

*Tectonics*

Supporting Information for

**A 1.9 Ga mélange along the northern margin of the North China craton: Implications for the assembly of Columbia supercontinent**

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**Introduction**

Table S1. Summary of sample locations from the northern margin of the North China craton

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sample number** | **Description** | **Dating Method** | **Latitude (°N)** | **Longitude (°E)** |
| **North Bayan Obo domain** | | | | |
| 17BYB | augite peridotite | Geochemistry/petrography | 41°50′17.17″ | 109°54′33.7″ |
| DM01 | dunite | U-Pb dating/Geochemistry/petrography | 41°50′17.17″ | 109°54′33.7″ |
| BYB-3 | metagabbro | U-Pb dating/Geochemistry/petrography | 41°50′17.17″ | 109°54′33.7″ |
| 17BYJ | quartz diorite | U-Pb dating/Geochemistry/petrography | 41°49′52″ | 110°01′40″ |
|  |  |  |  |  |
| **Bayan Obo domain** | | | | |
| PM1-02 | trondhjemite | U-Pb dating/Geochemistry/petrography | **Profile C-D**  **C**: 41°46′42.00″; **D**: 41°46′54.05″ | **Profile C-D**  **C**: 109°53′54.49″; **D**: 109°53′53.99″ |
| PM1-04 | trondhjemite | Geochemistry |
| PM1-09 | plagiogranite | Geochemistry |
| PM1-11 | plagiogranite | U-Pb dating/Geochemistry/petrography |
| PM1-03 | amphibolite | Geochemistry |
| PM1-06 | amphibolite | Geochemistr |
| PM1-10 | amphibolite | U-Pb dating/Geochemistry/petrography |
| PM1-5 | meta-tonalite | Geochemistry |
| PM1-7 | meta-tonalite | U-Pb dating/Geochemistry/petrography |
| PM1-12-1 | basalt | Geochemistry/petrography |
| PM1-12-6 | basalt | Geochemistry |
| PM1-14-2 | basalt | Geochemistry |
| BY1-3 | gabbro | U-Pb dating/Geochemistry/petrography |
| PM1-12-4 | gabbro | Geochemistry |
| PM1-12-5 | gabbro | Geochemistry |
| PM1-14-1 | gabbro | Geochemistry |
| PM1-15 | tonalite | U-Pb dating/petrography |
| PM1-16 | diorite | U-Pb dating/petrography |
| PM1-18 | alkaline granulite | Petrography |
| BY1-2 | granite | U-Pb dating/petrography |
| 17LMY | mica quartz schist | Detrital zircon U-Pb dating/petrography | 41°48′00.0″ | 109°45′45.2″ |
|  |  |  |  |  |
| **Southern Bayan Obo domain** | | | | |
| 17SLHD | tonalite | U-Pb dating/petrography | 41°35′05.5″ | 110°07′49.0″ |
| 17XH | monzogranite | U-Pb dating/petrography | 41°29′59.3″ | 110°03′48.5″ |
| 17YYF | syenite | U-Pb dating/petrography | 41°29′11.5″ | 110°03′33.1″ |
| 17HNJ | biotite monzogneiss | U-Pb dating/petrography | 41°22′36.2″ | 109°49′22.2″ |
| 17SFZ | granodiorite | U-Pb dating/Geochemistry/petrography | 41°05′03.7″ | 109°42′24.3″ |
| 17LSH | meta-monzogranite | U-Pb dating/Geochemistry/petrography | 41°06′01.7″ | 109°42′06.0″ |

Table S2. Zircon U–Pb isotopic data for the eighteen samples from the northern margin of the North China craton

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample analysis Spot | | | Corrected Isotopic Ratios | | | | | | Corrected Ages (Ma) | | | | | |
| number | U | Pb | 206Pb/238U | 1σ | 207Pb/235U | 1σ | 207Pb/206Pb | 1σ | 206Pb/238U | 1σ | 207Pb/235U | 1σ | 207Pb/206Pb | 1σ |
| ***BYB-3, Metagabbro*** | | | | | | | | | | | | | | |
| sam.01 | 144 | 385 | 0.3516 | 0.0035 | 5.9369 | 0.0921 | 0.1225 | 0.0016 | 1942 | 20 | 1967 | 31 | 1992 | 23 |
| sam.02 | 109 | 284 | 0.3526 | 0.0034 | 5.9817 | 0.0909 | 0.1230 | 0.0016 | 1947 | 19 | 1973 | 30 | 2001 | 23 |
| sam.03 | 104 | 302 | 0.3515 | 0.0035 | 5.9052 | 0.0906 | 0.1218 | 0.0015 | 1942 | 19 | 1962 | 30 | 1983 | 23 |
| sam.04 | 64 | 183 | 0.3496 | 0.0034 | 6.0090 | 0.0913 | 0.1247 | 0.0016 | 1933 | 19 | 1977 | 30 | 2024 | 22 |
| sam.05 | 97 | 301 | 0.3325 | 0.0033 | 5.2798 | 0.0803 | 0.1152 | 0.0015 | 1851 | 18 | 1866 | 28 | 1882 | 23 |
| sam.06 | 277 | 858 | 0.3266 | 0.0033 | 5.6126 | 0.0855 | 0.1246 | 0.0016 | 1822 | 18 | 1918 | 29 | 2024 | 22 |
| sam.07 | 253 | 820 | 0.2896 | 0.0029 | 4.7904 | 0.0733 | 0.1200 | 0.0015 | 1639 | 17 | 1783 | 27 | 1956 | 22 |
| sam.08 | 201 | 535 | 0.3710 | 0.0038 | 6.9981 | 0.1080 | 0.1368 | 0.0017 | 2034 | 21 | 2111 | 33 | 2187 | 22 |
| sam.09 | 141 | 413 | 0.3491 | 0.0034 | 5.7921 | 0.0871 | 0.1203 | 0.0015 | 1930 | 19 | 1945 | 29 | 1961 | 22 |
| sam.10 | 123 | 354 | 0.3559 | 0.0036 | 6.0058 | 0.0914 | 0.1224 | 0.0015 | 1963 | 20 | 1977 | 30 | 1991 | 22 |
| sam.11 | 200 | 510 | 0.3915 | 0.0040 | 7.2869 | 0.1112 | 0.1350 | 0.0017 | 2130 | 22 | 2147 | 33 | 2164 | 22 |
| sam.12 | 267 | 885 | 0.2998 | 0.0029 | 4.8882 | 0.0735 | 0.1182 | 0.0015 | 1691 | 16 | 1800 | 27 | 1930 | 22 |
| sam.13 | 429 | 1464 | 0.2859 | 0.0028 | 4.2112 | 0.0633 | 0.1068 | 0.0013 | 1621 | 16 | 1676 | 25 | 1746 | 23 |
| sam.14 | 221 | 603 | 0.3416 | 0.0034 | 5.6153 | 0.0853 | 0.1192 | 0.0015 | 1895 | 19 | 1918 | 29 | 1944 | 23 |
| sam.15 | 197 | 476 | 0.3501 | 0.0036 | 5.8033 | 0.0901 | 0.1202 | 0.0015 | 1935 | 20 | 1947 | 30 | 1959 | 23 |
| sam.16 | 57 | 786 | 0.0678 | 0.0007 | 0.5426 | 0.0085 | 0.0580 | 0.0007 | 423 | 4 | 440 | 7 | 531 | 28 |
| sam.17 | 201 | 523 | 0.3893 | 0.0041 | 7.0992 | 0.1106 | 0.1322 | 0.0017 | 2120 | 23 | 2124 | 33 | 2128 | 22 |
| sam.18 | 124 | 362 | 0.3515 | 0.0037 | 5.7524 | 0.0893 | 0.1187 | 0.0015 | 1942 | 20 | 1939 | 30 | 1937 | 23 |
| sam.19 | 94 | 201 | 0.4439 | 0.0049 | 9.2659 | 0.1480 | 0.1514 | 0.0019 | 2368 | 26 | 2365 | 38 | 2362 | 22 |
| sam.20 | 260 | 721 | 0.3461 | 0.0034 | 5.6376 | 0.0853 | 0.1181 | 0.0015 | 1916 | 19 | 1922 | 29 | 1928 | 22 |
| sam.21 | 101 | 256 | 0.3673 | 0.0036 | 6.2724 | 0.0944 | 0.1239 | 0.0016 | 2017 | 20 | 2015 | 30 | 2012 | 22 |
| sam.22 | 276 | 741 | 0.3382 | 0.0034 | 5.3210 | 0.0811 | 0.1141 | 0.0014 | 1878 | 19 | 1872 | 29 | 1866 | 23 |
| sam.23 | 165 | 515 | 0.3184 | 0.0031 | 5.1582 | 0.0778 | 0.1175 | 0.0015 | 1782 | 18 | 1846 | 28 | 1918 | 22 |
| sam.24 | 293 | 982 | 0.3040 | 0.0030 | 5.1052 | 0.0773 | 0.1218 | 0.0015 | 1711 | 17 | 1837 | 28 | 1982 | 22 |
| sam.25 | 86 | 227 | 0.3652 | 0.0037 | 6.2734 | 0.0959 | 0.1246 | 0.0016 | 2007 | 20 | 2015 | 31 | 2023 | 22 |
| sam.26 | 125 | 328 | 0.3565 | 0.0036 | 6.2142 | 0.0948 | 0.1264 | 0.0016 | 1966 | 20 | 2006 | 31 | 2049 | 22 |
| sam.27 | 19 | 60 | 0.3255 | 0.0032 | 6.0757 | 0.0995 | 0.1354 | 0.0019 | 1816 | 18 | 1987 | 33 | 2169 | 24 |
| sam.28 | 51 | 165 | 0.3203 | 0.0031 | 5.0384 | 0.0779 | 0.1141 | 0.0015 | 1791 | 18 | 1826 | 28 | 1866 | 24 |
| sam.29 | 37 | 93 | 0.3654 | 0.0040 | 6.2071 | 0.1001 | 0.1232 | 0.0016 | 2008 | 22 | 2005 | 32 | 2003 | 23 |
| sam.30 | 108 | 301 | 0.3423 | 0.0035 | 5.6355 | 0.0886 | 0.1194 | 0.0015 | 1898 | 20 | 1922 | 30 | 1947 | 23 |
| ***DM01, Dunite*** | | | | | | | | | | | | | | |
| sam.01 | 171 | 441 | 0.3448 | 0.0035 | 5.7166 | 0.0783 | 0.1203 | 0.0015 | 1910 | 19 | 1934 | 27 | 1960 | 22 |
| sam.02 | 66 | 131 | 0.4299 | 0.0043 | 8.7762 | 0.1240 | 0.1481 | 0.0018 | 2305 | 23 | 2315 | 33 | 2324 | 21 |
| sam.03 | 73 | 1910 | 0.0397 | 0.0004 | 0.3063 | 0.0044 | 0.0560 | 0.0007 | 251 | 2 | 271 | 4 | 453 | 29 |
| sam.04 | 9 | 94 | 0.0788 | 0.0008 | 1.0288 | 0.0413 | 0.0947 | 0.0036 | 489 | 5 | 718 | 29 | 1523 | 71 |
| sam.05 | 95 | 203 | 0.4365 | 0.0045 | 9.0153 | 0.1250 | 0.1498 | 0.0018 | 2335 | 24 | 2340 | 32 | 2344 | 21 |
| sam.06 | 171 | 636 | 0.2187 | 0.0021 | 2.7956 | 0.0388 | 0.0927 | 0.0011 | 1275 | 12 | 1354 | 19 | 1482 | 23 |
| sam.07 | 85 | 228 | 0.3513 | 0.0035 | 5.7873 | 0.0814 | 0.1195 | 0.0015 | 1941 | 19 | 1945 | 27 | 1949 | 23 |
| sam.08 | 67 | 181 | 0.3470 | 0.0034 | 5.6392 | 0.0806 | 0.1179 | 0.0015 | 1920 | 19 | 1922 | 27 | 1924 | 23 |
| sam.09 | 7 | 84 | 0.0736 | 0.0008 | 0.7581 | 0.0356 | 0.0747 | 0.0035 | 458 | 5 | 573 | 27 | 1060 | 94 |
| sam.10 | 39 | 134 | 0.2218 | 0.0022 | 3.7146 | 0.0610 | 0.1215 | 0.0018 | 1291 | 13 | 1575 | 26 | 1978 | 26 |
| sam.11 | 53 | 218 | 0.2324 | 0.0024 | 4.1619 | 0.0591 | 0.1299 | 0.0016 | 1347 | 14 | 1667 | 24 | 2096 | 22 |
| sam.12 | 254 | 543 | 0.4131 | 0.0041 | 7.5601 | 0.1025 | 0.1327 | 0.0016 | 2229 | 22 | 2180 | 30 | 2135 | 21 |
| sam.13 | 41 | 663 | 0.0573 | 0.0006 | 0.5592 | 0.0116 | 0.0708 | 0.0013 | 359 | 4 | 451 | 9 | 950 | 39 |
| sam.14 | 72 | 147 | 0.4296 | 0.0043 | 8.0929 | 0.1159 | 0.1366 | 0.0017 | 2304 | 23 | 2241 | 32 | 2185 | 22 |
| sam.15 | 51 | 104 | 0.4320 | 0.0043 | 8.8459 | 0.1356 | 0.1485 | 0.0020 | 2315 | 23 | 2322 | 36 | 2329 | 23 |
| ***17BYJ, Quartz diorite*** | | | | | | | | | | | | | | |
| sam.01 | 121 | 313 | 0.3700 | 0.0038 | 6.3738 | 0.0859 | 0.1250 | 0.0016 | 2029 | 21 | 2029 | 27 | 2028 | 22 |
| sam.02 | 82 | 194 | 0.3766 | 0.0039 | 6.5266 | 0.0877 | 0.1257 | 0.0016 | 2061 | 21 | 2049 | 28 | 2038 | 22 |
| sam.03 | 35 | 89 | 0.3636 | 0.0037 | 6.1545 | 0.0835 | 0.1228 | 0.0016 | 1999 | 21 | 1998 | 27 | 1997 | 22 |
| sam.04 | 55 | 124 | 0.3611 | 0.0035 | 6.1503 | 0.0794 | 0.1235 | 0.0015 | 1987 | 19 | 1997 | 26 | 2008 | 22 |
| sam.05 | 90 | 140 | 0.5691 | 0.0055 | 16.9913 | 0.2176 | 0.2165 | 0.0027 | 2904 | 28 | 2934 | 38 | 2955 | 20 |
| sam.06 | 76 | 199 | 0.3602 | 0.0036 | 6.2101 | 0.0813 | 0.1250 | 0.0015 | 1983 | 20 | 2006 | 26 | 2029 | 22 |
| sam.07 | 181 | 475 | 0.3565 | 0.0036 | 6.2507 | 0.0825 | 0.1272 | 0.0016 | 1965 | 20 | 2012 | 27 | 2059 | 22 |
| sam.08 | 97 | 211 | 0.3608 | 0.0037 | 5.9999 | 0.0800 | 0.1206 | 0.0015 | 1986 | 20 | 1976 | 26 | 1965 | 22 |
| sam.09 | 137 | 325 | 0.3564 | 0.0036 | 5.9925 | 0.0802 | 0.1219 | 0.0015 | 1965 | 20 | 1975 | 26 | 1985 | 22 |
| sam.10 | 253 | 632 | 0.3511 | 0.0035 | 6.0641 | 0.0799 | 0.1253 | 0.0016 | 1940 | 20 | 1985 | 26 | 2032 | 22 |
| sam.11 | 65 | 162 | 0.3690 | 0.0037 | 6.2082 | 0.0807 | 0.1220 | 0.0015 | 2025 | 20 | 2006 | 26 | 1986 | 22 |
| sam.12 | 95 | 226 | 0.3569 | 0.0034 | 5.8296 | 0.0748 | 0.1185 | 0.0015 | 1968 | 19 | 1951 | 25 | 1933 | 22 |
| sam.13 | 153 | 370 | 0.3507 | 0.0038 | 5.9835 | 0.0823 | 0.1237 | 0.0015 | 1938 | 21 | 1973 | 27 | 2011 | 22 |
| sam.14 | 141 | 331 | 0.3804 | 0.0042 | 6.5216 | 0.0897 | 0.1243 | 0.0015 | 2078 | 23 | 2049 | 28 | 2019 | 22 |
| sam.15 | 118 | 310 | 0.3623 | 0.0038 | 6.0838 | 0.0824 | 0.1218 | 0.0015 | 1993 | 21 | 1988 | 27 | 1983 | 22 |
| sam.16 | 245 | 607 | 0.3631 | 0.0037 | 7.1739 | 0.1175 | 0.1433 | 0.0022 | 1997 | 21 | 2133 | 35 | 2268 | 26 |
| sam.17 | 59 | 152 | 0.3466 | 0.0036 | 5.6568 | 0.0756 | 0.1184 | 0.0015 | 1918 | 20 | 1925 | 26 | 1932 | 22 |
| sam.18 | 272 | 649 | 0.3711 | 0.0038 | 6.2835 | 0.0834 | 0.1228 | 0.0015 | 2035 | 21 | 2016 | 27 | 1997 | 22 |
| sam.19 | 135 | 310 | 0.3528 | 0.0036 | 5.7851 | 0.0766 | 0.1189 | 0.0015 | 1948 | 20 | 1944 | 26 | 1940 | 22 |
| sam.20 | 124 | 326 | 0.3502 | 0.0038 | 6.0822 | 0.0824 | 0.1260 | 0.0016 | 1935 | 21 | 1988 | 27 | 2043 | 22 |
| sam.21 | 110 | 295 | 0.3538 | 0.0039 | 6.1187 | 0.0955 | 0.1254 | 0.0016 | 1953 | 22 | 1993 | 31 | 2035 | 23 |
| sam.22 | 68 | 175 | 0.3539 | 0.0035 | 5.9699 | 0.0784 | 0.1224 | 0.0015 | 1953 | 19 | 1971 | 26 | 1991 | 22 |
| sam.23 | 69 | 181 | 0.3507 | 0.0035 | 5.8731 | 0.0774 | 0.1214 | 0.0015 | 1938 | 19 | 1957 | 26 | 1978 | 22 |
| sam.24 | 43 | 95 | 0.3695 | 0.0036 | 6.4082 | 0.0845 | 0.1258 | 0.0016 | 2027 | 20 | 2033 | 27 | 2040 | 22 |
| sam.25 | 101 | 250 | 0.3444 | 0.0034 | 5.7109 | 0.0765 | 0.1203 | 0.0015 | 1908 | 19 | 1933 | 26 | 1960 | 23 |
| ***PM1-02, Trondhjemite*** | | | | | | | | | | | | | | |
| sam.01 | 96 | 203 | 0.4158 | 0.0044 | 9.3558 | 0.1272 | 0.1632 | 0.0020 | 2241 | 24 | 2374 | 32 | 2489 | 21 |
| sam.02 | 147 | 360 | 0.4051 | 0.0043 | 8.0282 | 0.1133 | 0.1437 | 0.0018 | 2193 | 23 | 2234 | 32 | 2273 | 22 |
| sam.03 | 242 | 581 | 0.3753 | 0.0039 | 8.3655 | 0.1106 | 0.1617 | 0.0020 | 2054 | 21 | 2271 | 30 | 2473 | 21 |
| sam.04 | 262 | 505 | 0.4612 | 0.0045 | 10.5231 | 0.1347 | 0.1655 | 0.0020 | 2445 | 24 | 2482 | 32 | 2513 | 21 |
| sam.05 | 67 | 141 | 0.4134 | 0.0050 | 8.4871 | 0.1460 | 0.1489 | 0.0019 | 2230 | 27 | 2285 | 39 | 2333 | 22 |
| sam.06 | 284 | 603 | 0.4653 | 0.0050 | 10.5856 | 0.1457 | 0.1650 | 0.0020 | 2463 | 26 | 2487 | 34 | 2507 | 21 |
| sam.07 | 178 | 470 | 0.3689 | 0.0036 | 6.7696 | 0.0876 | 0.1331 | 0.0017 | 2024 | 19 | 2082 | 27 | 2139 | 22 |
| sam.08 | 171 | 323 | 0.4698 | 0.0051 | 10.8842 | 0.1517 | 0.1680 | 0.0021 | 2483 | 27 | 2513 | 35 | 2538 | 21 |
| sam.09 | 117 | 321 | 0.3514 | 0.0041 | 5.8162 | 0.0829 | 0.1200 | 0.0015 | 1941 | 22 | 1949 | 28 | 1957 | 22 |
| sam.10 | 212 | 409 | 0.4664 | 0.0050 | 10.5498 | 0.1470 | 0.1641 | 0.0020 | 2468 | 26 | 2484 | 35 | 2498 | 21 |
| sam.11 | 103 | 201 | 0.4592 | 0.0046 | 10.3006 | 0.1369 | 0.1627 | 0.0020 | 2436 | 25 | 2462 | 33 | 2484 | 21 |
| sam.12 | 246 | 606 | 0.3882 | 0.0037 | 8.3760 | 0.1073 | 0.1565 | 0.0019 | 2115 | 20 | 2273 | 29 | 2418 | 21 |
| sam.13 | 207 | 451 | 0.4256 | 0.0042 | 9.4090 | 0.1225 | 0.1603 | 0.0020 | 2286 | 22 | 2379 | 31 | 2459 | 21 |
| sam.14 | 86 | 252 | 0.3265 | 0.0031 | 5.0842 | 0.0658 | 0.1129 | 0.0014 | 1821 | 17 | 1833 | 24 | 1847 | 23 |
| sam.15 | 156 | 320 | 0.4448 | 0.0043 | 9.8416 | 0.1282 | 0.1605 | 0.0020 | 2372 | 23 | 2420 | 32 | 2461 | 21 |
| sam.16 | 293 | 598 | 0.4420 | 0.0045 | 9.8423 | 0.1329 | 0.1615 | 0.0020 | 2359 | 24 | 2420 | 33 | 2472 | 21 |
| sam.17 | 221 | 450 | 0.4418 | 0.0049 | 9.6879 | 0.1393 | 0.1591 | 0.0020 | 2359 | 26 | 2406 | 35 | 2446 | 21 |
| sam.18 | 117 | 324 | 0.3322 | 0.0034 | 5.9532 | 0.0784 | 0.1300 | 0.0016 | 1849 | 19 | 1969 | 26 | 2097 | 22 |
| sam.19 | 222 | 449 | 0.4652 | 0.0047 | 10.3641 | 0.1387 | 0.1616 | 0.0020 | 2462 | 25 | 2468 | 33 | 2472 | 21 |
| sam.20 | 123 | 257 | 0.4455 | 0.0044 | 9.5967 | 0.1249 | 0.1562 | 0.0019 | 2375 | 23 | 2397 | 31 | 2415 | 21 |
| sam.21 | 231 | 632 | 0.3541 | 0.0039 | 7.5650 | 0.1046 | 0.1549 | 0.0019 | 1954 | 21 | 2181 | 30 | 2401 | 21 |
| sam.22 | 266 | 838 | 0.2927 | 0.0029 | 6.4014 | 0.0841 | 0.1586 | 0.0020 | 1655 | 17 | 2032 | 27 | 2441 | 21 |
| sam.23 | 81 | 162 | 0.4598 | 0.0050 | 10.5367 | 0.1477 | 0.1662 | 0.0021 | 2439 | 26 | 2483 | 35 | 2520 | 21 |
| sam.24 | 190 | 379 | 0.4681 | 0.0047 | 10.7915 | 0.1426 | 0.1672 | 0.0021 | 2475 | 25 | 2505 | 33 | 2530 | 21 |
| sam.25 | 341 | 941 | 0.3374 | 0.0034 | 5.3830 | 0.0705 | 0.1157 | 0.0014 | 1874 | 19 | 1882 | 25 | 1891 | 22 |
| sam.26 | 97 | 186 | 0.4576 | 0.0044 | 10.4403 | 0.1339 | 0.1655 | 0.0021 | 2429 | 23 | 2475 | 32 | 2512 | 21 |
| sam.27 | 466 | 868 | 0.4724 | 0.0046 | 10.8517 | 0.1389 | 0.1666 | 0.0021 | 2494 | 24 | 2511 | 32 | 2524 | 21 |
| sam.28 | 188 | 366 | 0.4589 | 0.0044 | 10.3967 | 0.1330 | 0.1643 | 0.0020 | 2434 | 23 | 2471 | 32 | 2501 | 21 |
| sam.29 | 139 | 263 | 0.4741 | 0.0053 | 10.7809 | 0.1534 | 0.1649 | 0.0020 | 2502 | 28 | 2504 | 36 | 2507 | 21 |
| sam.30 | 172 | 335 | 0.4691 | 0.0049 | 10.6861 | 0.1447 | 0.1652 | 0.0021 | 2479 | 26 | 2496 | 34 | 2510 | 21 |
| ***PM1-07, Meta-tonalite*** | | | | | | | | | | | | | | |
| sam.01 | 196 | 539 | 0.3579 | 0.0036 | 5.9232 | 0.0919 | 0.1200 | 0.0016 | 1972 | 20 | 1965 | 30 | 1957 | 23 |
| sam.02 | 192 | 418 | 0.4366 | 0.0047 | 9.3900 | 0.1513 | 0.1560 | 0.0020 | 2335 | 25 | 2377 | 38 | 2413 | 22 |
| sam.03 | 239 | 489 | 0.4356 | 0.0044 | 9.1894 | 0.1436 | 0.1530 | 0.0020 | 2331 | 24 | 2357 | 37 | 2380 | 22 |
| sam.04 | 221 | 577 | 0.3449 | 0.0034 | 6.7541 | 0.1036 | 0.1420 | 0.0018 | 1910 | 19 | 2080 | 32 | 2252 | 22 |
| sam.05 | 97 | 208 | 0.4335 | 0.0046 | 9.3916 | 0.1492 | 0.1571 | 0.0020 | 2321 | 25 | 2377 | 38 | 2425 | 22 |
| sam.06 | 70 | 154 | 0.4348 | 0.0043 | 9.5061 | 0.1475 | 0.1586 | 0.0020 | 2327 | 23 | 2388 | 37 | 2440 | 22 |
| sam.07 | 226 | 519 | 0.4253 | 0.0044 | 9.1545 | 0.1456 | 0.1561 | 0.0020 | 2285 | 24 | 2354 | 37 | 2414 | 22 |
| sam.08 | 88 | 169 | 0.4667 | 0.0045 | 10.7282 | 0.1669 | 0.1667 | 0.0022 | 2469 | 24 | 2500 | 39 | 2525 | 22 |
| sam.09 | 97 | 205 | 0.4433 | 0.0047 | 9.5539 | 0.1536 | 0.1563 | 0.0020 | 2366 | 25 | 2393 | 38 | 2416 | 22 |
| sam.10 | 212 | 500 | 0.4130 | 0.0040 | 8.8606 | 0.1362 | 0.1556 | 0.0020 | 2228 | 22 | 2324 | 36 | 2409 | 22 |
| sam.11 | 106 | 242 | 0.4241 | 0.0043 | 9.0475 | 0.1416 | 0.1547 | 0.0020 | 2279 | 23 | 2343 | 37 | 2399 | 22 |
| sam.12 | 229 | 520 | 0.4098 | 0.0041 | 8.4164 | 0.1286 | 0.1490 | 0.0019 | 2214 | 22 | 2277 | 35 | 2334 | 22 |
| sam.13 | 121 | 291 | 0.3902 | 0.0038 | 8.1546 | 0.1237 | 0.1516 | 0.0019 | 2124 | 21 | 2248 | 34 | 2364 | 22 |
| sam.14 | 95 | 218 | 0.4000 | 0.0041 | 7.6867 | 0.1214 | 0.1394 | 0.0018 | 2169 | 23 | 2195 | 35 | 2220 | 22 |
| sam.15 | 126 | 326 | 0.3613 | 0.0036 | 6.5717 | 0.1018 | 0.1319 | 0.0017 | 1988 | 20 | 2056 | 32 | 2124 | 22 |
| sam.16 | 268 | 608 | 0.4259 | 0.0044 | 9.3623 | 0.1473 | 0.1594 | 0.0021 | 2287 | 23 | 2374 | 37 | 2449 | 22 |
| sam.17 | 187 | 380 | 0.4579 | 0.0046 | 10.3264 | 0.1606 | 0.1636 | 0.0021 | 2430 | 24 | 2464 | 38 | 2493 | 22 |
| sam.18 | 87 | 254 | 0.3260 | 0.0033 | 5.1799 | 0.0803 | 0.1152 | 0.0015 | 1819 | 18 | 1849 | 29 | 1883 | 23 |
| sam.19 | 290 | 664 | 0.4226 | 0.0045 | 9.2543 | 0.1474 | 0.1588 | 0.0020 | 2272 | 24 | 2363 | 38 | 2443 | 22 |
| sam.20 | 119 | 241 | 0.4596 | 0.0046 | 10.5239 | 0.1620 | 0.1661 | 0.0021 | 2438 | 24 | 2482 | 38 | 2518 | 21 |
| sam.21 | 143 | 315 | 0.4350 | 0.0044 | 9.2332 | 0.1467 | 0.1539 | 0.0020 | 2328 | 24 | 2361 | 38 | 2390 | 22 |
| sam.22 | 137 | 284 | 0.4381 | 0.0047 | 9.6781 | 0.1580 | 0.1602 | 0.0021 | 2342 | 25 | 2405 | 39 | 2458 | 22 |
| sam.23 | 107 | 316 | 0.3275 | 0.0033 | 5.2457 | 0.0844 | 0.1162 | 0.0015 | 1826 | 19 | 1860 | 30 | 1898 | 24 |
| sam.24 | 271 | 598 | 0.4462 | 0.0046 | 9.7560 | 0.1578 | 0.1586 | 0.0021 | 2378 | 24 | 2412 | 39 | 2441 | 23 |
| sam.25 | 100 | 239 | 0.4017 | 0.0045 | 8.0682 | 0.1416 | 0.1457 | 0.0020 | 2177 | 24 | 2239 | 39 | 2296 | 23 |
| sam.26 | 116 | 314 | 0.3564 | 0.0035 | 6.5141 | 0.1018 | 0.1326 | 0.0017 | 1965 | 19 | 2048 | 32 | 2132 | 23 |
| sam.27 | 156 | 417 | 0.3590 | 0.0035 | 6.5110 | 0.1021 | 0.1315 | 0.0017 | 1977 | 19 | 2047 | 32 | 2119 | 23 |
| sam.28 | 301 | 878 | 0.3352 | 0.0033 | 5.3235 | 0.0824 | 0.1152 | 0.0015 | 1863 | 19 | 1873 | 29 | 1883 | 23 |
| sam.29 | 257 | 747 | 0.3372 | 0.0035 | 5.4781 | 0.0880 | 0.1178 | 0.0015 | 1873 | 19 | 1897 | 30 | 1924 | 23 |
| sam.30 | 346 | 1275 | 0.2649 | 0.0026 | 5.2868 | 0.0821 | 0.1447 | 0.0019 | 1515 | 15 | 1867 | 29 | 2285 | 22 |
| sam.31 | 252 | 570 | 0.4286 | 0.0045 | 8.8204 | 0.1427 | 0.1492 | 0.0019 | 2300 | 24 | 2320 | 38 | 2337 | 22 |
| sam.32 | 81 | 151 | 0.4669 | 0.0047 | 10.5933 | 0.1687 | 0.1645 | 0.0022 | 2470 | 25 | 2488 | 40 | 2503 | 22 |
| sam.33 | 121 | 226 | 0.4686 | 0.0047 | 10.5544 | 0.1677 | 0.1634 | 0.0022 | 2477 | 25 | 2485 | 39 | 2491 | 22 |
| sam.34 | 185 | 413 | 0.4170 | 0.0041 | 8.4312 | 0.1321 | 0.1467 | 0.0019 | 2247 | 22 | 2279 | 36 | 2307 | 22 |
| sam.35 | 268 | 692 | 0.3841 | 0.0038 | 7.2361 | 0.1138 | 0.1366 | 0.0018 | 2095 | 21 | 2141 | 34 | 2185 | 22 |
| sam.36 | 339 | 826 | 0.4131 | 0.0043 | 8.2348 | 0.1332 | 0.1446 | 0.0019 | 2229 | 23 | 2257 | 37 | 2283 | 22 |
| sam.37 | 172 | 370 | 0.4466 | 0.0048 | 9.9015 | 0.1590 | 0.1608 | 0.0020 | 2380 | 26 | 2426 | 39 | 2464 | 22 |
| sam.38 | 238 | 529 | 0.4358 | 0.0044 | 9.2768 | 0.1448 | 0.1544 | 0.0020 | 2332 | 24 | 2366 | 37 | 2395 | 22 |
| sam.39 | 117 | 244 | 0.4541 | 0.0050 | 9.9650 | 0.1656 | 0.1592 | 0.0021 | 2413 | 27 | 2432 | 40 | 2447 | 22 |
| sam.40 | 217 | 479 | 0.4333 | 0.0044 | 9.4320 | 0.1494 | 0.1579 | 0.0021 | 2320 | 24 | 2381 | 38 | 2433 | 22 |
| sam.41 | 122 | 277 | 0.4202 | 0.0042 | 8.9625 | 0.1404 | 0.1547 | 0.0020 | 2262 | 23 | 2334 | 37 | 2398 | 22 |
| sam.42 | 136 | 273 | 0.4568 | 0.0046 | 10.3405 | 0.1608 | 0.1642 | 0.0021 | 2425 | 24 | 2466 | 38 | 2499 | 22 |
| sam.43 | 113 | 230 | 0.4551 | 0.0046 | 10.2375 | 0.1586 | 0.1631 | 0.0021 | 2418 | 24 | 2456 | 38 | 2488 | 22 |
| sam.44 | 132 | 282 | 0.4523 | 0.0055 | 9.9686 | 0.1698 | 0.1598 | 0.0020 | 2406 | 29 | 2432 | 41 | 2454 | 22 |
| sam.45 | 402 | 947 | 0.4134 | 0.0041 | 8.4970 | 0.1308 | 0.1491 | 0.0019 | 2230 | 22 | 2286 | 35 | 2335 | 22 |
| sam.46 | 105 | 222 | 0.4249 | 0.0044 | 8.7078 | 0.1413 | 0.1486 | 0.0019 | 2283 | 23 | 2308 | 37 | 2330 | 22 |
| sam.47 | 221 | 479 | 0.4144 | 0.0041 | 8.2115 | 0.1289 | 0.1437 | 0.0019 | 2235 | 22 | 2255 | 35 | 2273 | 22 |
| sam.48 | 166 | 370 | 0.4238 | 0.0042 | 8.6750 | 0.1381 | 0.1485 | 0.0020 | 2278 | 23 | 2304 | 37 | 2328 | 23 |
| sam.49 | 150 | 339 | 0.4191 | 0.0043 | 8.5647 | 0.1384 | 0.1482 | 0.0020 | 2257 | 23 | 2293 | 37 | 2325 | 23 |
| sam.50 | 202 | 408 | 0.4525 | 0.0046 | 9.8559 | 0.1577 | 0.1580 | 0.0021 | 2406 | 25 | 2421 | 39 | 2434 | 22 |
| sam.51 | 228 | 613 | 0.3552 | 0.0035 | 6.7875 | 0.1050 | 0.1386 | 0.0018 | 1959 | 19 | 2084 | 32 | 2210 | 23 |
| sam.52 | 173 | 343 | 0.4656 | 0.0045 | 10.4127 | 0.1605 | 0.1622 | 0.0021 | 2464 | 24 | 2472 | 38 | 2479 | 22 |
| sam.53 | 81 | 161 | 0.4653 | 0.0046 | 10.3360 | 0.1590 | 0.1611 | 0.0021 | 2463 | 24 | 2465 | 38 | 2468 | 22 |
| sam.54 | 146 | 319 | 0.4319 | 0.0044 | 9.1152 | 0.1419 | 0.1531 | 0.0020 | 2314 | 23 | 2350 | 37 | 2380 | 22 |
| sam.55 | 256 | 668 | 0.3765 | 0.0038 | 7.8229 | 0.1215 | 0.1507 | 0.0019 | 2060 | 21 | 2211 | 34 | 2354 | 22 |
| sam.56 | 153 | 329 | 0.4371 | 0.0045 | 9.3305 | 0.1474 | 0.1548 | 0.0020 | 2338 | 24 | 2371 | 37 | 2400 | 22 |
| sam.57 | 132 | 276 | 0.4572 | 0.0048 | 10.2101 | 0.1611 | 0.1620 | 0.0021 | 2427 | 26 | 2454 | 39 | 2476 | 21 |
| sam.58 | 99 | 223 | 0.4084 | 0.0041 | 8.1590 | 0.1273 | 0.1449 | 0.0019 | 2208 | 22 | 2249 | 35 | 2286 | 22 |
| sam.59 | 157 | 342 | 0.4268 | 0.0043 | 9.1103 | 0.1435 | 0.1548 | 0.0020 | 2291 | 23 | 2349 | 37 | 2400 | 22 |
| sam.60 | 216 | 397 | 0.4760 | 0.0048 | 10.9769 | 0.1710 | 0.1673 | 0.0021 | 2510 | 25 | 2521 | 39 | 2530 | 21 |
| ***PM1-15, Tonalite*** | | | | | | | | | | | | | | |
| sam.01 | 185 | 414 | 0.4147 | 0.0043 | 9.2062 | 0.1441 | 0.1610 | 0.0021 | 2236 | 23 | 2359 | 37 | 2466 | 22 |
| sam.02 | 243 | 482 | 0.4573 | 0.0046 | 10.6842 | 0.1659 | 0.1694 | 0.0022 | 2428 | 24 | 2496 | 39 | 2552 | 21 |
| sam.03 | 221 | 522 | 0.3820 | 0.0039 | 8.5825 | 0.1319 | 0.1629 | 0.0021 | 2086 | 21 | 2295 | 35 | 2487 | 21 |
| sam.04 | 105 | 227 | 0.4213 | 0.0041 | 9.3159 | 0.1409 | 0.1604 | 0.0020 | 2266 | 22 | 2370 | 36 | 2460 | 21 |
| sam.05 | 386 | 846 | 0.4358 | 0.0046 | 9.6967 | 0.1514 | 0.1614 | 0.0020 | 2332 | 25 | 2406 | 38 | 2470 | 21 |
| sam.06 | 108 | 235 | 0.4359 | 0.0043 | 9.2717 | 0.1418 | 0.1543 | 0.0020 | 2332 | 23 | 2365 | 36 | 2394 | 22 |
| sam.07 | 98 | 200 | 0.4642 | 0.0045 | 10.5890 | 0.1614 | 0.1654 | 0.0021 | 2458 | 24 | 2488 | 38 | 2512 | 21 |
| sam.08 | 115 | 228 | 0.4606 | 0.0045 | 10.3093 | 0.1580 | 0.1623 | 0.0021 | 2442 | 24 | 2463 | 38 | 2480 | 22 |
| sam.09 | 125 | 265 | 0.4395 | 0.0044 | 9.4923 | 0.1481 | 0.1567 | 0.0020 | 2348 | 23 | 2387 | 37 | 2420 | 22 |
| sam.10 | 153 | 373 | 0.3714 | 0.0040 | 8.6261 | 0.1361 | 0.1684 | 0.0021 | 2036 | 22 | 2299 | 36 | 2542 | 21 |
| sam.11 | 160 | 358 | 0.4172 | 0.0041 | 9.4864 | 0.1442 | 0.1649 | 0.0021 | 2248 | 22 | 2386 | 36 | 2507 | 21 |
| sam.12 | 110 | 228 | 0.4407 | 0.0044 | 9.6062 | 0.1470 | 0.1581 | 0.0020 | 2354 | 23 | 2398 | 37 | 2435 | 21 |
| sam.13 | 188 | 409 | 0.4286 | 0.0044 | 9.5695 | 0.1461 | 0.1619 | 0.0020 | 2300 | 23 | 2394 | 37 | 2476 | 21 |
| sam.14 | 321 | 704 | 0.4064 | 0.0041 | 8.9553 | 0.1397 | 0.1598 | 0.0020 | 2199 | 22 | 2333 | 36 | 2454 | 21 |
| sam.15 | 128 | 302 | 0.4077 | 0.0043 | 8.2412 | 0.1320 | 0.1466 | 0.0019 | 2204 | 23 | 2258 | 36 | 2307 | 22 |
| sam.16 | 58 | 140 | 0.4089 | 0.0044 | 7.7739 | 0.1262 | 0.1379 | 0.0018 | 2210 | 24 | 2205 | 36 | 2201 | 23 |
| sam.17 | 206 | 502 | 0.3837 | 0.0040 | 8.8281 | 0.1387 | 0.1669 | 0.0021 | 2094 | 22 | 2320 | 36 | 2526 | 22 |
| sam.18 | 150 | 331 | 0.4291 | 0.0042 | 9.2674 | 0.1420 | 0.1566 | 0.0020 | 2302 | 22 | 2365 | 36 | 2420 | 22 |
| sam.19 | 132 | 269 | 0.4544 | 0.0045 | 10.2855 | 0.1578 | 0.1642 | 0.0021 | 2415 | 24 | 2461 | 38 | 2499 | 21 |
| sam.20 | 67 | 131 | 0.4600 | 0.0045 | 10.3600 | 0.1578 | 0.1634 | 0.0021 | 2439 | 24 | 2467 | 38 | 2491 | 21 |
| sam.21 | 193 | 471 | 0.3946 | 0.0039 | 8.3330 | 0.1267 | 0.1531 | 0.0019 | 2144 | 21 | 2268 | 34 | 2381 | 21 |
| sam.22 | 133 | 308 | 0.4089 | 0.0041 | 8.9860 | 0.1387 | 0.1594 | 0.0020 | 2210 | 22 | 2337 | 36 | 2449 | 21 |
| sam.23 | 181 | 362 | 0.4452 | 0.0044 | 10.1014 | 0.1534 | 0.1646 | 0.0021 | 2374 | 23 | 2444 | 37 | 2503 | 21 |
| sam.24 | 258 | 619 | 0.3807 | 0.0042 | 8.3839 | 0.1352 | 0.1597 | 0.0020 | 2079 | 23 | 2273 | 37 | 2453 | 21 |
| sam.25 | 149 | 340 | 0.4183 | 0.0041 | 8.7244 | 0.1328 | 0.1513 | 0.0019 | 2253 | 22 | 2310 | 35 | 2360 | 22 |
| sam.26 | 124 | 246 | 0.4552 | 0.0045 | 10.3418 | 0.1573 | 0.1648 | 0.0021 | 2418 | 24 | 2466 | 38 | 2505 | 21 |
| sam.27 | 234 | 493 | 0.4386 | 0.0044 | 9.8297 | 0.1521 | 0.1625 | 0.0021 | 2344 | 24 | 2419 | 37 | 2482 | 21 |
| sam.28 | 168 | 388 | 0.4076 | 0.0040 | 8.2045 | 0.1261 | 0.1460 | 0.0019 | 2204 | 21 | 2254 | 35 | 2300 | 22 |
| sam.29 | 234 | 541 | 0.4093 | 0.0041 | 8.3900 | 0.1312 | 0.1487 | 0.0019 | 2212 | 22 | 2274 | 36 | 2331 | 22 |
| sam.30 | 131 | 314 | 0.3807 | 0.0037 | 8.4013 | 0.1291 | 0.1601 | 0.0021 | 2079 | 20 | 2275 | 35 | 2456 | 22 |
| ***PM1-10, Amphibolite*** | | | | | | | | | | | | | | |
| sam.01 | 45 | 127 | 0.3330 | 0.0032 | 5.2355 | 0.0817 | 0.1140 | 0.0015 | 1853 | 18 | 1858 | 29 | 1865 | 24 |
| sam.02 | 21 | 60 | 0.3279 | 0.0032 | 5.1368 | 0.0822 | 0.1136 | 0.0015 | 1828 | 18 | 1842 | 29 | 1858 | 25 |
| sam.03 | 15 | 45 | 0.3247 | 0.0032 | 5.1347 | 0.0838 | 0.1147 | 0.0016 | 1812 | 18 | 1842 | 30 | 1875 | 25 |
| sam.04 | 12 | 32 | 0.3515 | 0.0035 | 5.6716 | 0.1038 | 0.1170 | 0.0019 | 1942 | 19 | 1927 | 35 | 1911 | 29 |
| sam.05 | 14 | 42 | 0.3357 | 0.0034 | 5.3624 | 0.0902 | 0.1159 | 0.0017 | 1866 | 19 | 1879 | 32 | 1893 | 26 |
| sam.06 | 29 | 84 | 0.3317 | 0.0034 | 5.1690 | 0.0817 | 0.1130 | 0.0015 | 1846 | 19 | 1848 | 29 | 1849 | 24 |
| sam.07 | 29 | 83 | 0.3300 | 0.0033 | 5.2404 | 0.0817 | 0.1152 | 0.0015 | 1838 | 19 | 1859 | 29 | 1882 | 24 |
| sam.08 | 21 | 59 | 0.3305 | 0.0033 | 5.1070 | 0.0812 | 0.1121 | 0.0015 | 1841 | 18 | 1837 | 29 | 1833 | 24 |
| sam.09 | 16 | 45 | 0.3392 | 0.0034 | 5.3587 | 0.0905 | 0.1146 | 0.0017 | 1883 | 19 | 1878 | 32 | 1873 | 26 |
| sam.10 | 19 | 56 | 0.3256 | 0.0033 | 5.1575 | 0.0824 | 0.1149 | 0.0015 | 1817 | 18 | 1846 | 30 | 1878 | 24 |
| sam.11 | 16 | 47 | 0.3291 | 0.0033 | 5.0567 | 0.0827 | 0.1114 | 0.0015 | 1834 | 18 | 1829 | 30 | 1823 | 25 |
| sam.12 | 16 | 47 | 0.3254 | 0.0033 | 5.1304 | 0.0822 | 0.1143 | 0.0016 | 1816 | 18 | 1841 | 30 | 1870 | 24 |
| sam.13 | 13 | 35 | 0.3475 | 0.0034 | 5.4045 | 0.1182 | 0.1128 | 0.0022 | 1923 | 19 | 1886 | 41 | 1845 | 36 |
| sam.14 | 20 | 57 | 0.3269 | 0.0033 | 5.0761 | 0.0817 | 0.1126 | 0.0015 | 1823 | 18 | 1832 | 29 | 1842 | 25 |
| sam.15 | 11 | 28 | 0.3721 | 0.0037 | 5.7919 | 0.1116 | 0.1129 | 0.0019 | 2039 | 20 | 1945 | 37 | 1846 | 31 |
| sam.16 | 27 | 71 | 0.3585 | 0.0035 | 5.5189 | 0.0903 | 0.1116 | 0.0016 | 1975 | 19 | 1904 | 31 | 1826 | 25 |
| sam.17 | 16 | 45 | 0.3378 | 0.0034 | 5.3209 | 0.0868 | 0.1142 | 0.0016 | 1876 | 19 | 1872 | 31 | 1868 | 25 |
| sam.18 | 24 | 69 | 0.3259 | 0.0032 | 5.0175 | 0.0788 | 0.1117 | 0.0015 | 1818 | 18 | 1822 | 29 | 1827 | 24 |
| sam.19 | 22 | 65 | 0.3218 | 0.0032 | 5.0639 | 0.0800 | 0.1141 | 0.0015 | 1799 | 18 | 1830 | 29 | 1866 | 24 |
| sam.20 | 12 | 34 | 0.3358 | 0.0039 | 5.5077 | 0.1049 | 0.1189 | 0.0019 | 1867 | 22 | 1902 | 36 | 1941 | 28 |
| sam.21 | 26 | 72 | 0.3323 | 0.0033 | 5.2717 | 0.0850 | 0.1151 | 0.0016 | 1849 | 18 | 1864 | 30 | 1881 | 25 |
| sam.22 | 19 | 57 | 0.3253 | 0.0032 | 5.1297 | 0.0812 | 0.1144 | 0.0015 | 1815 | 18 | 1841 | 29 | 1870 | 24 |
| sam.23 | 16 | 45 | 0.3273 | 0.0033 | 5.3397 | 0.0873 | 0.1183 | 0.0017 | 1825 | 18 | 1875 | 31 | 1931 | 25 |
| sam.24 | 18 | 50 | 0.3391 | 0.0036 | 5.4610 | 0.0915 | 0.1168 | 0.0017 | 1882 | 20 | 1894 | 32 | 1908 | 26 |
| sam.25 | 22 | 61 | 0.3390 | 0.0033 | 5.5522 | 0.0963 | 0.1188 | 0.0018 | 1882 | 18 | 1909 | 33 | 1938 | 27 |
| sam.26 | 19 | 55 | 0.3336 | 0.0033 | 5.4364 | 0.0892 | 0.1182 | 0.0017 | 1856 | 19 | 1891 | 31 | 1929 | 25 |
| sam.27 | 4 | 72 | 0.0482 | 0.0005 | 0.3570 | 0.0206 | 0.0537 | 0.0030 | 304 | 3 | 310 | 18 | 357 | 125 |
| sam.28 | 18 | 49 | 0.3373 | 0.0037 | 5.4252 | 0.0907 | 0.1167 | 0.0016 | 1874 | 20 | 1889 | 32 | 1906 | 24 |
| sam.29 | 32 | 90 | 0.3294 | 0.0034 | 5.2709 | 0.0828 | 0.1160 | 0.0015 | 1836 | 19 | 1864 | 29 | 1896 | 23 |
| sam.30 | 19 | 52 | 0.3533 | 0.0036 | 5.7450 | 0.0922 | 0.1179 | 0.0016 | 1950 | 20 | 1938 | 31 | 1925 | 24 |
| sam.31 | 67 | 200 | 0.3210 | 0.0032 | 5.1427 | 0.0787 | 0.1162 | 0.0015 | 1795 | 18 | 1843 | 28 | 1898 | 23 |
| sam.32 | 27 | 80 | 0.3241 | 0.0032 | 5.1416 | 0.0800 | 0.1150 | 0.0015 | 1810 | 18 | 1843 | 29 | 1881 | 23 |
| sam.33 | 24 | 71 | 0.3232 | 0.0032 | 5.1733 | 0.0813 | 0.1161 | 0.0015 | 1805 | 18 | 1848 | 29 | 1897 | 24 |
| sam.34 | 31 | 92 | 0.3158 | 0.0031 | 4.9758 | 0.0782 | 0.1143 | 0.0015 | 1769 | 18 | 1815 | 29 | 1868 | 24 |
| sam.35 | 21 | 59 | 0.3321 | 0.0033 | 5.2853 | 0.0848 | 0.1154 | 0.0016 | 1849 | 18 | 1866 | 30 | 1886 | 24 |
| sam.36 | 20 | 57 | 0.3258 | 0.0032 | 5.3148 | 0.0842 | 0.1183 | 0.0016 | 1818 | 18 | 1871 | 30 | 1931 | 24 |
| ***PM1-11, Plagiogranite*** | | | | | | | | | | | | | | |
| sam.01 | 202 | 386 | 0.4752 | 0.0047 | 11.0171 | 0.1459 | 0.1681 | 0.0021 | 2506 | 25 | 2525 | 33 | 2539 | 21 |
| sam.02 | 431 | 1322 | 0.3118 | 0.0036 | 6.7741 | 0.0971 | 0.1576 | 0.0020 | 1750 | 20 | 2082 | 30 | 2430 | 21 |
| sam.03 | 380 | 1289 | 0.2719 | 0.0026 | 5.7757 | 0.0751 | 0.1541 | 0.0019 | 1550 | 15 | 1943 | 25 | 2392 | 21 |
| sam.04 | 489 | 1147 | 0.4164 | 0.0041 | 8.9650 | 0.1168 | 0.1562 | 0.0019 | 2244 | 22 | 2334 | 30 | 2415 | 21 |
| sam.05 | 497 | 933 | 0.4576 | 0.0057 | 10.4224 | 0.1598 | 0.1652 | 0.0021 | 2429 | 30 | 2473 | 38 | 2510 | 21 |
| sam.06 | 518 | 1217 | 0.4242 | 0.0048 | 8.5407 | 0.1324 | 0.1460 | 0.0019 | 2280 | 26 | 2290 | 36 | 2300 | 22 |
| sam.07 | 322 | 626 | 0.4727 | 0.0049 | 10.6657 | 0.1435 | 0.1636 | 0.0021 | 2496 | 26 | 2494 | 34 | 2494 | 21 |
| sam.08 | 289 | 606 | 0.4083 | 0.0040 | 9.1603 | 0.1206 | 0.1627 | 0.0021 | 2207 | 21 | 2354 | 31 | 2484 | 21 |
| sam.09 | 292 | 859 | 0.3381 | 0.0034 | 6.5216 | 0.0886 | 0.1399 | 0.0018 | 1877 | 19 | 2049 | 28 | 2226 | 22 |
| sam.10 | 262 | 1942 | 0.1176 | 0.0012 | 2.8020 | 0.0365 | 0.1727 | 0.0022 | 717 | 7 | 1356 | 18 | 2584 | 21 |
| sam.11 | 300 | 876 | 0.3462 | 0.0036 | 5.7651 | 0.0794 | 0.1208 | 0.0015 | 1916 | 20 | 1941 | 27 | 1968 | 22 |
| sam.12 | 377 | 1115 | 0.3460 | 0.0035 | 5.7012 | 0.0809 | 0.1195 | 0.0015 | 1916 | 20 | 1932 | 27 | 1949 | 23 |
| sam.13 | 255 | 751 | 0.3438 | 0.0038 | 5.8187 | 0.0838 | 0.1228 | 0.0015 | 1905 | 21 | 1949 | 28 | 1997 | 22 |
| sam.14 | 322 | 1020 | 0.3159 | 0.0034 | 5.3160 | 0.0745 | 0.1221 | 0.0015 | 1769 | 19 | 1871 | 26 | 1987 | 22 |
| sam.15 | 378 | 811 | 0.3929 | 0.0039 | 8.5219 | 0.1123 | 0.1573 | 0.0020 | 2136 | 21 | 2288 | 30 | 2427 | 21 |
| sam.16 | 283 | 647 | 0.4243 | 0.0049 | 8.6093 | 0.1344 | 0.1472 | 0.0019 | 2280 | 26 | 2298 | 36 | 2313 | 22 |
| sam.17 | 238 | 460 | 0.4723 | 0.0048 | 10.7312 | 0.1430 | 0.1648 | 0.0021 | 2493 | 25 | 2500 | 33 | 2506 | 21 |
| sam.18 | 135 | 419 | 0.3180 | 0.0031 | 5.2771 | 0.0687 | 0.1204 | 0.0015 | 1780 | 17 | 1865 | 24 | 1962 | 22 |
| sam.19 | 260 | 675 | 0.3825 | 0.0040 | 7.4330 | 0.1055 | 0.1409 | 0.0018 | 2088 | 22 | 2165 | 31 | 2239 | 22 |
| sam.20 | 242 | 678 | 0.3505 | 0.0039 | 7.1595 | 0.1039 | 0.1481 | 0.0019 | 1937 | 21 | 2131 | 31 | 2324 | 22 |
| sam.21 | 143 | 372 | 0.3815 | 0.0049 | 6.9322 | 0.1287 | 0.1318 | 0.0017 | 2083 | 27 | 2103 | 39 | 2122 | 23 |
| sam.22 | 271 | 552 | 0.4558 | 0.0052 | 9.9627 | 0.1490 | 0.1585 | 0.0020 | 2421 | 27 | 2431 | 36 | 2440 | 21 |
| sam.23 | 104 | 285 | 0.3654 | 0.0042 | 6.3346 | 0.0925 | 0.1257 | 0.0016 | 2008 | 23 | 2023 | 30 | 2039 | 23 |
| sam.24 | 285 | 740 | 0.3525 | 0.0043 | 7.6745 | 0.1130 | 0.1579 | 0.0020 | 1947 | 24 | 2194 | 32 | 2433 | 22 |
| sam.25 | 197 | 437 | 0.4321 | 0.0045 | 9.2173 | 0.1297 | 0.1547 | 0.0020 | 2315 | 24 | 2360 | 33 | 2399 | 22 |
| sam.26 | 271 | 569 | 0.4538 | 0.0054 | 9.8196 | 0.1533 | 0.1570 | 0.0020 | 2412 | 29 | 2418 | 38 | 2423 | 22 |
| sam.27 | 309 | 744 | 0.3957 | 0.0040 | 8.7588 | 0.1177 | 0.1605 | 0.0020 | 2149 | 22 | 2313 | 31 | 2461 | 21 |
| sam.28 | 223 | 1503 | 0.1394 | 0.0022 | 2.9646 | 0.0479 | 0.1542 | 0.0020 | 841 | 13 | 1399 | 23 | 2393 | 22 |
| sam.29 | 320 | 603 | 0.4568 | 0.0047 | 10.1855 | 0.1359 | 0.1617 | 0.0020 | 2425 | 25 | 2452 | 33 | 2474 | 21 |
| sam.30 | 255 | 945 | 0.2595 | 0.0038 | 5.5667 | 0.0946 | 0.1556 | 0.0019 | 1487 | 22 | 1911 | 32 | 2408 | 21 |
| sam.31 | 187 | 511 | 0.3522 | 0.0037 | 7.0011 | 0.1068 | 0.1442 | 0.0020 | 1945 | 20 | 2112 | 32 | 2278 | 23 |
| sam.32 | 330 | 683 | 0.4436 | 0.0047 | 9.7504 | 0.1356 | 0.1594 | 0.0020 | 2367 | 25 | 2411 | 34 | 2449 | 21 |
| sam.33 | 355 | 2097 | 0.1560 | 0.0026 | 3.3083 | 0.0579 | 0.1538 | 0.0019 | 935 | 15 | 1483 | 26 | 2388 | 22 |
| sam.34 | 80 | 152 | 0.4743 | 0.0057 | 10.8478 | 0.1601 | 0.1659 | 0.0021 | 2502 | 30 | 2510 | 37 | 2517 | 21 |
| sam.35 | 201 | 645 | 0.3165 | 0.0041 | 5.3180 | 0.0888 | 0.1219 | 0.0016 | 1772 | 23 | 1872 | 31 | 1984 | 23 |
| sam.36 | 218 | 465 | 0.4437 | 0.0051 | 9.7998 | 0.1460 | 0.1602 | 0.0020 | 2367 | 27 | 2416 | 36 | 2458 | 21 |
| sam.37 | 385 | 1099 | 0.3451 | 0.0044 | 7.0602 | 0.1108 | 0.1484 | 0.0019 | 1911 | 24 | 2119 | 33 | 2327 | 21 |
| sam.38 | 422 | 938 | 0.4402 | 0.0043 | 9.6010 | 0.1252 | 0.1582 | 0.0020 | 2352 | 23 | 2397 | 31 | 2436 | 21 |
| sam.39 | 128 | 381 | 0.3373 | 0.0032 | 5.3510 | 0.0701 | 0.1151 | 0.0015 | 1874 | 18 | 1877 | 25 | 1881 | 23 |
| sam.40 | 376 | 798 | 0.4504 | 0.0048 | 10.2022 | 0.1430 | 0.1643 | 0.0021 | 2397 | 26 | 2453 | 34 | 2500 | 22 |
| sam.41 | 247 | 569 | 0.4315 | 0.0042 | 9.0302 | 0.1219 | 0.1518 | 0.0020 | 2312 | 22 | 2341 | 32 | 2366 | 22 |
| sam.42 | 149 | 312 | 0.4299 | 0.0041 | 9.1896 | 0.1207 | 0.1550 | 0.0020 | 2305 | 22 | 2357 | 31 | 2402 | 22 |
| sam.43 | 233 | 554 | 0.4152 | 0.0044 | 9.0142 | 0.1252 | 0.1575 | 0.0020 | 2239 | 24 | 2339 | 32 | 2428 | 21 |
| sam.44 | 539 | 1098 | 0.4733 | 0.0045 | 10.3588 | 0.1341 | 0.1587 | 0.0020 | 2498 | 24 | 2467 | 32 | 2442 | 21 |
| sam.45 | 543 | 1341 | 0.3981 | 0.0039 | 8.2613 | 0.1075 | 0.1505 | 0.0019 | 2160 | 21 | 2260 | 29 | 2352 | 21 |
| sam.46 | 345 | 727 | 0.4431 | 0.0045 | 9.6896 | 0.1310 | 0.1586 | 0.0020 | 2364 | 24 | 2406 | 33 | 2441 | 21 |
| sam.47 | 266 | 525 | 0.4732 | 0.0052 | 10.7074 | 0.1512 | 0.1641 | 0.0021 | 2497 | 27 | 2498 | 35 | 2499 | 21 |
| sam.48 | 249 | 645 | 0.3759 | 0.0037 | 7.3154 | 0.0958 | 0.1411 | 0.0018 | 2057 | 20 | 2151 | 28 | 2241 | 22 |
| sam.49 | 194 | 421 | 0.4343 | 0.0043 | 9.2719 | 0.1246 | 0.1548 | 0.0020 | 2325 | 23 | 2365 | 32 | 2400 | 22 |
| sam.50 | 296 | 676 | 0.4013 | 0.0039 | 8.7231 | 0.1152 | 0.1576 | 0.0020 | 2175 | 21 | 2309 | 30 | 2431 | 22 |
| ***BY1-3, Gabbro*** | | | | | | | | | | | | | | |
| sam.01 | 107 | 298 | 0.3397 | 0.0035 | 5.5272 | 0.0720 | 0.1180 | 0.0013 | 1885 | 19 | 1905 | 25 | 1926 | 20 |
| sam.02 | 23 | 63 | 0.3373 | 0.0035 | 5.4740 | 0.0760 | 0.1177 | 0.0014 | 1873 | 19 | 1897 | 26 | 1922 | 21 |
| sam.03 | 24 | 63 | 0.3391 | 0.0035 | 5.4617 | 0.0741 | 0.1168 | 0.0014 | 1883 | 19 | 1895 | 26 | 1908 | 21 |
| sam.04 | 27 | 63 | 0.3387 | 0.0042 | 5.4626 | 0.0879 | 0.1170 | 0.0015 | 1880 | 23 | 1895 | 30 | 1911 | 23 |
| sam.05 | 25 | 63 | 0.3418 | 0.0036 | 5.5119 | 0.0782 | 0.1170 | 0.0014 | 1895 | 20 | 1902 | 27 | 1910 | 22 |
| sam.06 | 101 | 223 | 0.3406 | 0.0034 | 5.4851 | 0.0704 | 0.1168 | 0.0013 | 1889 | 19 | 1898 | 24 | 1908 | 20 |
| sam.07 | 57 | 153 | 0.3366 | 0.0033 | 5.5063 | 0.0717 | 0.1186 | 0.0013 | 1870 | 19 | 1902 | 25 | 1936 | 20 |
| sam.08 | 30 | 76 | 0.3381 | 0.0034 | 5.4195 | 0.0705 | 0.1163 | 0.0013 | 1877 | 19 | 1888 | 25 | 1900 | 21 |
| sam.09 | 208 | 476 | 0.3410 | 0.0035 | 5.4744 | 0.0715 | 0.1164 | 0.0013 | 1892 | 19 | 1897 | 25 | 1902 | 20 |
| sam.10 | 17 | 41 | 0.3400 | 0.0034 | 5.5058 | 0.0843 | 0.1175 | 0.0017 | 1886 | 19 | 1901 | 29 | 1918 | 25 |
| sam.11 | 71 | 159 | 0.3396 | 0.0034 | 5.4606 | 0.0706 | 0.1166 | 0.0013 | 1885 | 19 | 1894 | 24 | 1905 | 20 |
| sam.12 | 39 | 104 | 0.3405 | 0.0036 | 5.4978 | 0.0730 | 0.1171 | 0.0014 | 1889 | 20 | 1900 | 25 | 1913 | 21 |
| sam.13 | 58 | 153 | 0.3412 | 0.0033 | 5.4866 | 0.0701 | 0.1166 | 0.0013 | 1893 | 18 | 1898 | 24 | 1905 | 20 |
| sam.14 | 65 | 167 | 0.3407 | 0.0034 | 5.4547 | 0.0708 | 0.1161 | 0.0013 | 1890 | 19 | 1893 | 25 | 1897 | 20 |
| sam.15 | 48 | 130 | 0.3399 | 0.0034 | 5.4871 | 0.0718 | 0.1171 | 0.0013 | 1886 | 19 | 1899 | 25 | 1912 | 20 |
| sam.16 | 30 | 81 | 0.3401 | 0.0033 | 5.4337 | 0.0705 | 0.1159 | 0.0013 | 1887 | 19 | 1890 | 25 | 1893 | 21 |
| sam.17 | 35 | 93 | 0.3428 | 0.0035 | 5.4579 | 0.0725 | 0.1155 | 0.0013 | 1900 | 19 | 1894 | 25 | 1887 | 20 |
| sam.18 | 59 | 147 | 0.3404 | 0.0036 | 5.4185 | 0.0725 | 0.1155 | 0.0013 | 1888 | 20 | 1888 | 25 | 1887 | 20 |
| sam.19 | 40 | 98 | 0.3414 | 0.0036 | 5.4655 | 0.0734 | 0.1161 | 0.0013 | 1893 | 20 | 1895 | 25 | 1897 | 20 |
| sam.20 | 23 | 59 | 0.3380 | 0.0035 | 5.4270 | 0.0734 | 0.1165 | 0.0014 | 1877 | 19 | 1889 | 26 | 1902 | 21 |
| sam.21 | 62 | 167 | 0.3417 | 0.0035 | 5.4322 | 0.0715 | 0.1153 | 0.0013 | 1895 | 20 | 1890 | 25 | 1885 | 20 |
| sam.22 | 19 | 49 | 0.3398 | 0.0034 | 5.4723 | 0.0749 | 0.1168 | 0.0014 | 1886 | 19 | 1896 | 26 | 1908 | 22 |
| sam.23 | 18 | 46 | 0.3400 | 0.0035 | 5.4736 | 0.0757 | 0.1168 | 0.0014 | 1887 | 19 | 1896 | 26 | 1907 | 22 |
| sam.24 | 46 | 110 | 0.3399 | 0.0035 | 5.4408 | 0.0727 | 0.1161 | 0.0013 | 1886 | 19 | 1891 | 25 | 1897 | 20 |
| sam.25 | 27 | 70 | 0.3392 | 0.0035 | 5.4487 | 0.0716 | 0.1165 | 0.0013 | 1883 | 19 | 1893 | 25 | 1903 | 21 |
| sam.26 | 25 | 66 | 0.3405 | 0.0037 | 5.4927 | 0.0778 | 0.1170 | 0.0014 | 1889 | 20 | 1899 | 27 | 1911 | 21 |
| sam.27 | 46 | 111 | 0.3389 | 0.0034 | 5.4500 | 0.0712 | 0.1166 | 0.0013 | 1882 | 19 | 1893 | 25 | 1905 | 20 |
| sam.28 | 38 | 103 | 0.3384 | 0.0035 | 5.4795 | 0.0729 | 0.1174 | 0.0013 | 1879 | 19 | 1897 | 25 | 1918 | 21 |
| sam.29 | 109 | 297 | 0.3389 | 0.0034 | 5.4710 | 0.0709 | 0.1171 | 0.0013 | 1882 | 19 | 1896 | 25 | 1912 | 20 |
| sam.30 | 28 | 74 | 0.3395 | 0.0035 | 5.4382 | 0.0726 | 0.1162 | 0.0013 | 1884 | 19 | 1891 | 25 | 1898 | 21 |
| ***BY1-2, Granite*** | | | | | | | | | | | | | | |
| sam.01 | 16 | 336 | 0.0432 | 0.0004 | 0.3088 | 0.0056 | 0.0519 | 0.0009 | 273 | 3 | 273 | 5 | 279 | 39 |
| sam.02 | 9 | 202 | 0.0432 | 0.0005 | 0.3073 | 0.0081 | 0.0516 | 0.0013 | 273 | 3 | 272 | 7 | 268 | 57 |
| sam.03 | 11 | 245 | 0.0432 | 0.0005 | 0.3100 | 0.0074 | 0.0521 | 0.0012 | 273 | 3 | 274 | 7 | 288 | 51 |
| sam.04 | 28 | 622 | 0.0437 | 0.0005 | 0.3112 | 0.0046 | 0.0516 | 0.0007 | 276 | 3 | 275 | 4 | 269 | 30 |
| sam.05 | 24 | 508 | 0.0432 | 0.0005 | 0.3099 | 0.0051 | 0.0520 | 0.0007 | 273 | 3 | 274 | 5 | 285 | 32 |
| sam.06 | 14 | 294 | 0.0434 | 0.0005 | 0.3121 | 0.0063 | 0.0522 | 0.0010 | 274 | 3 | 276 | 6 | 295 | 42 |
| sam.07 | 19 | 402 | 0.0436 | 0.0005 | 0.3119 | 0.0055 | 0.0519 | 0.0008 | 275 | 3 | 276 | 5 | 279 | 37 |
| sam.08 | 20 | 417 | 0.0436 | 0.0004 | 0.3125 | 0.0055 | 0.0520 | 0.0008 | 275 | 3 | 276 | 5 | 285 | 37 |
| sam.09 | 24 | 520 | 0.0435 | 0.0004 | 0.3100 | 0.0049 | 0.0516 | 0.0007 | 275 | 3 | 274 | 4 | 270 | 32 |
| sam.10 | 36 | 1430 | 0.0186 | 0.0002 | 0.3781 | 0.0054 | 0.1473 | 0.0017 | 119 | 1 | 326 | 5 | 2314 | 20 |
| sam.11 | 29 | 579 | 0.0434 | 0.0005 | 0.3095 | 0.0056 | 0.0518 | 0.0009 | 274 | 3 | 274 | 5 | 275 | 39 |
| sam.12 | 7 | 150 | 0.0434 | 0.0004 | 0.3129 | 0.0096 | 0.0522 | 0.0016 | 274 | 3 | 276 | 8 | 295 | 69 |
| sam.13 | 22 | 451 | 0.0434 | 0.0005 | 0.3127 | 0.0053 | 0.0523 | 0.0008 | 274 | 3 | 276 | 5 | 299 | 35 |
| sam.14 | 122 | 632 | 0.1860 | 0.0022 | 2.9235 | 0.0438 | 0.1140 | 0.0013 | 1099 | 13 | 1388 | 21 | 1864 | 20 |
| sam.15 | 6 | 133 | 0.0435 | 0.0005 | 0.3109 | 0.0118 | 0.0519 | 0.0019 | 274 | 3 | 275 | 10 | 279 | 85 |
| sam.16 | 10 | 213 | 0.0437 | 0.0004 | 0.3118 | 0.0068 | 0.0518 | 0.0011 | 276 | 3 | 276 | 6 | 276 | 49 |
| sam.17 | 27 | 640 | 0.0434 | 0.0006 | 0.3108 | 0.0086 | 0.0519 | 0.0010 | 274 | 4 | 275 | 8 | 282 | 45 |
| sam.18 | 16 | 338 | 0.0439 | 0.0004 | 0.3127 | 0.0077 | 0.0516 | 0.0012 | 277 | 3 | 276 | 7 | 269 | 55 |
| sam.19 | 18 | 380 | 0.0432 | 0.0004 | 0.3087 | 0.0052 | 0.0518 | 0.0008 | 273 | 3 | 273 | 5 | 277 | 35 |
| sam.20 | 25 | 542 | 0.0436 | 0.0004 | 0.3116 | 0.0045 | 0.0518 | 0.0007 | 275 | 3 | 275 | 4 | 276 | 31 |
| sam.21 | 14 | 305 | 0.0433 | 0.0004 | 0.3099 | 0.0059 | 0.0519 | 0.0009 | 273 | 3 | 274 | 5 | 282 | 41 |
| sam.22 | 21 | 457 | 0.0435 | 0.0004 | 0.3101 | 0.0049 | 0.0517 | 0.0008 | 274 | 3 | 274 | 4 | 272 | 34 |
| sam.23 | 20 | 425 | 0.0436 | 0.0004 | 0.3129 | 0.0057 | 0.0521 | 0.0009 | 275 | 3 | 276 | 5 | 290 | 38 |
| sam.24 | 31 | 675 | 0.0434 | 0.0005 | 0.3096 | 0.0049 | 0.0517 | 0.0007 | 274 | 3 | 274 | 4 | 271 | 33 |
| sam.25 | 33 | 657 | 0.0434 | 0.0004 | 0.3099 | 0.0046 | 0.0518 | 0.0007 | 274 | 3 | 274 | 4 | 275 | 31 |
| sam.26 | 19 | 407 | 0.0432 | 0.0004 | 0.3082 | 0.0074 | 0.0518 | 0.0012 | 273 | 3 | 273 | 7 | 275 | 53 |
| sam.27 | 21 | 465 | 0.0436 | 0.0004 | 0.3120 | 0.0049 | 0.0519 | 0.0007 | 275 | 3 | 276 | 4 | 283 | 33 |
| sam.28 | 23 | 484 | 0.0436 | 0.0004 | 0.3112 | 0.0049 | 0.0518 | 0.0008 | 275 | 3 | 275 | 4 | 277 | 33 |
| sam.29 | 13 | 296 | 0.0433 | 0.0005 | 0.3093 | 0.0060 | 0.0518 | 0.0010 | 273 | 3 | 274 | 5 | 279 | 43 |
| sam.30 | 10 | 217 | 0.0434 | 0.0005 | 0.3099 | 0.0073 | 0.0518 | 0.0012 | 274 | 3 | 274 | 6 | 278 | 51 |
| ***PM1-16, Diorite*** | | | | | | | | | | | | | | |
| sam.01 | 12 | 246 | 0.0420 | 0.0004 | 0.2963 | 0.0075 | 0.0511 | 0.0012 | 265 | 3 | 263 | 7 | 246 | 55 |
| sam.02 | 5 | 107 | 0.0437 | 0.0005 | 0.3133 | 0.0122 | 0.0520 | 0.0019 | 276 | 3 | 277 | 11 | 286 | 83 |
| sam.03 | 16 | 335 | 0.0425 | 0.0004 | 0.3102 | 0.0062 | 0.0529 | 0.0010 | 268 | 3 | 274 | 6 | 326 | 42 |
| sam.04 | 8 | 165 | 0.0424 | 0.0004 | 0.3201 | 0.0086 | 0.0548 | 0.0014 | 267 | 3 | 282 | 8 | 404 | 58 |
| sam.05 | 17 | 372 | 0.0413 | 0.0004 | 0.3014 | 0.0061 | 0.0529 | 0.0010 | 261 | 3 | 268 | 5 | 326 | 42 |
| sam.06 | 8 | 196 | 0.0403 | 0.0004 | 0.2973 | 0.0082 | 0.0535 | 0.0014 | 255 | 3 | 264 | 7 | 349 | 59 |
| sam.07 | 12 | 254 | 0.0424 | 0.0004 | 0.3182 | 0.0067 | 0.0544 | 0.0011 | 268 | 3 | 280 | 6 | 387 | 44 |
| sam.08 | 18 | 381 | 0.0418 | 0.0004 | 0.3074 | 0.0059 | 0.0533 | 0.0009 | 264 | 3 | 272 | 5 | 343 | 38 |
| sam.09 | 21 | 306 | 0.0470 | 0.0005 | 1.1457 | 0.0231 | 0.1767 | 0.0030 | 296 | 3 | 775 | 16 | 2622 | 28 |
| sam.10 | 11 | 214 | 0.0428 | 0.0004 | 0.3165 | 0.0067 | 0.0536 | 0.0010 | 270 | 3 | 279 | 6 | 356 | 44 |
| sam.11 | 22 | 400 | 0.0422 | 0.0004 | 0.3068 | 0.0069 | 0.0527 | 0.0011 | 266 | 3 | 272 | 6 | 318 | 46 |
| sam.12 | 16 | 361 | 0.0425 | 0.0004 | 0.3134 | 0.0064 | 0.0535 | 0.0010 | 268 | 3 | 277 | 6 | 349 | 42 |
| sam.13 | 22 | 446 | 0.0422 | 0.0004 | 0.2969 | 0.0056 | 0.0510 | 0.0009 | 267 | 3 | 264 | 5 | 240 | 39 |
| sam.14 | 29 | 567 | 0.0430 | 0.0004 | 0.3064 | 0.0054 | 0.0516 | 0.0008 | 272 | 3 | 271 | 5 | 269 | 36 |
| sam.15 | 10 | 223 | 0.0431 | 0.0004 | 0.3177 | 0.0089 | 0.0535 | 0.0014 | 272 | 3 | 280 | 8 | 350 | 61 |
| sam.16 | 23 | 465 | 0.0421 | 0.0004 | 0.2913 | 0.0059 | 0.0501 | 0.0009 | 266 | 3 | 260 | 5 | 202 | 43 |
| sam.17 | 21 | 411 | 0.0435 | 0.0004 | 0.3015 | 0.0054 | 0.0503 | 0.0008 | 274 | 3 | 268 | 5 | 210 | 37 |
| sam.18 | 295 | 601 | 0.4386 | 0.0046 | 9.6466 | 0.1509 | 0.1595 | 0.0021 | 2344 | 24 | 2402 | 38 | 2451 | 22 |
| sam.19 | 14 | 307 | 0.0431 | 0.0004 | 0.3129 | 0.0066 | 0.0526 | 0.0010 | 272 | 3 | 276 | 6 | 312 | 44 |
| sam.20 | 14 | 324 | 0.0417 | 0.0004 | 0.3006 | 0.0065 | 0.0523 | 0.0011 | 263 | 3 | 267 | 6 | 298 | 46 |
| sam.21 | 27 | 514 | 0.0423 | 0.0004 | 0.3169 | 0.0067 | 0.0544 | 0.0010 | 267 | 3 | 280 | 6 | 386 | 41 |
| sam.22 | 31 | 640 | 0.0425 | 0.0004 | 0.3120 | 0.0053 | 0.0533 | 0.0008 | 268 | 3 | 276 | 5 | 340 | 33 |
| sam.23 | 25 | 538 | 0.0420 | 0.0004 | 0.2994 | 0.0054 | 0.0518 | 0.0008 | 265 | 3 | 266 | 5 | 275 | 37 |
| sam.24 | 80 | 144 | 0.4737 | 0.0047 | 11.4027 | 0.1740 | 0.1746 | 0.0022 | 2500 | 25 | 2557 | 39 | 2602 | 21 |
| sam.25 | 60 | 1108 | 0.0418 | 0.0004 | 0.3161 | 0.0051 | 0.0548 | 0.0008 | 264 | 3 | 279 | 5 | 403 | 31 |
| ***17LMY, Mica quartz schist*** | | | | | | | | | | | | | | |
| sam.01 | 174 | 458 | 0.3688 | 0.0041 | 6.3913 | 0.0929 | 0.1257 | 0.0016 | 2024 | 22 | 2031 | 30 | 2039 | 22 |
| sam.02 | 62 | 167 | 0.3489 | 0.0034 | 5.6370 | 0.0740 | 0.1172 | 0.0015 | 1929 | 19 | 1922 | 25 | 1914 | 23 |
| sam.03 | 124 | 295 | 0.3638 | 0.0038 | 6.1992 | 0.0829 | 0.1236 | 0.0015 | 2000 | 21 | 2004 | 27 | 2009 | 22 |
| sam.04 | 94 | 273 | 0.3436 | 0.0038 | 5.5550 | 0.0798 | 0.1172 | 0.0015 | 1904 | 21 | 1909 | 27 | 1915 | 22 |
| sam.05 | 139 | 366 | 0.3560 | 0.0040 | 5.9650 | 0.0843 | 0.1215 | 0.0015 | 1963 | 22 | 1971 | 28 | 1979 | 22 |
| sam.06 | 80 | 182 | 0.3750 | 0.0046 | 6.6668 | 0.0986 | 0.1289 | 0.0016 | 2053 | 25 | 2068 | 31 | 2083 | 22 |
| sam.07 | 181 | 423 | 0.3484 | 0.0036 | 5.6639 | 0.0765 | 0.1179 | 0.0015 | 1927 | 20 | 1926 | 26 | 1925 | 22 |
| sam.08 | 51 | 131 | 0.3375 | 0.0034 | 5.3663 | 0.0726 | 0.1153 | 0.0015 | 1875 | 19 | 1879 | 25 | 1885 | 23 |
| sam.09 | 126 | 367 | 0.3496 | 0.0036 | 5.5244 | 0.0737 | 0.1146 | 0.0014 | 1933 | 20 | 1904 | 25 | 1874 | 22 |
| sam.10 | 203 | 586 | 0.3444 | 0.0040 | 5.5547 | 0.0788 | 0.1170 | 0.0014 | 1908 | 22 | 1909 | 27 | 1910 | 22 |
| sam.11 | 104 | 296 | 0.3392 | 0.0033 | 5.4263 | 0.0707 | 0.1160 | 0.0014 | 1883 | 19 | 1889 | 25 | 1896 | 22 |
| sam.12 | 41 | 107 | 0.3448 | 0.0036 | 5.5342 | 0.0743 | 0.1164 | 0.0014 | 1910 | 20 | 1906 | 26 | 1902 | 22 |
| sam.13 | 4 | 11 | 0.3356 | 0.0034 | 5.2310 | 0.1344 | 0.1131 | 0.0029 | 1865 | 19 | 1858 | 48 | 1849 | 47 |
| sam.14 | 27 | 67 | 0.3489 | 0.0036 | 5.6090 | 0.0770 | 0.1166 | 0.0015 | 1930 | 20 | 1917 | 26 | 1904 | 23 |
| sam.15 | 117 | 331 | 0.3511 | 0.0036 | 5.6764 | 0.0746 | 0.1173 | 0.0014 | 1940 | 20 | 1928 | 25 | 1915 | 22 |
| sam.16 | 72 | 170 | 0.3461 | 0.0034 | 5.6625 | 0.0730 | 0.1186 | 0.0014 | 1916 | 19 | 1926 | 25 | 1936 | 22 |
| sam.17 | 59 | 140 | 0.3578 | 0.0038 | 5.9614 | 0.0804 | 0.1209 | 0.0015 | 1972 | 21 | 1970 | 27 | 1969 | 22 |
| sam.18 | 202 | 589 | 0.3464 | 0.0034 | 5.6468 | 0.0724 | 0.1182 | 0.0014 | 1918 | 19 | 1923 | 25 | 1929 | 22 |
| sam.19 | 154 | 439 | 0.3568 | 0.0037 | 5.8306 | 0.0763 | 0.1185 | 0.0014 | 1967 | 20 | 1951 | 26 | 1934 | 22 |
| sam.20 | 135 | 370 | 0.3480 | 0.0035 | 5.7472 | 0.0747 | 0.1198 | 0.0015 | 1925 | 19 | 1938 | 25 | 1953 | 22 |
| sam.21 | 38 | 95 | 0.3495 | 0.0034 | 5.8081 | 0.0760 | 0.1205 | 0.0015 | 1932 | 19 | 1948 | 25 | 1964 | 22 |
| sam.22 | 100 | 285 | 0.3524 | 0.0036 | 5.7761 | 0.0751 | 0.1189 | 0.0015 | 1946 | 20 | 1943 | 25 | 1939 | 22 |
| sam.23 | 119 | 345 | 0.3498 | 0.0037 | 5.7712 | 0.0777 | 0.1197 | 0.0015 | 1934 | 21 | 1942 | 26 | 1951 | 22 |
| sam.24 | 44 | 111 | 0.3481 | 0.0038 | 5.7098 | 0.0795 | 0.1190 | 0.0015 | 1925 | 21 | 1933 | 27 | 1941 | 22 |
| sam.25 | 230 | 659 | 0.3492 | 0.0037 | 5.7620 | 0.0787 | 0.1197 | 0.0015 | 1931 | 21 | 1941 | 27 | 1951 | 22 |
| sam.26 | 150 | 432 | 0.3510 | 0.0038 | 5.8029 | 0.0799 | 0.1199 | 0.0015 | 1939 | 21 | 1947 | 27 | 1955 | 22 |
| sam.27 | 50 | 114 | 0.3472 | 0.0035 | 5.8133 | 0.0783 | 0.1214 | 0.0015 | 1921 | 19 | 1948 | 26 | 1978 | 22 |
| sam.28 | 61 | 158 | 0.3560 | 0.0035 | 5.9129 | 0.0785 | 0.1205 | 0.0015 | 1963 | 20 | 1963 | 26 | 1963 | 22 |
| sam.29 | 100 | 273 | 0.3506 | 0.0034 | 5.9189 | 0.0774 | 0.1224 | 0.0015 | 1938 | 19 | 1964 | 26 | 1992 | 22 |
| sam.30 | 214 | 612 | 0.3518 | 0.0035 | 5.8461 | 0.0773 | 0.1205 | 0.0015 | 1943 | 19 | 1953 | 26 | 1964 | 22 |
| sam.31 | 198 | 545 | 0.3536 | 0.0035 | 5.8732 | 0.0772 | 0.1205 | 0.0015 | 1952 | 19 | 1957 | 26 | 1963 | 22 |
| sam.32 | 115 | 333 | 0.3470 | 0.0035 | 5.7107 | 0.0758 | 0.1194 | 0.0015 | 1920 | 20 | 1933 | 26 | 1947 | 22 |
| sam.33 | 335 | 1080 | 0.2907 | 0.0028 | 5.1156 | 0.0655 | 0.1276 | 0.0016 | 1645 | 16 | 1839 | 24 | 2066 | 22 |
| sam.34 | 46 | 115 | 0.3559 | 0.0037 | 5.8512 | 0.0786 | 0.1192 | 0.0015 | 1963 | 20 | 1954 | 26 | 1945 | 22 |
| sam.35 | 434 | 1217 | 0.3541 | 0.0043 | 5.8804 | 0.0876 | 0.1205 | 0.0015 | 1954 | 24 | 1958 | 29 | 1963 | 22 |
| sam.36 | 42 | 99 | 0.3536 | 0.0037 | 5.8179 | 0.0789 | 0.1193 | 0.0015 | 1952 | 20 | 1949 | 26 | 1946 | 22 |
| sam.37 | 105 | 249 | 0.3622 | 0.0037 | 6.1509 | 0.0822 | 0.1232 | 0.0015 | 1992 | 21 | 1997 | 27 | 2003 | 22 |
| sam.38 | 81 | 213 | 0.3531 | 0.0039 | 5.7493 | 0.0802 | 0.1181 | 0.0015 | 1949 | 21 | 1939 | 27 | 1928 | 22 |
| sam.39 | 537 | 1478 | 0.3678 | 0.0038 | 6.1905 | 0.0823 | 0.1221 | 0.0015 | 2019 | 21 | 2003 | 27 | 1987 | 22 |
| sam.40 | 128 | 377 | 0.3439 | 0.0035 | 5.6060 | 0.0758 | 0.1182 | 0.0015 | 1905 | 20 | 1917 | 26 | 1930 | 22 |
| sam.41 | 153 | 458 | 0.3312 | 0.0033 | 5.4176 | 0.0720 | 0.1186 | 0.0015 | 1844 | 19 | 1888 | 25 | 1936 | 22 |
| sam.42 | 281 | 799 | 0.3554 | 0.0038 | 5.8469 | 0.0806 | 0.1193 | 0.0015 | 1960 | 21 | 1953 | 27 | 1946 | 22 |
| sam.43 | 35 | 90 | 0.3497 | 0.0035 | 5.6536 | 0.0758 | 0.1172 | 0.0015 | 1933 | 19 | 1924 | 26 | 1915 | 23 |
| sam.44 | 126 | 359 | 0.3433 | 0.0035 | 5.5833 | 0.0736 | 0.1179 | 0.0015 | 1903 | 19 | 1914 | 25 | 1925 | 22 |
| sam.45 | 171 | 462 | 0.3472 | 0.0036 | 5.7205 | 0.0768 | 0.1195 | 0.0015 | 1921 | 20 | 1934 | 26 | 1949 | 22 |
| sam.46 | 48 | 115 | 0.3491 | 0.0036 | 5.6389 | 0.0750 | 0.1172 | 0.0015 | 1930 | 20 | 1922 | 26 | 1913 | 22 |
| sam.47 | 90 | 227 | 0.3488 | 0.0037 | 5.6864 | 0.0775 | 0.1183 | 0.0015 | 1929 | 20 | 1929 | 26 | 1930 | 22 |
| sam.48 | 169 | 452 | 0.3579 | 0.0041 | 6.0090 | 0.0893 | 0.1218 | 0.0015 | 1972 | 23 | 1977 | 29 | 1982 | 22 |
| sam.49 | 159 | 392 | 0.3600 | 0.0036 | 6.1694 | 0.0819 | 0.1243 | 0.0016 | 1982 | 20 | 2000 | 27 | 2019 | 22 |
| sam.50 | 66 | 168 | 0.3481 | 0.0038 | 5.6563 | 0.0792 | 0.1179 | 0.0015 | 1925 | 21 | 1925 | 27 | 1924 | 22 |
| sam.51 | 87 | 234 | 0.3507 | 0.0037 | 5.7886 | 0.0809 | 0.1197 | 0.0015 | 1938 | 21 | 1945 | 27 | 1952 | 22 |
| sam.52 | 174 | 481 | 0.3532 | 0.0038 | 5.7255 | 0.0778 | 0.1176 | 0.0014 | 1950 | 21 | 1935 | 26 | 1920 | 22 |
| sam.53 | 154 | 436 | 0.3566 | 0.0037 | 5.8376 | 0.0791 | 0.1187 | 0.0015 | 1966 | 21 | 1952 | 26 | 1937 | 22 |
| sam.54 | 122 | 325 | 0.3541 | 0.0038 | 5.7668 | 0.0791 | 0.1181 | 0.0015 | 1954 | 21 | 1941 | 27 | 1928 | 22 |
| sam.55 | 485 | 940 | 0.4904 | 0.0051 | 11.7722 | 0.1586 | 0.1741 | 0.0022 | 2573 | 27 | 2586 | 35 | 2597 | 21 |
| sam.56 | 187 | 545 | 0.3480 | 0.0036 | 5.6146 | 0.0756 | 0.1170 | 0.0015 | 1925 | 20 | 1918 | 26 | 1911 | 22 |
| sam.57 | 290 | 608 | 0.3986 | 0.0043 | 7.3118 | 0.1006 | 0.1331 | 0.0017 | 2162 | 23 | 2150 | 30 | 2139 | 22 |
| sam.58 | 113 | 318 | 0.3407 | 0.0034 | 5.5203 | 0.0727 | 0.1175 | 0.0015 | 1890 | 19 | 1904 | 25 | 1919 | 22 |
| sam.59 | 87 | 198 | 0.3498 | 0.0036 | 5.6794 | 0.0761 | 0.1177 | 0.0015 | 1934 | 20 | 1928 | 26 | 1922 | 22 |
| sam.60 | 187 | 485 | 0.3501 | 0.0037 | 5.6900 | 0.0766 | 0.1179 | 0.0014 | 1935 | 21 | 1930 | 26 | 1924 | 22 |
| sam.61 | 176 | 452 | 0.3675 | 0.0039 | 6.2497 | 0.0843 | 0.1233 | 0.0015 | 2018 | 21 | 2011 | 27 | 2005 | 22 |
| sam.62 | 188 | 532 | 0.3510 | 0.0040 | 5.7032 | 0.0808 | 0.1178 | 0.0015 | 1940 | 22 | 1932 | 27 | 1924 | 22 |
| sam.63 | 166 | 371 | 0.3722 | 0.0040 | 6.4342 | 0.0882 | 0.1254 | 0.0015 | 2040 | 22 | 2037 | 28 | 2034 | 22 |
| sam.64 | 145 | 418 | 0.3506 | 0.0039 | 5.6995 | 0.0794 | 0.1179 | 0.0015 | 1938 | 21 | 1931 | 27 | 1925 | 22 |
| sam.65 | 94 | 252 | 0.3495 | 0.0039 | 5.7432 | 0.0810 | 0.1192 | 0.0015 | 1932 | 22 | 1938 | 27 | 1944 | 22 |
| sam.66 | 36 | 84 | 0.3417 | 0.0035 | 5.6003 | 0.0751 | 0.1189 | 0.0015 | 1895 | 19 | 1916 | 26 | 1939 | 22 |
| sam.67 | 97 | 222 | 0.3919 | 0.0044 | 7.2442 | 0.1014 | 0.1341 | 0.0017 | 2132 | 24 | 2142 | 30 | 2152 | 22 |
| sam.68 | 140 | 383 | 0.3462 | 0.0039 | 5.7147 | 0.0799 | 0.1197 | 0.0015 | 1916 | 22 | 1934 | 27 | 1952 | 22 |
| sam.69 | 61 | 149 | 0.3634 | 0.0038 | 6.0062 | 0.0818 | 0.1199 | 0.0015 | 1998 | 21 | 1977 | 27 | 1954 | 23 |
| sam.70 | 41 | 98 | 0.3456 | 0.0035 | 5.6354 | 0.0760 | 0.1183 | 0.0015 | 1914 | 19 | 1922 | 26 | 1930 | 23 |
| sam.71 | 34 | 82 | 0.3423 | 0.0035 | 5.5874 | 0.0771 | 0.1184 | 0.0015 | 1898 | 20 | 1914 | 26 | 1932 | 23 |
| sam.72 | 70 | 186 | 0.3464 | 0.0037 | 5.6799 | 0.0795 | 0.1189 | 0.0015 | 1918 | 21 | 1928 | 27 | 1940 | 23 |
| sam.73 | 35 | 91 | 0.3474 | 0.0037 | 5.6584 | 0.0797 | 0.1181 | 0.0015 | 1922 | 21 | 1925 | 27 | 1928 | 23 |
| sam.74 | 47 | 119 | 0.3489 | 0.0038 | 5.6851 | 0.0800 | 0.1182 | 0.0015 | 1929 | 21 | 1929 | 27 | 1929 | 23 |
| sam.75 | 274 | 737 | 0.3603 | 0.0037 | 6.0744 | 0.0821 | 0.1223 | 0.0015 | 1984 | 20 | 1987 | 27 | 1990 | 22 |
| sam.76 | 195 | 565 | 0.3507 | 0.0041 | 5.7129 | 0.0833 | 0.1181 | 0.0015 | 1938 | 23 | 1933 | 28 | 1928 | 22 |
| sam.77 | 259 | 766 | 0.3416 | 0.0037 | 5.4947 | 0.0762 | 0.1167 | 0.0015 | 1894 | 20 | 1900 | 26 | 1906 | 23 |
| sam.78 | 219 | 576 | 0.3516 | 0.0036 | 5.8681 | 0.0806 | 0.1210 | 0.0015 | 1942 | 20 | 1957 | 27 | 1972 | 23 |
| sam.79 | 167 | 475 | 0.3468 | 0.0038 | 5.6010 | 0.0802 | 0.1171 | 0.0015 | 1919 | 21 | 1916 | 27 | 1913 | 23 |
| sam.80 | 41 | 113 | 0.3358 | 0.0034 | 5.4179 | 0.0767 | 0.1170 | 0.0015 | 1866 | 19 | 1888 | 27 | 1911 | 24 |
| sam.81 | 124 | 354 | 0.3478 | 0.0037 | 5.6353 | 0.0805 | 0.1175 | 0.0015 | 1924 | 21 | 1922 | 27 | 1919 | 23 |
| sam.82 | 220 | 600 | 0.3602 | 0.0041 | 5.9987 | 0.0881 | 0.1208 | 0.0015 | 1983 | 23 | 1976 | 29 | 1968 | 23 |
| sam.83 | 122 | 325 | 0.3601 | 0.0045 | 6.1183 | 0.0970 | 0.1232 | 0.0016 | 1983 | 25 | 1993 | 32 | 2003 | 22 |
| sam.84 | 49 | 123 | 0.3407 | 0.0037 | 5.5197 | 0.0769 | 0.1175 | 0.0015 | 1890 | 20 | 1904 | 27 | 1919 | 23 |
| sam.85 | 48 | 127 | 0.3470 | 0.0037 | 5.6438 | 0.0777 | 0.1180 | 0.0015 | 1920 | 20 | 1923 | 26 | 1926 | 23 |
| sam.86 | 146 | 421 | 0.3501 | 0.0045 | 5.7663 | 0.0923 | 0.1195 | 0.0015 | 1935 | 25 | 1941 | 31 | 1948 | 22 |
| sam.87 | 62 | 160 | 0.3486 | 0.0037 | 5.7119 | 0.0797 | 0.1188 | 0.0015 | 1928 | 21 | 1933 | 27 | 1939 | 22 |
| sam.88 | 283 | 837 | 0.3300 | 0.0032 | 5.4767 | 0.0711 | 0.1204 | 0.0015 | 1838 | 18 | 1897 | 25 | 1962 | 22 |
| sam.89 | 90 | 222 | 0.3385 | 0.0034 | 5.5247 | 0.0730 | 0.1184 | 0.0015 | 1879 | 19 | 1904 | 25 | 1932 | 22 |
| sam.90 | 200 | 584 | 0.3474 | 0.0040 | 5.6823 | 0.0820 | 0.1186 | 0.0015 | 1922 | 22 | 1929 | 28 | 1936 | 22 |
| sam.91 | 135 | 384 | 0.3563 | 0.0040 | 5.8079 | 0.0817 | 0.1182 | 0.0015 | 1965 | 22 | 1948 | 27 | 1929 | 22 |
| sam.92 | 156 | 437 | 0.3547 | 0.0047 | 5.8275 | 0.0903 | 0.1191 | 0.0015 | 1957 | 26 | 1951 | 30 | 1943 | 22 |
| sam.93 | 144 | 400 | 0.3545 | 0.0049 | 5.9171 | 0.0943 | 0.1210 | 0.0015 | 1956 | 27 | 1964 | 31 | 1972 | 22 |
| sam.94 | 232 | 659 | 0.3517 | 0.0043 | 5.8216 | 0.0895 | 0.1201 | 0.0015 | 1943 | 24 | 1950 | 30 | 1957 | 22 |
| sam.95 | 154 | 440 | 0.3554 | 0.0046 | 5.8010 | 0.0899 | 0.1184 | 0.0015 | 1960 | 25 | 1947 | 30 | 1932 | 22 |
| sam.96 | 113 | 292 | 0.3778 | 0.0055 | 6.7099 | 0.1205 | 0.1288 | 0.0016 | 2066 | 30 | 2074 | 37 | 2082 | 22 |
| sam.97 | 155 | 410 | 0.3653 | 0.0045 | 6.1655 | 0.0963 | 0.1224 | 0.0015 | 2007 | 25 | 2000 | 31 | 1992 | 22 |
| sam.98 | 133 | 373 | 0.3499 | 0.0039 | 5.7236 | 0.0840 | 0.1186 | 0.0015 | 1934 | 21 | 1935 | 28 | 1936 | 23 |
| sam.99 | 91 | 258 | 0.3499 | 0.0038 | 5.6476 | 0.0800 | 0.1171 | 0.0015 | 1934 | 21 | 1923 | 27 | 1912 | 23 |
| sam.100 | 26 | 67 | 0.3524 | 0.0037 | 5.6647 | 0.0817 | 0.1166 | 0.0016 | 1946 | 21 | 1926 | 28 | 1905 | 24 |
| ***17SLHD, Tonalite*** | | | | | | | | | | | | | | |
| sam.01 | 24 | 43 | 0.4727 | 0.0048 | 10.6397 | 0.1598 | 0.1632 | 0.0023 | 2495 | 25 | 2492 | 37 | 2490 | 24 |
| sam.02 | 37 | 73 | 0.4614 | 0.0051 | 10.1455 | 0.1418 | 0.1595 | 0.0020 | 2446 | 27 | 2448 | 34 | 2450 | 21 |
| sam.03 | 72 | 128 | 0.4704 | 0.0050 | 10.8141 | 0.1470 | 0.1667 | 0.0021 | 2485 | 26 | 2507 | 34 | 2525 | 21 |
| sam.04 | 46 | 88 | 0.4706 | 0.0052 | 10.8185 | 0.1535 | 0.1667 | 0.0021 | 2486 | 27 | 2508 | 36 | 2525 | 21 |
| sam.05 | 59 | 117 | 0.4721 | 0.0049 | 10.7864 | 0.1455 | 0.1657 | 0.0020 | 2493 | 26 | 2505 | 34 | 2515 | 21 |
| sam.06 | 26 | 50 | 0.4775 | 0.0053 | 11.0127 | 0.1531 | 0.1673 | 0.0021 | 2517 | 28 | 2524 | 35 | 2530 | 21 |
| sam.07 | 29 | 51 | 0.4758 | 0.0047 | 10.8460 | 0.1424 | 0.1653 | 0.0021 | 2509 | 25 | 2510 | 33 | 2511 | 21 |
| sam.08 | 66 | 127 | 0.4729 | 0.0050 | 10.8255 | 0.1459 | 0.1660 | 0.0021 | 2496 | 26 | 2508 | 34 | 2518 | 21 |
| sam.09 | 45 | 89 | 0.4723 | 0.0049 | 10.7035 | 0.1440 | 0.1644 | 0.0021 | 2494 | 26 | 2498 | 34 | 2501 | 21 |
| sam.10 | 32 | 55 | 0.5135 | 0.0053 | 12.8754 | 0.1731 | 0.1819 | 0.0023 | 2671 | 28 | 2671 | 36 | 2670 | 21 |
| sam.11 | 40 | 73 | 0.4822 | 0.0048 | 11.3065 | 0.1492 | 0.1700 | 0.0021 | 2537 | 25 | 2549 | 34 | 2558 | 21 |
| sam.12 | 121 | 244 | 0.4559 | 0.0049 | 9.9660 | 0.1351 | 0.1585 | 0.0020 | 2421 | 26 | 2432 | 33 | 2440 | 21 |
| sam.13 | 105 | 197 | 0.4786 | 0.0048 | 10.7921 | 0.1410 | 0.1636 | 0.0020 | 2521 | 25 | 2505 | 33 | 2493 | 21 |
| sam.14 | 60 | 118 | 0.4765 | 0.0052 | 10.9875 | 0.1530 | 0.1672 | 0.0021 | 2512 | 28 | 2522 | 35 | 2530 | 21 |
| sam.15 | 71 | 132 | 0.4771 | 0.0054 | 10.8054 | 0.1533 | 0.1643 | 0.0020 | 2515 | 28 | 2507 | 36 | 2500 | 21 |
| sam.16 | 51 | 91 | 0.4765 | 0.0046 | 10.6533 | 0.1383 | 0.1622 | 0.0020 | 2512 | 24 | 2493 | 32 | 2478 | 21 |
| sam.17 | 109 | 210 | 0.4801 | 0.0049 | 11.1798 | 0.1484 | 0.1689 | 0.0021 | 2528 | 26 | 2538 | 34 | 2547 | 21 |
| sam.18 | 62 | 117 | 0.4699 | 0.0047 | 10.6043 | 0.1395 | 0.1637 | 0.0020 | 2483 | 25 | 2489 | 33 | 2494 | 21 |
| sam.19 | 38 | 73 | 0.4625 | 0.0048 | 10.4424 | 0.1405 | 0.1638 | 0.0020 | 2450 | 26 | 2475 | 33 | 2495 | 21 |
| sam.20 | 68 | 142 | 0.4601 | 0.0047 | 10.2996 | 0.1354 | 0.1624 | 0.0020 | 2440 | 25 | 2462 | 32 | 2480 | 21 |
| sam.21 | 74 | 142 | 0.4726 | 0.0052 | 10.7665 | 0.1493 | 0.1652 | 0.0020 | 2495 | 28 | 2503 | 35 | 2510 | 21 |
| sam.22 | 105 | 196 | 0.4676 | 0.0049 | 10.7349 | 0.1442 | 0.1665 | 0.0021 | 2473 | 26 | 2500 | 34 | 2523 | 21 |
| sam.23 | 50 | 87 | 0.4986 | 0.0049 | 12.1439 | 0.1589 | 0.1766 | 0.0022 | 2608 | 26 | 2616 | 34 | 2622 | 21 |
| sam.24 | 86 | 165 | 0.4635 | 0.0045 | 10.3266 | 0.1342 | 0.1616 | 0.0020 | 2455 | 24 | 2464 | 32 | 2472 | 21 |
| sam.25 | 73 | 133 | 0.4841 | 0.0047 | 11.6535 | 0.1520 | 0.1746 | 0.0022 | 2545 | 25 | 2577 | 34 | 2602 | 21 |
| ***17XH, Monzogranite*** | | | | | | | | | | | | | | |
| sam.01 | 100 | 185 | 0.4718 | 0.0058 | 10.9702 | 0.1656 | 0.1686 | 0.0021 | 2492 | 31 | 2521 | 38 | 2544 | 21 |
| sam.02 | 151 | 244 | 0.4595 | 0.0045 | 10.2176 | 0.1321 | 0.1613 | 0.0020 | 2437 | 24 | 2455 | 32 | 2469 | 21 |
| sam.03 | 67 | 127 | 0.4813 | 0.0047 | 11.1046 | 0.1448 | 0.1673 | 0.0021 | 2533 | 25 | 2532 | 33 | 2531 | 21 |
| sam.04 | 84 | 145 | 0.4655 | 0.0045 | 10.8723 | 0.1390 | 0.1694 | 0.0021 | 2464 | 24 | 2512 | 32 | 2552 | 21 |
| sam.05 | 197 | 407 | 0.4670 | 0.0051 | 10.8370 | 0.1490 | 0.1683 | 0.0021 | 2470 | 27 | 2509 | 34 | 2541 | 21 |
| sam.06 | 640 | 1220 | 0.3074 | 0.0030 | 7.3632 | 0.0942 | 0.1737 | 0.0022 | 1728 | 17 | 2157 | 28 | 2594 | 21 |
| sam.07 | 101 | 200 | 0.4556 | 0.0052 | 10.4354 | 0.1469 | 0.1661 | 0.0021 | 2420 | 28 | 2474 | 35 | 2519 | 21 |
| sam.08 | 107 | 191 | 0.4546 | 0.0045 | 10.4754 | 0.1371 | 0.1671 | 0.0021 | 2415 | 24 | 2478 | 32 | 2529 | 21 |
| sam.09 | 244 | 436 | 0.4482 | 0.0043 | 10.3862 | 0.1344 | 0.1681 | 0.0021 | 2387 | 23 | 2470 | 32 | 2539 | 21 |
| sam.10 | 148 | 247 | 0.4867 | 0.0047 | 11.1938 | 0.1446 | 0.1668 | 0.0021 | 2556 | 25 | 2539 | 33 | 2526 | 21 |
| sam.11 | 48 | 76 | 0.4483 | 0.0045 | 10.0954 | 0.1355 | 0.1633 | 0.0021 | 2388 | 24 | 2444 | 33 | 2490 | 21 |
| sam.12 | 30 | 54 | 0.4702 | 0.0050 | 10.5926 | 0.1447 | 0.1634 | 0.0021 | 2484 | 26 | 2488 | 34 | 2491 | 21 |
| sam.13 | 468 | 1878 | 0.2118 | 0.0022 | 5.8459 | 0.0774 | 0.2002 | 0.0025 | 1238 | 13 | 1953 | 26 | 2828 | 20 |
| sam.14 | 145 | 204 | 0.4742 | 0.0046 | 10.9968 | 0.1408 | 0.1682 | 0.0021 | 2502 | 24 | 2523 | 32 | 2540 | 21 |
| sam.15 | 50 | 95 | 0.4549 | 0.0046 | 10.0918 | 0.1331 | 0.1609 | 0.0020 | 2417 | 24 | 2443 | 32 | 2465 | 21 |
| sam.16 | 79 | 150 | 0.4741 | 0.0048 | 10.5813 | 0.1401 | 0.1619 | 0.0020 | 2502 | 26 | 2487 | 33 | 2475 | 21 |
| sam.17 | 21 | 41 | 0.4674 | 0.0047 | 10.4488 | 0.1414 | 0.1621 | 0.0021 | 2472 | 25 | 2475 | 33 | 2478 | 22 |
| sam.18 | 92 | 169 | 0.4723 | 0.0050 | 10.7507 | 0.1446 | 0.1651 | 0.0020 | 2494 | 26 | 2502 | 34 | 2509 | 21 |
| sam.19 | 444 | 905 | 0.4255 | 0.0060 | 10.0115 | 0.1621 | 0.1707 | 0.0021 | 2285 | 32 | 2436 | 39 | 2564 | 21 |
| sam.20 | 62 | 102 | 0.4787 | 0.0051 | 11.0664 | 0.1504 | 0.1676 | 0.0021 | 2522 | 27 | 2529 | 34 | 2534 | 21 |
| sam.21 | 83 | 153 | 0.4702 | 0.0050 | 11.0228 | 0.1485 | 0.1700 | 0.0021 | 2484 | 26 | 2525 | 34 | 2558 | 21 |
| sam.22 | 72 | 137 | 0.4573 | 0.0045 | 10.3900 | 0.1346 | 0.1648 | 0.0020 | 2428 | 24 | 2470 | 32 | 2505 | 21 |
| sam.23 | 79 | 142 | 0.4609 | 0.0051 | 10.5792 | 0.1469 | 0.1665 | 0.0021 | 2444 | 27 | 2487 | 35 | 2522 | 21 |
| sam.24 | 169 | 334 | 0.4569 | 0.0047 | 10.5078 | 0.1400 | 0.1668 | 0.0021 | 2426 | 25 | 2481 | 33 | 2526 | 21 |
| sam.25 | 106 | 214 | 0.4721 | 0.0049 | 10.7083 | 0.1437 | 0.1645 | 0.0021 | 2493 | 26 | 2498 | 34 | 2503 | 21 |
| sam.26 | 175 | 314 | 0.4592 | 0.0046 | 10.4498 | 0.1374 | 0.1650 | 0.0021 | 2436 | 25 | 2475 | 33 | 2508 | 21 |
| sam.27 | 75 | 136 | 0.4764 | 0.0051 | 10.8677 | 0.1541 | 0.1654 | 0.0021 | 2512 | 27 | 2512 | 36 | 2512 | 21 |
| sam.28 | 113 | 194 | 0.4710 | 0.0051 | 11.0756 | 0.1534 | 0.1705 | 0.0021 | 2488 | 27 | 2530 | 35 | 2563 | 21 |
| sam.29 | 1030 | 1540 | 0.3309 | 0.0032 | 7.6311 | 0.0979 | 0.1673 | 0.0021 | 1843 | 18 | 2189 | 28 | 2531 | 21 |
| sam.30 | 120 | 214 | 0.4788 | 0.0053 | 11.0529 | 0.1546 | 0.1674 | 0.0021 | 2522 | 28 | 2528 | 35 | 2532 | 21 |
| sam.31 | 86 | 151 | 0.4727 | 0.0048 | 10.8740 | 0.1437 | 0.1668 | 0.0021 | 2495 | 25 | 2512 | 33 | 2526 | 21 |
| sam.32 | 447 | 872 | 0.4792 | 0.0050 | 11.1539 | 0.1486 | 0.1688 | 0.0021 | 2524 | 26 | 2536 | 34 | 2546 | 21 |
| sam.33 | 93 | 198 | 0.4658 | 0.0048 | 10.5747 | 0.1398 | 0.1646 | 0.0020 | 2465 | 25 | 2486 | 33 | 2504 | 21 |
| sam.34 | 97 | 201 | 0.4706 | 0.0049 | 11.0777 | 0.1481 | 0.1707 | 0.0021 | 2486 | 26 | 2530 | 34 | 2565 | 21 |
| sam.35 | 75 | 133 | 0.4713 | 0.0068 | 11.0449 | 0.1759 | 0.1700 | 0.0022 | 2489 | 36 | 2527 | 40 | 2557 | 21 |
| ***17YYF, Syenite*** | | | | | | | | | | | | | | |
| sam.01 | 26 | 47 | 0.4924 | 0.0051 | 11.6364 | 0.1574 | 0.1714 | 0.0024 | 2581 | 27 | 2576 | 35 | 2571 | 23 |
| sam.02 | 76 | 144 | 0.4763 | 0.0066 | 10.7544 | 0.1785 | 0.1638 | 0.0021 | 2511 | 35 | 2502 | 42 | 2495 | 21 |
| sam.03 | 51 | 98 | 0.4707 | 0.0052 | 10.6351 | 0.1491 | 0.1639 | 0.0021 | 2487 | 27 | 2492 | 35 | 2496 | 21 |
| sam.04 | 39 | 73 | 0.4789 | 0.0054 | 10.9016 | 0.1551 | 0.1651 | 0.0021 | 2523 | 28 | 2515 | 36 | 2508 | 21 |
| sam.05 | 23 | 44 | 0.4734 | 0.0047 | 10.6078 | 0.1446 | 0.1625 | 0.0021 | 2498 | 25 | 2489 | 34 | 2482 | 22 |
| sam.06 | 17 | 33 | 0.4737 | 0.0049 | 10.7593 | 0.1481 | 0.1647 | 0.0022 | 2500 | 26 | 2503 | 34 | 2505 | 22 |
| sam.07 | 89 | 162 | 0.4724 | 0.0053 | 10.6427 | 0.1474 | 0.1634 | 0.0020 | 2494 | 28 | 2492 | 35 | 2491 | 21 |
| sam.08 | 29 | 55 | 0.4695 | 0.0050 | 10.5881 | 0.1455 | 0.1636 | 0.0021 | 2481 | 26 | 2488 | 34 | 2493 | 21 |
| sam.09 | 30 | 57 | 0.4680 | 0.0049 | 10.3955 | 0.1421 | 0.1611 | 0.0021 | 2475 | 26 | 2471 | 34 | 2467 | 22 |
| sam.10 | 27 | 51 | 0.4767 | 0.0051 | 10.7886 | 0.1491 | 0.1641 | 0.0021 | 2513 | 27 | 2505 | 35 | 2499 | 21 |
| sam.11 | 130 | 227 | 0.4720 | 0.0050 | 10.6211 | 0.1438 | 0.1632 | 0.0020 | 2493 | 26 | 2491 | 34 | 2489 | 21 |
| sam.12 | 98 | 187 | 0.4748 | 0.0054 | 10.6672 | 0.1505 | 0.1629 | 0.0020 | 2505 | 28 | 2495 | 35 | 2486 | 21 |
| sam.13 | 251 | 430 | 0.4695 | 0.0049 | 10.6903 | 0.1441 | 0.1651 | 0.0020 | 2481 | 26 | 2497 | 34 | 2509 | 21 |
| sam.14 | 73 | 138 | 0.4731 | 0.0048 | 10.6754 | 0.1424 | 0.1637 | 0.0020 | 2497 | 25 | 2495 | 33 | 2494 | 21 |
| sam.15 | 65 | 117 | 0.4653 | 0.0047 | 10.6631 | 0.1432 | 0.1662 | 0.0021 | 2463 | 25 | 2494 | 33 | 2520 | 21 |
| sam.16 | 74 | 138 | 0.4711 | 0.0052 | 10.8129 | 0.1512 | 0.1665 | 0.0021 | 2489 | 27 | 2507 | 35 | 2522 | 21 |
| sam.17 | 107 | 188 | 0.4671 | 0.0046 | 10.6203 | 0.1383 | 0.1649 | 0.0021 | 2471 | 24 | 2490 | 32 | 2506 | 21 |
| sam.18 | 46 | 86 | 0.4758 | 0.0055 | 10.9596 | 0.1608 | 0.1671 | 0.0021 | 2509 | 29 | 2520 | 37 | 2529 | 21 |
| sam.19 | 31 | 57 | 0.4743 | 0.0054 | 10.8176 | 0.1561 | 0.1654 | 0.0021 | 2502 | 29 | 2508 | 36 | 2512 | 22 |
| sam.20 | 38 | 72 | 0.4676 | 0.0050 | 10.4434 | 0.1446 | 0.1620 | 0.0021 | 2473 | 27 | 2475 | 34 | 2477 | 21 |
| ***17HNJ, Biotite monzogneiss*** | | | | | | | | | | | | | | |
| sam.01 | 90 | 230 | 0.3541 | 0.0045 | 7.8408 | 0.1186 | 0.1606 | 0.0020 | 1954 | 25 | 2213 | 33 | 2462 | 21 |
| sam.02 | 66 | 122 | 0.4447 | 0.0045 | 10.0083 | 0.1319 | 0.1632 | 0.0020 | 2372 | 24 | 2436 | 32 | 2489 | 21 |
| sam.03 | 367 | 833 | 0.4170 | 0.0043 | 9.2223 | 0.1233 | 0.1604 | 0.0020 | 2247 | 23 | 2360 | 32 | 2460 | 21 |
| sam.04 | 63 | 116 | 0.4565 | 0.0056 | 10.1657 | 0.1541 | 0.1615 | 0.0020 | 2424 | 30 | 2450 | 37 | 2472 | 21 |
| sam.05 | 229 | 415 | 0.4276 | 0.0042 | 9.6504 | 0.1244 | 0.1637 | 0.0020 | 2295 | 22 | 2402 | 31 | 2494 | 21 |
| sam.06 | 123 | 229 | 0.4558 | 0.0049 | 10.2653 | 0.1391 | 0.1633 | 0.0020 | 2421 | 26 | 2459 | 33 | 2491 | 21 |
| sam.07 | 164 | 301 | 0.4294 | 0.0042 | 9.7501 | 0.1261 | 0.1647 | 0.0020 | 2303 | 23 | 2411 | 31 | 2504 | 21 |
| sam.08 | 267 | 605 | 0.4166 | 0.0041 | 9.1128 | 0.1192 | 0.1586 | 0.0020 | 2245 | 22 | 2349 | 31 | 2441 | 21 |
| sam.09 | 212 | 511 | 0.3948 | 0.0040 | 8.6734 | 0.1149 | 0.1593 | 0.0020 | 2145 | 22 | 2304 | 31 | 2448 | 21 |
| sam.10 | 73 | 138 | 0.4430 | 0.0046 | 9.8382 | 0.1327 | 0.1611 | 0.0020 | 2364 | 25 | 2420 | 33 | 2467 | 21 |
| sam.11 | 74 | 140 | 0.3958 | 0.0040 | 8.2850 | 0.1122 | 0.1518 | 0.0019 | 2150 | 22 | 2263 | 31 | 2367 | 21 |
| sam.12 | 215 | 1168 | 0.1682 | 0.0030 | 3.7528 | 0.0710 | 0.1618 | 0.0020 | 1002 | 18 | 1583 | 30 | 2475 | 21 |
| sam.13 | 376 | 977 | 0.3567 | 0.0043 | 8.0128 | 0.1144 | 0.1629 | 0.0020 | 1967 | 23 | 2232 | 32 | 2486 | 21 |
| sam.14 | 165 | 364 | 0.3714 | 0.0040 | 8.6641 | 0.1181 | 0.1692 | 0.0021 | 2036 | 22 | 2303 | 31 | 2550 | 21 |
| sam.15 | 79 | 166 | 0.4153 | 0.0045 | 9.3192 | 0.1295 | 0.1627 | 0.0020 | 2239 | 24 | 2370 | 33 | 2484 | 21 |
| sam.16 | 153 | 346 | 0.4060 | 0.0042 | 9.2105 | 0.1243 | 0.1645 | 0.0020 | 2197 | 23 | 2359 | 32 | 2503 | 21 |
| sam.17 | 118 | 230 | 0.4661 | 0.0050 | 10.4317 | 0.1442 | 0.1623 | 0.0020 | 2466 | 27 | 2474 | 34 | 2480 | 21 |
| sam.18 | 259 | 682 | 0.3639 | 0.0038 | 8.1481 | 0.1108 | 0.1624 | 0.0020 | 2001 | 21 | 2248 | 31 | 2481 | 21 |
| sam.19 | 81 | 180 | 0.3899 | 0.0040 | 8.7089 | 0.1189 | 0.1620 | 0.0020 | 2122 | 22 | 2308 | 32 | 2477 | 21 |
| sam.20 | 111 | 194 | 0.4619 | 0.0046 | 10.9308 | 0.1425 | 0.1716 | 0.0021 | 2448 | 24 | 2517 | 33 | 2574 | 21 |
| sam.21 | 117 | 227 | 0.4603 | 0.0059 | 10.4735 | 0.1564 | 0.1650 | 0.0020 | 2441 | 31 | 2478 | 37 | 2508 | 21 |
| sam.22 | 58 | 100 | 0.4575 | 0.0052 | 10.2255 | 0.1466 | 0.1621 | 0.0020 | 2428 | 28 | 2455 | 35 | 2478 | 21 |
| sam.23 | 53 | 85 | 0.4510 | 0.0048 | 9.9976 | 0.1374 | 0.1608 | 0.0020 | 2400 | 26 | 2435 | 33 | 2464 | 21 |
| sam.24 | 66 | 116 | 0.4662 | 0.0047 | 10.5026 | 0.1387 | 0.1634 | 0.0021 | 2467 | 25 | 2480 | 33 | 2491 | 21 |
| sam.25 | 74 | 141 | 0.4513 | 0.0044 | 9.9313 | 0.1291 | 0.1596 | 0.0020 | 2401 | 23 | 2428 | 32 | 2452 | 21 |
| sam.26 | 200 | 459 | 0.4077 | 0.0041 | 8.9650 | 0.1185 | 0.1595 | 0.0020 | 2204 | 22 | 2334 | 31 | 2450 | 21 |
| sam.27 | 119 | 356 | 0.3010 | 0.0034 | 6.6451 | 0.0959 | 0.1601 | 0.0020 | 1696 | 19 | 2065 | 30 | 2457 | 21 |
| sam.28 | 283 | 634 | 0.4053 | 0.0044 | 9.1426 | 0.1249 | 0.1636 | 0.0020 | 2193 | 24 | 2352 | 32 | 2493 | 21 |
| sam.29 | 150 | 354 | 0.3508 | 0.0039 | 7.9136 | 0.1083 | 0.1636 | 0.0020 | 1939 | 21 | 2221 | 30 | 2493 | 21 |
| sam.30 | 372 | 834 | 0.4238 | 0.0041 | 9.3845 | 0.1206 | 0.1606 | 0.0020 | 2278 | 22 | 2376 | 31 | 2462 | 21 |
| ***17SFZ, Granodiorite*** | | | | | | | | | | | | | | |
| sam.01 | 85 | 161 | 0.4578 | 0.0046 | 10.2079 | 0.1348 | 0.1617 | 0.0020 | 2430 | 24 | 2454 | 32 | 2474 | 21 |
| sam.02 | 142 | 261 | 0.4598 | 0.0046 | 10.2818 | 0.1354 | 0.1622 | 0.0020 | 2439 | 25 | 2460 | 32 | 2478 | 21 |
| sam.03 | 110 | 196 | 0.4688 | 0.0065 | 10.5269 | 0.1707 | 0.1628 | 0.0020 | 2478 | 34 | 2482 | 40 | 2485 | 21 |
| sam.04 | 66 | 120 | 0.4718 | 0.0047 | 10.6630 | 0.1398 | 0.1639 | 0.0020 | 2492 | 25 | 2494 | 33 | 2496 | 21 |
| sam.05 | 87 | 164 | 0.4579 | 0.0052 | 10.2746 | 0.1454 | 0.1627 | 0.0020 | 2430 | 28 | 2460 | 35 | 2484 | 21 |
| sam.06 | 113 | 227 | 0.4484 | 0.0052 | 9.7971 | 0.1454 | 0.1585 | 0.0020 | 2388 | 28 | 2416 | 36 | 2439 | 21 |
| sam.07 | 158 | 321 | 0.4576 | 0.0055 | 10.1738 | 0.1496 | 0.1612 | 0.0020 | 2429 | 29 | 2451 | 36 | 2469 | 21 |
| sam.08 | 186 | 345 | 0.4566 | 0.0053 | 10.3894 | 0.1494 | 0.1650 | 0.0021 | 2424 | 28 | 2470 | 36 | 2508 | 21 |
| sam.09 | 55 | 101 | 0.4715 | 0.0047 | 10.7983 | 0.1432 | 0.1661 | 0.0021 | 2490 | 25 | 2506 | 33 | 2519 | 21 |
| sam.10 | 62 | 113 | 0.4667 | 0.0048 | 10.6951 | 0.1428 | 0.1662 | 0.0021 | 2469 | 25 | 2497 | 33 | 2520 | 21 |
| sam.11 | 164 | 329 | 0.4623 | 0.0049 | 10.3950 | 0.1410 | 0.1631 | 0.0020 | 2450 | 26 | 2471 | 34 | 2488 | 21 |
| sam.12 | 48 | 89 | 0.4741 | 0.0047 | 10.7373 | 0.1402 | 0.1642 | 0.0020 | 2502 | 25 | 2501 | 33 | 2500 | 21 |
| sam.13 | 183 | 361 | 0.4597 | 0.0047 | 10.2939 | 0.1367 | 0.1624 | 0.0020 | 2438 | 25 | 2462 | 33 | 2481 | 21 |
| sam.14 | 75 | 140 | 0.4652 | 0.0049 | 10.5102 | 0.1418 | 0.1639 | 0.0020 | 2462 | 26 | 2481 | 33 | 2496 | 21 |
| sam.15 | 77 | 150 | 0.4647 | 0.0047 | 10.5574 | 0.1410 | 0.1648 | 0.0021 | 2460 | 25 | 2485 | 33 | 2505 | 21 |
| sam.16 | 88 | 160 | 0.4669 | 0.0050 | 11.1605 | 0.1546 | 0.1733 | 0.0022 | 2470 | 26 | 2537 | 35 | 2590 | 21 |
| sam.17 | 75 | 137 | 0.4622 | 0.0045 | 10.1192 | 0.1334 | 0.1588 | 0.0020 | 2449 | 24 | 2446 | 32 | 2443 | 21 |
| sam.18 | 75 | 153 | 0.4304 | 0.0041 | 8.8209 | 0.1145 | 0.1486 | 0.0019 | 2308 | 22 | 2320 | 30 | 2330 | 22 |
| sam.19 | 78 | 146 | 0.4626 | 0.0050 | 10.3600 | 0.1422 | 0.1624 | 0.0020 | 2451 | 27 | 2467 | 34 | 2481 | 21 |
| sam.20 | 82 | 152 | 0.4700 | 0.0049 | 10.6460 | 0.1429 | 0.1643 | 0.0020 | 2483 | 26 | 2493 | 33 | 2500 | 21 |
| sam.21 | 73 | 136 | 0.4588 | 0.0048 | 10.2643 | 0.1371 | 0.1623 | 0.0020 | 2434 | 25 | 2459 | 33 | 2479 | 21 |
| sam.22 | 85 | 161 | 0.4690 | 0.0047 | 10.7002 | 0.1415 | 0.1655 | 0.0021 | 2479 | 25 | 2497 | 33 | 2512 | 21 |
| sam.23 | 106 | 199 | 0.4668 | 0.0048 | 10.5856 | 0.1402 | 0.1645 | 0.0021 | 2469 | 25 | 2487 | 33 | 2502 | 21 |
| sam.24 | 118 | 218 | 0.4683 | 0.0048 | 10.6045 | 0.1415 | 0.1642 | 0.0021 | 2476 | 25 | 2489 | 33 | 2500 | 21 |
| sam.25 | 87 | 161 | 0.4678 | 0.0046 | 10.5621 | 0.1378 | 0.1638 | 0.0021 | 2474 | 24 | 2485 | 32 | 2495 | 21 |
| ***17LSH, Meta-monzogranite*** | | | | | | | | | | | | | | |
| sam.01 | 333 | 682 | 0.4601 | 0.0046 | 10.4811 | 0.1392 | 0.1652 | 0.0021 | 2440 | 24 | 2478 | 33 | 2510 | 21 |
| sam.02 | 218 | 382 | 0.5087 | 0.0057 | 12.8784 | 0.1793 | 0.1836 | 0.0023 | 2651 | 30 | 2671 | 37 | 2686 | 21 |
| sam.03 | 182 | 373 | 0.4724 | 0.0051 | 10.4719 | 0.1443 | 0.1608 | 0.0020 | 2494 | 27 | 2477 | 34 | 2464 | 21 |
| sam.04 | 203 | 430 | 0.4551 | 0.0046 | 10.1091 | 0.1329 | 0.1611 | 0.0020 | 2418 | 24 | 2445 | 32 | 2467 | 21 |
| sam.05 | 160 | 312 | 0.4767 | 0.0049 | 10.7139 | 0.1418 | 0.1630 | 0.0020 | 2513 | 26 | 2499 | 33 | 2487 | 21 |
| sam.06 | 154 | 318 | 0.4587 | 0.0045 | 10.5064 | 0.1376 | 0.1661 | 0.0021 | 2434 | 24 | 2480 | 32 | 2519 | 21 |
| sam.07 | 185 | 401 | 0.4487 | 0.0046 | 9.9243 | 0.1335 | 0.1604 | 0.0020 | 2389 | 24 | 2428 | 33 | 2460 | 21 |
| sam.08 | 118 | 255 | 0.4378 | 0.0044 | 9.6413 | 0.1294 | 0.1597 | 0.0020 | 2341 | 24 | 2401 | 32 | 2453 | 21 |
| sam.09 | 201 | 501 | 0.3835 | 0.0039 | 8.7650 | 0.1183 | 0.1658 | 0.0021 | 2093 | 21 | 2314 | 31 | 2515 | 21 |
| sam.10 | 123 | 234 | 0.4708 | 0.0046 | 10.9208 | 0.1430 | 0.1683 | 0.0021 | 2487 | 24 | 2516 | 33 | 2540 | 21 |
| sam.11 | 316 | 813 | 0.3827 | 0.0041 | 8.4412 | 0.1174 | 0.1600 | 0.0020 | 2089 | 22 | 2280 | 32 | 2455 | 21 |
| sam.12 | 119 | 247 | 0.4674 | 0.0054 | 10.6501 | 0.1532 | 0.1653 | 0.0021 | 2472 | 28 | 2493 | 36 | 2510 | 21 |
| sam.13 | 168 | 357 | 0.4568 | 0.0045 | 10.5682 | 0.1373 | 0.1678 | 0.0021 | 2426 | 24 | 2486 | 32 | 2536 | 21 |
| sam.14 | 140 | 310 | 0.4376 | 0.0043 | 9.7736 | 0.1273 | 0.1620 | 0.0020 | 2340 | 23 | 2414 | 31 | 2477 | 21 |
| sam.15 | 131 | 298 | 0.4238 | 0.0042 | 9.6270 | 0.1248 | 0.1648 | 0.0020 | 2278 | 22 | 2400 | 31 | 2505 | 21 |
| sam.16 | 35 | 67 | 0.4605 | 0.0049 | 10.3114 | 0.1407 | 0.1624 | 0.0020 | 2442 | 26 | 2463 | 34 | 2481 | 21 |
| sam.17 | 176 | 380 | 0.4423 | 0.0043 | 10.4442 | 0.1344 | 0.1712 | 0.0021 | 2361 | 23 | 2475 | 32 | 2570 | 21 |
| sam.18 | 173 | 355 | 0.4607 | 0.0048 | 10.3819 | 0.1398 | 0.1634 | 0.0020 | 2443 | 25 | 2469 | 33 | 2491 | 21 |
| sam.19 | 55 | 96 | 0.4707 | 0.0047 | 11.0142 | 0.1447 | 0.1697 | 0.0021 | 2487 | 25 | 2524 | 33 | 2555 | 21 |
| sam.20 | 234 | 521 | 0.4378 | 0.0046 | 10.3436 | 0.1392 | 0.1714 | 0.0021 | 2341 | 25 | 2466 | 33 | 2571 | 21 |
| sam.21 | 42 | 79 | 0.4839 | 0.0051 | 11.2887 | 0.1517 | 0.1692 | 0.0021 | 2544 | 27 | 2547 | 34 | 2550 | 21 |
| sam.22 | 130 | 261 | 0.4786 | 0.0050 | 11.1316 | 0.1491 | 0.1687 | 0.0021 | 2521 | 26 | 2534 | 34 | 2545 | 21 |
| sam.23 | 198 | 377 | 0.4778 | 0.0063 | 11.3160 | 0.1775 | 0.1718 | 0.0021 | 2518 | 33 | 2550 | 40 | 2575 | 21 |
| sam.24 | 195 | 405 | 0.4598 | 0.0045 | 10.6203 | 0.1390 | 0.1675 | 0.0021 | 2439 | 24 | 2490 | 33 | 2533 | 21 |
| sam.25 | 162 | 335 | 0.4647 | 0.0050 | 10.8802 | 0.1503 | 0.1698 | 0.0021 | 2460 | 26 | 2513 | 35 | 2556 | 21 |

Table S3. Major and trace elements for forty-nine samples from the northern margin of the North China craton

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Description | augite peridotite | | | | | dunite | meta-gabbro (North Bayan Obo) | | | quartz diorite | | | | meta-tonalite | | |  |
| Samples | 17BYB-1 | 17BYB-2 | 17BYB-3 | 17BYB-4 | 17BYB-5 | DM01 | BYB-3-2 | BYB-3-3 | BYB-3-4 | 17BYJ-1 | 17BYJ-2 | 17BYJ-3 | 17BYJ-4 | PM1-05 | PM1-07-1 | PM1-07-2 |  |
| **Major element (wt%)** | | | | | | | | | | | | | | | | |  |
| SiO2 | 42.11 | 40.45 | 40.54 | 34.73 | 41.04 | 41.48 | 61.32 | 53.55 | 49.36 | 71.40 | 74.39 | 67.59 | 69.20 | 67.11 | 72.08 | 75.20 |  |
| Al2O3 | 1.55 | 1.58 | 1.15 | 9.28 | 2.28 | 1.38 | 14.48 | 14.73 | 12.45 | 13.50 | 14.76 | 14.67 | 15.05 | 16.16 | 15.33 | 14.35 |  |
| CaO | 0.25 | 1.73 | 1.32 | 1.49 | 1.32 | 0.22 | 1.95 | 5.90 | 6.45 | 0.47 | 1.36 | 0.32 | 0.24 | 3.23 | 1.85 | 1.04 |  |
| Fe2O3 | 1.28 | 1.83 | 1.46 | 1.74 | 3.02 | 2 | 1.68 | 2.53 | 3.92 | 2.51 | 0.48 | 3.18 | 1.60 | 1.85 | 0.32 | 0.31 |  |
| FeO | 5.73 | 4.33 | 4.62 | 5.48 | 3.36 | 4.98 | 3.65 | 2.89 | 6.56 | 1.92 | 0.70 | 2.96 | 2.89 | 1.56 | 1.02 | 0.31 |  |
| K2O | 0.05 | 0.05 | 0.05 | 0.05 | 0.09 | 0.02 | 0.24 | 0.68 | 1.64 | 3.50 | 1.74 | 3.55 | 3.79 | 1.26 | 1.56 | 2.11 |  |
| MgO | 35.97 | 35.95 | 36.62 | 33.08 | 35.31 | 36.73 | 5.97 | 5.63 | 8.15 | 1.65 | 0.53 | 1.86 | 1.90 | 1.25 | 0.83 | 0.25 |  |
| MnO | 0.07 | 0.06 | 0.07 | 0.13 | 0.07 | 0.086 | 0.05 | 0.07 | 0.11 | 0.04 | 0.02 | 0.16 | 0.10 | 0.04 | 0.03 | 0.01 |  |
| Na2O | 0.03 | 0.01 | 0.02 | 0.01 | 0.01 | 0.21 | 5.68 | 5.95 | 3.90 | 2.11 | 4.60 | 1.45 | 1.36 | 5.75 | 6.11 | 6.14 |  |
| P2O5 | 0.00 | 0.14 | 0.01 | 0.19 | 0.03 | 0.006 | 0.22 | 0.23 | 0.25 | 0.08 | 0.07 | 0.06 | 0.08 | 0.17 | 0.05 | 0.03 |  |
| TiO2 | 0.02 | 0.05 | 0.03 | 0.38 | 0.10 | 0.03 | 0.59 | 0.59 | 1.52 | 0.47 | 0.03 | 0.90 | 0.41 | 0.34 | 0.17 | 0.07 |  |
| LOI | 11.36 | 12.92 | 12.85 | 12.69 | 12.72 | 12.34 | 3.64 | 6.44 | 4.56 | 1.71 | 0.90 | 2.57 | 2.34 | 1.04 | 0.49 | 0.37 |  |
| A/CNK | 2.78 | 0.49 | 0.46 | 3.34 | 0.91 | 1.80 | 1.10 | 0.69 | 0.63 | 1.66 | 1.24 | 2.15 | 2.22 | 0.97 | 1.01 | 1.01 |  |
| A/NK | 14.98 | 22.38 | 13.21 | 131.46 | 20.02 | 3.76 | 1.51 | 1.40 | 1.52 | 1.86 | 1.56 | 2.35 | 2.37 | 1.49 | 1.31 | 1.16 |  |
| Mg# | 90.31 | 91.34 | 91.67 | 89.33 | 91.20 | 90.62 | 67.34 | 66.02 | 59.02 | 41.31 | 45.50 | 36.29 | 43.89 | 40.87 | 53.08 | 43.08 |  |
| TFe2O3 | 8.78 | 7.71 | 7.68 | 9.04 | 7.80 | 8.64 | 5.98 | 6.19 | 11.88 | 4.75 | 1.27 | 6.69 | 4.98 | 3.63 | 1.46 | 0.66 |  |
| K2O+Na2O | 0.09 | 0.07 | 0.08 | 0.07 | 0.12 | 0.26 | 6.18 | 7.15 | 5.87 | 5.75 | 6.42 | 5.17 | 5.33 | 7.10 | 7.72 | 8.26 |  |
| **Trace element (ppm)** | | | | | | | | | | | | | | | | |  |
| La | 1.04 | 4.35 | 1.70 | 14.3 | 4.71 | 1.6 | 19.9 | 21.7 | 23.7 | 47.2 | 36.0 | 51.7 | 50.9 | 19.4 | 13.4 | 9.82 |  |
| Ce | 2.61 | 9.65 | 3.28 | 27.3 | 9.42 | 4.05 | 38.8 | 40.0 | 33.1 | 85.1 | 68.8 | 90.9 | 103 | 32.5 | 20.6 | 15.9 |  |
| Pr | 0.38 | 1.29 | 0.42 | 3.56 | 1.13 | 0.32 | 5.13 | 5.45 | 5.33 | 10.3 | 8.10 | 10.7 | 11.6 | 3.99 | 2.10 | 1.59 |  |
| Nd | 1.63 | 5.64 | 1.65 | 13.9 | 4.71 | 1.87 | 21.8 | 23.6 | 23.4 | 36.5 | 27.7 | 39.1 | 41.6 | 15.9 | 7.73 | 5.48 |  |
| Sm | 0.44 | 1.56 | 0.30 | 1.96 | 0.85 | 0.46 | 3.63 | 3.82 | 4.58 | 6.23 | 4.33 | 6.39 | 6.84 | 2.33 | 1.00 | 0.77 |  |
| Eu | 0.21 | 0.25 | 0.09 | 0.12 | 0.20 | 0.26 | 1.10 | 1.29 | 1.45 | 1.29 | 1.60 | 1.52 | 1.28 | 0.76 | 0.54 | 0.43 |  |
| Gd | 0.49 | 2.17 | 0.24 | 1.37 | 0.81 | 0.34 | 3.09 | 3.26 | 4.77 | 5.33 | 2.89 | 5.53 | 6.08 | 1.79 | 0.68 | 0.50 |  |
| Tb | 0.08 | 0.31 | 0.05 | 0.14 | 0.12 | 0.06 | 0.42 | 0.44 | 0.71 | 0.76 | 0.39 | 0.91 | 1.00 | 0.22 | 0.08 | 0.07 |  |
| Dy | 0.52 | 1.80 | 0.21 | 0.66 | 0.70 | 0.51 | 2.25 | 2.35 | 4.01 | 4.47 | 2.27 | 5.85 | 7.28 | 1.07 | 0.41 | 0.35 |  |
| Ho | 0.10 | 0.34 | 0.05 | 0.12 | 0.14 | 0.09 | 0.43 | 0.45 | 0.73 | 0.89 | 0.47 | 1.22 | 1.61 | 0.20 | 0.07 | 0.07 |  |
| Er | 0.29 | 0.85 | 0.12 | 0.30 | 0.40 | 0.23 | 1.26 | 1.29 | 2.05 | 2.64 | 1.62 | 3.75 | 5.17 | 0.53 | 0.21 | 0.20 |  |
| Tm | 0.05 | 0.10 | 0.05 | 0.05 | 0.06 | 0.04 | 0.17 | 0.17 | 0.25 | 0.40 | 0.26 | 0.58 | 0.80 | 0.07 | 0.05 | 0.05 |  |
| Yb | 0.27 | 0.54 | 0.12 | 0.26 | 0.40 | 0.28 | 1.14 | 1.14 | 1.64 | 2.69 | 1.79 | 3.89 | 5.24 | 0.45 | 0.19 | 0.18 |  |
| Lu | 0.05 | 0.07 | 0.05 | 0.05 | 0.06 | 0.04 | 0.17 | 0.18 | 0.23 | 0.42 | 0.26 | 0.59 | 0.76 | 0.07 | 0.05 | 0.05 |  |
| Y | 3.02 | 10.2 | 1.20 | 2.81 | 3.74 | 2.98 | 11.7 | 12.3 | 19.0 | 24.3 | 12.9 | 32.2 | 43.9 | 5.44 | 2.14 | 2.01 |  |
| Cr | 2296 | 2160 | 2244 | 1345 | 2149 | 2108 | 208 | 206 | 339 | 70.7 | 4.22 | 81.7 | 85.3 | 12.6 | 3.62 | 1.80 |  |
| Th | 0.19 | 0.83 | 0.31 | 0.53 | 1.53 | 0.58 | 5.38 | 5.49 | 3.24 | 14.6 | 9.60 | 11.8 | 14.9 | 1.20 | 0.29 | 0.51 |  |
| U | 0.35 | 0.67 | 0.41 | 0.11 | 0.59 | 0.5 | 1.07 | 1.79 | 0.60 | 0.85 | 0.96 | 0.98 | 1.09 | 0.25 | 0.16 | 0.41 |  |
| Cs | 0.34 | 0.24 | 0.14 | 0.21 | 1.16 | 0.82 | 0.15 | 0.55 | 3.76 | 0.90 | 0.13 | 0.56 | 1.22 | 0.71 | 0.33 | 0.47 |  |
| Sc | 7.23 | 7.24 | 6.92 | 14.1 | 8.40 | 8.77 | 15.1 | 15.0 | 19.8 | 13.1 | 5.06 | 14.1 | 26.3 | 5.84 | 3.00 | 2.13 |  |
| Rb | 1.46 | 0.86 | 0.57 | 0.68 | 3.25 | 1.93 | 3.98 | 25.4 | 47.1 | 86.4 | 31.1 | 65.0 | 74.9 | 31.4 | 28.3 | 24.3 |  |
| Sr | 19.9 | 56.1 | 111 | 90.5 | 128 | 29.9 | 200 | 306 | 369 | 191 | 598 | 185 | 102 | 535 | 417 | 309 |  |
| Ba | 80.7 | 16.7 | 18.4 | 7.17 | 64.3 | 196 | 132 | 251 | 346 | 981 | 846 | 1544 | 1571 | 660 | 996 | 817 |  |
| Zr | 1.28 | 24.6 | 3.93 | 95.0 | 23.1 | 7.61 | 105 | 121 | 102 | 283 | 122 | 280 | 268 | 93.3 | 86.7 | 61.3 |  |
| Nb | 1.37 | 1.08 | 0.80 | 2.88 | 1.85 | 1.66 | 5.76 | 5.84 | 11.3 | 7.44 | 2.42 | 11.3 | 6.68 | 4.00 | 3.04 | 4.07 |  |
| Ta | 0.24 | 0.24 | 0.17 | 0.26 | 0.19 | 0.25 | 0.35 | 0.36 | 0.67 | 0.37 | 0.05 | 0.69 | 0.34 | 0.21 | 0.12 | 0.07 |  |
| Hf | 0.05 | 0.80 | 0.14 | 2.37 | 0.72 | 0.3 | 3.45 | 3.54 | 3.37 | 7.81 | 4.58 | 7.83 | 7.37 | 2.74 | 2.64 | 2.03 |  |
| Pb | 2.96 | 0.83 | 1.81 | 14.2 | 5.79 | 1.74 | 3.61 | 5.54 | 3.00 | 24.3 | 13.4 | 13.5 | 7.02 | 10.3 | 9.28 | 8.02 |  |
| V | 34.6 | 24.6 | 22.1 | 54.9 | 32.5 | 32.4 | 116 | 123 | 176 | 65.2 | 6.81 | 65.1 | 80.2 | 40.2 | 16.4 | 7.00 |  |
| Co | 98.0 | 95.7 | 86.9 | 69.7 | 78.9 | 127 | 21.5 | 19.7 | 40.0 | 10.6 | 1.81 | 15.8 | 10.9 | 9.48 | 3.70 | 1.14 |  |
| Ni | 2126 | 2318 | 1849 | 1156 | 1828 | 2091 | 35.8 | 30.1 | 160 | 34.6 | 3.17 | 35.1 | 32.6 | 13.0 | 4.55 | 2.13 |  |
| Cu | 17.4 | 11.1 | 13.4 | 1.21 | 8.07 | 8.48 | 5.48 | 19.5 | 23.6 | 42.4 | 5.45 | 18.3 | 6.45 | 13.6 | 2.31 | 4.21 |  |
| Zn | 55.4 | 43.6 | 45.2 | 53.2 | 49.6 | 34.4 | 52.7 | 49.0 | 83.6 | 116 | 17.0 | 75.7 | 71.4 | 59.3 | 29.0 | 10.7 |  |
| Ga | 2.28 | 1.81 | 1.36 | 6.34 | 3.19 | 2.45 | 18.3 | 19.9 | 19.8 | 15.1 | 13.8 | 17.1 | 19.5 | 20.5 | 19.8 | 17.2 |  |
| Eu\* | 1.38 | 0.42 | 1.02 | 0.22 | 0.74 | 2.01 | 1.00 | 1.12 | 0.95 | 0.68 | 1.38 | 0.78 | 0.61 | 0.99 | 2.00 | 2.12 |  |
| REE | 11.18 | 39.12 | 9.53 | 66.90 | 27.45 | 13.13 | 110.99 | 117.44 | 124.95 | 228.52 | 169.38 | 254.83 | 287.06 | 84.72 | 49.25 | 37.47 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Description | meta-trondhjemite | | | | | | | plagiogranite | | | | | | amphibolite | | |  |
| Samples | PM1-02-1 | PM1-02-2 | PM1-02-3 | PM1-02-4 | PM1-02-5 | PM1-02-6 | PM1-04 | PM1-09 | PM1-11-1 | PM1-11-2 | PM1-11-3 | PM1-11-4 | PM1-11-5 | PM1-03 | PM1-06 | PM1-10 |  |
| **Major element (wt%)** | | | | | | | | | | | | | | | | |  |
| SiO2 | 67.98 | 74.66 | 71.57 | 73.03 | 71.60 | 72.41 | 74.28 | 69.62 | 73.85 | 74.29 | 74.53 | 74.84 | 72.87 | 48.35 | 49.45 | 48.87 |  |
| Al2O3 | 17.00 | 14.51 | 15.50 | 14.91 | 15.76 | 15.21 | 14.89 | 16.54 | 15.08 | 14.63 | 14.59 | 14.51 | 15.42 | 12.58 | 12.70 | 14.14 |  |
| CaO | 2.40 | 1.30 | 1.81 | 1.70 | 1.34 | 1.37 | 1.29 | 1.50 | 1.26 | 1.16 | 1.27 | 0.94 | 1.50 | 9.87 | 9.44 | 10.51 |  |
| Fe2O3 | 1.27 | 0.25 | 0.54 | 0.45 | 0.55 | 0.70 | 0.30 | 0.81 | 0.33 | 0.28 | 0.10 | 0.38 | 0.62 | 5.37 | 5.20 | 3.49 |  |
| FeO | 1.10 | 0.41 | 1.35 | 1.28 | 1.13 | 0.77 | 0.70 | 0.70 | 0.45 | 0.45 | 0.63 | 0.41 | 0.45 | 9.11 | 8.57 | 8.60 |  |
| K2O | 1.36 | 0.78 | 1.13 | 0.93 | 1.28 | 1.24 | 0.96 | 1.24 | 0.97 | 1.14 | 0.76 | 0.67 | 0.97 | 1.21 | 1.26 | 1.12 |  |
| MgO | 1.37 | 0.41 | 0.89 | 0.77 | 1.01 | 0.76 | 0.52 | 1.15 | 0.56 | 0.52 | 0.53 | 0.45 | 0.76 | 5.57 | 5.76 | 7.45 |  |
| MnO | 0.02 | 0.02 | 0.04 | 0.03 | 0.02 | 0.03 | 0.02 | 0.02 | 0.01 | 0.02 | 0.01 | 0.02 | 0.02 | 0.25 | 0.22 | 0.19 |  |
| Na2O | 6.62 | 6.62 | 6.51 | 6.33 | 6.79 | 6.68 | 6.69 | 7.30 | 6.96 | 6.88 | 6.91 | 7.25 | 6.85 | 2.73 | 3.27 | 2.73 |  |
| P2O5 | 0.17 | 0.04 | 0.02 | 0.02 | 0.02 | 0.06 | 0.03 | 0.08 | 0.03 | 0.02 | 0.04 | 0.03 | 0.05 | 0.19 | 0.11 | 0.07 |  |
| TiO2 | 0.31 | 0.17 | 0.56 | 0.29 | 0.16 | 0.23 | 0.14 | 0.21 | 0.15 | 0.12 | 0.13 | 0.11 | 0.16 | 1.94 | 1.15 | 0.89 |  |
| LOI | 0.44 | 0.22 | 0.26 | 0.16 | 0.29 | 0.51 | 0.43 | 0.62 | 0.16 | 0.33 | 0.26 | 0.26 | 0.37 | 1.34 | 1.11 | 0.75 |  |
| A/CNK | 1.02 | 1.03 | 1.02 | 1.03 | 1.05 | 1.03 | 1.03 | 1.03 | 1.02 | 1.00 | 1.01 | 1.01 | 1.02 | 0.53 | 0.53 | 0.57 |  |
| A/NK | 1.38 | 1.24 | 1.30 | 1.31 | 1.26 | 1.23 | 1.24 | 1.24 | 1.21 | 1.17 | 1.20 | 1.15 | 1.25 | 2.17 | 1.88 | 2.48 |  |
| Mg# | 52.13 | 53.51 | 46.36 | 44.89 | 52.56 | 49.18 | 48.87 | 58.93 | 57.20 | 56.91 | 56.75 | 51.62 | 57.34 | 41.60 | 43.66 | 53.08 |  |
| TFe2O3 | 2.50 | 0.71 | 2.04 | 1.88 | 1.81 | 1.56 | 1.08 | 1.60 | 0.83 | 0.78 | 0.80 | 0.84 | 1.12 | 15.94 | 15.16 | 13.30 |  |
| K2O+Na2O | 8.01 | 7.46 | 7.65 | 7.28 | 8.10 | 7.96 | 7.66 | 8.61 | 7.96 | 8.06 | 7.71 | 7.95 | 7.85 | 4.05 | 4.66 | 3.93 |  |
| **Trace element (ppm)** | | | | | | | | | | | | | | | | |  |
| La | 22.3 | 49.4 | 16.5 | 12.2 | 19.0 | 41.2 | 25.1 | 6.85 | 14.3 | 18.4 | 10.3 | 12.1 | 11.9 | 11.1 | 6.18 | 3.98 |  |
| Ce | 39.5 | 89.2 | 30.1 | 18.0 | 25.3 | 72.5 | 39.9 | 13.1 | 23.3 | 34.9 | 18.6 | 23.6 | 24.6 | 25.7 | 14.5 | 9.99 |  |
| Pr | 5.20 | 8.47 | 2.86 | 1.90 | 3.00 | 7.23 | 4.89 | 1.50 | 2.19 | 3.20 | 2.01 | 1.84 | 2.12 | 3.95 | 2.17 | 1.51 |  |
| Nd | 17.7 | 25.8 | 8.62 | 5.83 | 9.68 | 24.7 | 18.2 | 6.11 | 6.77 | 9.82 | 6.70 | 6.01 | 7.17 | 19.8 | 11.0 | 8.02 |  |
| Sm | 2.97 | 3.31 | 1.06 | 0.71 | 0.98 | 2.81 | 2.16 | 1.06 | 0.67 | 1.08 | 0.86 | 0.68 | 0.96 | 5.11 | 2.92 | 2.23 |  |
| Eu | 0.75 | 1.00 | 0.90 | 0.55 | 0.47 | 0.77 | 0.57 | 0.51 | 0.44 | 0.55 | 0.41 | 0.48 | 0.54 | 1.73 | 1.04 | 0.83 |  |
| Gd | 2.31 | 2.00 | 0.82 | 0.52 | 0.67 | 1.70 | 1.34 | 0.83 | 0.47 | 0.66 | 0.62 | 0.50 | 0.72 | 6.53 | 3.89 | 3.12 |  |
| Tb | 0.28 | 0.21 | 0.10 | 0.07 | 0.07 | 0.19 | 0.14 | 0.10 | 0.06 | 0.08 | 0.07 | 0.06 | 0.08 | 1.08 | 0.68 | 0.56 |  |
| Dy | 1.48 | 0.93 | 0.57 | 0.36 | 0.38 | 0.93 | 0.63 | 0.53 | 0.28 | 0.39 | 0.35 | 0.30 | 0.38 | 6.75 | 4.34 | 3.62 |  |
| Ho | 0.27 | 0.14 | 0.11 | 0.07 | 0.07 | 0.17 | 0.11 | 0.10 | 0.05 | 0.07 | 0.06 | 0.05 | 0.07 | 1.35 | 0.94 | 0.77 |  |
| Er | 0.73 | 0.37 | 0.34 | 0.20 | 0.22 | 0.48 | 0.30 | 0.26 | 0.17 | 0.19 | 0.18 | 0.15 | 0.18 | 4.02 | 2.90 | 2.39 |  |
| Tm | 0.10 | 0.05 | 0.05 | 0.05 | 0.05 | 0.07 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.53 | 0.39 | 0.32 |  |
| Yb | 0.62 | 0.30 | 0.39 | 0.22 | 0.23 | 0.46 | 0.27 | 0.23 | 0.19 | 0.19 | 0.18 | 0.15 | 0.18 | 3.52 | 2.71 | 2.25 |  |
| Lu | 0.09 | 0.05 | 0.07 | 0.05 | 0.05 | 0.07 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.54 | 0.42 | 0.34 |  |
| Y | 7.90 | 4.10 | 3.28 | 2.05 | 2.27 | 4.98 | 3.35 | 2.70 | 1.57 | 1.88 | 1.79 | 1.64 | 1.86 | 35.1 | 25.1 | 20.9 |  |
| Cr | 11.2 | 1.82 | 7.85 | 4.63 | 4.75 | 5.71 | 2.17 | 9.71 | 1.81 | 1.53 | 1.69 | 2.73 | 2.29 | 67.0 | 61.5 | 279 |  |
| Th | 6.19 | 3.02 | 5.34 | 2.24 | 2.83 | 16.4 | 19.6 | 1.62 | 3.13 | 8.86 | 1.42 | 0.45 | 0.36 | 1.87 | 0.62 | 0.16 |  |
| U | 0.30 | 0.26 | 0.38 | 0.22 | 0.23 | 0.34 | 0.18 | 0.24 | 0.21 | 0.18 | 0.30 | 0.14 | 0.19 | 0.40 | 0.59 | 0.17 |  |
| Cs | 1.87 | 0.31 | 0.59 | 0.52 | 0.82 | 0.85 | 0.44 | 0.46 | 0.27 | 0.60 | 0.41 | 0.48 | 0.43 | 0.53 | 0.42 | 0.45 |  |
| Sc | 2.79 | 1.23 | 2.43 | 2.21 | 2.21 | 3.30 | 3.01 | 3.70 | 1.34 | 1.37 | 1.04 | 0.92 | 1.16 | 41.3 | 45.3 | 42.8 |  |
| Rb | 40.0 | 10.4 | 21.8 | 18.3 | 28.0 | 25.2 | 18.3 | 28.7 | 15.3 | 16.4 | 15.2 | 15.3 | 20.5 | 17.5 | 20.3 | 16.8 |  |
| Sr | 358 | 301 | 347 | 351 | 394 | 406 | 331 | 403 | 306 | 315 | 286 | 246 | 395 | 309 | 473 | 292 |  |
| Ba | 706 | 867 | 726 | 556 | 836 | 839 | 511 | 1033 | 863 | 591 | 420 | 452 | 948 | 555 | 582 | 348 |  |
| Zr | 97.0 | 79.2 | 38.3 | 47.1 | 76.2 | 140 | 73.0 | 98.3 | 80.4 | 59.5 | 79.1 | 74.5 | 73.1 | 112 | 73.1 | 47.2 |  |
| Nb | 5.46 | 6.46 | 10.5 | 4.70 | 2.07 | 6.53 | 4.77 | 2.80 | 4.76 | 6.63 | 2.53 | 6.98 | 2.10 | 14.8 | 3.89 | 2.53 |  |
| Ta | 0.33 | 0.17 | 0.51 | 0.24 | 0.14 | 0.21 | 0.15 | 0.08 | 0.14 | 0.10 | 0.11 | 0.06 | 0.07 | 0.53 | 0.30 | 0.20 |  |
| Hf | 2.87 | 2.42 | 1.30 | 1.42 | 2.53 | 4.24 | 2.35 | 3.10 | 2.69 | 1.97 | 2.56 | 2.37 | 2.36 | 3.68 | 2.42 | 1.67 |  |
| Pb | 12.5 | 9.27 | 10.6 | 9.84 | 9.93 | 10.8 | 9.17 | 8.26 | 6.58 | 7.44 | 5.98 | 4.61 | 6.96 | 6.04 | 7.12 | 5.27 |  |
| V | 28.4 | 9.36 | 23.5 | 21.6 | 19.7 | 21.5 | 14.4 | 17.1 | 12.4 | 9.60 | 8.33 | 9.39 | 8.70 | 428 | 374 | 296 |  |
| Co | 6.67 | 2.19 | 4.36 | 4.12 | 4.24 | 3.45 | 2.75 | 4.31 | 1.83 | 1.70 | 1.97 | 2.12 | 2.70 | 47.0 | 48.9 | 46.7 |  |
| Ni | 12.1 | 4.16 | 5.95 | 4.72 | 5.33 | 3.99 | 3.65 | 7.46 | 3.09 | 3.24 | 3.13 | 4.37 | 3.81 | 67.9 | 50.7 | 112 |  |
| Cu | 55.9 | 19.9 | 35.6 | 30.0 | 31.4 | 21.3 | 12.4 | 3.69 | 13.2 | 6.65 | 5.06 | 8.36 | 7.36 | 57.1 | 95.6 | 16.3 |  |
| Zn | 25.3 | 11.6 | 33.4 | 30.0 | 36.2 | 31.3 | 17.1 | 26.9 | 15.4 | 10.9 | 11.7 | 12.2 | 16.8 | 129 | 144 | 92.3 |  |
| Ga | 21.8 | 15.9 | 19.7 | 19.1 | 20.6 | 19.4 | 17.8 | 21.2 | 18.2 | 18.4 | 17.4 | 13.5 | 18.1 | 19.9 | 16.9 | 16.2 |  |
| Eu\* | 0.88 | 1.19 | 2.95 | 2.77 | 1.77 | 1.08 | 1.02 | 1.66 | 2.40 | 1.99 | 1.72 | 2.52 | 1.98 | 0.76 | 0.94 | 0.96 |  |
| REE | 102.20 | 185.33 | 65.77 | 42.78 | 62.44 | 158.26 | 97.06 | 33.98 | 50.56 | 71.51 | 42.23 | 47.66 | 50.86 | 126.81 | 79.18 | 60.83 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Description | meta-basalt | | | meta-gabbro (Bayan Obo) | | | | | granodiorite | | | | | meta-monzogranite | | | |
| Samples | PM1-12-1 | PM1-12-6 | PM1-14-2 | BY1-3-1 | BY1-3-2 | PM1-12-4 | PM1-12-5 | PM1-14-1 | 17SFZ-1 | 17SFZ-2 | 17SFZ-3 | 17SFZ-4 | 17SFZ-5 | 17LSH-1 | 17LSH-2 | 17LSH-3 | 17LSH-4 |
| **Major element (wt%)** | | | | | | | | | | | | | | | | | |
| SiO2 | 50.08 | 49.14 | 52.99 | 48.21 | 50.65 | 50.97 | 43.88 | 48.30 | 55.77 | 63.58 | 55.60 | 58.64 | 55.42 | 61.13 | 73.54 | 71.06 | 66.84 |
| Al2O3 | 14.12 | 15.61 | 17.97 | 13.37 | 14.11 | 12.96 | 12.09 | 12.77 | 15.77 | 15.14 | 16.57 | 15.80 | 17.08 | 15.58 | 14.86 | 14.90 | 16.91 |
| CaO | 8.91 | 9.72 | 5.52 | 10.59 | 9.21 | 7.89 | 12.27 | 11.10 | 5.69 | 3.71 | 5.47 | 4.84 | 4.63 | 3.33 | 1.14 | 2.75 | 2.92 |
| Fe2O3 | 2.42 | 2.64 | 3.00 | 3.67 | 3.22 | 4.79 | 5.63 | 4.69 | 1.82 | 1.72 | 3.72 | 3.49 | 3.55 | 1.71 | 0.45 | 1.70 | 1.53 |
| FeO | 6.30 | 6.23 | 4.98 | 8.28 | 8.35 | 8.14 | 8.21 | 9.07 | 4.83 | 2.53 | 3.50 | 2.86 | 3.11 | 4.83 | 0.45 | 0.56 | 1.20 |
| K2O | 2.03 | 1.68 | 2.80 | 0.82 | 1.41 | 1.87 | 2.38 | 0.89 | 3.47 | 3.12 | 3.52 | 3.61 | 4.49 | 2.85 | 2.10 | 1.88 | 1.91 |
| MgO | 9.84 | 8.20 | 4.12 | 8.46 | 6.16 | 6.63 | 6.10 | 6.15 | 5.07 | 2.96 | 4.03 | 3.92 | 4.05 | 3.51 | 0.41 | 0.59 | 1.06 |
| MnO | 0.15 | 0.16 | 0.13 | 0.20 | 0.19 | 0.20 | 0.34 | 0.22 | 0.11 | 0.07 | 0.10 | 0.09 | 0.09 | 0.09 | 0.02 | 0.02 | 0.03 |
| Na2O | 2.24 | 2.85 | 4.82 | 3.43 | 3.54 | 3.32 | 2.54 | 2.83 | 3.73 | 4.28 | 3.81 | 3.62 | 3.67 | 3.49 | 5.96 | 4.68 | 6.01 |
| P2O5 | 0.25 | 0.29 | 0.26 | 0.08 | 0.12 | 0.11 | 0.10 | 0.16 | 0.32 | 0.22 | 0.34 | 0.29 | 0.35 | 0.21 | 0.04 | 0.09 | 0.15 |
| TiO2 | 0.92 | 0.98 | 0.95 | 1.02 | 0.95 | 0.95 | 1.27 | 1.64 | 0.53 | 0.30 | 0.68 | 0.61 | 0.59 | 0.58 | 0.10 | 0.23 | 0.40 |
| LOI | 1.14 | 1.17 | 0.99 | 0.82 | 0.94 | 1.02 | 3.52 | 0.96 | 1.99 | 1.96 | 1.64 | 1.70 | 2.22 | 1.78 | 0.69 | 0.86 | 1.00 |
| A/CNK | 0.64 | 0.65 | 0.86 | 0.52 | 0.59 | 0.59 | 0.42 | 0.49 | 0.78 | 0.88 | 0.83 | 0.85 | 0.88 | 1.05 | 1.05 | 1.01 | 0.98 |
| A/NK | 2.40 | 2.40 | 1.64 | 2.05 | 1.92 | 1.73 | 1.79 | 2.27 | 1.59 | 1.45 | 1.64 | 1.60 | 1.57 | 1.76 | 1.23 | 1.53 | 1.41 |
| Mg# | 67.42 | 62.95 | 48.89 | 56.56 | 49.40 | 48.70 | 45.03 | 45.20 | 58.29 | 56.41 | 51.20 | 53.80 | 53.39 | 49.56 | 46.09 | 33.48 | 42.31 |
| TFe2O3 | 9.68 | 9.81 | 8.75 | 13.11 | 12.76 | 14.14 | 15.56 | 15.10 | 7.40 | 4.64 | 7.82 | 6.82 | 7.22 | 7.27 | 0.96 | 2.36 | 2.89 |
| K2O+Na2O | 4.39 | 4.65 | 7.81 | 4.33 | 5.06 | 5.31 | 5.19 | 3.80 | 7.41 | 7.58 | 7.53 | 7.39 | 8.41 | 6.52 | 8.14 | 6.66 | 8.00 |
| **Trace element (ppm)** | | | | | | | | | | | | | | | | | |
| La | 9.68 | 17.0 | 32.6 | 6.96 | 11.5 | 10.1 | 11.2 | 10.3 | 40.2 | 33.9 | 38.7 | 38.2 | 45.1 | 24.2 | 19.5 | 26.0 | 26.2 |
| Ce | 26.8 | 38.5 | 53.1 | 16.2 | 24.5 | 21.0 | 21.2 | 23.8 | 80.8 | 63.0 | 79.7 | 79.4 | 85.6 | 46.2 | 24.9 | 49.4 | 40.0 |
| Pr | 3.82 | 5.30 | 7.56 | 2.29 | 3.33 | 2.97 | 3.16 | 3.47 | 10.3 | 7.60 | 10.4 | 10.1 | 10.2 | 5.47 | 2.42 | 4.38 | 4.22 |
| Nd | 18.7 | 24.0 | 32.9 | 11.2 | 15.7 | 14.2 | 15.4 | 17.5 | 40.9 | 27.5 | 41.7 | 38.4 | 38.4 | 20.4 | 7.24 | 12.8 | 13.2 |
| Sm | 3.88 | 4.55 | 5.65 | 2.69 | 3.39 | 3.12 | 3.63 | 4.18 | 6.90 | 4.56 | 6.91 | 6.62 | 6.03 | 3.29 | 0.72 | 1.43 | 1.56 |
| Eu | 1.27 | 1.53 | 1.84 | 0.97 | 1.15 | 1.06 | 1.15 | 1.45 | 1.46 | 1.24 | 1.52 | 1.36 | 1.49 | 1.24 | 0.71 | 0.80 | 0.93 |
| Gd | 3.95 | 4.59 | 5.07 | 3.11 | 3.80 | 3.61 | 4.32 | 5.06 | 5.05 | 3.34 | 5.09 | 5.06 | 4.57 | 2.68 | 0.54 | 0.84 | 1.08 |
| Tb | 0.58 | 0.67 | 0.73 | 0.51 | 0.62 | 0.59 | 0.70 | 0.82 | 0.63 | 0.41 | 0.66 | 0.64 | 0.55 | 0.34 | 0.06 | 0.08 | 0.12 |
| Dy | 3.30 | 3.81 | 4.02 | 3.09 | 3.84 | 3.58 | 4.29 | 4.81 | 3.49 | 2.21 | 3.50 | 3.39 | 2.84 | 1.88 | 0.29 | 0.37 | 0.59 |
| Ho | 0.65 | 0.75 | 0.81 | 0.62 | 0.78 | 0.75 | 0.88 | 0.96 | 0.63 | 0.39 | 0.63 | 0.62 | 0.51 | 0.35 | 0.05 | 0.06 | 0.10 |
| Er | 1.89 | 2.20 | 2.39 | 1.88 | 2.36 | 2.18 | 2.60 | 2.81 | 1.77 | 1.12 | 1.78 | 1.77 | 1.45 | 1.00 | 0.14 | 0.19 | 0.30 |
| Tm | 0.24 | 0.27 | 0.31 | 0.25 | 0.32 | 0.28 | 0.34 | 0.36 | 0.26 | 0.16 | 0.25 | 0.24 | 0.20 | 0.15 | 0.05 | 0.05 | 0.05 |
| Yb | 1.67 | 1.88 | 2.13 | 1.63 | 2.17 | 1.94 | 2.19 | 2.42 | 1.70 | 1.03 | 1.60 | 1.61 | 1.31 | 1.00 | 0.16 | 0.20 | 0.28 |
| Lu | 0.25 | 0.29 | 0.32 | 0.25 | 0.33 | 0.29 | 0.33 | 0.36 | 0.25 | 0.16 | 0.24 | 0.23 | 0.20 | 0.15 | 0.05 | 0.05 | 0.05 |
| Y | 17.6 | 20.0 | 21.7 | 16.8 | 20.8 | 19.2 | 24.3 | 24.6 | 17.9 | 11.0 | 17.3 | 17.0 | 14.5 | 9.54 | 1.50 | 1.87 | 3.10 |
| Cr | 582 | 498 | 32.1 | 451 | 90.4 | 86.0 | 83.6 | 103 | 225 | 130 | 77.7 | 89.8 | 81.6 | 267 | 10.1 | 3.10 | 4.49 |
| Th | 3.12 | 2.80 | 5.09 | 0.99 | 0.63 | 1.43 | 2.27 | 0.98 | 0.19 | 0.33 | 0.16 | 0.12 | 0.43 | 1.34 | 0.59 | 2.08 | 0.38 |
| U | 0.96 | 1.11 | 0.94 | 0.25 | 0.14 | 0.28 | 0.19 | 0.31 | 0.06 | 0.08 | 0.19 | 0.08 | 0.19 | 0.37 | 0.16 | 0.16 | 0.10 |
| Cs | 9.05 | 5.52 | 1.32 | 0.44 | 1.07 | 1.85 | 0.58 | 0.11 | 0.25 | 0.20 | 0.29 | 0.29 | 0.26 | 0.24 | 0.05 | 0.12 | 0.06 |
| Sc | 32.1 | 27.3 | 21.4 | 40.4 | 40.3 | 41.8 | 40.0 | 40.3 | 19.6 | 11.0 | 19.7 | 18.0 | 15.0 | 15.1 | 1.16 | 1.28 | 2.48 |
| Rb | 60.6 | 43.7 | 58.3 | 12.9 | 28.6 | 42.1 | 30.4 | 6.84 | 85.0 | 71.6 | 81.6 | 82.0 | 93.7 | 74.5 | 25.6 | 32.0 | 23.7 |
| Sr | 733 | 689 | 783 | 773 | 431 | 287 | 753 | 273 | 725 | 505 | 925 | 745 | 659 | 569 | 416 | 1238 | 562 |
| Ba | 460 | 846 | 1734 | 279 | 402 | 321 | 1613 | 272 | 1113 | 1038 | 1036 | 1022 | 1506 | 894 | 1325 | 1052 | 1155 |
| Zr | 87.9 | 98.1 | 170 | 61.3 | 69.9 | 52.4 | 70.9 | 81.6 | 111 | 111 | 164 | 92.9 | 199 | 138 | 124 | 158 | 119 |
| Nb | 6.12 | 13.7 | 10.4 | 9.01 | 16.7 | 15.1 | 26.0 | 8.32 | 5.39 | 3.14 | 6.40 | 7.76 | 5.73 | 6.97 | 0.99 | 1.39 | 3.16 |
| Ta | 0.36 | 0.76 | 0.52 | 0.28 | 0.27 | 0.27 | 0.33 | 0.59 | 0.13 | 0.08 | 0.14 | 0.16 | 0.16 | 0.33 | 0.05 | 0.06 | 0.16 |
| Hf | 2.75 | 3.00 | 4.58 | 1.95 | 2.32 | 1.85 | 2.36 | 2.81 | 3.10 | 3.10 | 4.55 | 2.65 | 5.16 | 4.23 | 3.63 | 4.77 | 3.26 |
| Pb | 8.42 | 7.06 | 14.2 | 8.79 | 8.79 | 7.01 | 13.3 | 6.45 | 9.04 | 9.85 | 14.0 | 10.8 | 9.56 | 6.75 | 8.67 | 17.8 | 7.91 |
| V | 203 | 216 | 190 | 329 | 281 | 317 | 289 | 359 | 103 | 58.5 | 135 | 113 | 105 | 97.8 | 6.81 | 30.3 | 46.2 |
| Co | 42.6 | 37.2 | 27.0 | 54.0 | 42.4 | 48.9 | 47.8 | 51.1 | 23.0 | 12.6 | 21.1 | 17.5 | 18.7 | 15.6 | 2.36 | 2.22 | 6.58 |
| Ni | 157 | 136 | 14.9 | 168 | 65.3 | 58.5 | 77.1 | 68.6 | 59.7 | 41.3 | 30.4 | 29.2 | 29.0 | 70.2 | 9.22 | 6.63 | 9.90 |
| Cu | 21.2 | 39.9 | 25.9 | 20.6 | 22.9 | 61.2 | 12.0 | 62.8 | 15.8 | 17.8 | 17.4 | 5.43 | 19.1 | 53.6 | 6.27 | 3.81 | 16.5 |
| Zn | 85.5 | 86.5 | 91.6 | 142 | 109 | 121 | 229 | 121 | 94.5 | 52.1 | 86.5 | 80.0 | 72.1 | 103 | 9.19 | 17.5 | 28.8 |
| Ga | 16.5 | 17.5 | 22.0 | 16.4 | 19.1 | 18.3 | 20.6 | 18.8 | 21.2 | 17.1 | 22.5 | 21.2 | 23.9 | 20.7 | 15.2 | 19.2 | 19.9 |
| Eu\* | 0.92 | 1.02 | 1.05 | 1.02 | 0.98 | 0.97 | 0.89 | 0.96 | 0.97 | 0.78 | 0.72 | 0.87 | 1.28 | 3.48 | 2.23 | 2.19 | 1.14 |
| REE | 94.28 | 125.34 | 171.13 | 68.45 | 94.59 | 84.87 | 95.69 | 102.90 | 212.24 | 157.62 | 209.98 | 204.64 | 212.95 | 117.89 | 58.33 | 98.52 | 91.78 |