

| | A | B | C | D | E | F | G | H | I | J | K | L |
|----|------|-----------|------|-------|-------|------|------|------|------|------|------|--------|
| 1 | Type | Sample ID | SiO2 | Al2O3 | Fe2O3 | MgO | CaO | Na2O | K2O | TiO2 | P2O5 | MnO |
| 2 | | | % | % | % | % | % | % | % | % | % | % |
| 3 | SMP | R 01 | 74.5 | 9.11 | 2.47 | 1.87 | 1.84 | 1.04 | 2.23 | 0.46 | 0.1 | < 0.01 |
| 4 | SMP | R-30 | 64.2 | 13.4 | 5.19 | 1.75 | 1.82 | 2.38 | 1.96 | 0.62 | 0.13 | 0.12 |
| 5 | SMP | R-32 | 65.2 | 14.4 | 3.93 | 1.42 | 1.18 | 2.5 | 1.97 | 0.66 | 0.1 | 0.02 |
| 6 | SMP | R 34 | 67.8 | 14.2 | 4.79 | 1.1 | 0.92 | 2.41 | 1.99 | 0.76 | 0.03 | < 0.01 |
| 7 | SMP | R 35 | 73.8 | 12.4 | 2.88 | 0.71 | 0.66 | 2.11 | 1.66 | 0.66 | 0.02 | < 0.01 |
| 8 | SMP | R 36 | 73.7 | 12.5 | 2.91 | 0.73 | 0.68 | 2.13 | 1.65 | 0.65 | 0.02 | < 0.01 |
| 9 | SMP | CS 01 | 74.7 | 11.3 | 2.85 | 1.24 | 0.44 | 1.17 | 2.64 | 0.56 | 0.12 | < 0.01 |
| 10 | SMP | CS 02 | 74.4 | 12.1 | 3.09 | 1.1 | 0.17 | 1.13 | 2.81 | 0.58 | 0.07 | < 0.01 |
| 11 | SMP | CS 03 | 73.2 | 12.9 | 3 | 1.01 | 0.12 | 1.11 | 2.82 | 0.61 | 0.03 | < 0.01 |
| 12 | SMP | CS 04 | 76.2 | 10.8 | 2.55 | 0.76 | 0.42 | 1.11 | 1.87 | 0.57 | 0.02 | < 0.01 |
| 13 | SMP | CS 05 | 81.4 | 8.58 | 2 | 0.59 | 0.18 | 1.02 | 1.63 | 0.57 | 0.02 | < 0.01 |
| 14 | SMP | CS 06 | 71.6 | 11.5 | 2.99 | 1.03 | 0.85 | 1.3 | 2.27 | 0.57 | 0.07 | 0.01 |
| 15 | SMP | CS 15 | 67.5 | 14.4 | 4.42 | 1.15 | 0.53 | 1.85 | 2.5 | 0.62 | 0.09 | < 0.01 |
| 16 | SMP | CS 19 | 67.9 | 14.4 | 4.09 | 0.98 | 0.41 | 1.84 | 2.47 | 0.67 | 0.03 | < 0.01 |
| 17 | SMP | CS 22 | 63.7 | 16.2 | 4.51 | 1.32 | 0.38 | 1.87 | 2.69 | 0.74 | 0.06 | < 0.01 |
| 18 | SMP | CS 25 | 69.9 | 13.6 | 3.84 | 0.83 | 0.32 | 1.94 | 1.84 | 0.66 | 0.02 | < 0.01 |
| 19 | SMP | BS 10 | 68.7 | 14.2 | 4.2 | 1.21 | 0.52 | 1.86 | 2.55 | 0.66 | 0.1 | < 0.01 |
| 20 | SMP | BS 11 | 68.2 | 14.3 | 4.36 | 1.25 | 0.52 | 1.84 | 2.58 | 0.65 | 0.1 | < 0.01 |
| 21 | SMP | BS 12 | 69.8 | 13.6 | 3.99 | 1.18 | 0.57 | 1.96 | 2.44 | 0.62 | 0.1 | 0.01 |
| 22 | SMP | BS 13 | 68.2 | 13.9 | 4.34 | 1.18 | 0.56 | 1.89 | 2.55 | 0.64 | 0.1 | < 0.01 |
| 23 | SMP | BS 14 | 64.7 | 15.6 | 4.94 | 1.27 | 0.46 | 1.87 | 2.53 | 0.71 | 0.05 | < 0.01 |
| 24 | SMP | BS 15 | 64.2 | 16 | 5.01 | 1.43 | 0.55 | 1.83 | 2.55 | 0.74 | 0.09 | < 0.01 |
| 25 | SMP | BS 16 | 50.6 | 12 | 17.3 | 1.72 | 1.79 | 1.55 | 1.94 | 0.54 | 0.23 | 0.32 |
| 26 | SMP | BS 17 | 64.5 | 15.2 | 4.58 | 1.29 | 0.57 | 1.91 | 2.48 | 0.68 | 0.05 | 0.02 |
| 27 | SMP | BS 28 | 61.6 | 17.2 | 5.08 | 1.3 | 0.35 | 1.79 | 2.48 | 0.68 | 0.03 | < 0.01 |
| 28 | SMP | BS 30 | 65.7 | 15.6 | 4.71 | 1.09 | 0.39 | 2.01 | 3.02 | 0.65 | 0.04 | < 0.01 |
| 29 | SMP | BS 34 | 65.4 | 15.4 | 4.36 | 1.26 | 0.32 | 1.46 | 3.07 | 0.65 | 0.06 | < 0.01 |
| 30 | SMP | BS 48 | 63.9 | 14.1 | 6.56 | 2.03 | 1.25 | 1.55 | 3.43 | 0.57 | 0.13 | 0.07 |
| 31 | SMP | BS 64 | 72.9 | 12.9 | 2.96 | 0.7 | 0.27 | 1.78 | 1.79 | 0.62 | 0.02 | < 0.01 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|----|-----|---------|------|------|------|------|------|------|------|------|------|--------|
| 32 | SMP | IS 71 | 69.4 | 13.8 | 4.05 | 0.94 | 0.55 | 1.8 | 1.38 | 0.66 | 0.02 | < 0.01 |
| 33 | SMP | IS 75 | 65 | 15.7 | 4.31 | 1.1 | 0.76 | 2.24 | 1.41 | 0.56 | 0.02 | < 0.01 |
| 34 | SMP | IS 76 | 65.3 | 15.6 | 4.29 | 1.13 | 0.87 | 2.35 | 1.38 | 0.53 | 0.02 | < 0.01 |
| 35 | SMP | IS 77 | 63.8 | 15.7 | 4.98 | 1.2 | 0.62 | 2.23 | 1.64 | 0.63 | 0.03 | < 0.01 |
| 36 | SMP | IS 90 | 66.8 | 15.1 | 3.38 | 1.3 | 1.1 | 2.59 | 1.41 | 0.53 | 0.04 | 0.01 |
| 37 | SMP | IS 91 | 74.4 | 11.9 | 3.14 | 0.81 | 0.71 | 2.02 | 1.1 | 0.64 | 0.02 | < 0.01 |
| 38 | SMP | IS 92 | 72.2 | 12.3 | 3.2 | 0.86 | 0.46 | 2.01 | 1.12 | 0.64 | 0.02 | < 0.01 |
| 39 | SMP | IS 93 | 75.1 | 11.7 | 2.98 | 0.77 | 0.6 | 1.94 | 1.03 | 0.67 | 0.02 | < 0.01 |
| 40 | SMP | IS 94 | 65.7 | 12.7 | 3.29 | 0.84 | 0.62 | 1.9 | 1.09 | 0.61 | 0.02 | < 0.01 |
| 41 | SMP | IS 95 | 65 | 15 | 4.19 | 1.29 | 0.6 | 2.16 | 1.53 | 0.62 | 0.04 | < 0.01 |
| 42 | SMP | IS 96 | 64.3 | 15 | 4.32 | 1.28 | 0.67 | 2.27 | 1.54 | 0.59 | 0.03 | 0.01 |
| 43 | SMP | IS 97 | 62.1 | 15 | 4.96 | 1.2 | 0.68 | 2.15 | 1.55 | 0.59 | 0.02 | < 0.01 |
| 44 | SMP | IS 98 | 66 | 14.3 | 4.52 | 1.17 | 0.67 | 2.05 | 1.69 | 0.53 | 0.03 | 0.02 |
| 45 | SMP | IS 99 | 65.9 | 14.3 | 4.57 | 1.14 | 0.7 | 2.07 | 1.67 | 0.53 | 0.03 | 0.02 |
| 46 | SMP | IS 100 | 66.6 | 14 | 4.43 | 1.12 | 0.74 | 2.02 | 1.59 | 0.53 | 0.02 | < 0.01 |
| 47 | SMP | IS 101 | 65.4 | 14.2 | 4.11 | 1.15 | 0.77 | 2.09 | 1.38 | 0.53 | 0.02 | < 0.01 |
| 48 | SMP | IS 102 | 65 | 14.7 | 4.74 | 1.23 | 0.85 | 2.06 | 1.29 | 0.54 | 0.02 | < 0.01 |
| 49 | SMP | IS 103 | 64.9 | 14.5 | 4.11 | 1.16 | 0.75 | 2.09 | 1.15 | 0.55 | 0.02 | < 0.01 |
| 50 | SMP | BB30 09 | 66.7 | 15 | 4.51 | 1.32 | 0.79 | 2.37 | 1.92 | 0.63 | 0.03 | < 0.01 |
| 51 | SMP | BB30 10 | 68.4 | 14.5 | 4.02 | 1.29 | 0.72 | 2.34 | 1.88 | 0.6 | 0.02 | < 0.01 |
| 52 | SMP | BB30 11 | 66.1 | 14.9 | 4.66 | 1.36 | 0.52 | 1.94 | 2.22 | 0.64 | 0.05 | 0.01 |
| 53 | SMP | BB30 12 | 64.5 | 15.8 | 4.79 | 1.55 | 0.47 | 1.94 | 2.39 | 0.68 | 0.05 | < 0.01 |
| 54 | SMP | BB30 13 | 64.7 | 15.4 | 4.96 | 1.36 | 0.47 | 1.97 | 2.35 | 0.68 | 0.06 | < 0.01 |
| 55 | SMP | BB30 14 | 64.1 | 15.7 | 5.17 | 1.45 | 0.42 | 1.97 | 2.4 | 0.71 | 0.05 | 0.01 |
| 56 | SMP | BB30 15 | 70.5 | 13 | 3.57 | 1.01 | 0.44 | 1.97 | 2.11 | 0.61 | 0.04 | < 0.01 |
| 57 | SMP | GP-02 | 79.4 | 8.99 | 2.79 | 0.5 | 0.15 | 1 | 1.72 | 0.57 | 0.02 | < 0.01 |
| 58 | SMP | GP-03 | 72.8 | 11.6 | 3.22 | 0.78 | 0.22 | 1.1 | 2.12 | 0.57 | 0.07 | < 0.01 |
| 59 | SMP | GP-04 | 72.9 | 11.7 | 3.41 | 0.85 | 0.21 | 1.15 | 2.36 | 0.56 | 0.09 | < 0.01 |
| 60 | SMP | GP-05 | 69 | 13.3 | 4.08 | 1.02 | 0.27 | 1.29 | 2.48 | 0.61 | 0.08 | 0.01 |
| 61 | SMP | GP-06 | 64.2 | 15.3 | 4.62 | 1.28 | 0.36 | 1.47 | 2.79 | 0.7 | 0.1 | 0.02 |
| 62 | SMP | GP-07 | 64.1 | 15.8 | 4.68 | 1.19 | 0.42 | 1.74 | 2.8 | 0.68 | 0.1 | 0.02 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|----|-----|--------|------|------|------|------|------|------|------|------|------|--------|
| 63 | SMP | GP-08 | 64.6 | 15.2 | 4.67 | 1.15 | 0.49 | 1.65 | 2.78 | 0.68 | 0.08 | 0.01 |
| 64 | SMP | GP-09 | 63.9 | 15.4 | 4.8 | 1.18 | 0.53 | 1.74 | 2.57 | 0.66 | 0.1 | 0.01 |
| 65 | SMP | GP-10 | 62.9 | 15.8 | 5.6 | 1.2 | 0.5 | 1.73 | 2.75 | 0.7 | 0.09 | < 0.01 |
| 66 | SMP | GP-11 | 62.6 | 15.8 | 5.41 | 1.21 | 0.47 | 1.75 | 2.73 | 0.69 | 0.09 | 0.01 |
| 67 | SMP | GP-34 | 68.7 | 13.4 | 3.36 | 1.18 | 1.07 | 2.25 | 2.06 | 0.53 | 0.11 | 0.02 |
| 68 | SMP | GP-35 | 62.2 | 15.1 | 4.73 | 1.08 | 0.57 | 1.99 | 2.3 | 0.67 | 0.03 | 0.03 |
| 69 | SMP | GP-36 | 63.5 | 14.1 | 6.05 | 0.85 | 0.66 | 2.12 | 2.04 | 0.64 | 0.03 | 0.02 |
| 70 | SMP | GP-37 | 68.6 | 12.7 | 3.59 | 0.69 | 0.56 | 2.06 | 1.85 | 0.65 | 0.03 | 0.01 |
| 71 | SMP | GP-38 | 68.7 | 12.9 | 3.61 | 0.73 | 0.57 | 2.08 | 1.76 | 0.65 | 0.02 | 0.01 |
| 72 | SMP | GP-39 | 69.2 | 13 | 3.45 | 0.73 | 0.58 | 2.09 | 1.7 | 0.66 | 0.02 | < 0.01 |
| 73 | SMP | GP-40 | 68.3 | 13.1 | 3.69 | 0.78 | 0.57 | 2.08 | 1.67 | 0.66 | 0.02 | < 0.01 |
| 74 | SMP | GP-41 | 65.7 | 14.5 | 4.16 | 1.01 | 0.61 | 2.11 | 1.77 | 0.62 | 0.02 | < 0.01 |
| 75 | SMP | GP 01 | 77.6 | 11 | 2.37 | 0.74 | 0.19 | 1.13 | 2.18 | 0.56 | 0.04 | < 0.01 |
| 76 | SMP | GP 12 | 67.9 | 15.5 | 3.89 | 0.97 | 0.37 | 1.85 | 2.54 | 0.67 | 0.03 | < 0.01 |
| 77 | SMP | GP 14 | 67.6 | 15.7 | 4 | 0.95 | 0.46 | 1.85 | 2.96 | 0.72 | 0.08 | < 0.01 |
| 78 | SMP | GP 16 | 70.4 | 14.1 | 3.43 | 0.71 | 0.45 | 1.78 | 1.92 | 0.67 | 0.02 | < 0.01 |
| 79 | SMP | GP 17 | 73.2 | 12.8 | 2.89 | 0.66 | 0.33 | 1.73 | 2.19 | 0.67 | 0.03 | < 0.01 |
| 80 | SMP | GP 19 | 71.5 | 13.7 | 3.29 | 0.76 | 0.33 | 1.66 | 2.39 | 0.68 | 0.03 | < 0.01 |
| 81 | SMP | GP2 08 | 64.6 | 14.6 | 4.78 | 1.19 | 0.47 | 1.89 | 2.25 | 0.62 | 0.05 | 0.02 |
| 82 | SMP | GP2 12 | 65 | 14.5 | 4.43 | 1.62 | 1.07 | 1.78 | 2.07 | 0.53 | 0.08 | < 0.01 |

| | M | N | O | P | Q | R | S | T | U | V | W |
|----|--------|------|------|-------|----|-----|----|-----|-----|------|-------------|
| 32 | 0.01 | 0.02 | 7.63 | 100.2 | | | | | | | 0.198847262 |
| 33 | 0.01 | 0.02 | 8.82 | 99.9 | | | | | | | 0.241538462 |
| 34 | < 0.01 | 0.02 | 8.29 | 99.8 | | | | | | | 0.238897397 |
| 35 | < 0.01 | 0.02 | 9.01 | 99.9 | | | | | | | 0.246081505 |
| 36 | 0.01 | 0.02 | 8.03 | 100.4 | 14 | 201 | 45 | 282 | 47 | 728 | 0.226047904 |
| 37 | 0.01 | 0.02 | 6.22 | 101 | 12 | 224 | 29 | 206 | 41 | 934 | 0.159946237 |
| 38 | < 0.01 | 0.02 | 6.53 | 99.4 | 12 | 216 | 24 | 175 | 43 | 529 | 0.170360111 |
| 39 | < 0.01 | 0.02 | 5.45 | 100.3 | 13 | 224 | 16 | 166 | 37 | 498 | 0.155792277 |
| 40 | < 0.01 | 0.02 | 12.7 | 99.5 | 13 | 222 | 33 | 250 | 49 | 789 | 0.193302892 |
| 41 | 0.02 | 0.02 | 9.49 | 99.9 | 13 | 175 | 28 | 235 | 70 | 775 | 0.230769231 |
| 42 | 0.01 | 0.02 | 8.95 | 99 | 13 | 171 | 25 | 258 | 72 | 828 | 0.233281493 |
| 43 | < 0.01 | 0.02 | 10.2 | 98.6 | 13 | 168 | 26 | 249 | 75 | 798 | 0.241545894 |
| 44 | < 0.01 | 0.02 | 8.34 | 99.3 | 12 | 206 | 32 | 225 | 95 | 849 | 0.216666667 |
| 45 | < 0.01 | 0.02 | 8.63 | 99.6 | 12 | 202 | 32 | 222 | 94 | 605 | 0.216995448 |
| 46 | < 0.01 | 0.02 | 8.47 | 99.6 | 13 | 198 | 27 | 200 | 88 | 525 | 0.21021021 |
| 47 | < 0.01 | 0.02 | 9.54 | 99.2 | 13 | 216 | 30 | 253 | 68 | 572 | 0.217125382 |
| 48 | < 0.01 | 0.02 | 8.74 | 99.2 | 14 | 208 | 26 | 218 | 66 | 478 | 0.226153846 |
| 49 | < 0.01 | 0.02 | 10.6 | 100 | 14 | 228 | 23 | 274 | 56 | 1181 | 0.223420647 |
| 50 | 0.01 | 0.02 | 6.59 | 99.9 | 9 | 191 | 35 | 195 | 73 | 491 | 0.224887556 |
| 51 | < 0.01 | 0.02 | 6.06 | 99.9 | 9 | 180 | 36 | 194 | 70 | 498 | 0.211988304 |
| 52 | < 0.01 | 0.02 | 7.16 | 99.6 | 10 | 177 | 24 | 194 | 94 | 567 | 0.225416036 |
| 53 | 0.01 | 0.02 | 7.86 | 100.1 | 11 | 153 | 26 | 150 | 101 | 579 | 0.24496124 |
| 54 | 0.01 | 0.02 | 7.49 | 99.5 | 11 | 157 | 59 | 161 | 101 | 667 | 0.238021638 |
| 55 | 0.01 | 0.02 | 7.35 | 99.5 | 11 | 164 | 48 | 172 | 103 | 629 | 0.244929797 |
| 56 | 0.01 | 0.02 | 6.08 | 99.4 | 11 | 244 | 25 | 142 | 104 | 496 | 0.184397163 |
| 57 | 0.02 | 0.02 | 4.26 | 99.4 | 14 | 337 | 25 | 65 | 75 | 361 | 0.113224181 |
| 58 | 0.01 | 0.02 | 6.54 | 99.1 | 14 | 300 | 32 | 80 | 96 | 386 | 0.159340659 |
| 59 | 0.01 | 0.02 | 6.58 | 99.9 | 13 | 286 | 30 | 73 | 111 | 400 | 0.160493827 |
| 60 | 0.01 | 0.02 | 7.4 | 99.6 | 13 | 253 | 28 | 92 | 112 | 416 | 0.192753623 |
| 61 | < 0.01 | 0.02 | 8.09 | 99 | 13 | 203 | 28 | 112 | 104 | 498 | 0.238317757 |
| 62 | 0.01 | 0.02 | 8.37 | 99.9 | 11 | 196 | 27 | 131 | 91 | 478 | 0.24648986 |

| | X | Y | Z | AA |
|----|----------------------|------------------------------|-----------------------|-----------------------|
| 1 | Fe2O3/SiO2 Oxidation | CaO+MgO/Al2O3 Calcareousness | SiO2/Fe2O3 Hydrolysis | Na2O/K2O Salinization |
| 2 | | | | |
| 3 | 0.033154362 | 0.407244786 | 30.16194332 | 0.466367713 |
| 4 | 0.080841121 | 0.26641791 | 12.3699422 | 1.214285714 |
| 5 | 0.060276074 | 0.180555556 | 16.59033079 | 1.269035533 |
| 6 | 0.070648968 | 0.142253521 | 14.15448852 | 1.211055276 |
| 7 | 0.03902439 | 0.110483871 | 25.625 | 1.271084337 |
| 8 | 0.039484396 | 0.1128 | 25.32646048 | 1.290909091 |
| 9 | 0.03815261 | 0.148672566 | 26.21052632 | 0.443181818 |
| 10 | 0.041532258 | 0.104958678 | 24.0776699 | 0.402135231 |
| 11 | 0.040983607 | 0.087596899 | 24.4 | 0.393617021 |
| 12 | 0.033464567 | 0.109259259 | 29.88235294 | 0.593582888 |
| 13 | 0.024570025 | 0.08974359 | 40.7 | 0.625766871 |
| 14 | 0.041759777 | 0.163478261 | 23.94648829 | 0.572687225 |
| 15 | 0.065481481 | 0.116666667 | 15.27149321 | 0.74 |
| 16 | 0.060235641 | 0.096527778 | 16.60146699 | 0.744939271 |
| 17 | 0.070800628 | 0.104938272 | 14.12416851 | 0.695167286 |
| 18 | 0.054935622 | 0.084558824 | 18.203125 | 1.054347826 |
| 19 | 0.061135371 | 0.121830986 | 16.35714286 | 0.729411765 |
| 20 | 0.063929619 | 0.123776224 | 15.64220183 | 0.713178295 |
| 21 | 0.057163324 | 0.128676471 | 17.49373434 | 0.803278689 |
| 22 | 0.063636364 | 0.125179856 | 15.71428571 | 0.741176471 |
| 23 | 0.076352396 | 0.110897436 | 13.09716599 | 0.739130435 |
| 24 | 0.078037383 | 0.12375 | 12.81437126 | 0.717647059 |
| 25 | 0.341897233 | 0.2925 | 2.924855491 | 0.798969072 |
| 26 | 0.071007752 | 0.122368421 | 14.08296943 | 0.77016129 |
| 27 | 0.082467532 | 0.095930233 | 12.12598425 | 0.721774194 |
| 28 | 0.071689498 | 0.094871795 | 13.94904459 | 0.665562914 |
| 29 | 0.066666667 | 0.102597403 | 15 | 0.475570033 |
| 30 | 0.102660407 | 0.232624113 | 9.740853659 | 0.451895044 |
| 31 | 0.040603567 | 0.075193798 | 24.62837838 | 0.994413408 |

| | X | Y | Z | AA |
|----|-------------|-------------|-------------|-------------|
| 32 | 0.058357349 | 0.107971014 | 17.13580247 | 1.304347826 |
| 33 | 0.066307692 | 0.118471338 | 15.0812065 | 1.588652482 |
| 34 | 0.065696784 | 0.128205128 | 15.22144522 | 1.702898551 |
| 35 | 0.078056426 | 0.115923567 | 12.81124498 | 1.359756098 |
| 36 | 0.050598802 | 0.158940397 | 19.76331361 | 1.836879433 |
| 37 | 0.042204301 | 0.127731092 | 23.69426752 | 1.836363636 |
| 38 | 0.04432133 | 0.107317073 | 22.5625 | 1.794642857 |
| 39 | 0.039680426 | 0.117094017 | 25.20134228 | 1.883495146 |
| 40 | 0.050076104 | 0.11496063 | 19.96960486 | 1.743119266 |
| 41 | 0.064461538 | 0.126 | 15.51312649 | 1.411764706 |
| 42 | 0.06718507 | 0.13 | 14.88425926 | 1.474025974 |
| 43 | 0.079871176 | 0.125333333 | 12.52016129 | 1.387096774 |
| 44 | 0.068484848 | 0.128671329 | 14.60176991 | 1.213017751 |
| 45 | 0.069347496 | 0.128671329 | 14.42013129 | 1.239520958 |
| 46 | 0.066516517 | 0.132857143 | 15.03386005 | 1.270440252 |
| 47 | 0.062844037 | 0.135211268 | 15.91240876 | 1.514492754 |
| 48 | 0.072923077 | 0.141496599 | 13.71308017 | 1.596899225 |
| 49 | 0.063328197 | 0.131724138 | 15.79075426 | 1.817391304 |
| 50 | 0.067616192 | 0.140666667 | 14.78935698 | 1.234375 |
| 51 | 0.05877193 | 0.13862069 | 17.01492537 | 1.244680851 |
| 52 | 0.070499244 | 0.126174497 | 14.18454936 | 0.873873874 |
| 53 | 0.074263566 | 0.127848101 | 13.46555324 | 0.811715481 |
| 54 | 0.076661515 | 0.118831169 | 13.04435484 | 0.838297872 |
| 55 | 0.080655226 | 0.11910828 | 12.39845261 | 0.820833333 |
| 56 | 0.050638298 | 0.111538462 | 19.74789916 | 0.933649289 |
| 57 | 0.035138539 | 0.072302558 | 28.45878136 | 0.581395349 |
| 58 | 0.044230769 | 0.086206897 | 22.60869565 | 0.518867925 |
| 59 | 0.046776406 | 0.090598291 | 21.37829912 | 0.487288136 |
| 60 | 0.059130435 | 0.096992481 | 16.91176471 | 0.52016129 |
| 61 | 0.071962617 | 0.107189542 | 13.8961039 | 0.52688172 |
| 62 | 0.07301092 | 0.101898734 | 13.6965812 | 0.621428571 |

| | X | Y | Z | AA |
|----|-------------|-------------|-------------|-------------|
| 63 | 0.072291022 | 0.107894737 | 13.83297645 | 0.59352518 |
| 64 | 0.075117371 | 0.111038961 | 13.3125 | 0.677042802 |
| 65 | 0.089030207 | 0.107594937 | 11.23214286 | 0.629090909 |
| 66 | 0.086421725 | 0.106329114 | 11.57116451 | 0.641025641 |
| 67 | 0.048908297 | 0.167910448 | 20.44642857 | 1.09223301 |
| 68 | 0.076045016 | 0.109271523 | 13.15010571 | 0.865217391 |
| 69 | 0.095275591 | 0.107092199 | 10.49586777 | 1.039215686 |
| 70 | 0.052332362 | 0.098425197 | 19.1086351 | 1.113513514 |
| 71 | 0.052547307 | 0.100775194 | 19.03047091 | 1.181818182 |
| 72 | 0.049855491 | 0.100769231 | 20.05797101 | 1.229411765 |
| 73 | 0.054026354 | 0.103053435 | 18.50948509 | 1.245508982 |
| 74 | 0.063318113 | 0.111724138 | 15.79326923 | 1.192090395 |
| 75 | 0.030541237 | 0.084545455 | 32.74261603 | 0.518348624 |
| 76 | 0.057290133 | 0.086451613 | 17.45501285 | 0.728346457 |
| 77 | 0.059171598 | 0.089808917 | 16.9 | 0.625 |
| 78 | 0.048721591 | 0.082269504 | 20.52478134 | 0.927083333 |
| 79 | 0.039480874 | 0.07734375 | 25.32871972 | 0.789954338 |
| 80 | 0.046013986 | 0.079562044 | 21.7325228 | 0.694560669 |
| 81 | 0.073993808 | 0.11369863 | 13.51464435 | 0.84 |
| 82 | 0.068153846 | 0.185517241 | 14.67268623 | 0.859903382 |

| | AB | AC |
|----|------------------------------------|----------------|
| 1 | Al2O3/(CaO+MgO+Na2O+K2O) Base loss | Ba/Sr Leaching |
| 2 | | |
| 3 | 1.305157593 | #DIV/0! |
| 4 | 1.694058154 | 2.045977011 |
| 5 | 2.036775106 | 1.869090909 |
| 6 | 2.211838006 | 2.119298246 |
| 7 | 2.412451362 | 2.722513089 |
| 8 | 2.408477842 | 2.791666667 |
| 9 | 2.058287796 | 5.756756757 |
| 10 | 2.322456814 | 6 |
| 11 | 2.549407115 | 5.572815534 |
| 12 | 2.596153846 | 5.112676056 |
| 13 | 2.50877193 | 5.271428571 |
| 14 | 2.110091743 | 4.033898305 |
| 15 | 2.388059701 | #DIV/0! |
| 16 | 2.526315789 | #DIV/0! |
| 17 | 2.587859425 | #DIV/0! |
| 18 | 2.75862069 | #DIV/0! |
| 19 | 2.312703583 | 4.041666667 |
| 20 | 2.310177706 | 3.9125 |
| 21 | 2.211382114 | 3.734567901 |
| 22 | 2.249190939 | 4.256097561 |
| 23 | 2.544861338 | 5.067567568 |
| 24 | 2.51572327 | 4.067114094 |
| 25 | 1.714285714 | 3.624365482 |
| 26 | 2.432 | 3.95483871 |
| 27 | 2.905405405 | #DIV/0! |
| 28 | 2.396313364 | #DIV/0! |
| 29 | 2.520458265 | #DIV/0! |
| 30 | 1.707021792 | #DIV/0! |
| 31 | 2.841409692 | #DIV/0! |

| | AB | AC |
|----|-------------|-------------|
| 32 | 2.95503212 | #DIV/0! |
| 33 | 2.849364791 | #DIV/0! |
| 34 | 2.722513089 | #DIV/0! |
| 35 | 2.759226714 | #DIV/0! |
| 36 | 2.359375 | 2.581560284 |
| 37 | 2.564655172 | 4.533980583 |
| 38 | 2.764044944 | 3.022857143 |
| 39 | 2.695852535 | 3 |
| 40 | 2.853932584 | 3.156 |
| 41 | 2.688172043 | 3.29787234 |
| 42 | 2.604166667 | 3.209302326 |
| 43 | 2.688172043 | 3.204819277 |
| 44 | 2.562724014 | 3.773333333 |
| 45 | 2.562724014 | 2.725225225 |
| 46 | 2.559414991 | 2.625 |
| 47 | 2.634508349 | 2.260869565 |
| 48 | 2.70718232 | 2.19266055 |
| 49 | 2.815533981 | 4.310218978 |
| 50 | 2.34375 | 2.517948718 |
| 51 | 2.327447833 | 2.567010309 |
| 52 | 2.466887417 | 2.922680412 |
| 53 | 2.488188976 | 3.86 |
| 54 | 2.504065041 | 4.142857143 |
| 55 | 2.516025641 | 3.656976744 |
| 56 | 2.350813743 | 3.492957746 |
| 57 | 2.667655786 | 5.553846154 |
| 58 | 2.748815166 | 4.825 |
| 59 | 2.560175055 | 5.479452055 |
| 60 | 2.628458498 | 4.52173913 |
| 61 | 2.593220339 | 4.446428571 |
| 62 | 2.569105691 | 3.648854962 |

| | AB | AC |
|----|-------------|-------------|
| 63 | 2.504118616 | 3.795275591 |
| 64 | 2.558139535 | 3.398601399 |
| 65 | 2.556634304 | 3.335664336 |
| 66 | 2.564935065 | 3.515384615 |
| 67 | 2.042682927 | 2.247863248 |
| 68 | 2.542087542 | 2.698863636 |
| 69 | 2.486772487 | 2.066371681 |
| 70 | 2.46124031 | 2.617142857 |
| 71 | 2.509727626 | 2.535294118 |
| 72 | 2.549019608 | 2.033018868 |
| 73 | 2.568627451 | 2.458333333 |
| 74 | 2.636363636 | 2.25136612 |
| 75 | 2.594339623 | #DIV/0! |
| 76 | 2.705061082 | #DIV/0! |
| 77 | 2.524115756 | #DIV/0! |
| 78 | 2.901234568 | #DIV/0! |
| 79 | 2.606924644 | #DIV/0! |
| 80 | 2.66536965 | #DIV/0! |
| 81 | 2.517241379 | #DIV/0! |
| 82 | 2.217125382 | #DIV/0! |