Supplemental Table 1. Apatite isotopic data.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Data for Tera-Wasserburg plot*** | | **6th June 2019, Dept. of Earth Science, Universty of New Brunswick.** | | | | | |
|  |  |  | ***Final Isotope Ratios*** | | | |  |
| **Sample** | **U (ppm)** | **Th (ppm)** | **238U/ 206Pb** | **±2σ** | **207Pb/ 206Pb** | **±2σ** | ***Err Corr.*** |
| B8b - 1 | 0.20 | 0.34 | 0.23 | 0.02 | 0.93 | 0.03 | 0.24 |
| B8b - 10 | 0.19 | 0.45 | 0.23 | 0.07 | 0.97 | 0.01 | 0.44 |
| B8b - 11 | 0.08 | 0.01 | 0.16 | 0.01 | 0.72 | 0.02 | 0.03 |
| B8b - 16 | 0.17 | 0.00 | 0.02 | 0.00 | 0.76 | 0.01 | -0.07 |
| B8b - 17 | 0.41 | 0.16 | 0.28 | 0.02 | 0.85 | 0.01 | 0.27 |
| B8b - 2 | 0.46 | 0.56 | 0.19 | 0.01 | 0.80 | 0.02 | -0.12 |
| B8b - 27 | 1.15 | 0.29 | 0.53 | 0.02 | 0.73 | 0.01 | 0.01 |
| B8b - 3 | 0.37 | 0.55 | 0.37 | 0.02 | 0.90 | 0.02 | 0.38 |
| B8b - 4 | 0.85 | 0.45 | 0.62 | 0.02 | 0.80 | 0.01 | 0.18 |
| B8b - 8 | 0.17 | 0.36 | 0.17 | 0.03 | 0.89 | 0.02 | 0.62 |
| P-9 - 10 | 4.07 | 3.14 | 0.56 | 0.16 | 0.78 | 0.02 | -0.29 |
| P-9 - 11 | 2.91 | 4.28 | 0.25 | 0.03 | 0.86 | 0.01 | -0.12 |
| P-9 - 5 | 8.31 | 1.84 | 0.22 | 0.02 | 0.97 | 0.01 | 0.20 |
| P-9 - 9 | 14.7 | 0.96 | 0.76 | 0.29 | 0.73 | 0.01 | 0.09 |
| S3029 - 26 | 3.00 | 6.51 | 1.43 | 0.04 | 0.51 | 0.01 | -0.30 |
| S3029 - 14 | 5.15 | 6.21 | 1.69 | 0.03 | 0.38 | 0.01 | -0.10 |
| S3029 - 1 | 1.26 | 4.18 | 1.07 | 0.13 | 0.66 | 0.01 | -0.05 |
| S3029 - 16 | 16.5 | 4.71 | 1.91 | 0.07 | 0.26 | 0.01 | -0.06 |
| S3029 - 8 | 1.90 | 0.26 | 1.32 | 0.05 | 0.51 | 0.01 | 0.37 |
| S3029 - 5 | 2.22 | 1.29 | 1.33 | 0.03 | 0.51 | 0.01 | 0.25 |
| S3029 - 13 | 3.74 | 9.30 | 1.49 | 0.05 | 0.44 | 0.01 | -0.39 |
| S3029 - 11 | 13.4 | 2.13 | 1.93 | 0.05 | 0.25 | 0.00 | 0.39 |
| S3029 - 9 | 6.64 | 3.57 | 1.75 | 0.14 | 0.32 | 0.01 | -0.05 |
| S3029 - 4 | 17.4 | 5.60 | 1.96 | 0.07 | 0.23 | 0.01 | -0.21 |
| S3029 - 7 | 5.71 | 4.62 | 1.74 | 0.12 | 0.32 | 0.02 | -0.09 |
| S3029 - 23 | 5.22 | 2.20 | 1.55 | 0.13 | 0.39 | 0.02 | -0.48 |
| S3029 - 6 | 3.68 | 1.06 | 1.47 | 0.19 | 0.39 | 0.02 | -0.21 |
| S3029 - 12 | 14.5 | 5.50 | 1.88 | 0.03 | 0.26 | 0.00 | 0.45 |
| S3029 - 10 | 14.4 | 1.78 | 1.84 | 0.05 | 0.27 | 0.00 | 0.02 |
| S3029 - 15 | 4.79 | 4.73 | 1.63 | 0.07 | 0.35 | 0.01 | 0.01 |
| S3029 - 27 | 7.30 | 2.32 | 1.64 | 0.05 | 0.35 | 0.01 | 0.41 |
| S3029 - 3 | 0.94 | 3.27 | 0.46 | 0.11 | 0.83 | 0.02 | 0.16 |
| S3029 - 18 | 0.65 | 0.85 | 0.53 | 0.04 | 0.83 | 0.01 | -0.35 |
| S3029 - 25 | 12.8 | 4.03 | 1.73 | 0.05 | 0.30 | 0.01 | 0.08 |
| S3029 - 28 | 18.1 | 3.86 | 1.87 | 0.42 | 0.24 | 0.03 | 0.24 |
| S3029 - 2 | 0.58 | 6.93 | 0.77 | 0.04 | 0.85 | 0.01 | 0.26 |
| S3030 - 12 | 1.78 | 4.91 | 0.62 | 0.03 | 0.70 | 0.01 | 0.05 |
| S3037 - 10 | 5.41 | 0.81 | 1.61 | 0.23 | 0.35 | 0.02 | -0.05 |
| S3037 - 2 | 8.00 | 2.38 | 1.66 | 0.15 | 0.34 | 0.01 | 0.13 |
| S3037 - 3 | 18 | 2.83 | 1.84 | 0.09 | 0.26 | 0.01 | 0.28 |
| S3057 - 10 | 1.52 | 0.70 | 1.27 | 0.32 | 0.49 | 0.03 | 0.31 |
| S3057 - 13 | 1.49 | 0.33 | 1.30 | 0.13 | 0.52 | 0.16 | 0.05 |
| S3057 - 25 | 2.80 | 1.60 | 1.31 | 0.58 | 0.63 | 0.03 | 0.21 |
| S3057 - 5 | 3.83 | 1.62 | 1.72 | 0.10 | 0.44 | 0.01 | 0.07 |
| S3057 - 6 | 2.49 | 0.48 | 1.36 | 0.11 | 0.50 | 0.01 | 0.03 |

Supplemental Table 1. Apatite isotopic data.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Data for Tera-Wasserburg plot*** | | **7th June 2019, Dept. of Earth Science, University of New Brunswick.** | | | | | |
|  |  |  |  | ***Final Isotope Ratios*** | | |  |
| **Sample** | **U (ppm)** | **Th (ppm)** | **238U/ 206Pb** | **±2σ** | **207Pb/ 206Pb** | **±2σ** | ***Err Corr.*** |
| S30331 - 2 | 1.24 | 2.28 | 1.82 | 0.10 | 0.62 | 0.02 | -0.34 |
| S30331 - 4 | 4.50 | 8.50 | 0.23 | 0.00 | 0.65 | 0.00 | -0.12 |
| S30334a - 1 | 9.8 | 8.40 | 0.45 | 0.02 | 0.65 | 0.01 | -0.55 |
| S30334a - 3 | 18.4 | 4.50 | 1.05 | 0.02 | 0.42 | 0.00 | -0.88 |
| S30334a - 2 | 23.1 | 10 | 1.19 | 0.02 | 0.43 | 0.00 | -0.83 |
| S30334a - 11 | 3.60 | 0.20 | 1.19 | 0.02 | 0.50 | 0.01 | 0.01 |
| S30334a - 4 | 18.7 | 1.10 | 1.36 | 0.04 | 0.34 | 0.01 | -0.88 |
| S30334a - 7 | 7.70 | 0.10 | 1.73 | 0.02 | 0.30 | 0.01 | -0.26 |
| S30334a - 8 | 7.20 | 0.40 | 1.73 | 0.03 | 0.31 | 0.01 | -0.07 |
| S30334a - 5 | 10.0 | 0.60 | 1.78 | 0.03 | 0.30 | 0.01 | -0.62 |
| S3035 - 1 | 2.80 | 0.90 | 1.52 | 0.04 | 0.48 | 0.01 | 0.38 |
| S3035 - 6 | 7.60 | 2.00 | 1.47 | 0.02 | 0.39 | 0.00 | -0.15 |
| S3052 - 4 | 3.20 | 0.40 | 1.19 | 0.02 | 0.55 | 0.01 | 0.33 |
| S3052 - 12 | 4.80 | 0.30 | 1.07 | 0.02 | 0.59 | 0.01 | -0.46 |
| S3052 - 5 | 3.30 | 0.50 | 1.10 | 0.02 | 0.58 | 0.01 | -0.08 |
| S3052 - 19 | 1.70 | 0.60 | 0.64 | 0.02 | 0.75 | 0.01 | 0.04 |
| S3052 - 16 | 4.50 | 0.60 | 1.29 | 0.02 | 0.49 | 0.01 | -0.28 |
| S3052 - 6 | 7.90 | 0.40 | 1.32 | 0.03 | 0.48 | 0.01 | -0.50 |
| S3052 - 27 | 5.90 | 0.80 | 1.37 | 0.02 | 0.46 | 0.00 | 0.57 |
| S3052 - 18 | 4.80 | 0.70 | 1.25 | 0.02 | 0.51 | 0.01 | 0.03 |
| S3052 - 23 | 11.3 | 0.60 | 1.45 | 0.03 | 0.43 | 0.01 | -0.29 |
| S3052 - 31 | 1.60 | 1.40 | 0.30 | 0.01 | 0.86 | 0.01 | 0.27 |
| S3052 - 26 | 3.50 | 0.50 | 1.04 | 0.02 | 0.58 | 0.01 | 0.20 |
| S3052 - 36 | 5.80 | 1.00 | 1.46 | 0.02 | 0.42 | 0.01 | 0.06 |
| S3052 - 8 | 4.30 | 1.10 | 0.67 | 0.02 | 0.72 | 0.01 | -0.31 |
| S3052 - 33 | 4.10 | 0.90 | 0.77 | 0.01 | 0.68 | 0.01 | -0.16 |
| S3052 - 15 | 4.20 | 0.40 | 1.18 | 0.03 | 0.52 | 0.01 | -0.10 |
| S3052 - 10 | 6.60 | 0.90 | 0.63 | 0.02 | 0.72 | 0.01 | -0.67 |
| S3052 - 32 | 7.50 | 0.30 | 0.78 | 0.02 | 0.66 | 0.01 | -0.66 |
| S3052 - 17 | 7.60 | 1.60 | 0.87 | 0.02 | 0.62 | 0.01 | -0.64 |
| S3052 - 24 | 30.0 | 2.60 | 1.74 | 0.02 | 0.30 | 0.00 | -0.58 |
| S3052 - 35 | 0.80 | 0.10 | 0.35 | 0.01 | 0.89 | 0.01 | 0.46 |
| S3052 - 1 | 2.70 | 2.60 | 0.35 | 0.01 | 0.81 | 0.01 | -0.18 |
| S3052 - 29 | 7.40 | 1.70 | 0.36 | 0.01 | 0.83 | 0.00 | -0.20 |
| S3052 - 11 | 6.20 | 0.70 | 0.39 | 0.03 | 0.77 | 0.01 | -0.06 |
| S3052 - 9 | 3.80 | 0.90 | 0.52 | 0.01 | 0.75 | 0.01 | -0.63 |
| S3052 - 30 | 3.40 | 0.80 | 0.55 | 0.01 | 0.74 | 0.01 | -0.01 |
| S3052 - 28 | 12.2 | 0.50 | 1.45 | 0.03 | 0.38 | 0.01 | -0.79 |
| S3052 - 34 | 9.20 | 1.50 | 1.66 | 0.02 | 0.37 | 0.01 | -0.34 |
| S3053b - 1 | 0.90 | 0.10 | 0.49 | 0.01 | 0.80 | 0.02 | 0.05 |
| S3053b - 10 | 3.20 | 0.00 | 1.74 | 0.05 | 0.26 | 0.01 | -0.17 |
| S3053b - 2 | 0.50 | 0.00 | 0.58 | 0.02 | 0.80 | 0.02 | 0.48 |
| S3053b - 4 | 1.20 | 0.00 | 0.97 | 0.02 | 0.65 | 0.01 | -0.27 |
| S3053b - 8 | 31.7 | 2.20 | 1.81 | 0.03 | 0.24 | 0.00 | -0.86 |
| S3056 - 11 | 14.3 | 3.30 | 1.92 | 0.04 | 0.23 | 0.00 | -0.52 |
| S3056 - 14 | 14.2 | 3.60 | 1.39 | 0.03 | 0.41 | 0.01 | -0.12 |
| S3056 - 17 | 17.4 | 5.20 | 1.82 | 0.03 | 0.23 | 0.00 | 0.45 |
| S3056 - 6 | 11.2 | 1.70 | 1.60 | 0.03 | 0.27 | 0.01 | -0.42 |

Supplemental Table 1. Apatite isotopic data.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Data for Tera-Wasserburg plot*** | | **7th February 2019, Dept. of Earth Science, University of New Brunswick.** | | | | | |
|  |  |  | ***Final Isotope Ratios*** | | |  |  |
| **Sample** | **U(ppm)** | **Th (ppm)** | **238U/206Pb** | **±2σ** | **207Pb/206Pb** | **±2σ** | ***Err Corr.*** |
| A\_P14 - 1 | 8.68 | 2.31 | 0.52 | 0.03 | 0.84 | 0.01 | 0.36 |
| A\_P14 - 2 | 8.56 | 2.77 | 0.37 | 0.01 | 0.91 | 0.00 | -0.09 |
| A\_P14 - 3 | 9.46 | 1.93 | 0.64 | 0.02 | 0.79 | 0.01 | 0.07 |
| A\_P14 - 4 | 12.0 | 2.85 | 0.37 | 0.01 | 0.91 | 0.00 | 0.30 |
| A\_P14 - 5 | 6.45 | 1.87 | 0.40 | 0.01 | 0.90 | 0.00 | 0.33 |
| A\_P14 - 6 | 5.47 | 11.9 | 0.39 | 0.02 | 0.88 | 0.01 | 0.47 |
| A\_P14 - 7 | 7.71 | 2.11 | 0.49 | 0.01 | 0.85 | 0.01 | -0.15 |
| A\_P14 - 10 | 4.13 | 1.41 | 0.66 | 0.02 | 0.77 | 0.01 | 0.29 |
| A\_P14\_highMn - 1 | 11.9 | 2.13 | 0.49 | 0.02 | 0.85 | 0.01 | 0.00 |
| A\_P14\_highMn - 2 | 15.9 | 5.40 | 0.52 | 0.01 | 0.84 | 0.00 | 0.23 |
| A\_P14\_highMn - 3 | 4.12 | 4.32 | 0.26 | 0.01 | 0.95 | 0.00 | 0.04 |
| A\_P14\_highMn - 4 | 10.5 | 1.88 | 0.40 | 0.01 | 0.90 | 0.01 | 0.07 |
| A\_P14\_highMn - 5 | 2.10 | 0.15 | 0.11 | 0.00 | 1.02 | 0.00 | 0.18 |
| A\_P14\_highMn - 6 | 1.21 | 0.13 | 0.08 | 0.00 | 1.04 | 0.00 | 0.26 |
| A\_P14\_highMn - 7 | 1.91 | 0.20 | 0.09 | 0.00 | 1.02 | 0.01 | -0.15 |
| A\_P14\_highMn - 8 | 2.92 | 1.22 | 0.16 | 0.00 | 1.01 | 0.01 | 0.20 |
| A\_P14\_highMn - 9 | 0.72 | 0.08 | 0.04 | 0.00 | 1.04 | 0.00 | 0.07 |
| A\_P14\_highMn - 10 | 1.42 | 0.29 | 0.09 | 0.00 | 1.02 | 0.01 | 0.29 |
| A\_P14\_highMn - 11 | 3.22 | 0.04 | 0.15 | 0.02 | 1.01 | 0.00 | -0.24 |
| A\_P14\_highMn - 12 | 3.08 | 0.03 | 0.14 | 0.00 | 1.01 | 0.00 | 0.29 |
| A\_P14\_highMn - 13 | 3.20 | 0.26 | 0.19 | 0.00 | 0.97 | 0.01 | 0.08 |
| A\_P14\_highMn - 14 | 1.21 | 0.20 | 0.07 | 0.00 | 1.02 | 0.01 | -0.09 |
| A\_P14\_highMn - 15 | 2.63 | 0.14 | 0.15 | 0.01 | 0.99 | 0.01 | 0.22 |
| A\_P14\_highMn - 16 | 2.29 | 0.23 | 0.13 | 0.01 | 1.01 | 0.01 | -0.22 |
| A\_P14\_highMn - 17 | 7.46 | 0.06 | 0.30 | 0.03 | 0.94 | 0.01 | -0.03 |
| A\_P14\_highMn - 18 | 6.79 | 1.96 | 0.43 | 0.02 | 0.88 | 0.01 | 0.26 |
| A\_P14\_highMn - 19 | 3.52 | 0.35 | 0.21 | 0.01 | 0.97 | 0.01 | 0.37 |
| A\_P14\_highMn - 20 | 9.31 | 2.74 | 0.38 | 0.01 | 0.90 | 0.00 | 0.00 |
| A\_P14\_highMn - 21 | 12 | 4.40 | 0.51 | 0.01 | 0.84 | 0.01 | 0.78 |
| A\_P14\_lowMn - 1 | 13.3 | 7.63 | 1.18 | 0.02 | 0.45 | 0.00 | 0.25 |
| A\_P14\_lowMn - 2 | 9.28 | 1.19 | 1.07 | 0.04 | 0.55 | 0.01 | 0.05 |
| A\_P14\_lowMn - 3 | 2.39 | 2.20 | 0.67 | 0.06 | 0.75 | 0.02 | 0.02 |
| A\_P14\_lowMn - 4 | 1.56 | 1.10 | 0.36 | 0.01 | 0.91 | 0.01 | 0.12 |
| A\_P14\_lowMn - 5 | 4.15 | 2.29 | 0.54 | 0.03 | 0.84 | 0.04 | 0.15 |
| A\_P14\_lowMn - 6 | 15.4 | 1.61 | 1.27 | 0.04 | 0.50 | 0.01 | 0.00 |
| A\_P14\_lowMn - 7 | 1.60 | 0.55 | 0.32 | 0.01 | 0.92 | 0.01 | 0.18 |
| A\_P14\_lowMn - 8 | 1.48 | 0.39 | 0.16 | 0.00 | 0.97 | 0.01 | 0.07 |
| A\_P14\_lowMn - 9 | 1.21 | 0.94 | 0.14 | 0.00 | 0.99 | 0.01 | 0.07 |
| A\_P14\_lowMn - 10 | 1.17 | 0.40 | 0.17 | 0.01 | 0.96 | 0.01 | 0.22 |
| A\_P14\_lowMn - 11 | 2.56 | 1.13 | 0.57 | 0.02 | 0.81 | 0.01 | -0.12 |
| A\_P14\_lowMn - 12 | 1.19 | 0.76 | 0.32 | 0.01 | 0.90 | 0.01 | 0.30 |
| A\_P14\_lowMn - 13 | 0.88 | 0.52 | 0.21 | 0.01 | 0.98 | 0.01 | 0.10 |
| A\_P14\_lowMn - 14 | 0.79 | 0.13 | 0.28 | 0.01 | 0.94 | 0.03 | 0.37 |
| A\_P14\_lowMn - 15 | 1.58 | 0.55 | 0.21 | 0.01 | 0.97 | 0.01 | 0.24 |
| A\_P14\_lowMn - 16 | 6.03 | 4.12 | 0.77 | 0.07 | 0.70 | 0.02 | -0.37 |
| A\_P14\_lowMn - 17 | 14.0 | 4.57 | 1.15 | 0.03 | 0.54 | 0.00 | 0.16 |
| A\_P20 - 22 | 8.02 | 2.25 | 0.37 | 0.02 | 0.88 | 0.01 | 0.34 |
| A\_P20 - 23 | 19.3 | 5.65 | 0.97 | 0.03 | 0.61 | 0.01 | 0.28 |

Supplemental Table 1. Apatite isotopic data.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Data for Tera-Wasserburg plot*** | | **7th February 2019, Dept. of Earth Science, University of New Brunswick.** | | | | | |
|  |  |  | ***Final Isotope Ratios*** | | |  |  |
| **Sample** | **U (ppm)** | **Th (ppm)** | **238U/206Pb** | **±2σ** | **207Pb/206Pb** | **±2σ** | ***Err Corr.*** |
| A\_P20 - 2 | 15.1 | 13 | 0.82 | 0.03 | 0.73 | 0.01 | -0.52 |
| A\_P20 - 1 | 10.9 | 3.66 | 1.11 | 0.04 | 0.61 | 0.01 | -0.77 |
| A\_P20 - 4 | 11.2 | 14.7 | 0.49 | 0.01 | 0.87 | 0.00 | 0.27 |
| A\_P20 - 11 | 8.22 | 1.55 | 0.46 | 0.01 | 0.87 | 0.01 | -0.47 |
| A\_P20 - 3 | 19.6 | 6.44 | 0.84 | 0.06 | 0.72 | 0.01 | 0.10 |
| A\_P20 - 16 | 37.2 | 6.67 | 1.53 | 0.11 | 0.37 | 0.01 | 0.22 |
| A\_P20 - 9 | 13.1 | 7.48 | 0.76 | 0.03 | 0.74 | 0.00 | 0.34 |
| A\_P20 - 7 | 12.4 | 2.93 | 0.46 | 0.08 | 0.88 | 0.01 | 0.09 |
| A\_P20 - 13 | 15.8 | 10.4 | 0.97 | 0.03 | 0.66 | 0.01 | -0.40 |
| A\_P20 - 15 | 23.1 | 5.02 | 1.09 | 0.10 | 0.58 | 0.01 | 0.19 |
| A\_P20 - 14 | 10.8 | 14 | 1.02 | 0.08 | 0.60 | 0.01 | 0.43 |
| A\_P20 - 6 | 8.27 | 2.57 | 0.56 | 0.04 | 0.84 | 0.01 | 0.10 |
| A\_P20 - 24 | 4.90 | 2.66 | 0.53 | 0.05 | 0.83 | 0.01 | -0.04 |
| A\_P20 - 20 | 9.6 | 4.76 | 0.23 | 0.01 | 0.96 | 0.01 | 0.19 |
| A\_P20 - 17 | 10.2 | 3.10 | 0.37 | 0.03 | 0.91 | 0.01 | 0.20 |
| A\_P20 - 8 | 6.30 | 2.02 | 0.45 | 0.06 | 0.88 | 0.01 | 0.17 |
| A\_P20 - 25 | 5.35 | 19.7 | 0.39 | 0.03 | 0.89 | 0.01 | 0.49 |

Supplemental Table 1. Apatite isotopic data.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Data for Tera-Wasserburg plot*** | | **11th July 2019, Dept. of Earth Science, University of New Brunswick.** | | | | | |
|  |  |  | ***Final Isotope Ratios*** | | | |  |
| **Sample** | **U (ppm)** | **Th (ppm)** | **238U/206Pb** | **±2σ** | **207Pb/206Pb** | **±2σ** | ***Err Corr.*** |
| S3026 - 1 | 2.11 | 0.56 | 1.39 | 0.10 | 0.54 | 0.01 | -0.01 |
| S3026 - 2 | 1.98 | 0.25 | 1.68 | 0.09 | 0.66 | 0.01 | -0.02 |
| S3026 - 3 | 1.89 | 0.08 | 0.11 | 0.00 | 0.85 | 0.01 | 0.12 |
| S3026 - 4 | 2.13 | 0.19 | 0.11 | 0.00 | 0.88 | 0.09 | 0.00 |
| S3026 - 5 | 2.06 | 0.17 | 0.18 | 0.02 | 0.75 | 0.02 | -0.74 |
| S3036 - 1 | 0.26 | 0.03 | 0.28 | 0.01 | 0.91 | 0.02 | 0.29 |
| S3036 - 2 | 0.34 | 0.09 | 0.31 | 0.01 | 0.90 | 0.02 | 0.41 |
| S3062 - 1 | 0.63 | 0.01 | 0.85 | 0.03 | 0.68 | 0.01 | 0.44 |
| S3062 - 2 | 0.41 | 0.02 | 0.58 | 0.02 | 0.87 | 0.01 | 0.22 |
| S3062 - 3 | 0.38 | 0.01 | 0.51 | 0.02 | 0.75 | 0.01 | 0.46 |
| S3062 - 4 | 1.34 | 0.57 | 1.25 | 0.07 | 0.57 | 0.01 | -0.06 |
| S3063 - 20 | 2.97 | 0.35 | 0.03 | 0.00 | 0.79 | 0.03 | 0.42 |
| S3063 - 6 | 0.55 | 0.16 | 0.03 | 0.00 | 0.99 | 0.04 | 0.00 |
| S3063 - 21 | 570 | 2400 | 0.10 | 0.01 | 0.87 | 0.01 | 0.13 |
| S3063 - 19 | 1.82 | 0.12 | 0.12 | 0.00 | 0.85 | 0.01 | 0.13 |
| S3063 - 5 | 1.87 | 0.10 | 0.11 | 0.00 | 0.85 | 0.01 | 0.17 |
| S3063 - 16 | 2.18 | 0.11 | 0.12 | 0.00 | 0.85 | 0.01 | 0.11 |
| S3063 - 13 | 2.14 | 0.40 | 0.11 | 0.00 | 0.85 | 0.01 | 0.81 |
| S3063 - 17 | 1.84 | 0.16 | 0.11 | 0.01 | 0.83 | 0.03 | 0.35 |
| S3063 - 10 | 1.52 | 0.15 | 0.13 | 0.01 | 0.84 | 0.02 | -0.06 |
| S3063 - 3 | 16.3 | 0.34 | 0.18 | 0.01 | 0.82 | 0.00 | 0.07 |
| S3063 - 2 | 1.28 | 0.04 | 0.34 | 0.01 | 0.79 | 0.01 | 0.01 |
| S3063 - 8 | 1.38 | 0.08 | 0.47 | 0.02 | 0.74 | 0.02 | -0.07 |
| S3063 - 12 | 0.72 | 0.06 | 0.34 | 0.01 | 0.80 | 0.02 | 0.15 |
| S3063 - 14 | 11.3 | 2.80 | 1.46 | 0.05 | 0.53 | 0.01 | 0.34 |
| S3063 - 7 | 1.52 | 2.10 | 0.63 | 0.03 | 0.75 | 0.01 | 0.10 |
| S3063 - 18 | 0.78 | 0.01 | 0.61 | 0.02 | 0.75 | 0.02 | 0.34 |
| S3063 - 15 | 0.80 | 0.06 | 0.43 | 0.02 | 0.74 | 0.01 | -0.02 |
| S3063 - 11 | 0.69 | 0.01 | 0.77 | 0.03 | 0.69 | 0.02 | 0.28 |
| S3063 - 9 | 3.75 | 0.02 | 1.80 | 0.04 | 0.50 | 0.01 | -0.03 |
| S3063 - 1 | 0.70 | 0.00 | 0.97 | 0.03 | 0.65 | 0.01 | 0.63 |
| S3063 - 4 | 14.3 | 0.16 | 1.91 | 0.04 | 0.25 | 0.00 | 0.09 |
| X-16 - 33 | 1.92 | 0.09 | 0.11 | 0.00 | 0.86 | 0.01 | 0.14 |
| X-16 - 14 | 1.84 | 0.11 | 0.11 | 0.00 | 0.84 | 0.01 | 0.25 |
| X-16 - 30 | 12.4 | 0.95 | 0.24 | 0.01 | 0.94 | 0.01 | 0.73 |
| X-16 - 34 | 10.0 | 0.10 | 0.27 | 0.01 | 0.96 | 0.00 | -0.11 |
| X-16 - 29 | 12.5 | 0.33 | 0.32 | 0.01 | 0.90 | 0.01 | 0.12 |
| X-16 - 19 | 8.61 | 0.09 | 0.23 | 0.01 | 0.93 | 0.00 | 0.22 |
| X-16 - 32 | 20.1 | 5.70 | 0.43 | 0.01 | 0.86 | 0.00 | -0.54 |
| X-16 - 7 | 15.4 | 0.34 | 0.43 | 0.01 | 0.87 | 0.00 | -0.28 |
| X-16 - 3 | 1.14 | 0.26 | 0.02 | 0.00 | 0.73 | 0.00 | 0.22 |
| X-16 - 37 | 37.0 | 0.99 | 1.00 | 0.04 | 0.92 | 0.00 | 0.05 |
| X-16 - 22 | 11.9 | 0.16 | 0.37 | 0.01 | 0.94 | 0.00 | -0.17 |
| X-16 - 11 | 13.4 | 0.12 | 0.55 | 0.01 | 0.86 | 0.00 | 0.37 |
| X-16 - 38 | 9.5 | 1.70 | 0.30 | 0.01 | 0.95 | 0.00 | 0.30 |

Supplemental Table 1. Apatite isotopic data.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Data for Tera-Wasserburg plot*** | | **11th July 2019, Dept. of Earth Science, University of New Brunswick.** | | | | | |
|  |  |  |  | ***Final Isotope Ratios*** | |  |  |
| **Sample** | **U (ppm)** | **Th (ppm)** | **238U/206Pb** | **±2σ** | **207Pb/206Pb** | **±2σ** | ***Err Corr.*** |
| X-16 - 24 | 15.6 | 3.70 | 0.42 | 0.01 | 0.91 | 0.00 | 0.13 |
| X-16 - 28 | 7.76 | 0.21 | 0.26 | 0.01 | 0.96 | 0.00 | -0.01 |
| X-16 - 13 | 18.6 | 0.07 | 0.60 | 0.01 | 0.83 | 0.00 | 0.16 |
| X-16 - 2 | 8.81 | 0.05 | 0.29 | 0.01 | 0.94 | 0.00 | -0.05 |
| X-16 - 31 | 11.7 | 0.06 | 0.32 | 0.01 | 0.93 | 0.00 | 0.47 |
| X-16 - 35 | 9.9 | 0.14 | 0.30 | 0.01 | 0.94 | 0.00 | 0.26 |
| X-16 - 26 | 8.07 | 0.05 | 0.26 | 0.01 | 0.96 | 0.00 | 0.21 |
| X-16 - 5 | 20.2 | 1.10 | 0.53 | 0.02 | 0.86 | 0.01 | 0.65 |
| X-16 - 25 | 10.2 | 0.09 | 0.27 | 0.01 | 0.95 | 0.00 | -0.10 |
| X-16 - 8 | 15.6 | 0.05 | 0.38 | 0.01 | 0.90 | 0.00 | 0.04 |
| X-16 - 20 | 11.5 | 0.32 | 0.35 | 0.01 | 0.91 | 0.01 | -0.27 |
| X-16 - 23 | 17.2 | 0.07 | 0.51 | 0.01 | 0.85 | 0.00 | 0.16 |
| X-16 - 9 | 10.8 | 0.26 | 0.38 | 0.01 | 0.90 | 0.00 | -0.17 |
| X-16 - 4 | 10.8 | 0.07 | 0.43 | 0.01 | 0.88 | 0.00 | 0.08 |
| X-16 - 21 | 12.7 | 1.90 | 0.43 | 0.01 | 0.88 | 0.00 | -0.25 |
| X-16 - 12 | 19.2 | 0.09 | 0.51 | 0.01 | 0.84 | 0.00 | 0.97 |
| X-16 - 10 | 12.2 | 0.03 | 0.48 | 0.01 | 0.86 | 0.00 | -0.11 |
| X-16 - 15 | 7.92 | 0.23 | 0.33 | 0.01 | 0.92 | 0.00 | 0.19 |
| X-16 - 17 | 6.18 | 0.04 | 0.21 | 0.00 | 0.96 | 0.00 | 0.23 |
| X-16 - 18 | 12.5 | 0.06 | 0.40 | 0.01 | 0.88 | 0.00 | -0.16 |
| X-16 - 6 | 0.51 | 0.02 | 0.22 | 0.01 | 0.91 | 0.01 | 0.28 |
| X-16 - 16 | 8.19 | 0.21 | 0.25 | 0.01 | 0.93 | 0.00 | 0.57 |
| X-16 - 27 | 12.7 | 1.70 | 0.31 | 0.01 | 0.90 | 0.00 | 0.09 |
| X-16 - 1 | 8.09 | 0.10 | 0.26 | 0.01 | 0.87 | 0.01 | 0.41 |
| X-16 - 36 | 26.8 | 0.27 | 0.77 | 0.04 | 0.94 | 0.00 | 0.32 |

Supplemental Table 1. Apatite isotopic data.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Data for Tera-Wasserburg plot*** | | **15th January 2019, Dept. of Earth Science, University of New Brunswick.** | | | | | |
|  |  |  |  | ***Final Isotope Ratios*** | |  |  |
| **Sample** | **U (ppm)** | **Th (ppm)** | **238U/206Pb** | **±2σ** | **207Pb/206Pb** | **±2σ** | ***Err Corr.*** |
| A\_P15 - 22 - 1 | 0.51 | 0.81 | 0.00 | 0.00 | no value | 0 | NaN |
| A\_P15 - 16 - 1 | 6.43 | 1.36 | 0.50 | 0.01 | 0.85 | 0.01 | 0.09 |
| A\_P15 - 26 - 1 | 7.66 | 2.71 | 0.56 | 0.01 | 0.83 | 0.00 | 0.51 |
| A\_P15 - 1 - 1 | 8.26 | 2.08 | 0.74 | 0.02 | 0.75 | 0.00 | 0.03 |
| A\_P15 - 59 - 1 | 1.39 | 0.10 | 0.08 | 0.00 | 1.02 | 0.00 | 0.09 |
| A\_P15 - 55 - 1 | 7.33 | 0.24 | 0.46 | 0.01 | 0.87 | 0.00 | 0.35 |
| A\_P15 - 53 - 1 | 3.87 | 7.69 | 0.45 | 0.01 | 0.86 | 0.01 | -0.10 |
| A\_P15 - 17 - 1 | 3.65 | 0.94 | 0.52 | 0.02 | 0.84 | 0.01 | 0.76 |
| A\_P15 - 54 - 1 | 2.39 | 1.11 | 0.19 | 0.01 | 0.97 | 0.01 | 0.05 |
| A\_P15 - 51 - 1 | 10.7 | 7.68 | 0.66 | 0.02 | 0.78 | 0.00 | 0.11 |
| A\_P15 - 36 - 1 | 6.20 | 4.92 | 0.56 | 0.01 | 0.82 | 0.00 | 0.32 |
| A\_P15 - 46 - 1 | 10.9 | 2.56 | 0.99 | 0.02 | 0.64 | 0.00 | 0.04 |
| A\_P15 - 8 - 1 | 6.77 | 1.83 | 0.81 | 0.03 | 0.71 | 0.01 | -0.15 |
| A\_P15 - 23 - 1 | 8.22 | 14.7 | 0.53 | 0.07 | 0.84 | 0.01 | -0.03 |
| A\_P15 - 44 - 1 | 9.64 | 14.3 | 1.02 | 0.02 | 0.63 | 0.01 | 0.28 |
| A\_P15 - 41 - 1 | 30.0 | 0.53 | 1.32 | 0.03 | 0.50 | 0.01 | 0.33 |
| A\_P15 - 58 - 1 | 7.16 | 1.66 | 0.55 | 0.02 | 0.82 | 0.00 | 0.46 |
| A\_P15 - 11 - 1 | 7.00 | 1.85 | 0.75 | 0.02 | 0.73 | 0.00 | 0.21 |
| A\_P15 - 40 - 1 | 16.8 | 0.07 | 1.11 | 0.05 | 0.59 | 0.01 | -0.35 |
| A\_P15 - 45 - 1 | 8.95 | 14.7 | 0.81 | 0.08 | 0.72 | 0.01 | -0.48 |
| A\_P15 - 47 - 1 | 9.59 | 14.4 | 0.63 | 0.14 | 0.80 | 0.02 | -0.18 |
| A\_P15 - 27 - 1 | 4.77 | 8.54 | 0.75 | 0.02 | 0.73 | 0.01 | 0.51 |
| A\_P15 - 35 - 1 | 5.63 | 3.30 | 0.58 | 0.03 | 0.81 | 0.01 | -0.05 |
| A\_P15 - 31 - 1 | 5.44 | 22.6 | 0.85 | 0.03 | 0.69 | 0.01 | 0.16 |
| A\_P15 - 49 - 1 | 7.22 | 7.56 | 0.52 | 0.02 | 0.83 | 0.00 | 0.26 |
| A\_P15 - 56 - 1 | 30.9 | 21.2 | 1.31 | 0.09 | 0.50 | 0.01 | -0.47 |
| A\_P15 - 60 - 1 | 14.3 | 1.95 | 1.00 | 0.02 | 0.63 | 0.00 | -0.01 |
| A\_P15 - 57 - 1 | 3.04 | 5.60 | 0.40 | 0.02 | 0.88 | 0.01 | -0.44 |
| A\_P15 - 15 - 1 | 6.14 | 1.20 | 0.58 | 0.06 | 0.80 | 0.01 | 0.17 |
| A\_P15 - 9 - 1 | 3.35 | 1.08 | 0.72 | 0.02 | 0.74 | 0.01 | 0.25 |
| A\_P15 - 32 - 1 | 4.14 | 14 | 0.79 | 0.17 | 0.70 | 0.01 | 0.40 |
| A\_P15 - 39 - 1 | 10.33 | 0.08 | 0.75 | 0.10 | 0.72 | 0.01 | 0.25 |
| A\_P15 - 25 - 1 | 2.72 | 8.27 | 0.62 | 0.15 | 0.77 | 0.01 | 0.03 |
| A\_P15 - 48 - 1 | 23.3 | 1.11 | 0.96 | 0.13 | 0.63 | 0.01 | 0.09 |
| A\_P15 - 24 - 1 | 2.70 | 7.40 | 0.51 | 0.01 | 0.83 | 0.01 | -0.30 |
| A\_P15 - 5 - 1 | 6.88 | 1.34 | 0.86 | 0.02 | 0.68 | 0.01 | -0.65 |
| A\_P15 - 6 - 1 | 2.63 | 4.34 | 0.63 | 0.02 | 0.77 | 0.01 | 0.02 |
| A\_P15 - 10 - 1 | 5.40 | 1.43 | 0.79 | 0.04 | 0.71 | 0.01 | -0.24 |
| A\_P15 - 50 - 1 | 2.26 | 0.34 | 0.17 | 0.01 | 0.97 | 0.01 | 0.07 |
| A\_P15 - 52 - 1 | 7.17 | 2.05 | 0.51 | 0.01 | 0.82 | 0.01 | 0.44 |
| A\_P15 - 3 - 1 | 2.88 | 3.40 | 0.59 | 0.06 | 0.77 | 0.01 | 0.34 |
| A\_P15 - 12 - 1 | 2.13 | 0.85 | 0.52 | 0.01 | 0.82 | 0.01 | 0.10 |
| A\_P15 - 33 - 1 | 2.13 | 4.93 | 0.45 | 0.04 | 0.83 | 0.01 | 0.12 |
| A\_P15 - 2 - 1 | 2.38 | 1.21 | 0.43 | 0.10 | 0.81 | 0.01 | -0.18 |

Supplemental Table 1. Apatite isotopic data.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Data for Tera-Wasserburg plot*** | | **15th January 2019, Dept. of Earth Science, University of New Brunswick.** | | | | | |
|  |  |  |  | ***Final Isotope Ratios*** | |  |  |
| **Sample** | **U (ppm)** | **Th (ppm)** | **238U/206Pb** | **±2σ** | **207Pb/206Pb** | **±2σ** | ***Err Corr.*** |
| A\_P15 - 19 - 1 | 3.19 | 2.33 | 0.61 | 0.03 | 0.76 | 0.01 | 0.06 |
| A\_P15 - 4 - 1 | 1.72 | 3.09 | 0.52 | 0.03 | 0.79 | 0.01 | 0.15 |
| A\_P15 - 14 - 1 | 3.70 | 6.99 | 0.48 | 0.02 | 0.82 | 0.01 | 0.10 |
| A\_P15 - 13 - 1 | 3.87 | 4.02 | 0.89 | 0.05 | 0.63 | 0.01 | -0.57 |
| A\_P15 - 29 - 1 | 1.39 | 3.98 | 0.24 | 0.03 | 0.88 | 0.01 | 0.09 |
| A\_P15 - 34 - 1 | 1.55 | 2.56 | 0.30 | 0.02 | 0.87 | 0.01 | -0.04 |
| A\_P15 - 18 - 1 | 1.37 | 0.95 | 0.26 | 0.01 | 0.90 | 0.01 | 0.30 |
| A\_P15 - 21 - 1 | 1.97 | 6.92 | 0.35 | 0.07 | 0.81 | 0.01 | 0.28 |
| A\_P15 - 38 - 1 | 26.8 | 32.2 | 1.66 | 0.30 | 0.37 | 0.02 | -0.32 |
| A\_P15 - 7 - 1 | 2.61 | 1.39 | 0.47 | 0.01 | 0.89 | 0.08 | 0.17 |
| A\_P15 - 20 - 1 | 2.97 | 9.04 | 0.68 | 0.04 | 0.73 | 0.09 | 0.24 |

Supplemental Table 1. Apatite isotopic data.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data for Wetherill plot** | |  | **27th February 2019, Dept. of Earth Science, University of New Brunswick.** | | | | | |  |  |  |  |  |
|  |  |  | **Final isotope ratios (204Pb-corrected)** | | | |  |  |  | **Ages (Ma)** | | |  |
| **Sample** | **U (ppm)** | **Th (ppm)** | **206Pb/204Pb** | **207Pb/235U** | **±2σ** | **206Pb/238U** | **±2σ** | ***Err Corr.*** | **207Pb/235U** | **2*s*** | **206Pb/238U** | **2*s*** | **% conc** |
| MR002 - 1 | 18.2 | 5.69 | 39.7 | 14.5 | 1.50 | 0.51 | 0.02 | 0.85 | 2730 | 99.0 | 2640 | 80.0 | 96.7 |
| MR002 - 2 | 22.3 | 10.0 | 62.7 | 4.10 | 1.00 | 0.26 | 0.02 | 0.68 | 1680 | 200 | 1480 | 74.0 | 88.1 |
| MR002 - 3 | 22.2 | 3.19 | 47.8 | 10.8 | 1.10 | 0.42 | 0.02 | 0.79 | 2460 | 100 | 2280 | 90.0 | 92.7 |
| MR002 - 4 | 4.29 | 2.49 | 29.7 | 2.30 | 2.30 | 0.28 | 0.03 | 0.76 | 2090 | 260 | 1560 | 150.0 | 74.6 |
| MR002 - 5 | 16.4 | 1.97 | 28.5 | 14.3 | 2.40 | 0.40 | 0.03 | 0.89 | 2700 | 170 | 2190 | 160.0 | 81.1 |
| MR002 - 6 | 33.9 | 9.62 | 41.7 | 14.0 | 1.50 | 0.47 | 0.02 | 0.88 | 2750 | 110 | 2490 | 84.0 | 90.5 |
| MR002 - 7 | 35.8 | 5.86 | 53.8 | 9.9 | 1.10 | 0.42 | 0.02 | 0.79 | 2410 | 100 | 2250 | 92.0 | 93.4 |
| MR002 - 8 | 26.7 | 4.53 | 32.3 | 23.3 | 1.20 | 0.60 | 0.02 | 0.80 | 3230 | 48.0 | 3050 | 82.0 | 94.4 |
| MR003 - 1 | 30.5 | 6.48 | 165 | 11.8 | 0.44 | 0.49 | 0.01 | 0.62 | 2590 | 34.0 | 2590 | 51.0 | 100 |
| MR003 - 10 | 31.9 | 6.55 | 209 | 11.2 | 0.44 | 0.48 | 0.01 | 0.46 | 2530 | 38.0 | 2540 | 56.0 | 100 |
| MR003 - 11 | 40.5 | 7.50 | 233 | 11.2 | 0.37 | 0.48 | 0.01 | 0.73 | 2540 | 32.0 | 2540 | 47.0 | 100 |
| MR003 - 12 | 27.1 | 6.16 | 160 | 11.5 | 0.49 | 0.49 | 0.01 | 0.57 | 2560 | 37.0 | 2570 | 48.0 | 100 |
| MR003 - 13 | 64.5 | 6.16 | 381 | 11.1 | 0.21 | 0.48 | 0.01 | 0.66 | 2540 | 17.0 | 2530 | 37.0 | 100 |
| MR003 - 14 | 61.4 | 6.39 | 353 | 11.1 | 0.21 | 0.48 | 0.01 | 0.35 | 2530 | 18.0 | 2520 | 37.0 | 100 |
| MR003 - 15 | 61.6 | 8.40 | 361 | 11.2 | 0.25 | 0.48 | 0.01 | 0.45 | 2550 | 23.0 | 2530 | 36.0 | 99 |
| MR003 - 16 | 50.0 | 5.29 | 271 | 10.8 | 0.29 | 0.47 | 0.01 | 0.16 | 2500 | 25.0 | 2500 | 35.0 | 100 |
| MR003 - 17 | 42.6 | 5.40 | 236 | 11.0 | 0.30 | 0.48 | 0.01 | 0.59 | 2510 | 26.0 | 2530 | 40.0 | 101 |
| MR003 - 18 | 81.1 | 10.5 | 406 | 11.0 | 0.19 | 0.48 | 0.01 | 0.37 | 2520 | 16.0 | 2520 | 36.0 | 100 |
| MR003 - 19 | 106 | 14.6 | 452 | 11.2 | 0.14 | 0.48 | 0.01 | 0.32 | 2540 | 12.0 | 2540 | 35.0 | 100 |
| MR003 - 2 | 38.2 | 8.87 | 203 | 11.5 | 0.30 | 0.49 | 0.01 | 0.47 | 2570 | 26.0 | 2570 | 42.0 | 100 |
| MR003 - 20 | 9.52 | 5.76 | 80 | 10.9 | 1.50 | 0.49 | 0.02 | 0.78 | 2480 | 130.0 | 2550 | 88.0 | 103 |
| MR003 - 21 | 3.40 | 2.26 | 42 | 13.9 | 2.80 | 0.47 | 0.02 | 0.83 | 2850 | 160.0 | 2500 | 100.0 | 88 |
| MR003 - 22 | 45.2 | 7.78 | 252 | 10.9 | 0.31 | 0.48 | 0.01 | 0.61 | 2520 | 25.0 | 2510 | 45.0 | 100 |
| MR003 - 23 | 17.9 | 4.71 | 133 | 10.9 | 1.00 | 0.50 | 0.02 | 0.62 | 2490 | 96.0 | 2610 | 62.0 | 105 |

Concordance calculated as (206Pb-238U age/207Pb-206Pb age) \*100

Supplemental Table 1. Apatite isotopic data.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data for Wetherill plot** | |  | **27th February 2019, Dept. of Earth Science, University of New Brunswick.** | | | | | |  |  |  |  |  |
|  |  |  | **Final isotope ratios (204Pb-corrected)** | | | | |  | Ages (Ma) | | | | |
| **Sample** | **U (ppm)** | **Th (ppm)** | **206Pb/204Pb** | **207Pb/235U** | **±2σ** | **206Pb/238U** | **±2σ** | ***Err Corr.*** | **207Pb/235U** | **2*s*** | **206Pb/238U** | **2*s*** | **% conc** |
| MR003 - 24 | 11.1 | 4.82 | 84.9 | 11.7 | 1.20 | 0.50 | 0.01 | 0.71 | 2570 | 97.0 | 2610 | 58.0 | 102 |
| MR003 - 3 | 49.2 | 9.49 | 256 | 11.6 | 0.28 | 0.49 | 0.01 | 0.64 | 2580 | 24.0 | 2570 | 38.0 | 100 |
| MR003 - 4 | 43.4 | 9.24 | 223 | 11.5 | 0.29 | 0.49 | 0.01 | 0.63 | 2560 | 25.0 | 2570 | 44.0 | 100 |
| MR003 - 5 | 38.2 | 7.13 | 224 | 11.8 | 0.35 | 0.50 | 0.01 | 0.74 | 2580 | 28.0 | 2590 | 43.0 | 100 |
| MR003 - 6 | 33.6 | 7.29 | 197 | 11.6 | 0.51 | 0.49 | 0.01 | 0.56 | 2590 | 40.0 | 2580 | 42.0 | 100 |
| MR003 - 7 | 52.5 | 9.35 | 316 | 11.2 | 0.28 | 0.48 | 0.01 | 0.30 | 2540 | 22.0 | 2540 | 38.0 | 100 |
| MR003 - 8 | 64.0 | 9.71 | 314 | 11.3 | 0.26 | 0.48 | 0.01 | 0.46 | 2540 | 21.0 | 2540 | 42.0 | 100 |
| MR003 - 9 | 36.9 | 7.18 | 226 | 11.2 | 0.41 | 0.49 | 0.01 | 0.59 | 2550 | 35.0 | 2560 | 47.0 | 100 |
| MR005 - 1 | 89.7 | 34.0 | 314 | 9.15 | 0.27 | 0.42 | 0.01 | 0.81 | 2350 | 26.0 | 2250 | 53.0 | 95.7 |
| MR005 - 10 | 14.0 | 9.5 | 114 | 14.3 | 5.10 | 0.61 | 0.20 | 0.99 | 2480 | 400 | 2890 | 790 | 117 |
| MR005 - 11 | 143 | 37.6 | 176 | 9.45 | 0.28 | 0.41 | 0.01 | 0.78 | 2380 | 27.0 | 2200 | 48.0 | 92 |
| MR005 - 12 | 106 | 31.7 | 330 | 11.3 | 0.19 | 0.48 | 0.01 | 0.55 | 2550 | 16.0 | 2540 | 37.0 | 100 |
| MR005 - 13 | 93.6 | 65.0 | 270 | 11.8 | 0.35 | 0.52 | 0.01 | 0.49 | 2580 | 28.0 | 2720 | 42.0 | 105 |
| MR005 - 2 | 120 | 51.6 | 315 | 9.7 | 0.24 | 0.42 | 0.01 | 0.71 | 2400 | 25.0 | 2270 | 42.0 | 94.6 |
| MR005 - 3 | 132 | 56.1 | 335 | 10.0 | 0.17 | 0.43 | 0.01 | 0.60 | 2430 | 15.0 | 2330 | 32.0 | 96 |
| MR005 - 4 | 109 | 37.1 | 240 | 11.0 | 0.28 | 0.48 | 0.01 | 0.78 | 2520 | 23.0 | 2520 | 46.0 | 100 |
| MR005 - 5 | 41.7 | 14.4 | 113 | 15.7 | 1.80 | 0.69 | 0.07 | 0.90 | 2760 | 130 | 3320 | 250 | 120 |
| MR005 - 6 | 67.0 | 21.0 | 185 | 14.5 | 1.40 | 0.60 | 0.04 | 0.84 | 2730 | 92.0 | 3050 | 170 | 112 |
| MR005 - 7 | 16.1 | 10.3 | 70.4 | 11.7 | 1.10 | 0.50 | 0.02 | 0.64 | 2560 | 100 | 2630 | 77.0 | 103 |
| MR005 - 8 | 11.00 | 8.56 | 99.3 | 26.0 | 3.20 | 1.01 | 0.09 | 0.95 | 3330 | 110 | 4520 | 280 | 136 |
| MR005 - 9 | 92.9 | 28.2 | 159 | 15.0 | 0.59 | 0.65 | 0.02 | 0.63 | 2820 | 39.0 | 3220 | 64.0 | 114 |

Concordance calculated as (206Pb-238U age/207Pb-206Pb age) \*100