1 |
| 1997 K-166 | <5 | <4 | 1 | 16 | <5 | <5 | 82 | 0.9 | 40 | 0.46 | 28 | 4.6 | 0.8 | 17 | 2.1 | 19 | 7 |
| 1998 K-167 | 7 | <4 | <1 | 9 | <5 | 0 | 77 | 0.9 | 40 | 0.5 | 28 | 4.6 | 0.8 | 18 | 3.2 | 29 | 5.1 |
| 1999 K-168 | 26 | <4 | <1 | 6 | <5 | <5 | 61 | 0.8 | 33 | 0.41 | 22 | 3.5 | 0.8 | 13 | 2.5 | 25 | 5.5 |
| 2000 K-169 | <5 | <4 | 1 | 20 | <5 | <5 | 75 | 0.9 | 40 | 0.59 | 30 | 4.7 | <0.5 | 18 | 2.9 | 22 | 5.9 |
| 2001 K-170 | 14 | <4 | <1 | 5 | <5 | <5 | 38 | 0.4 | | | | | | | | | |

Appendix 9 Chemical analysis data of soil samples

(1)

| | Element | SN | N | TA | NO | AU | MO | CR | CU | LA | LU | NO | SN | TR | TH | U | Y | SC | TRBAY |
|-----|---------|-----|-----|-----|-----|-----|-----|-----|------|-----|------|-----|-----|------|-----|-----|-----|--------|--------|
| | Units | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM |
| 110 | DS-65 | <5 | <4 | 2 | 20 | 6 | <5 | 62 | 0.8 | 27 | 0.6 | 18 | 3.4 | <0.5 | 32 | 3.6 | 32 | 17 | 143.3 |
| 111 | DS-66 | <5 | 6 | 1 | 18 | <5 | 0 | 63 | 0.5 | 20 | 0.47 | 11 | 2.1 | <0.5 | 21 | 3.1 | 16 | 14 | 112.57 |
| 112 | DS-67 | <5 | <4 | <1 | 18 | <5 | 6 | 190 | 2.8 | 120 | 0.63 | 77 | 13 | <0.5 | 28 | 1.5 | 35 | 17 | 437.93 |
| 113 | DS-68 | <5 | <4 | <1 | 18 | 8 | <5 | 120 | 1.3 | 63 | 0.84 | 37 | 6.5 | <0.5 | 27 | 4.6 | 27 | 17 | 254.94 |
| 114 | DS-69 | <5 | <4 | 3 | 23 | <5 | <5 | 70 | 0.8 | 24 | 0.65 | 12 | 3.4 | <0.5 | 35 | 3.7 | 29 | 25 | 139.35 |
| 115 | DS-70 | <5 | <4 | 1 | 20 | <5 | 0 | 75 | 0.8 | 25 | 0.55 | 12 | 3.1 | 0.9 | 26 | 3.1 | 22 | 16 | 140.35 |
| 116 | DS-71 | <5 | <4 | 2 | 17 | <5 | 0 | 70 | 0.7 | 25 | 0.56 | 22 | 3.4 | <0.5 | 26 | 3.7 | 27 | 15 | 148.16 |
| 117 | DS-72 | <5 | 5 | 2 | 19 | <5 | 8 | 140 | 0.9 | 32 | 0.65 | 31 | 5 | <0.5 | 34 | 4.4 | 27 | 21 | 236.05 |
| 118 | HS-01 | <5 | <4 | 1 | 18 | <5 | <5 | 83 | 0.8 | 24 | 0.44 | 14 | 2.8 | <0.5 | 36 | 4.1 | 12 | 20 | 136.54 |
| 119 | HS-02 | 17 | 9 | 4 | 33 | 9 | 0 | 100 | 0.9 | 46 | 1.21 | 40 | 5.8 | 1.5 | 89 | 8.9 | 44 | 8.4 | 239.41 |
| 120 | HS-03 | <5 | 5 | 1 | 21 | <5 | 0 | 100 | 1.3 | 56 | 0.72 | 38 | 6.4 | 1.8 | 31 | 5.9 | 35 | 14 | 239.22 |
| 121 | HS-04 | 25 | 17 | 4 | 28 | 5 | 0 | 140 | 1.2 | 47 | 0.52 | 39 | 6.2 | <0.5 | 67 | 14 | 28 | 12 | 261.42 |
| 122 | HS-05 | 31 | 12 | 5 | 34 | <5 | 0 | 120 | 1 | 65 | 1.53 | 38 | 8.2 | 1.5 | 110 | 8.1 | 64 | 14 | 299.23 |
| 123 | HS-06 | 23 | 11 | 4 | 31 | <5 | 0 | 77 | 0.7 | 40 | 0.95 | 26 | 4.8 | <0.5 | 61 | 6.3 | 43 | 11 | 191.55 |
| 124 | HS-07 | 17 | 9 | 4 | 32 | <5 | 6 | 170 | 0.7 | 42 | 0.89 | 26 | 5.9 | <0.5 | 110 | 11 | 35 | 15 | 278.99 |
| 125 | HS-08 | 18 | <4 | 2 | 19 | <5 | 6 | 130 | 1.1 | 38 | 0.63 | 33 | 5.9 | 1.3 | 38 | 5.7 | 26 | 19 | 235.93 |
| 126 | HS-09 | 13 | 12 | 5 | 33 | <5 | 0 | 250 | 1.6 | 110 | 1.48 | 77 | 15 | <0.5 | 120 | 30 | 70 | 14 | 524.58 |
| 127 | HS-10 | 18 | 18 | 4 | 26 | <5 | 10 | 180 | 0.9 | 56 | 0.87 | 49 | 8.2 | <0.5 | 140 | 19 | 43 | 15 | 337.47 |
| 128 | HS-11 | 22 | 10 | 7 | 35 | <5 | 0 | 160 | 1.3 | 50 | 1.61 | 57 | 11 | 2.3 | 120 | 17 | 62 | 14 | 345.21 |
| 129 | HS-12 | <5 | <4 | <1 | 22 | <5 | 0 | 120 | 1.3 | 53 | 0.75 | 34 | 6.6 | <0.5 | 48 | 8.6 | 30 | 21 | 245.15 |
| 130 | HS-13 | 26 | 9 | 2 | 19 | <5 | 0 | 110 | 0.6 | 27 | 0.67 | 19 | 4 | <0.5 | 37 | 6.4 | 22 | 23 | 182.77 |
| 131 | HS-14 | 30 | <4 | 4 | 35 | <5 | 0 | 200 | 1.2 | 81 | 1.19 | 55 | 11 | <0.5 | 100 | 23 | 61 | 15 | 410.89 |
| 132 | HS-15 | 18 | 8 | 3 | 29 | <5 | 0 | 120 | 1.8 | 67 | 1.52 | 59 | 13 | 2.7 | 62 | 13 | 107 | 11 | 371.02 |
| 133 | HS-16 | 26 | 10 | 5 | 33 | <5 | 10 | 160 | 1.1 | 51 | 1.55 | 36 | 7.8 | 2.1 | 78 | 10 | 72 | 9.6 | 331.55 |
| 134 | HS-17 | 31 | 8 | 4 | 29 | <5 | 0 | 160 | 1.8 | 61 | 0.83 | 56 | 11 | 1.9 | 79 | 12 | 54 | 9.2 | 365.53 |
| 135 | HS-18 | <5 | <4 | 2 | 19 | 6 | <5 | 120 | 1.5 | 52 | 0.67 | 42 | 7.5 | <0.5 | 35 | 5.8 | 31 | 16 | 254.17 |
| 136 | HS-19 | <5 | 9 | <1 | 20 | <5 | 0 | 180 | 1.5 | 71 | 0.63 | 44 | 7.9 | <0.5 | 37 | 6 | 29 | 20 | 313.53 |
| 137 | HS-20 | <5 | 5 | 2 | 17 | <5 | <5 | 72 | 0.8 | 32 | 0.53 | 23 | 3.7 | <0.5 | 22 | 3.6 | 22 | 11 | 153.53 |
| 138 | HS-21 | 9 | <4 | <1 | 19 | <5 | <5 | 180 | 1.9 | 56 | 0.7 | 50 | 8.6 | <0.5 | 32 | 4.3 | 26 | 18 | 302.7 |
| 139 | HS-22 | 10 | 13 | 2 | 22 | 6 | 5 | 100 | 1.1 | 39 | 0.46 | 26 | 4.8 | <0.5 | 40 | 6.7 | 21 | 14 | 191.86 |
| 140 | HS-23 | <5 | <4 | <1 | 18 | <5 | 0 | 110 | 1.8 | 63 | 0.7 | 58 | 8.7 | 1.7 | 27 | 3.6 | 42 | 15 | 283.9 |
| 141 | HS-24 | <5 | 5 | 2 | 17 | <5 | <5 | 48 | 0.9 | 25 | 0.5 | 17 | 3.1 | <0.5 | 24 | 3.6 | 24 | 12 | 118 |
| 142 | HS-25 | 75 | 17 | 15 | 65 | <5 | 0 | 280 | <0.2 | 120 | 1.11 | 80 | 17 | 3.2 | 150 | 17 | 63 | 9.5 | 564.11 |
| 143 | HS-26 | 74 | 12 | 11 | 56 | <5 | 0 | 240 | 1 | 130 | 0.97 | 88 | 19 | 3.3 | 130 | 19 | 88 | 6.7 | 570.27 |
| 144 | HS-27 | 107 | 30 | 12 | 58 | 6 | 0 | 240 | 0.7 | 120 | 1.02 | 88 | 17 | 2.4 | 140 | 15 | 64 | 7.8 | 533.12 |
| 145 | HS-28 | 52 | 12 | 3 | 22 | <5 | 0 | 52 | 0.5 | 32 | 0.35 | 14 | 2.9 | <0.5 | 31 | 5 | 21 | 11 | 122.35 |
| 146 | HS-29 | 93 | 24 | 11 | 55 | <5 | 9 | 160 | <0.2 | 54 | 0.46 | 36 | 7.4 | <0.5 | 140 | 9.6 | 28 | 11 | 285.16 |
| 147 | HS-30 | 106 | 21 | 12 | 54 | <5 | 0 | 200 | 0.4 | 76 | 0.5 | 45 | 9.1 | <0.5 | 140 | 12 | 33 | 10 | 353.5 |
| 148 | HS-31 | 16 | 8 | 3 | 23 | <5 | 0 | 53 | 0.5 | 14 | 0.46 | 9 | 2 | <0.5 | 41 | 4.8 | 25 | 17 | 103.46 |
| 149 | HS-32 | 174 | 39 | 14 | 56 | <5 | 0 | 150 | 0.8 | 110 | 0.52 | 66 | 13 | 1 | 140 | 13 | 51 | 10 | 432.42 |
| 150 | HS-33 | 145 | 37 | 12 | 55 | 5 | 0 | 250 | 0.5 | 100 | 0.75 | 67 | 14 | 2.4 | 120 | 14 | 61 | 7.2 | 495.65 |
| 151 | HS-34 | 86 | 10 | 9 | 46 | 6 | 10 | 200 | 1.1 | 120 | 0.59 | 81 | 20 | 3.2 | 110 | 15 | 61 | 7.8 | 507.19 |
| 152 | HS-35 | 24 | 14 | 4 | 17 | <5 | <5 | 140 | 1.1 | 44 | 0.48 | 31 | 5.7 | <0.5 | 33 | 4.9 | 25 | 15 | 246.76 |
| 153 | HS-36 | 53 | 13 | 12 | 52 | <5 | 0 | 230 | 1 | 120 | 0.76 | 73 | 15 | 1.9 | 12 | 45 | 7.7 | 487.65 | |
| 154 | HS-37 | 67 | 9 | 9 | 49 | <5 | 0 | 250 | 1.5 | 150 | 0.99 | 120 | 23 | 3.5 | 140 | 28 | 81 | 8.4 | 645.99 |
| 155 | HS-38 | 20 | 9 | 2 | 28 | <5 | 10 | 250 | 1.1 | 60 | 0.48 | 34 | 6.5 | <0.5 | 47 | 5.7 | 22 | 26 | 373.58 |
| 156 | HS-39 | 66 | 17 | 11 | 44 | <5 | <5 | 83 | 2.1 | 160 | 0.19 | 70 | 11 | 1.5 | 13 | 4.2 | 20 | 11 | 347.79 |
| 157 | HS-40 | 23 | 10 | 3 | 17 | <5 | 0 | 34 | 0.7 | 47 | 0.14 | 26 | 3.2 | <0.5 | 15 | 3 | 7 | 7.3 | 117.54 |
| 158 | HS-41 | 47 | 23 | 6 | 35 | <5 | 0 | 180 | 0.8 | 49 | 0.47 | 28 | 5.4 | <0.5 | 110 | 18 | 29 | 6.4 | 292.17 |
| 159 | HS-42 | 58 | 13 | 8 | 47 | <5 | 0 | 310 | 0.6 | 75 | 0.6 | 34 | 7.6 | 1.1 | 170 | 18 | 28 | 9.9 | 456.9 |
| 160 | HS-43 | 122 | 25 | 15 | 67 | <5 | 15 | 330 | <0.2 | 95 | 0.7 | 52 | 11 | <0.5 | 200 | 19 | 43 | 13 | 532 |
| 161 | HS-44 | 79 | 90 | 7 | 30 | <5 | 6 | 130 | 0.7 | 41 | 0.37 | 17 | 3.9 | <0.5 | 50 | 9.1 | 17 | 18 | 209.47 |
| 162 | HS-45 | 129 | 48 | 10 | 45 | <5 | 0 | 180 | <0.2 | 63 | 0.5 | 41 | 8.1 | <0.5 | 95 | 16 | 37 | 12 | 328.9 |
| 163 | HS-46 | 119 | 26 | 11 | 59 | <5 | 0 | 240 | <0.2 | 85 | 0.88 | 43 | 8.9 | 1.8 | 160 | 20 | 50 | 11 | 409.18 |
| 164 | HS-47 | 98 | 25 | 15 | 62 | <5 | 0 | 230 | <0.2 | 72 | 1 | 41 | 10 | 1.8 | 170 | 19 | 62 | 11 | 417.6 |
| 165 | HS-48 | 34 | 13 | 4 | 29 | <5 | 5 | 140 | 0.4 | 21 | 0.4 | 16 | 2.8 | <0.5 | 46 | 6.8 | 14 | 16 | 194.1 |
| 166 | HS-49 | 162 | 11 | 14 | 60 | <5 | 9 | 320 | 0.3 | 43 | 0.94 | 19 | 5.1 | 0.9 | 160 | 12 | 51 | 13 | 440.24 |
| 167 | HS-50 | 56 | 30 | 10 | 65 | <5 | 0 | 300 | 0.8 | 97 | 1.15 | 67 | 16 | 2 | 150 | 20 | 63 | 12 | 545.95 |
| 168 | HS-51 | <5 | 7 | 3 | 24 | <5 | <5 | 180 | 1.1 | 71 | 0.61 | 40 | 7.8 | <0.5 | 39 | 4.5 | 27 | 20 | 327.01 |
| 169 | HS-52 | 10 | 8 | 2 | 22 | <5 | <5 | 170 | 1.5 | 90 | 0.63 | 44 | 8.8 | <0.5 | 27 | 2.9 | 25 | 17 | 339.43 |
| 170 | HS-53 | 54 | 32 | 2 | 15 | <5 | 0 | 74 | 0.3 | 22 | 0.17 | 13 | 2 | <0.5 | 20 | 3.8 | 5 | 12 | 115.97 |
| 171 | HS-54 | 9 | 10 | 3 | 15 | <5 | 0 | 57 | <0.2 | 14 | 0.24 | 8 | 1.2 | <0.5 | 17 | 3.5 | 5 | 11 | 84.74 |
| 172 | HS-55 | 29 | 9 | 2 | 19 | <5 | 0 | 81 | 0.5 | 23 | 0.28 | 15 | 2.5 | <0.5 | 22 | 4.5 | 8 | 13 | 129.78 |
| 173 | HS-56 | 10 | 13 | 2 | 19 | <5 | <5 | 120 | 0.6 | 35 | 0.31 | 13 | 3.2 | <0.5 | 29 | 4.5 | 10 | 15 | 181.61 |
| 174 | BS-01 | 7 | 8 | 4 | 33 | <5 | 0 | 150 | 0.7 | 42 | 0.84 | 24 | 6.1 | 0.9 | 61 | 8.3 | 45 | 13 | 269.54 |
| 175 | BS-02 | 55 | 6 | 3 | 24 | 8 | 0 | 110 | 0.9 | 45 | 1.28 | 28 | 7 | 1.7 | 38 | 8.8 | 50 | 10 | 243.88 |
| 176 | BS-03 | 11 | 16 | 5 | 35 | <5 | <5 | 150 | 0.9 | 46 | 0.9 | 28 | 6.9 | 1.2 | 79 | 9.3 | 39 | 13 | 272.9 |
| 177 | BS-04 | 31 | 13 | 3 | 33 | <5 | 6 | 140 | 1 | 74 | 0.8 | 40 | 9.9 | <0.5 | 72 | 12 | 43 | 9.5 | 308.2 |
| 178 | BS-05 | 21 | 8 | 4 | 25 | <5 | 0 | 100 | 1.1 | 46 | 0.98 | 29 | 6.8 | 1.3 | 38 | 7.1 | 51 | 8.7 | 236.18 |
| 179 | BS-06 | 53 | 12 | 8 | 36 | <5 | 0 | 140 | 0.8 | 38 | 2.08 | 21 | 7.3 | 1.6 | 72 | 20 | 80 | 8.9 | 290.78 |
| 180 | BS-07 | 31 | 50 | 5 | 36 | <5 | 0 | 110 | 1.2 | 63 | 1.33 | 38 | 12 | <0.5 | 110 | 22 | 71 | 12 | 236.03 |
| 181 | BS-08 | 10 | 11 | 2 | 30 | <5 | 0 | 200 | 1.1 | 52 | 0.8 | 36 | 5.8 | <0.5 | 51 | 6.9 | 26 | 25 | 321.2 |
| 182 | BS-09 | 59 | 35 | 5 | 35 | <5 | 0 | 120 | 0.5 | 21 | 0.85 | 6 | 3.1 | <0.5 | 82 | 13 | 31 | 12 | 181.95 |
| 183 | BS-10 | <5 | 8 | 2 | 20 | <5 | <5 | 97 | 0.9 | 37 | 0.48 | 22 | 4.9 | <0.5 | 28 | 3.4 | 24 | 13 | 185.78 |
| 184 | BS-11 | <5 | 6 | 2 | 18 | <5 | <5 | 100 | 1.1 | 37 | 0.45 | 19 | 5.3 | <0.5 | 22 | 3.1 | 14 | 16 | 176.36 |
| 185 | BS-12 | <5 | <4 | 2 | 17 | <5 | <5 | 70 | 0.5 | 18 | 0.35 | | | | | | | | |

Appendix 9 Chemical analysis data of soil samples

(2)

| | Element Units Detection Limit | SN PPM 5 | W PPM 4 | TA PPM 1 | ND PPM 0 | AU PPB 5 | MO PPM 5 | CB PPM 3 | BU PPM 0.2 | LA PPM 1 | LU PPM 0.05 | AD PPM 5 | SH PPM 0.1 | TB PPM 0.5 | TH PPM 0.5 | U PPM 0.5 | Y PPM 0 | SC PPM 0.1 | TREBY PPM |
|----|--|----------------|---------------|----------------|----------------|----------------|----------------|----------------|------------------|----------------|-------------------|----------------|------------------|------------------|------------------|-----------------|---------------|------------------|--------------|
| 1 | CS-01 | 37 | 16 | 4 | 23 | <5 | 0 | 180 | 1.2 | 72 | 0.61 | 57 | 8.3 | 1.4 | 56 | 12 | 15 | 16 | 335.51 |
| 2 | CS-02 | 11 | 6 | 3 | 15 | <5 | <5 | 20 | <0.2 | 15 | 0.33 | 6 | 0.9 | <0.5 | 16 | 2.6 | 6 | 7.7 | 47.53 |
| 3 | CS-03 | <5 | 6 | 3 | 20 | <5 | 0 | 90 | 0.8 | 34 | 0.45 | 21 | 4 | <0.5 | 24 | 6.7 | 13 | 14 | 162.76 |
| 4 | CS-04 | 15 | 5 | 4 | 21 | <5 | 0 | 479 | 0.4 | 74 | 0.35 | 52 | 8.5 | 1.2 | 140 | 18 | 13 | 13 | 619.45 |
| 5 | CS-05 | <5 | 4 | 2 | 59 | <5 | 0 | 250 | 0.7 | 56 | 0.29 | 45 | 5.8 | <0.5 | 74 | 7.1 | 19 | 7.8 | 376.29 |
| 6 | CS-06 | 25 | 6 | 3 | 34 | <5 | 0 | 270 | 0.8 | 62 | 0.35 | 48 | 6.4 | <0.5 | 82 | 7 | 13 | 8.5 | 400.05 |
| 7 | CS-07 | 12 | <4 | <1 | 34 | <5 | 0 | 380 | 2.7 | 210 | 0.81 | 160 | 24 | 2.4 | 85 | 19 | 62 | 8.7 | 841.91 |
| 8 | CS-08 | <5 | 4 | <1 | 19 | <5 | 0 | 250 | 2.2 | 170 | 0.53 | 140 | 20 | 1.8 | 88 | 20 | 44 | 9.1 | 628.53 |
| 9 | CS-09 | <5 | 8 | 2 | 33 | <5 | 0 | 185 | 0.8 | 71 | 0.31 | 51 | 6.7 | <0.5 | 78 | 13 | 17 | 9.1 | 326.31 |
| 10 | CS-10 | <5 | 8 | 5 | 69 | <5 | 0 | 410 | 0.7 | 180 | 0.34 | 140 | 19 | 2.2 | 210 | 10 | 54 | 6.7 | 805.24 |
| 11 | CS-11 | 41 | 21 | 5 | 28 | <5 | 0 | 250 | 1.8 | 130 | 0.63 | 94 | 14 | 1.1 | 57 | 17 | 41 | 17 | 532.53 |
| 12 | CS-12 | 64 | 14 | 5 | 34 | <5 | 0 | 230 | 0.9 | 80 | 0.49 | 55 | 9.2 | <0.5 | 51 | 17 | 17 | 11 | 403.09 |
| 13 | CS-13 | 17 | <4 | 2 | 14 | <5 | 0 | 75 | 1 | 36 | 0.78 | 33 | 4.7 | <0.5 | 37 | 3.9 | 49 | 23 | 198.98 |
| 14 | CS-14 | <5 | <4 | 3 | 21 | <5 | <5 | 91 | 0.6 | 33 | 0.51 | 26 | 4.2 | 0.9 | 29 | 6 | 25 | 8.8 | 181.21 |
| 15 | CS-15 | <5 | <4 | 1 | 12 | <5 | <5 | 66 | 0.3 | 15 | 0.25 | 11 | 1.6 | <0.5 | 20 | 2.5 | 12 | 10 | 105.66 |
| 16 | CS-16 | <5 | 6 | 2 | 27 | 8 | 0 | 75 | <0.2 | 9 | 0.32 | <5 | 0.8 | <0.5 | 28 | 4 | 10 | 15 | 89.42 |
| 17 | CS-17 | 82 | 14 | 3 | 28 | <5 | 0 | 130 | 0.4 | 20 | 0.24 | 12 | 1.6 | <0.5 | 26 | 5.1 | 3 | 18 | 156.74 |
| 18 | CS-18 | <5 | 16 | 7 | 44 | <5 | 0 | 180 | 0.7 | 63 | 0.44 | 38 | 5.7 | <0.5 | 91 | 16 | 19 | 13 | 306.34 |
| 19 | CS-19 | <5 | 10 | 8 | 66 | <5 | 0 | 730 | 0.6 | 120 | 0.47 | 120 | 18 | 1.9 | 210 | 12 | 33 | 8.2 | 1113.97 |
| 20 | CS-20 | 55 | 13 | 3 | 8 | <5 | 0 | 87 | 0.4 | 23 | 0.46 | 8 | 2 | <0.5 | 41 | 5.9 | 12 | 15 | 132.36 |
| 21 | CS-21 | <5 | <4 | 2 | 18 | <5 | 0 | 33 | 0.5 | 16 | 0.3 | <5 | 1.1 | <0.5 | 35 | 5.2 | 11 | 9.1 | 56.5 |
| 22 | CS-22 | 47 | 10 | 2 | 25 | <5 | <5 | 140 | 1.1 | 49 | 0.61 | 41 | 5.5 | <0.5 | 35 | 4.7 | 21 | 20 | 257.71 |
| 23 | CS-23 | 35 | 10 | 8 | 35 | <5 | 0 | 290 | 1 | 170 | 1.26 | 150 | 22 | 3.2 | 150 | 39 | 75 | 7.2 | 712.46 |
| 24 | CS-24 | 88 | 13 | 31 | 111 | <5 | 0 | 74 | 0.4 | 32 | 0.58 | 28 | 5.2 | 1.4 | 38 | 9 | 71 | 8.4 | 212.59 |
| 25 | CS-25 | 28 | 7 | 5 | 53 | <5 | 0 | 320 | 1 | 150 | 0.63 | 110 | 18 | 2.2 | 160 | 12 | 42 | 7.3 | 643.83 |
| 26 | CS-26 | 41 | <4 | 6 | 33 | <5 | 0 | 180 | 1 | 100 | 0.61 | 83 | 12 | <0.5 | 87 | 8.9 | 47 | 11 | 423.11 |
| 27 | CS-27 | 8 | 9 | 8 | 79 | <5 | 0 | 330 | 0.6 | 160 | 2.16 | 120 | 20 | 3 | 180 | 14 | 98 | 7.5 | 733.76 |
| 28 | CS-28 | 70 | 21 | 10 | 78 | <5 | 0 | 210 | 0.7 | 88 | 1.25 | 72 | 13 | 1.4 | 82 | 10 | 68 | 11 | 454.35 |
| 29 | CS-29 | 31 | 7 | 5 | 52 | 6 | 0 | 280 | 1.2 | 170 | 0.71 | 130 | 19 | 2.2 | 140 | 14 | 69 | 4.8 | 672.11 |
| 30 | CS-30 | 16 | <4 | 2 | 39 | <5 | 11 | 530 | 0.8 | 74 | 0.33 | 66 | 8.6 | 0.8 | 300 | 13 | 19 | 11 | 699.53 |
| 31 | CS-31 | 22 | 6 | 4 | 49 | <5 | 0 | 310 | 0.5 | 130 | 0.71 | 96 | 16 | 1.7 | 150 | 14 | 59 | 6.1 | 613.91 |
| 32 | CS-32 | 12 | <4 | 1 | 12 | <5 | <5 | 150 | 0.9 | 49 | 0.4 | 38 | 5.7 | <0.5 | 26 | 4.2 | 18 | 9.5 | 261.5 |
| 33 | CS-33 | <5 | 68 | 2 | 20 | <5 | <5 | 75 | 0.4 | 19 | 0.47 | 14 | 2.1 | 0.8 | 27 | 3.5 | 15 | 15 | 126.77 |
| 34 | CS-34 | 88 | 12 | 13 | 66 | 6 | 0 | 240 | <0.2 | 100 | 1.11 | 74 | 13 | 2 | 120 | 14 | 64 | 8.8 | 493.91 |
| 35 | CS-35 | 92 | 9 | 11 | 58 | <5 | 0 | 330 | 0.5 | 54 | 0.84 | 31 | 5.2 | <0.5 | 140 | 12 | 43 | 8.6 | 461.04 |
| 36 | CS-36 | 132 | 7 | 8 | 54 | <5 | 0 | 420 | 0.6 | 76 | 1.14 | 54 | 9 | 1.3 | 170 | 24 | 69 | 8.2 | 631.04 |
| 37 | CS-37 | 132 | 10 | 16 | 88 | <5 | 0 | 650 | <0.2 | 80 | 1.58 | 41 | 8.4 | 1.8 | 170 | 19 | 74 | 12 | 866.58 |
| 38 | CS-38 | 95 | 25 | 10 | 69 | <5 | <5 | 500 | 0.4 | 95 | 1.39 | 71 | 11 | 2.6 | 200 | 22 | 88 | 10 | 769.39 |
| 39 | CS-39 | 117 | 29 | 10 | 63 | <5 | 0 | 300 | 0.4 | 75 | 0.63 | 44 | 5.8 | 1.3 | 140 | 15 | 42 | 8 | 470.13 |
| 40 | CS-40 | 54 | 210 | 2 | 17 | <5 | 0 | 67 | 0.4 | 18 | 0.33 | 8 | 1.7 | <0.5 | 34 | 8.2 | 10 | 12 | 104.93 |
| 41 | CS-41 | 10 | 7 | 3 | 36 | <5 | 0 | 200 | 0.9 | 100 | 0.72 | 53 | 11 | <0.5 | 90 | 11 | 38 | 13 | 433.12 |
| 42 | CS-42 | 24 | 11 | 5 | 33 | <5 | 0 | 550 | 1.4 | 320 | 0.56 | 220 | 35 | <0.5 | 270 | 23 | 59 | 8.6 | 1189.46 |
| 43 | CS-43 | 17 | <4 | 3 | 28 | <5 | 0 | 61 | 0.4 | 24 | 0.4 | 15 | 2.5 | <0.5 | 59 | 4.9 | 23 | 18 | 128.8 |
| 44 | CS-44 | <5 | 21 | 3 | 25 | <5 | 0 | 90 | 0.5 | 22 | 0.4 | 15 | 1.9 | <0.5 | 27 | 4.4 | 15 | 12 | 144.3 |
| 45 | CS-45 | 12 | 14 | <1 | 18 | <5 | <5 | 180 | 0.6 | 33 | 0.44 | 17 | 2.9 | <0.5 | 30 | 3.8 | 12 | 17 | 245.44 |
| 46 | DS-01 | 13 | 9 | 1 | 36 | <5 | 6 | 290 | 0.5 | 110 | 0.26 | 67 | 9 | <0.5 | 130 | 11 | 18 | 9.9 | 494.26 |
| 47 | DS-02 | 19 | <4 | <1 | 26 | <5 | 0 | 410 | 1 | 210 | 0.34 | 130 | 22 | 2.2 | 240 | 19 | 34 | 7.8 | 809.54 |
| 48 | DS-03 | 24 | 11 | 4 | 38 | <5 | 0 | 130 | 0.8 | 53 | 0.42 | 26 | 5.9 | <0.5 | 45 | 13 | 18 | 15 | 233.62 |
| 49 | DS-04 | 20 | <4 | 3 | 27 | <5 | 0 | 220 | 1.1 | 140 | 0.26 | 93 | 14 | 1.6 | 130 | 13 | 23 | 6 | 492.96 |
| 50 | DS-05 | 14 | <4 | 3 | 23 | <5 | 0 | 210 | 2 | 130 | 0.42 | 84 | 14 | <0.5 | 110 | 8.6 | 32 | 7.5 | 501.92 |
| 51 | DS-06 | 21 | 12 | 3 | 28 | <5 | 0 | 180 | 1.2 | 62 | 0.69 | 41 | 8.3 | 1 | 50 | 15 | 28 | 17 | 322.19 |
| 52 | DS-07 | 20 | 7 | 4 | 35 | <5 | 0 | 190 | 1 | 79 | 0.44 | 30 | 8.1 | 1.6 | 74 | 15 | 22 | 13 | 332.14 |
| 53 | DS-08 | 15 | <4 | 3 | 35 | <5 | 7 | 480 | 0.7 | 65 | 0.18 | 26 | 5 | <0.5 | 200 | 11 | 10 | 8.6 | 566.38 |
| 54 | DS-09 | 62 | 18 | 4 | 31 | <5 | 0 | 140 | 1 | 65 | 0.37 | 29 | 7.2 | <0.5 | 46 | 13 | 21 | 17 | 263.07 |
| 55 | DS-10 | 34 | 9 | 4 | 31 | 7 | 7 | 120 | 1.2 | 70 | 0.4 | 39 | 8.8 | <0.5 | 35 | 12 | 25 | 11 | 263.9 |
| 56 | DS-11 | 41 | <4 | 8 | 29 | <5 | 0 | 69 | 0.4 | 40 | 0.6 | 22 | 4.8 | 1.2 | 47 | 7.1 | 21 | 16 | 159 |
| 57 | DS-12 | 16 | 8 | 5 | 52 | <5 | 0 | 400 | 0.6 | 180 | 1.23 | 120 | 26 | 4.6 | 160 | 11 | 77 | 7.4 | 809.48 |
| 58 | DS-13 | 25 | <4 | <1 | 47 | <5 | 0 | 460 | 0.4 | 120 | 0.61 | 89 | 21 | 2.1 | 140 | 13 | 41 | 7.3 | 733.11 |
| 59 | DS-14 | 15 | <4 | 4 | 51 | <5 | 0 | 390 | 1.1 | 120 | 0.65 | 84 | 15 | 1.6 | 200 | 34 | 44 | 9.9 | 636.35 |
| 60 | DS-15 | 50 | <4 | 4 | 56 | <5 | 0 | 410 | 1.2 | 140 | 0.77 | 92 | 23 | 3.1 | 130 | 16 | 68 | 8.5 | 738.07 |
| 61 | DS-16 | <5 | <4 | 3 | 29 | <5 | 7 | 400 | 0.7 | 170 | 0.25 | 97 | 17 | 1.8 | 200 | 15 | 21 | 8.1 | 707.75 |
| 62 | DS-17 | <5 | <4 | 2 | 46 | <5 | 0 | 320 | 0.9 | 140 | 0.41 | 85 | 14 | 2 | 110 | 9.9 | 35 | 14 | 598.31 |
| 63 | DS-18 | 15 | <4 | 4 | 57 | <5 | 0 | 510 | 0.8 | 270 | 0.29 | 130 | 26 | 2.2 | 260 | 19 | 28 | 8.7 | 967.29 |
| 64 | DS-19 | 22 | <4 | 2 | 35 | <5 | 0 | 400 | 0.6 | 140 | 0.25 | 61 | 14 | <0.5 | 230 | 13 | 14 | 7.9 | 619.35 |
| 65 | DS-20 | <5 | <4 | 4 | 47 | <5 | 0 | 390 | 1.5 | 180 | 0.45 | 110 | 17 | 1.9 | 160 | 20 | 31 | 9.6 | 731.85 |
| 66 | DS-21 | 65 | 8 | 3 | 30 | <5 | 0 | 560 | 0.7 | 240 | 0.44 | 130 | 23 | 2.5 | 250 | 15 | 14 | 9.2 | 970.64 |
| 67 | DS-22 | 88 | 9 | 5 | 47 | <5 | 0 | 53 | 0.4 | 25 | 0.25 | 10 | 2.3 | <0.5 | 36 | 10 | 33 | 16 | 123.45 |
| 68 | DS-23 | 10 | 26 | 10 | 28 | <5 | 0 | 230 | 1.1 | 130 | 0.56 | 83 | 12 | <0.5 | 59 | 20 | 25 | 9.5 | 481.16 |
| 69 | DS-24 | 11 | <4 | 3 | 42 | <5 | 0 | 250 | 1 | 71 | 0.55 | 65 | 9.3 | <0.5 | 58 | 21 | 31 | 16 | 427.35 |
| 70 | DS-25 | 38 | 16 | 5 | 41 | <5 | 0 | 100 | 0.3 | 31 | 0.35 | 20 | 2.8 | <0.5 | 49 | 8.2 | 13 | 13 | 166.95 |
| 71 | DS-26 | 57 | 13 | 5 | 25 | 5 | 0 | 85 | 0.9 | 42 | 0.53 | 43 | 6.6 | 1.1 | 26 | 16 | 28 | 10 | 207.13 |
| 72 | DS-27 | 25 | <4 | 6 | 55 | <5 | 0 | 290 | 0.5 | 120 | 0.06 | 89 | 16 | 2.2 | 130 | 11 | 71 | 5.8 | 588.76 |
| 73 | DS-28 | 72 | 10 | 7 | 23 | <5 | 0 | 57 | <0.2 | 17 | 0.14 | <5 | 1.4 | <0.5 | 19 | 5 | 29 | 11 | 89.84 |
| 74 | DS-29 | <5 | <4 | 2 | 26 | 6 | <5 | 120 | 0.5 | 17 | 0.29 | 13 | 1.8 | <0.5 | 29 | 4.4 | 10 | 19 | 162.09 |
| 75 | DS-30 | <5 | <4 | <1 | 28 | <5 | <5 | 140 | 0.5 | 25 | 0.48 | 10 | 2.4 | <0.5 | 35 | 6.7 | 13 | 19 | 190.88 |
| 76 | DS-31 | 31 | 32 | 7 | 37 | <5 | 0 | 140 | <0.2 | 55 | 0.99 | 31 | 6.6 | <0.5 | 99 | 14 | 45 | 12 | 277.89 |

Appendix 10 Chemical analysis data of panned samples

(1)

| Element Units Detection Limit | SN 0.05 | Y PM 4 | TA PM 0.5 | SB PM 0 | AU PM 5 | NO PM 5 | CS PM 5 | RU PM 0.2 | LA PM 3 | U PM 0.05 | ND PM 0.2 | SH PM 0.5 | TH PM 10 | TH PM 0.5 | U PM 4 | Y PM 0 | SC PM 0.1 | OR PM 0 | ER PM 100 | CO PM 0.05 | HO PM 0 | FR PM 500 | TH PM 500 |
|--|------------|--------------|-----------------|---------------|---------------|---------------|---------------|-----------------|---------------|-----------------|-----------------|-----------------|----------------|-----------------|--------------|--------------|-----------------|---------------|-----------------|------------------|---------------|-----------------|-----------------|
| 1 AP-001 | 1.2 | 440 | 2000 | 6617 | 107 | 0 | 3400 | <1 | 3800 | 220 | 550 | 510 | 300 | 2000 | 7600 | 9365 | 43 | 2200 | 1000 | 1270 | 620 | 1080 | <500 |
| 2 AP-002 | 0.36 | 170 | 1000 | 3142 | 48 | 0 | 2300 | <1 | 1700 | 63.2 | 810 | 220 | 99 | 1400 | 960 | 5275 | 31 | 710 | 470 | 480 | 210 | <500 | <500 |
| 3 AP-003 | 2.5 | 160 | 900 | 2683 | 58 | 0 | 3600 | <1 | 2500 | 74.9 | 1200 | 300 | 130 | 2100 | 880 | 6006 | 34 | 870 | 480 | 600 | 240 | <500 | <500 |
| 4 AP-101 | 8.1 | 240 | 1100 | 1889 | 65 | 0 | 2500 | <1 | 1700 | 54.2 | 710 | 190 | 67 | 1900 | 380 | 3567 | 67 | 342 | 250 | 260 | 102 | <500 | <500 |
| 5 AP-127 | 8.8 | 6400 | 1200 | 2598 | 78 | 0 | 1600 | <1 | 1200 | 16.4 | 460 | 130 | 38 | 670 | 240 | 1923 | 52 | 205 | 100 | 140 | 75 | <500 | <500 |
| 6 AP-146 | 6.2 | 12000 | 2000 | 3202 | 95 | 0 | 1400 | <1 | 1000 | 14.6 | 450 | 140 | 41 | 680 | 370 | 1419 | 42 | 130 | <100 | 130 | 52 | <500 | <500 |
| 7 AP-150 | 4 | 7300 | 1100 | 2638 | 82 | 0 | 530 | <1 | 460 | 3 | 240 | 60 | 19 | 310 | 250 | 848 | 26 | 80 | 100 | 54 | 20 | <500 | <500 |
| 8 AP-161 | 1.1 | 1300 | 570 | 1728 | 24 | 0 | 320 | <1 | 220 | 3.58 | 83 | 35 | 10 | 170 | 140 | 540 | 12 | 75 | <100 | 43 | 25 | <500 | <500 |
| 9 AP-153 | 4.3 | 250 | 480 | 1517 | 97 | 0 | 15600 | 20 | 12000 | 68.3 | 4400 | 930 | 210 | 6080 | 780 | 9263 | 36 | 1200 | 670 | 1560 | 270 | 3600 | <500 |
| 10 AP-280 | 2.8 | 1000 | 1000 | 682 | 34 | 0 | 2600 | 5 | 2800 | 22.2 | 940 | 270 | 39 | 1000 | 260 | 919 | 37 | 221 | 170 | 190 | 50 | <500 | <500 |
| 11 AP-284 | 5.1 | 250 | 750 | 2122 | 73 | 0 | 6300 | <1 | 4700 | 98.9 | 2000 | 480 | 180 | 3700 | 690 | 9508 | 45 | 1240 | 886 | 1020 | 350 | 1000 | <500 |
| 12 AP-287 | 0.37 | 380 | 270 | 880 | 35 | 0 | 1400 | 6 | 930 | 28.4 | 430 | 110 | 41 | 610 | 150 | 1831 | 43 | 210 | 170 | 150 | 57 | <500 | <500 |
| 13 AP-010 | 5.2 | 360 | 1500 | 657 | 158 | 0 | 8400 | 17 | 6000 | 228 | 2500 | 860 | 360 | 5100 | 5900 | 1557 | 60 | 2240 | 1300 | 1550 | 640 | 1540 | <500 |
| 14 AP-059 | 4.2 | 20 | 650 | 1747 | 109 | 0 | 17000 | 46 | 11000 | 232 | 6300 | 1500 | 400 | 7200 | 2000 | 12719 | 90 | 1700 | 1000 | 1400 | 410 | 2200 | <500 |
| 15 AP-146 | 8.1 | 1300 | 3500 | 4330 | 112 | 0 | 4500 | 14 | 3200 | 27.6 | 1800 | 430 | 91 | 2200 | 1200 | 2688 | 39 | 300 | 150 | 287 | 52 | <500 | <500 |
| 16 AP-227 | 6.1 | 560 | 2300 | 5853 | 108 | 0 | 8700 | 28 | 6500 | 223 | 2800 | 1000 | 400 | 6500 | 6100 | 13597 | 34 | 1360 | 460 | 1390 | 322 | 1130 | <500 |
| 17 AP-270 | 0.4 | 550 | 510 | 1528 | 21 | 0 | 8300 | 11 | 6500 | 91.19 | 2700 | 700 | 180 | 4300 | 1000 | 5663 | 98 | 800 | 480 | 660 | 220 | 970 | <500 |
| 18 AP-271 | 0.24 | 110 | 330 | 1087 | 29 | 0 | 1600 | 6 | 990 | 57.5 | 620 | 160 | 75 | 630 | 300 | 3226 | 66 | 315 | 230 | 198 | 86 | <500 | <500 |
| 19 AP-272 | 0.08 | 88 | 230 | 807 | 21 | 0 | 1100 | 5 | 690 | 48.5 | 400 | 110 | 69 | 430 | 220 | 2893 | 46 | 236 | 150 | 183 | 69 | <500 | <500 |
| 20 AP-273 | 0.05 | 140 | 180 | 751 | 18 | 0 | 430 | 3 | 310 | 24.1 | 180 | 54 | 33 | 190 | 110 | 1518 | 37 | 129 | 100 | 91 | 43 | <500 | <500 |
| 21 AP-274 | 0.12 | 59 | 240 | 684 | 21 | 0 | 870 | 4 | 660 | 30.2 | 330 | 91 | 48 | 330 | 170 | 2358 | 40 | 300 | 220 | 145 | 100 | <500 | <500 |
| 22 AP-0301 | 0.16 | 120 | 250 | 923 | 50 | 0 | 1200 | 5 | 800 | 50.9 | 410 | 120 | 66 | 520 | 230 | 2545 | 54 | 340 | 200 | 173 | 63 | <500 | <500 |
| 23 AP-0302 | 0.027 | 280 | 500 | 1327 | 47 | 0 | 2400 | 12 | 1500 | 131 | 940 | 270 | 100 | 870 | 650 | 7394 | 100 | 730 | 510 | 418 | 220 | <500 | <500 |
| 24 AP-129 | 8.2 | 430 | 1000 | 1712 | 33 | 0 | 740 | 6 | 500 | 11.2 | 230 | 69 | 35 | 310 | 200 | 1861 | 36 | 137 | <100 | 106 | 43 | <500 | <500 |
| 25 AP-150 | 1.7 | 20 | 250 | 808 | 69 | 0 | 920 | <1 | 560 | 50.4 | 230 | 120 | 62 | 350 | 270 | 3157 | 51 | 269 | 140 | 187 | 92 | <500 | <500 |
| 26 AP-152 | 2.2 | 120 | 490 | 947 | 42 | 0 | 780 | 6 | 490 | 21.6 | 230 | 88 | 45 | 310 | 230 | 2361 | 28 | 214 | 100 | 145 | 75 | <500 | <500 |
| 27 AP-153 | 0.21 | 100 | 340 | 715 | 16 | 0 | 160 | <1 | 94 | 6.02 | 52 | 22 | 10 | 110 | 150 | 501 | 8.9 | 43 | <100 | 23 | <10 | <500 | <500 |
| 28 AP-202 | 3.3 | 160 | 1300 | 3749 | 72 | 0 | 5500 | <1 | 4000 | 133 | 1700 | 590 | 230 | 3300 | 2800 | 9089 | 30 | 1200 | 690 | 817 | 350 | 1100 | <500 |
| 29 AP-210 | 0.3 | 20 | 550 | 1474 | 110 | 0 | 10000 | 22 | 6600 | 123 | 3700 | 790 | 230 | 4900 | 1000 | 4397 | 120 | 549 | 250 | 470 | 164 | 750 | <500 |
| 30 AP-213 | 0.26 | 280 | 740 | 1108 | 87 | 0 | 2500 | <1 | 1600 | 34.2 | 870 | 290 | 110 | 1290 | 510 | 2217 | 69 | 247 | 100 | 163 | 77 | 520 | <500 |
| 31 AP-078 | 0.5 | 140 | 850 | 2400 | 78 | 0 | 5700 | <1 | 4200 | 238 | 1800 | 860 | 430 | 4100 | 3800 | 13382 | 18 | 2100 | 800 | 1630 | 600 | <500 | <500 |
| 32 AP-124 | 8.7 | 1600 | 3000 | 3770 | 845 | 0 | 1500 | <1 | 1200 | 6.97 | 360 | 200 | 55 | 1180 | 1590 | 2045 | 12 | 138 | <100 | 220 | 42 | <500 | <500 |
| 33 AP-135 | 0.06 | 40 | 48 | 211 | 98 | 0 | 600 | 9 | 380 | 12.9 | 270 | 61 | 14 | 260 | 79 | 784 | 10 | 83 | <100 | 57 | 36 | <500 | <500 |
| 34 AP-158 | 0.57 | 1700 | 460 | 1555 | 165 | 0 | 2000 | 12 | 1100 | 130 | 630 | 280 | 170 | 800 | 760 | 9120 | 92 | 675 | 380 | 480 | 281 | 1800 | <500 |
| 35 AP-191 | 1.4 | 6000 | 2500 | 6141 | 208 | 0 | 26000 | 2 | 23000 | 188 | 8400 | 2800 | 600 | 1000 | 9000 | 15527 | 17 | 3500 | 1590 | 3550 | 810 | 5430 | <500 |
| 36 AP-194 | 5.4 | 630 | 2500 | 7419 | 203 | 0 | 13000 | 2 | 12000 | 242 | 3000 | 1600 | 750 | 7400 | 9100 | 22697 | 20 | 3500 | 1660 | 2820 | 680 | 3900 | <500 |
| 37 AP-195 | 2.9 | 1100 | 710 | 1380 | 151 | 0 | 18000 | 17 | 14000 | 97 | 7900 | 2300 | 420 | 1000 | 3700 | 8194 | 10 | 1500 | 489 | 2630 | 325 | 2800 | <500 |
| 38 AP-201 | 0.45 | 730 | 2600 | 12762 | 117 | 0 | 4500 | <1 | 2900 | 37.9 | 1700 | 490 | 79 | 2100 | 550 | 3710 | 58 | 517 | 100 | 436 | 100 | 1000 | <500 |
| 39 AP-204 | 0.21 | 550 | 770 | 2306 | 135 | 0 | 35000 | 18 | 25000 | 229 | 12800 | 4000 | 1100 | 3000 | 2100 | 14538 | 27 | 3800 | 1710 | 3550 | 990 | 6000 | <500 |
| 40 AP-210 | 5.8 | 520 | 1900 | 3069 | 61 | 0 | 2900 | 11 | 2000 | 44.6 | 1000 | 300 | 99 | 1900 | 800 | 4941 | 26 | 600 | 310 | 420 | 160 | 1000 | <500 |
| 41 AP-211 | 22 | 670 | 2100 | 3571 | 68 | 0 | 4500 | 12 | 3100 | 30.7 | 1300 | 330 | 120 | 2500 | 800 | 4325 | 29 | 420 | 180 | 410 | 88 | 800 | <500 |
| 42 AP-215 | 3.1 | 840 | 6100 | 4354 | 136 | 0 | 4300 | <1 | 3600 | 30 | 1000 | 380 | 170 | 2900 | 1000 | 4668 | 29 | 470 | 200 | 490 | 106 | 630 | <500 |
| 43 AP-218 | 4.8 | 300 | 2600 | 4066 | 91 | 0 | 3800 | <1 | 2800 | 68.2 | 1100 | 370 | 150 | 2100 | 1000 | 6050 | 32 | 800 | 380 | 630 | 200 | 790 | <500 |
| 44 AP-223 | 0.44 | 1200 | 740 | 1088 | 62 | 0 | 530 | <1 | 400 | 8.68 | 160 | 56 | 16 | 370 | 470 | 705 | 12 | 66 | <100 | 31 | 15 | <500 | <500 |
| 45 AP-225 | 3.3 | 2000 | 920 | 1729 | 29 | 0 | 550 | 2 | 360 | 3.5 | 210 | 53 | 10 | 290 | 170 | 298 | 12 | 33 | <100 | 28 | <10 | <500 | <500 |
| 46 AP-226 | 2.1 | 1100 | 1100 | 2585 | 43 | 0 | 470 | <1 | 410 | 5.06 | 94 | 68 | 26 | 350 | 520 | 1151 | 13 | 97 | <100 | 102 | 33 | <500 | <500 |
| 47 AP-228 | 1.3 | 870 | 880 | 2075 | 35 | 0 | 510 | <1 | 400 | 3.42 | 120 | 80 | 18 | 410 | 310 | 1222 | 12 | 91 | <100 | 99 | 21 | <500 | <500 |
| 48 AP-001 | 0.92 | 320 | 250 | 1439 | 797 | 0 | 6100 | 22 | 5100 | 32.5 | 1900 | 450 | 95 | 2900 | 460 | 8436 | 35 | 710 | 280 | 1050 | 170 | 3000 | <500 |
| 49 AP-002 | 1.9 | 350 | 360 | 1035 | 112 | 0 | 9300 | 36 | 8000 | 37.2 | 3000 | 620 | 130 | 4300 | 520 | 7195 | 40 | 603 | 190 | 1250 | 103 | 2660 | <500 |
| 50 AP-003 | 2.1 | 300 | 470 | 1529 | 89 | 0 | 6400 | 21 | 4700 | 33.2 | 2200 | 400 | 92 | 2600 | 440 | 5190 | 41 | 587 | 270 | 840 | 87 | 1520 | <500 |
| 51 AP-004 | 1.9 | 530 | 1100 | 1894 | 49 | 0 | 240 | <1 | 160 | 0.73 | 40 | 33 | 13 | 170 | 140 | 1046 | 13 | 84 | <100 | 70 | 23 | <500 | <500 |
| 52 AP-006 | 7.8 | 610 | 1800 | 4512 | 63 | 0 | 430 | <1 | 360 | 0.18 | 90 | 61 | 21 | 360 | 330 | 1768 | 15 | 123 | 100 | 169 | 35 | <500 | <500 |
| 53 AP-006 | 0.76 | 1200 | 650 | 2465 | 47 | 0 | 200 | <1 | 110 | 2.96 | 32 | 24 | 12 | 130 | 160 | 1037 | 12 | 62 | <100 | 58 | 26 | <500 | <500 |
| 54 AP-007 | 10 | 1700 | 3600 | 3816 | 87 | 0 | 620 | <1 | 470 | 0.25 | 150 | 53 | 23 | 330 | 200 | 1482 | 25 | 105 | 100 | 128 | 24 | <500 | <500 |
| 55 AP-008 | 2 | 170 | 640 | 1946 | 51 | 0 | 920 | 3 | 700 | 19.5 | 310 | 78 | 30 | 350 | 160 | 2841 | 42 | 320 | 190 | 216 | 89 | <500 | <500 |
| 56 AP-009 | 0.09 | 200 | 780 | 6940 | 67 | 0 | 1700 | <1 | 1800 | 100 | 500 | 350 | 220 | 2200 | 3100 | 20612 | 18 | 3100 | 1570 | 2000 | 890 | 2000 | <500 |
| 57 AP-010 | 2.3 | 77 | 580 | 3421 | 71 | 0 | 2000 | <1 | 1700 | 38.7 | 290 | 300 | 130 | 3000 | 1300 | 13211 | 18 | 1600 | 770 | 1260 | 400 | 2100 | <500 |
| 58 AP-011 | 1.2 | 140 | 430 | 2297 | 73 | 0 | 2700 | <1 | 2200 | 12.3 | 810 | 350 | 79 | 3600 | 980 | 4623 | 15 | 910 | 300 | 916 | 180 | 2800 | <500 |
| 59 AP-012 | 0.38 | 120 | 490 | 4458 | 69</ | | | | | | | | | | | | | | | | | | |

Appendix 10 Chemical analysis data of panned samples

(2)

| Element | SN | W | TA | KB | AU | MO | CE | BU | LA | LI | NO | SH | TO | TH | U | Y | SC | GY | ER | GO | HO | IR | TH |
|--------------|------|-------|------|------|------|-----|-------|-----|-------|------|------|------|-----|-------|------|-------|-----|------|------|------|------|-------|------|
| Units | % | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM |
| 110 GP-168 | 0.07 | 140 | 330 | 282 | 70 | 0 | 7300 | 7 | 4800 | 67.9 | 2400 | 760 | 150 | 10000 | 1700 | 1180 | 40 | 880 | 520 | 940 | 168 | 1500 | <500 |
| 111 GP-168 | 0.12 | <20 | 360 | 1958 | 125 | 0 | 16000 | 11 | 10000 | 86.2 | 5100 | 990 | 310 | 14000 | 1800 | 12893 | 23 | 7900 | 1750 | 3310 | 1400 | 20000 | <500 |
| 112 KH-001 | 1.3 | 1600 | 550 | 2530 | 99 | 0 | 6600 | 9 | 3900 | 137 | 2300 | 450 | 210 | 3100 | 1000 | 14355 | 29 | 1950 | 530 | 1410 | 470 | 2100 | <500 |
| 113 KH-002 | 0.5 | 370 | 350 | 1895 | 231 | 0 | 11000 | 15 | 6500 | 188 | 3800 | 800 | 360 | 6100 | 1800 | 24816 | 38 | 3900 | 910 | 2770 | 810 | 4200 | <500 |
| 114 KH-003 | 3.1 | 210 | 590 | 3102 | 108 | 0 | 8100 | 12 | 4500 | 112 | 2800 | 550 | 220 | 3900 | 780 | 15223 | 31 | 1800 | 620 | 1660 | 470 | 2500 | <500 |
| 115 KH-004 | 6.1 | 1200 | 1400 | 6140 | 203 | 0 | 16000 | 18 | 9600 | 313 | 5800 | 1900 | 780 | 11000 | 2200 | 47373 | 18 | 6700 | 210 | 7360 | 1600 | 9600 | <500 |
| 116 KH-005 | 11 | 65 | 1700 | 6173 | 134 | 0 | 6400 | 9 | 3700 | 167 | 2100 | 540 | 260 | 3300 | 1400 | 18953 | 45 | 2600 | 930 | 1930 | 610 | 2300 | <500 |
| 117 KP-135 | 1.2 | 420 | 1700 | 1449 | 69 | 0 | 1200 | <1 | 810 | 25.4 | 960 | 130 | 48 | 550 | 240 | 1571 | 42 | 277 | <100 | 210 | 50 | <500 | <500 |
| 118 KP-187 | 0.05 | 420 | 1200 | 6455 | 72 | 0 | 3100 | 8 | 810 | 248 | 750 | 360 | 280 | 3130 | 130 | 16230 | 42 | 2300 | 830 | 1100 | 690 | 660 | <500 |
| 119 KP-190 | 0.05 | 370 | 1200 | 3338 | 151 | 0 | 7500 | <2 | 5400 | 452 | 2400 | 860 | 630 | 9300 | 6700 | 18679 | 52 | 3680 | 2890 | 2410 | 1070 | 1800 | <600 |
| 120 HP-052 | 5 | 380 | 1400 | 3620 | 75 | 0 | 2600 | 5 | 1800 | 31 | 1100 | 320 | 94 | 1600 | 820 | 7183 | 24 | 1160 | 360 | 840 | 250 | 1200 | <500 |
| 121 RATANA-1 | 36 | 14000 | 4400 | 6883 | 2130 | 0 | 490 | <1 | 420 | 0 | 270 | 22 | 21 | 300 | 130 | 1042 | 35 | 2070 | <100 | 168 | 400 | <500 | <500 |
| 122 RATANA-2 | 36 | 8400 | 4200 | 7448 | 94 | 0 | 180 | <1 | 250 | 0 | 90 | 7 | <10 | 130 | 70 | 553 | 35 | 73 | <100 | 68 | <10 | <500 | <500 |
| 123 RATANA-3 | 19 | 20000 | 4200 | 8059 | 125 | 0 | 2600 | 10 | 1700 | 5.1 | 740 | 150 | 61 | 1100 | 220 | 3809 | 58 | 450 | 150 | 450 | 110 | 700 | <500 |
| 124 RATANA-4 | 22 | 20000 | 4500 | 8941 | 215 | 0 | 2400 | 12 | 2100 | 6.24 | 620 | 140 | 61 | 1100 | 250 | 3819 | 69 | 520 | 170 | 550 | 110 | 1100 | <500 |
| 125 BAN BANG | 7.8 | 780 | 2000 | 5925 | 97 | 0 | 3000 | <1 | 2300 | 34.5 | 920 | 270 | 88 | 1500 | 600 | 7717 | 30 | 1130 | 300 | 890 | 270 | 1500 | <500 |
| 126 BAN BANG | 11 | 1100 | 3100 | 5946 | 152 | 0 | 4100 | <1 | 3100 | 52.1 | 1400 | 380 | 140 | 2400 | 960 | 7919 | 42 | 1110 | 280 | 978 | 280 | 1300 | <500 |
| 127 SAI THON | 0.49 | 170 | 510 | 1502 | 81 | 0 | 1600 | 4 | 770 | 21 | 520 | 150 | 51 | 960 | 330 | 2818 | 15 | 196 | 120 | 217 | 52 | <500 | <500 |
| 128 SAI THON | 0.45 | 61 | 180 | 1577 | 34 | 0 | 830 | <1 | 410 | 10.4 | 320 | 72 | 22 | 470 | 160 | 3439 | 6.7 | 234 | 160 | 230 | 66 | 580 | <500 |
| 129 BAN HIN | 1.1 | 260 | 360 | 970 | 26 | 0 | 320 | 1 | 210 | 6.45 | 80 | 35 | 15 | 120 | 62 | 795 | 33 | 76 | <100 | 64 | 22 | <500 | <500 |

Appendix-11 List of previous works

1. DMR, 1985. Geological map of Thailand, 1:250,000, Changwat Chumphon and Amphoe Kra buri. Geological survey division, Department of Mineral Resources.
2. DMR, 1989. Geophysical series, 1:50,000, Aeromagnetic map, survey A, sheet 4729-4730. Department of Mineral Resources.
3. DMR, 1989. Geophysical series, 1:250,000, Airborne gamma-ray spectrometric map, surveys B and C, sheet NC 47-6, 47-7, 47-10. Department of Mineral Resources.
4. Garson, M.S., Young, B., Mitchell, A.H.G. and Tait, B.A.R., 1975. The geology of the tin belt in Peninsular Thailand around Phuket, Phangnga and Takua Pa. Overseas memoir No.1, Inst. Geol. Sci., London.
5. Sirinawin, S., Putthapibann, P. and Mantajit, N., 1983. Some aspects of tin granite and its relationship to tectonic setting. Geol. Soc. America 159, 77-85.
6. Suensilpong, T., Tate, N.M., Pollard, P.J. and Taylor, R.G., 1986. Resource evaluation of primary tin potential of the Phuket-Ranong region, southwestern Thailand - A district analysis. Project of the Southeast Asia tin research and development centre, ESCAP, United Nations, 88p.

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