

Tables of analytical data for U/Pb geochronology of detrital zircons from the Eagle Mountain and Navadu formations, Death Valley region, and modern stream sediment from Cottonwood Wash.

To accompany *Detrital zircon populations as a discriminator of tectonic versus fluvial transport; an example from the Death Valley USA, extended terrane* by N. A. Niemi.

TABLE A1. Analytical Results for Detrital U-Pb Geochronology of Sample CC-SED

| U (ppm) | 206Pb 204Pb | U/Th | Isotopic Ratios | | | | | | Apparent Ages (Ma) | | | | | | Best Age (Ma) | | |
|------------|----------------|------|-----------------|------|---------------|------|---------------|-----|--------------------|---------------|------|---------------|------|---------------|---------------|----------|------|
| | | | <u>206Pb*</u> | ± | <u>207Pb*</u> | ± | <u>206Pb*</u> | ± | error | <u>206Pb*</u> | ± | <u>207Pb*</u> | ± | <u>206Pb*</u> | ± | Best age | ± |
| | | | 207Pb* | (%) | 235U* | (%) | 238U | (%) | corr. | 238U* | (%) | 235U | (%) | 207Pb* | (%) | | |
| 147 | 2058 | 1.5 | 23.5018 | 14.5 | 0.1620 | 16.6 | 0.0276 | 8.0 | 0.48 | 175.6 | 13.9 | 152.5 | 23.5 | -193.9 | 364.5 | 175.6 | 13.9 |
| 164 | 3259 | 1.5 | 21.1468 | 13.6 | 0.1806 | 13.7 | 0.0277 | 1.7 | 0.12 | 176.1 | 2.9 | 168.6 | 21.3 | 63.8 | 325.6 | 176.1 | 2.9 |
| 169 | 3614 | 1.9 | 23.2603 | 19.8 | 0.1621 | 19.9 | 0.0273 | 2.6 | 0.13 | 173.9 | 4.4 | 152.6 | 28.2 | -168.1 | 496.2 | 173.9 | 4.4 |
| 303 | 1575 | 1.4 | 18.9306 | 14.7 | 0.2033 | 14.7 | 0.0279 | 0.9 | 0.06 | 177.5 | 1.5 | 188.0 | 25.2 | 321.3 | 335.2 | 177.5 | 1.5 |
| 236 | 4382 | 1.7 | 19.5484 | 5.9 | 0.1952 | 6.8 | 0.0277 | 3.3 | 0.48 | 176.0 | 5.7 | 181.1 | 11.2 | 247.8 | 136.3 | 176.0 | 5.7 |
| 325 | 6268 | 1.9 | 20.9060 | 8.0 | 0.1807 | 8.5 | 0.0274 | 2.7 | 0.32 | 174.2 | 4.7 | 168.6 | 13.1 | 91.0 | 190.0 | 174.2 | 4.7 |
| 275 | 5383 | 1.3 | 21.4739 | 7.9 | 0.1776 | 8.3 | 0.0277 | 2.5 | 0.31 | 175.9 | 4.4 | 166.0 | 12.6 | 27.1 | 188.8 | 175.9 | 4.4 |
| 195 | 3266 | 1.4 | 23.7139 | 12.1 | 0.1587 | 12.2 | 0.0273 | 1.3 | 0.10 | 173.6 | 2.2 | 149.6 | 16.9 | -216.4 | 305.0 | 173.6 | 2.2 |
| 174 | 3606 | 1.4 | 21.8359 | 8.1 | 0.1746 | 8.5 | 0.0277 | 2.6 | 0.30 | 175.9 | 4.5 | 163.4 | 12.9 | -13.1 | 197.1 | 175.9 | 4.5 |
| 385 | 9049 | 1.4 | 21.0959 | 4.3 | 0.1829 | 5.0 | 0.0280 | 2.6 | 0.51 | 178.0 | 4.5 | 170.6 | 7.9 | 69.6 | 102.4 | 178.0 | 4.5 |
| 194 | 3925 | 1.2 | 20.6337 | 11.0 | 0.1846 | 11.3 | 0.0276 | 2.2 | 0.19 | 175.7 | 3.7 | 172.0 | 17.8 | 122.0 | 260.9 | 175.7 | 3.7 |
| 178 | 3702 | 1.2 | 21.0747 | 5.1 | 0.1752 | 6.1 | 0.0268 | 3.4 | 0.56 | 170.4 | 5.7 | 163.9 | 9.3 | 71.9 | 121.3 | 170.4 | 5.7 |
| 1358 | 22799 | 1.5 | 20.4193 | 2.1 | 0.1876 | 3.2 | 0.0278 | 2.4 | 0.76 | 176.6 | 4.2 | 174.6 | 5.1 | 146.6 | 48.6 | 176.6 | 4.2 |
| 136 | 2235 | 1.5 | 16.7967 | 16.7 | 0.2352 | 16.9 | 0.0287 | 2.3 | 0.14 | 182.1 | 4.2 | 214.5 | 32.7 | 586.7 | 365.4 | 182.1 | 4.2 |
| 134 | 2269 | 1.0 | 22.2162 | 12.1 | 0.1690 | 12.1 | 0.0272 | 1.0 | 0.08 | 173.2 | 1.7 | 158.6 | 17.8 | -55.0 | 295.1 | 173.2 | 1.7 |
| 412 | 8383 | 1.2 | 21.0420 | 3.1 | 0.1797 | 4.1 | 0.0274 | 2.6 | 0.64 | 174.4 | 4.5 | 167.8 | 6.3 | 75.6 | 74.0 | 174.4 | 4.5 |
| 269 | 5410 | 1.5 | 20.7112 | 5.4 | 0.1848 | 6.0 | 0.0278 | 2.4 | 0.41 | 176.5 | 4.3 | 172.2 | 9.4 | 113.2 | 128.3 | 176.5 | 4.3 |
| 216 | 5340 | 1.0 | 20.7788 | 6.9 | 0.1857 | 7.0 | 0.0280 | 1.3 | 0.19 | 177.9 | 2.3 | 173.0 | 11.1 | 105.4 | 162.2 | 177.9 | 2.3 |
| 130 | 1407 | 1.1 | 22.1150 | 31.3 | 0.0897 | 31.6 | 0.0144 | 4.2 | 0.13 | 92.1 | 3.8 | 87.2 | 26.4 | -43.9 | 778.4 | 92.1 | 3.8 |
| 221 | 4960 | 1.1 | 21.8194 | 12.6 | 0.1722 | 13.1 | 0.0272 | 3.5 | 0.27 | 173.3 | 6.0 | 161.3 | 19.5 | -11.2 | 306.2 | 173.3 | 6.0 |
| 651 | 12343 | 8.9 | 20.5356 | 3.4 | 0.1816 | 5.2 | 0.0270 | 3.9 | 0.75 | 172.0 | 6.7 | 169.4 | 8.2 | 133.2 | 81.1 | 172.0 | 6.7 |
| 211 | 5736 | 1.6 | 20.4489 | 7.4 | 0.1882 | 7.7 | 0.0279 | 2.2 | 0.28 | 177.4 | 3.8 | 175.1 | 12.4 | 143.2 | 173.1 | 177.4 | 3.8 |
| 190 | 3819 | 1.2 | 22.6646 | 8.9 | 0.1687 | 9.1 | 0.0277 | 1.9 | 0.21 | 176.3 | 3.3 | 158.3 | 13.3 | -103.9 | 218.1 | 176.3 | 3.3 |
| 164 | 1703 | 1.3 | 27.2787 | 15.3 | 0.0693 | 15.4 | 0.0137 | 1.8 | 0.12 | 87.8 | 1.6 | 68.1 | 10.1 | -581.5 | 415.5 | 87.8 | 1.6 |
| 381 | 9114 | 1.6 | 20.1472 | 5.8 | 0.1893 | 5.9 | 0.0277 | 1.4 | 0.23 | 175.9 | 2.4 | 176.1 | 9.6 | 177.9 | 134.6 | 175.9 | 2.4 |
| 664 | 13842 | 1.2 | 20.2012 | 2.6 | 0.1845 | 3.7 | 0.0270 | 2.7 | 0.72 | 171.9 | 4.6 | 171.9 | 5.9 | 171.7 | 60.0 | 171.9 | 4.6 |
| 250 | 5639 | 2.3 | 21.7195 | 7.0 | 0.1705 | 7.3 | 0.0269 | 2.1 | 0.28 | 170.8 | 3.5 | 159.8 | 10.9 | -0.2 | 169.9 | 170.8 | 3.5 |
| 421 | 9210 | 1.2 | 19.6536 | 5.7 | 0.1902 | 5.8 | 0.0271 | 0.7 | 0.11 | 172.4 | 1.1 | 176.8 | 9.4 | 235.5 | 132.6 | 172.4 | 1.1 |
| 437 | 9255 | 1.5 | 20.9056 | 4.8 | 0.1821 | 5.0 | 0.0276 | 1.4 | 0.27 | 175.6 | 2.3 | 169.9 | 7.8 | 91.1 | 114.0 | 175.6 | 2.3 |
| 158 | 3375 | 1.2 | 18.9277 | 12.0 | 0.1980 | 12.1 | 0.0272 | 1.6 | 0.13 | 172.9 | 2.7 | 183.4 | 20.2 | 321.6 | 272.4 | 172.9 | 2.7 |
| 327 | 5723 | 1.4 | 22.7061 | 5.9 | 0.1682 | 6.1 | 0.0277 | 1.7 | 0.28 | 176.1 | 3.0 | 157.9 | 9.0 | -108.4 | 145.3 | 176.1 | 3.0 |
| 1093 | 17767 | 25.0 | 20.3442 | 2.0 | 0.1945 | 2.1 | 0.0287 | 0.8 | 0.36 | 182.4 | 1.4 | 180.4 | 3.5 | 155.2 | 46.1 | 182.4 | 1.4 |
| 323 | 6503 | 1.0 | 21.2970 | 5.0 | 0.1792 | 5.9 | 0.0277 | 3.2 | 0.54 | 176.0 | 5.5 | 167.4 | 9.1 | 47.0 | 118.8 | 176.0 | 5.5 |
| 286 | 6763 | 1.5 | 21.2429 | 5.2 | 0.1803 | 5.8 | 0.0278 | 2.5 | 0.43 | 176.6 | 4.4 | 168.3 | 9.0 | 53.0 | 124.9 | 176.6 | 4.4 |
| 183 | 3589 | 1.1 | 21.2357 | 15.1 | 0.1765 | 15.2 | 0.0272 | 2.1 | 0.14 | 172.9 | 3.6 | 165.0 | 23.2 | 53.8 | 362.0 | 172.9 | 3.6 |
| 332 | 7098 | 1.1 | 20.1889 | 5.8 | 0.1860 | 6.1 | 0.0272 | 2.0 | 0.33 | 173.2 | 3.4 | 173.2 | 9.8 | 173.1 | 135.6 | 173.2 | 3.4 |
| 282 | 6139 | 1.4 | 19.7769 | 4.9 | 0.1884 | 5.2 | 0.0270 | 1.8 | 0.35 | 171.9 | 3.1 | 175.2 | 8.4 | 221.0 | 112.6 | 171.9 | 3.1 |
| 2999 | 59562 | 2.5 | 19.9927 | 0.5 | 0.2009 | 2.3 | 0.0291 | 2.2 | 0.97 | 185.1 | 4.0 | 185.9 | 3.9 | 195.9 | 12.5 | 185.1 | 4.0 |
| 217 | 6957 | 0.9 | 21.7047 | 7.3 | 0.1735 | 7.9 | 0.0273 | 3.1 | 0.39 | 173.7 | 5.4 | 162.5 | 11.9 | 1.4 | 176.2 | 173.7 | 5.4 |
| 236 | 5452 | 1.3 | 20.3817 | 5.2 | 0.1860 | 5.4 | 0.0275 | 1.2 | 0.22 | 174.9 | 2.0 | 173.2 | 8.5 | 150.9 | 122.8 | 174.9 | 2.0 |
| 329 | 6546 | 1.8 | 21.4664 | 4.6 | 0.1801 | 4.6 | 0.0280 | 0.6 | 0.13 | 178.3 | 1.1 | 168.2 | 7.1 | 28.0 | 109.5 | 178.3 | 1.1 |
| 164 | 4384 | 1.4 | 20.3079 | 11.0 | 0.1877 | 11.2 | 0.0277 | 2.2 | 0.20 | 175.8 | 3.8 | 174.7 | 17.9 | 159.4 | 257.1 | 175.8 | 3.8 |
| 166 | 4080 | 1.0 | 20.9064 | 11.6 | 0.1758 | 11.7 | 0.0267 | 1.2 | 0.10 | 169.6 | 2.0 | 164.5 | 17.7 | 91.0 | 276.2 | 169.6 | 2.0 |
| 240 | 6776 | 1.4 | 20.4869 | 5.3 | 0.1889 | 5.5 | 0.0281 | 1.4 | 0.25 | 178.5 | 2.4 | 175.7 | 8.8 | 138.8 | 124.0 | 178.5 | 2.4 |
| 471 | 9110 | 1.7 | 21.1902 | 6.7 | 0.1823 | 7.1 | 0.0280 | 2.4 | 0.34 | 178.2 | 4.2 | 170.1 | 11.1 | 59.0 | 158.7 | 178.2 | 4.2 |
| 330 | 7955 | 2.0 | 20.0469 | 7.7 | 0.1929 | 8.2 | 0.0280 | 2.8 | 0.34 | 178.3 | 5.0 | 179.1 | 13.5 | 189.5 | 180.0 | 178.3 | 5.0 |
| 186 | 5670 | 1.3 | 21.3414 | 10.9 | 0.1722 | 11.3 | 0.0267 | 2.9 | 0.26 | 169.5 | 4.9 | 161.3 | 16.8 | 42.0 | 260.5 | 169.5 | 4.9 |
| 182 | 3690 | 1.7 | 20.6623 | 7.8 | 0.1809 | 8.4 | 0.0271 | 3.0 | 0.36 | 172.5 | 5.1 | 168.9 | 13.0 | 118.7 | 184.4 | 172.5 | 5.1 |
| 503 | 11026 | 1.7 | 20.5477 | 3.2 | 0.1835 | 3.8 | 0.0273 | 2.0 | 0.53 | 173.9 | 3.5 | 171.0 | 6.0 | 131.8 | 75.6 | 173.9 | 3.5 |
| 203 | 5407 | 1.2 | 20.5210 | 14.0 | 0.1792 | 14.2 | 0.0267 | 2.7 | 0.19 | 169.6 | 4.5 | 167.3 | 21.9 | 134.9 | 329.4 | 169.6 | 4.5 |
| 825 | 20962 | 1.8 | 20.2464 | 2.2 | 0.1913 | 3.0 | 0.0281 | 2.1 | 0.69 | 178.6 | 3.7 | 177.7 | 4.9 | 166.4 | 50.9 | 178.6 | 3.7 |
| 584 | 10430 | 1.5 | 20.6185 | 4.9 | 0.1845 | 5.0 | 0.0276 | 0.8 | 0.15 | 175.4 | 1.3 | 171.9 | 7.9 | 123.7 | 116.3 | 175.4 | 1.3 |

TABLE A1. Analytical Results for Detrital U-Pb Geochronology of Sample CC-SED

| U (ppm) | 206Pb 204Pb | U/Th | Isotopic Ratios | | | | | | Apparent Ages (Ma) | | | | | | Best Age (Ma) | | |
|------------|----------------|------|-----------------|------|---------------|------|---------------|-----|--------------------|---------------|------|---------------|--------|---------------|---------------|----------|------|
| | | | <u>206Pb*</u> | ± | <u>207Pb*</u> | ± | <u>206Pb*</u> | ± | error | <u>206Pb*</u> | ± | <u>207Pb*</u> | ± | <u>206Pb*</u> | ± | Best age | ± |
| | | | 207Pb* | (%) | 235U* | (%) | 238U | (%) | corr. | 238U* | 235U | 207Pb* | 206Pb* | 207Pb* | 206Pb* | | |
| 171 | 3489 | 1.1 | 22.9686 | 12.8 | 0.1690 | 12.9 | 0.0282 | 1.9 | 0.15 | 179.0 | 3.3 | 158.5 | 19.0 | -136.7 | 317.6 | 179.0 | 3.3 |
| 483 | 9865 | 1.2 | 21.0972 | 3.5 | 0.1808 | 3.9 | 0.0277 | 1.7 | 0.42 | 176.0 | 2.9 | 168.8 | 6.1 | 69.4 | 84.4 | 176.0 | 2.9 |
| 106 | 2020 | 1.8 | 29.2999 | 24.5 | 0.1286 | 24.6 | 0.0273 | 2.6 | 0.10 | 173.7 | 4.4 | 122.8 | 28.5 | -779.2 | 700.2 | 173.7 | 4.4 |
| 88 | 1602 | 2.0 | 25.0005 | 26.3 | 0.1485 | 26.4 | 0.0269 | 2.5 | 0.09 | 171.3 | 4.2 | 140.6 | 34.6 | -351.0 | 687.8 | 171.3 | 4.2 |
| 269 | 5105 | 1.1 | 20.6442 | 8.3 | 0.1827 | 8.3 | 0.0273 | 1.0 | 0.12 | 173.9 | 1.7 | 170.3 | 13.1 | 120.8 | 195.0 | 173.9 | 1.7 |
| 174 | 4534 | 1.1 | 21.8883 | 8.4 | 0.1701 | 8.7 | 0.0270 | 2.3 | 0.27 | 171.7 | 3.9 | 159.5 | 12.8 | -18.9 | 202.3 | 171.7 | 3.9 |
| 208 | 4479 | 1.4 | 20.3729 | 8.2 | 0.1873 | 8.2 | 0.0277 | 0.7 | 0.08 | 176.0 | 1.2 | 174.3 | 13.2 | 151.9 | 192.4 | 176.0 | 1.2 |
| 152 | 3547 | 2.0 | 24.5725 | 12.1 | 0.1539 | 12.2 | 0.0274 | 1.8 | 0.15 | 174.4 | 3.1 | 145.3 | 16.5 | -306.6 | 309.8 | 174.4 | 3.1 |
| 356 | 6961 | 2.5 | 19.8488 | 9.0 | 0.1934 | 9.0 | 0.0278 | 0.9 | 0.10 | 177.1 | 1.5 | 179.6 | 14.9 | 212.6 | 208.8 | 177.1 | 1.5 |
| 178 | 4988 | 1.8 | 21.5660 | 8.7 | 0.1749 | 8.9 | 0.0273 | 1.9 | 0.22 | 173.9 | 3.3 | 163.6 | 13.5 | 16.8 | 209.5 | 173.9 | 3.3 |
| 322 | 4598 | 1.8 | 21.6531 | 7.2 | 0.1749 | 7.4 | 0.0275 | 1.4 | 0.19 | 174.7 | 2.5 | 163.7 | 11.2 | 7.2 | 174.4 | 174.7 | 2.5 |
| 491 | 8086 | 0.7 | 20.4977 | 3.8 | 0.1904 | 3.9 | 0.0283 | 1.0 | 0.26 | 179.9 | 1.8 | 177.0 | 6.3 | 137.6 | 88.1 | 179.9 | 1.8 |
| 218 | 4662 | 1.4 | 20.9273 | 9.6 | 0.1800 | 9.9 | 0.0273 | 2.2 | 0.23 | 173.8 | 3.8 | 168.1 | 15.3 | 88.6 | 229.0 | 173.8 | 3.8 |
| 250 | 2601 | 1.5 | 20.8945 | 9.0 | 0.1827 | 9.0 | 0.0277 | 1.0 | 0.11 | 176.1 | 1.7 | 170.4 | 14.2 | 92.3 | 213.0 | 176.1 | 1.7 |
| 541 | 9185 | 1.9 | 20.6860 | 3.5 | 0.1865 | 3.9 | 0.0280 | 1.6 | 0.40 | 177.9 | 2.7 | 173.6 | 6.2 | 116.0 | 83.3 | 177.9 | 2.7 |
| 239 | 6100 | 1.6 | 22.9434 | 14.6 | 0.1664 | 14.7 | 0.0277 | 1.3 | 0.09 | 176.1 | 2.2 | 156.3 | 21.3 | -134.0 | 363.4 | 176.1 | 2.2 |
| 182 | 3741 | 1.4 | 21.8611 | 15.0 | 0.1706 | 15.1 | 0.0270 | 2.0 | 0.13 | 172.0 | 3.4 | 159.9 | 22.4 | -15.9 | 364.8 | 172.0 | 3.4 |
| 697 | 15291 | 3.2 | 20.4112 | 2.3 | 0.1921 | 3.0 | 0.0284 | 1.9 | 0.64 | 180.8 | 3.4 | 178.4 | 4.9 | 147.5 | 54.1 | 180.8 | 3.4 |
| 334 | 6605 | 1.2 | 20.1643 | 4.4 | 0.1942 | 5.0 | 0.0284 | 2.3 | 0.46 | 180.5 | 4.1 | 180.2 | 8.3 | 175.9 | 103.7 | 180.5 | 4.1 |
| 239 | 7024 | 1.8 | 19.2822 | 7.7 | 0.1951 | 8.0 | 0.0273 | 2.2 | 0.28 | 173.6 | 3.8 | 181.0 | 13.3 | 279.3 | 176.9 | 173.6 | 3.8 |
| 391 | 8470 | 1.3 | 20.8470 | 4.8 | 0.1962 | 4.9 | 0.0297 | 1.0 | 0.21 | 188.4 | 1.9 | 181.9 | 8.2 | 97.7 | 113.8 | 188.4 | 1.9 |
| 537 | 14017 | 1.7 | 19.5615 | 2.8 | 0.1988 | 3.2 | 0.0282 | 1.6 | 0.51 | 179.3 | 2.9 | 184.1 | 5.4 | 246.3 | 63.4 | 179.3 | 2.9 |
| 292 | 6955 | 1.4 | 20.0401 | 4.6 | 0.1885 | 4.8 | 0.0274 | 1.4 | 0.28 | 174.3 | 2.3 | 175.4 | 7.7 | 190.4 | 107.0 | 174.3 | 2.3 |
| 202 | 6899 | 2.9 | 20.4463 | 6.9 | 0.2140 | 7.1 | 0.0317 | 1.7 | 0.23 | 201.4 | 3.3 | 196.9 | 12.8 | 143.5 | 162.7 | 201.4 | 3.3 |
| 201 | 4398 | 1.9 | 20.4254 | 6.1 | 0.1875 | 6.4 | 0.0278 | 1.8 | 0.29 | 176.6 | 3.2 | 174.5 | 10.3 | 145.9 | 144.1 | 176.6 | 3.2 |
| 520 | 12604 | 2.3 | 20.4776 | 3.5 | 0.1943 | 4.8 | 0.0289 | 3.2 | 0.67 | 183.4 | 5.8 | 180.3 | 7.8 | 139.9 | 82.8 | 183.4 | 5.8 |
| 1179 | 23509 | 2.2 | 20.4840 | 1.6 | 0.1909 | 3.0 | 0.0284 | 2.6 | 0.85 | 180.3 | 4.6 | 177.4 | 5.0 | 139.1 | 37.2 | 180.3 | 4.6 |
| 332 | 8867 | 2.6 | 20.5416 | 8.3 | 0.1895 | 8.4 | 0.0282 | 1.0 | 0.12 | 179.5 | 1.8 | 176.2 | 13.6 | 132.5 | 196.4 | 179.5 | 1.8 |
| 370 | 10471 | 1.2 | 20.3748 | 5.3 | 0.1876 | 5.4 | 0.0277 | 1.2 | 0.23 | 176.3 | 2.1 | 174.6 | 8.6 | 151.7 | 123.2 | 176.3 | 2.1 |
| 166 | 4673 | 0.9 | 20.4009 | 7.7 | 0.1883 | 7.8 | 0.0279 | 1.1 | 0.14 | 177.2 | 1.9 | 175.2 | 12.5 | 148.7 | 180.2 | 177.2 | 1.9 |
| 270 | 6521 | 2.4 | 20.1560 | 9.3 | 0.1921 | 9.6 | 0.0281 | 2.3 | 0.24 | 178.6 | 4.0 | 178.4 | 15.7 | 176.9 | 217.2 | 178.6 | 4.0 |
| 393 | 9776 | 1.4 | 21.4247 | 4.7 | 0.1766 | 5.4 | 0.0274 | 2.6 | 0.48 | 174.6 | 4.4 | 165.2 | 8.2 | 32.7 | 113.3 | 174.6 | 4.4 |
| 196 | 4040 | 1.5 | 22.9380 | 9.0 | 0.1629 | 9.2 | 0.0271 | 2.1 | 0.23 | 172.4 | 3.5 | 153.3 | 13.1 | -133.4 | 222.7 | 172.4 | 3.5 |
| 753 | 13367 | 2.1 | 20.5441 | 2.7 | 0.1866 | 3.8 | 0.0278 | 2.6 | 0.69 | 176.7 | 4.5 | 173.7 | 6.0 | 132.2 | 64.2 | 176.7 | 4.5 |
| 287 | 7507 | 1.6 | 20.4480 | 8.7 | 0.1861 | 8.9 | 0.0276 | 2.0 | 0.22 | 175.5 | 3.4 | 173.3 | 14.3 | 143.3 | 205.3 | 175.5 | 3.4 |
| 91 | 2209 | 1.6 | 22.8733 | 11.3 | 0.1617 | 13.7 | 0.0268 | 7.9 | 0.57 | 170.7 | 13.3 | 152.2 | 19.4 | -126.5 | 279.0 | 170.7 | 13.3 |
| 316 | 6714 | 0.8 | 19.7237 | 4.5 | 0.1973 | 5.6 | 0.0282 | 3.3 | 0.59 | 179.4 | 5.9 | 182.8 | 9.4 | 227.2 | 104.9 | 179.4 | 5.9 |
| 570 | 11834 | 1.4 | 20.1785 | 3.8 | 0.1922 | 4.1 | 0.0281 | 1.5 | 0.37 | 178.9 | 2.7 | 178.5 | 6.7 | 174.3 | 89.0 | 178.9 | 2.7 |
| 216 | 4559 | 1.0 | 23.1294 | 10.5 | 0.1627 | 10.6 | 0.0273 | 1.5 | 0.14 | 173.6 | 2.5 | 153.1 | 15.1 | -154.0 | 261.3 | 173.6 | 2.5 |
| 348 | 4482 | 1.9 | 16.2936 | 22.6 | 0.2291 | 22.7 | 0.0271 | 1.9 | 0.08 | 172.2 | 3.3 | 209.5 | 42.9 | 652.4 | 490.5 | 172.2 | 3.3 |
| 149 | 4080 | 2.1 | 21.5449 | 8.3 | 0.1787 | 8.5 | 0.0279 | 1.9 | 0.22 | 177.6 | 3.3 | 167.0 | 13.0 | 19.2 | 198.4 | 177.6 | 3.3 |
| 385 | 9830 | 3.4 | 21.4100 | 4.2 | 0.1791 | 4.9 | 0.0278 | 2.5 | 0.52 | 176.9 | 4.4 | 167.3 | 7.5 | 34.3 | 99.5 | 176.9 | 4.4 |
| 290 | 6348 | 1.2 | 20.2786 | 5.1 | 0.1886 | 5.3 | 0.0277 | 1.7 | 0.32 | 176.3 | 3.0 | 175.4 | 8.6 | 162.7 | 118.3 | 176.3 | 3.0 |
| 156 | 3670 | 1.7 | 20.1750 | 11.7 | 0.1891 | 11.7 | 0.0277 | 0.6 | 0.05 | 175.9 | 1.1 | 175.8 | 18.9 | 174.7 | 273.4 | 175.9 | 1.1 |
| 273 | 6714 | 1.4 | 22.1315 | 6.3 | 0.1692 | 6.7 | 0.0272 | 2.2 | 0.33 | 172.8 | 3.8 | 158.7 | 9.9 | -45.7 | 154.0 | 172.8 | 3.8 |
| 259 | 5242 | 1.5 | 22.3205 | 6.9 | 0.1658 | 7.0 | 0.0268 | 1.3 | 0.18 | 170.7 | 2.2 | 155.8 | 10.1 | -66.4 | 167.4 | 170.7 | 2.2 |

TABLE A2. Analytical Results for Detrital U-Pb Geochronology of Sample EM-2

| U (ppm) | 206Pb 204Pb | U/Th | Isotopic Ratios | | | | | | Apparent Ages (Ma) | | | | | | Best Age (Ma) | | |
|------------|----------------|------|-----------------|-------|--------|-------|--------|-----|--------------------|--------|------|--------|------|---------|---------------|----------|------|
| | | | 206Pb* | ± | 207Pb* | ± | 206Pb* | ± | error | 206Pb* | ± | 207Pb* | ± | 206Pb* | ± | Best age | ± |
| | | | 207Pb* | (%) | 235U* | (%) | 238U | (%) | corr. | 238U* | (%) | 235U | (%) | 207Pb* | (%) | | |
| 513 | 11701 | 1.3 | 21.0850 | 10.6 | 0.1764 | 10.8 | 0.0270 | 2.3 | 0.21 | 171.6 | 3.8 | 164.9 | 16.5 | 70.8 | 252.6 | 171.6 | 3.8 |
| 257 | 5925 | 1.4 | 19.9411 | 13.6 | 0.1911 | 13.7 | 0.0276 | 2.1 | 0.15 | 175.7 | 3.6 | 177.6 | 22.4 | 201.8 | 316.7 | 175.7 | 3.6 |
| 442 | 8777 | 1.7 | 20.2719 | 7.8 | 0.1836 | 8.1 | 0.0270 | 2.4 | 0.30 | 171.7 | 4.1 | 171.1 | 12.8 | 163.5 | 182.1 | 171.7 | 4.1 |
| 162 | 514 | 1.8 | 17.2457 | 24.9 | 0.2316 | 25.0 | 0.0290 | 2.0 | 0.08 | 184.1 | 3.6 | 211.5 | 47.8 | 529.2 | 554.2 | 184.1 | 3.6 |
| 169 | 4659 | 1.3 | 23.1941 | 33.7 | 0.1568 | 33.8 | 0.0264 | 1.2 | 0.04 | 167.8 | 2.0 | 147.9 | 46.5 | -161.0 | 859.7 | 167.8 | 2.0 |
| 145 | 5369 | 1.4 | 22.8693 | 23.5 | 0.1622 | 23.7 | 0.0269 | 2.8 | 0.12 | 171.1 | 4.8 | 152.6 | 33.6 | -126.0 | 588.3 | 171.1 | 4.8 |
| 599 | 14755 | 0.9 | 20.5794 | 7.5 | 0.1824 | 8.1 | 0.0272 | 2.9 | 0.36 | 173.1 | 5.0 | 170.1 | 12.7 | 128.2 | 177.5 | 173.1 | 5.0 |
| 828 | 19593 | 1.2 | 20.2709 | 4.0 | 0.1885 | 4.7 | 0.0277 | 2.3 | 0.50 | 176.2 | 4.0 | 175.3 | 7.5 | 163.6 | 94.5 | 176.2 | 4.0 |
| 75 | 853 | 0.8 | 29.9664 | 109.9 | 0.0639 | 110.3 | 0.0139 | 9.2 | 0.08 | 88.9 | 8.1 | 62.9 | 67.4 | -843.2 | 0.0 | 88.9 | 8.1 |
| 119 | 2383 | 1.2 | 22.4223 | 35.5 | 0.1661 | 35.6 | 0.0270 | 1.4 | 0.04 | 171.8 | 2.4 | 156.0 | 51.5 | -77.5 | 893.8 | 171.8 | 2.4 |
| 59 | 6594 | 1.6 | 10.9457 | 2.8 | 3.1768 | 3.1 | 0.2522 | 1.3 | 0.41 | 1449.8 | 16.5 | 1451.5 | 24.0 | 1454.1 | 53.9 | 1454.1 | 53.9 |
| 197 | 4658 | 1.5 | 20.4638 | 23.1 | 0.1830 | 23.1 | 0.0272 | 1.5 | 0.06 | 172.7 | 2.5 | 170.6 | 36.4 | 141.4 | 548.4 | 172.7 | 2.5 |
| 962 | 24841 | 1.6 | 20.1461 | 1.3 | 0.1970 | 2.8 | 0.0288 | 2.4 | 0.88 | 182.9 | 4.4 | 182.6 | 4.6 | 178.0 | 30.6 | 182.9 | 4.4 |
| 796 | 18001 | 1.5 | 20.5403 | 4.7 | 0.1901 | 5.2 | 0.0283 | 2.4 | 0.45 | 180.0 | 4.2 | 176.7 | 8.5 | 132.7 | 110.1 | 180.0 | 4.2 |
| 185 | 9455 | 1.8 | 21.3975 | 15.1 | 0.1763 | 15.2 | 0.0274 | 1.6 | 0.10 | 174.0 | 2.7 | 164.8 | 23.1 | 35.7 | 363.9 | 174.0 | 2.7 |
| 78 | 25740 | 1.3 | 8.8320 | 2.0 | 5.2006 | 3.3 | 0.3331 | 2.6 | 0.80 | 1853.5 | 42.5 | 1852.7 | 28.1 | 1851.8 | 35.7 | 1851.8 | 35.7 |
| 77 | 2494 | 0.9 | 16.9254 | 42.3 | 0.1835 | 42.3 | 0.0225 | 2.7 | 0.06 | 143.6 | 3.8 | 171.1 | 66.7 | 570.2 | 960.6 | 143.6 | 3.8 |
| 198 | 5482 | 1.4 | 25.0629 | 29.4 | 0.1529 | 29.4 | 0.0278 | 1.7 | 0.06 | 176.8 | 3.0 | 144.5 | 39.7 | -357.4 | 774.0 | 176.8 | 3.0 |
| 48 | 10584 | 0.9 | 11.8826 | 3.8 | 2.6787 | 4.0 | 0.2309 | 0.9 | 0.24 | 1339.0 | 11.3 | 1322.6 | 29.3 | 1296.2 | 74.8 | 1296.2 | 74.8 |
| 1075 | 2454 | 1.1 | 20.4471 | 11.9 | 0.0289 | 12.0 | 0.0043 | 1.5 | 0.12 | 27.6 | 0.4 | 29.0 | 3.4 | 143.3 | 280.8 | 27.6 | 0.4 |
| 610 | 26987 | 2.6 | 20.6324 | 5.2 | 0.1848 | 5.7 | 0.0277 | 2.3 | 0.41 | 175.9 | 4.1 | 172.2 | 9.1 | 122.2 | 123.6 | 175.9 | 4.1 |
| 178 | 5643 | 1.8 | 20.5360 | 23.2 | 0.1854 | 23.4 | 0.0276 | 3.5 | 0.15 | 175.6 | 6.0 | 172.7 | 37.2 | 133.1 | 551.2 | 175.6 | 6.0 |
| 236 | 6099 | 1.7 | 23.3417 | 18.8 | 0.1731 | 19.0 | 0.0293 | 2.0 | 0.10 | 186.2 | 3.6 | 162.1 | 28.4 | -176.8 | 473.6 | 186.2 | 3.6 |
| 132 | 2755 | 1.6 | 32.2831 | 48.6 | 0.1167 | 48.7 | 0.0273 | 3.4 | 0.07 | 173.8 | 5.8 | 112.1 | 51.7 | -1061.6 | 1533.9 | 173.8 | 5.8 |
| 364 | 648 | 0.6 | 15.4754 | 71.2 | 0.0154 | 71.8 | 0.0017 | 9.9 | 0.14 | 11.1 | 1.1 | 15.5 | 11.1 | 761.9 | 1756.0 | 11.1 | 1.1 |
| 126 | 4092 | 1.8 | 23.4061 | 24.1 | 0.1629 | 24.2 | 0.0277 | 2.3 | 0.10 | 175.9 | 4.0 | 153.2 | 34.4 | -183.6 | 608.9 | 175.9 | 4.0 |
| 315 | 11021 | 0.7 | 21.0079 | 6.4 | 0.1779 | 6.8 | 0.0271 | 2.1 | 0.31 | 172.4 | 3.6 | 166.2 | 10.4 | 79.5 | 153.3 | 172.4 | 3.6 |
| 409 | 18211 | 1.2 | 21.6530 | 5.8 | 0.1822 | 6.0 | 0.0286 | 1.4 | 0.23 | 181.9 | 2.5 | 170.0 | 9.4 | 7.2 | 140.2 | 181.9 | 2.5 |
| 716 | 16497 | 1.1 | 19.7411 | 3.4 | 0.1970 | 4.1 | 0.0282 | 2.4 | 0.57 | 179.3 | 4.2 | 182.6 | 6.9 | 225.2 | 77.8 | 179.3 | 4.2 |
| 142 | 3311 | 1.5 | 22.7810 | 20.5 | 0.1605 | 20.7 | 0.0265 | 3.1 | 0.15 | 168.7 | 5.2 | 151.1 | 29.1 | -116.5 | 510.1 | 168.7 | 5.2 |
| 421 | 10566 | 1.1 | 20.2654 | 7.4 | 0.1944 | 7.5 | 0.0286 | 0.8 | 0.11 | 181.6 | 1.5 | 180.4 | 12.3 | 164.2 | 173.5 | 181.6 | 1.5 |
| 1018 | 20048 | 2.0 | 20.0060 | 2.3 | 0.1975 | 2.7 | 0.0287 | 1.4 | 0.51 | 182.1 | 2.5 | 183.0 | 4.4 | 194.3 | 52.9 | 182.1 | 2.5 |
| 63 | 15877 | 1.9 | 11.5548 | 3.2 | 2.7279 | 3.5 | 0.2286 | 1.5 | 0.42 | 1327.2 | 17.7 | 1336.1 | 26.0 | 1350.3 | 61.3 | 1350.3 | 61.3 |
| 429 | 10532 | 1.0 | 21.4968 | 12.1 | 0.1764 | 12.4 | 0.0275 | 2.7 | 0.22 | 174.9 | 4.6 | 164.9 | 18.8 | 24.6 | 290.8 | 174.9 | 4.6 |
| 1058 | 41396 | 1.7 | 20.0977 | 4.3 | 0.1961 | 5.3 | 0.0286 | 3.2 | 0.60 | 181.7 | 5.8 | 181.8 | 8.9 | 183.6 | 99.3 | 181.7 | 5.8 |
| 223 | 4734 | 1.5 | 21.7324 | 12.3 | 0.1801 | 12.3 | 0.0284 | 1.4 | 0.11 | 180.5 | 2.4 | 168.2 | 19.1 | -1.6 | 296.7 | 180.5 | 2.4 |
| 446 | 9754 | 1.2 | 20.5954 | 5.9 | 0.1939 | 6.3 | 0.0290 | 2.3 | 0.37 | 184.1 | 4.2 | 180.0 | 10.4 | 126.4 | 138.4 | 184.1 | 4.2 |
| 218 | 4435 | 1.0 | 21.3438 | 17.4 | 0.1743 | 17.5 | 0.0270 | 2.2 | 0.12 | 171.7 | 3.7 | 163.2 | 26.4 | 41.7 | 418.3 | 171.7 | 3.7 |
| 204 | 8365 | 1.4 | 19.7457 | 10.2 | 0.1960 | 10.3 | 0.0281 | 1.9 | 0.18 | 178.5 | 3.3 | 181.7 | 17.2 | 224.7 | 235.5 | 178.5 | 3.3 |
| 438 | 8143 | 0.7 | 19.9498 | 10.9 | 0.1655 | 12.0 | 0.0239 | 5.0 | 0.42 | 152.5 | 7.5 | 155.5 | 17.2 | 200.8 | 253.1 | 152.5 | 7.5 |
| 95 | 2669 | 2.2 | 21.9803 | 43.7 | 0.1712 | 43.9 | 0.0273 | 4.7 | 0.11 | 173.5 | 8.1 | 160.4 | 65.2 | -29.0 | 1105.2 | 173.5 | 8.1 |
| 239 | 4788 | 2.2 | 18.3833 | 10.8 | 0.2064 | 10.9 | 0.0275 | 1.6 | 0.15 | 175.0 | 2.8 | 190.6 | 19.0 | 387.5 | 243.0 | 175.0 | 2.8 |
| 124 | 7368 | 1.1 | 17.3615 | 9.5 | 0.5705 | 9.8 | 0.0718 | 2.4 | 0.24 | 447.2 | 10.3 | 458.3 | 36.1 | 514.5 | 208.9 | 447.2 | 10.3 |
| 558 | 12294 | 2.5 | 20.3069 | 7.2 | 0.1962 | 7.6 | 0.0289 | 2.6 | 0.34 | 183.6 | 4.7 | 181.9 | 12.7 | 159.5 | 168.3 | 183.6 | 4.7 |
| 854 | 23535 | 1.6 | 20.4091 | 3.3 | 0.2007 | 4.3 | 0.0297 | 2.8 | 0.64 | 188.7 | 5.2 | 185.7 | 7.4 | 147.7 | 78.4 | 188.7 | 5.2 |
| 200 | 6903 | 1.2 | 21.8202 | 18.0 | 0.1785 | 18.2 | 0.0283 | 3.0 | 0.16 | 179.6 | 5.3 | 166.8 | 28.0 | -11.3 | 437.0 | 179.6 | 5.3 |
| 384 | 9740 | 1.2 | 20.1344 | 11.4 | 0.1979 | 11.6 | 0.0289 | 2.5 | 0.22 | 183.7 | 4.6 | 183.3 | 19.5 | 179.4 | 265.8 | 183.7 | 4.6 |
| 480 | 14283 | 1.1 | 20.7253 | 7.6 | 0.1921 | 7.7 | 0.0289 | 1.3 | 0.17 | 183.5 | 2.4 | 178.5 | 12.6 | 111.6 | 178.7 | 183.5 | 2.4 |
| 745 | 27755 | 2.0 | 20.2843 | 3.8 | 0.1940 | 4.7 | 0.0285 | 2.8 | 0.59 | 181.4 | 4.9 | 180.1 | 7.8 | 162.1 | 89.0 | 181.4 | 4.9 |
| 202 | 4714 | 1.2 | 22.7461 | 31.2 | 0.0933 | 31.3 | 0.0154 | 2.2 | 0.07 | 98.5 | 2.1 | 90.6 | 27.1 | -112.7 | 784.2 | 98.5 | 2.1 |

TABLE A2. Analytical Results for Detrital U-Pb Geochronology of Sample EM-2

| U (ppm) | 206Pb 204Pb | U/Th | Isotopic Ratios | | | | | | Apparent Ages (Ma) | | | | | | Best Age (Ma) | | | | | |
|------------|----------------|------|-----------------|--------|--------|--------|--------|------|--------------------|--------|-------|--------|--------|--------|---------------|--------|--------|--------|--------|--------|
| | | | 206Pb* | | ± | 207Pb* | | ± | 206Pb* | | ± | 207Pb* | | ± | 206Pb* | | ± | 207Pb* | | ± |
| | | | 206Pb* | 207Pb* | (%) | 235U* | (%) | 238U | (%) | error | 238U* | 235U | 207Pb* | 206Pb* | 207Pb* | 206Pb* | 207Pb* | 206Pb* | 207Pb* | 206Pb* |
| 431 | 12918 | 5.9 | 20.8064 | 10.2 | 0.1861 | 10.4 | 0.0281 | 2.0 | 0.19 | 178.5 | 3.5 | 173.3 | 16.6 | 102.3 | 242.4 | | | 178.5 | 3.5 | |
| 374 | 7751 | 1.4 | 21.3507 | 8.3 | 0.1856 | 8.6 | 0.0287 | 2.1 | 0.24 | 182.7 | 3.8 | 172.9 | 13.6 | 40.9 | 199.1 | | | 182.7 | 3.8 | |
| 528 | 9407 | 1.7 | 21.1461 | 3.4 | 0.1893 | 3.8 | 0.0290 | 1.7 | 0.45 | 184.5 | 3.1 | 176.1 | 6.1 | 63.9 | 80.5 | | | 184.5 | 3.1 | |
| 74 | 9276 | 2.5 | 12.9650 | 3.5 | 1.9702 | 4.1 | 0.1853 | 2.1 | 0.51 | 1095.6 | 21.3 | 1105.4 | 27.8 | 1124.6 | 70.7 | | | 1124.6 | 70.7 | |
| 339 | 7318 | 1.3 | 21.6407 | 10.3 | 0.1848 | 10.8 | 0.0290 | 3.2 | 0.30 | 184.3 | 5.9 | 172.2 | 17.0 | 8.6 | 247.6 | | | 184.3 | 5.9 | |
| 429 | 13564 | 1.1 | 19.5445 | 7.4 | 0.1991 | 8.0 | 0.0282 | 3.2 | 0.40 | 179.4 | 5.6 | 184.3 | 13.6 | 248.3 | 170.2 | | | 179.4 | 5.6 | |
| 319 | 8703 | 1.5 | 20.1642 | 9.5 | 0.1915 | 9.7 | 0.0280 | 2.0 | 0.21 | 178.0 | 3.5 | 177.9 | 15.8 | 175.9 | 221.6 | | | 178.0 | 3.5 | |
| 486 | 16679 | 1.6 | 20.4714 | 6.9 | 0.1867 | 7.4 | 0.0277 | 2.7 | 0.37 | 176.2 | 4.8 | 173.8 | 11.9 | 140.5 | 162.2 | | | 176.2 | 4.8 | |
| 1372 | 24152 | 12.6 | 20.1227 | 2.8 | 0.1947 | 3.4 | 0.0284 | 1.9 | 0.57 | 180.6 | 3.5 | 180.6 | 5.6 | 180.7 | 65.2 | | | 180.6 | 3.5 | |
| 459 | 12157 | 1.7 | 19.9319 | 7.6 | 0.1967 | 7.8 | 0.0284 | 1.5 | 0.19 | 180.7 | 2.7 | 182.3 | 13.0 | 202.9 | 177.7 | | | 180.7 | 2.7 | |
| 417 | 14987 | 1.2 | 20.4697 | 3.7 | 0.1899 | 4.0 | 0.0282 | 1.7 | 0.42 | 179.2 | 3.0 | 176.5 | 6.5 | 140.8 | 86.2 | | | 179.2 | 3.0 | |
| 178 | 5372 | 0.9 | 23.8125 | 19.4 | 0.1688 | 19.5 | 0.0292 | 2.0 | 0.10 | 185.3 | 3.6 | 158.4 | 28.6 | -226.8 | 492.8 | | | 185.3 | 3.6 | |
| 121 | 4777 | 1.7 | 21.4191 | 32.3 | 0.1783 | 32.4 | 0.0277 | 1.9 | 0.06 | 176.2 | 3.3 | 166.6 | 49.8 | 33.2 | 791.8 | | | 176.2 | 3.3 | |
| 2324 | 46755 | 1.7 | 19.7445 | 1.0 | 0.2002 | 2.3 | 0.0287 | 2.1 | 0.91 | 182.2 | 3.8 | 185.3 | 3.9 | 224.8 | 22.1 | | | 182.2 | 3.8 | |
| 980 | 15272 | 1.1 | 19.7679 | 6.0 | 0.1863 | 6.4 | 0.0267 | 2.2 | 0.35 | 169.9 | 3.7 | 173.5 | 10.2 | 222.1 | 139.1 | | | 169.9 | 3.7 | |
| 228 | 4291 | 0.9 | 18.3817 | 13.6 | 0.2206 | 13.7 | 0.0294 | 1.6 | 0.11 | 186.9 | 2.9 | 202.4 | 25.2 | 387.7 | 307.4 | | | 186.9 | 2.9 | |
| 227 | 8458 | 1.3 | 20.6812 | 19.9 | 0.1916 | 19.9 | 0.0287 | 1.5 | 0.08 | 182.6 | 2.8 | 178.0 | 32.6 | 116.6 | 472.9 | | | 182.6 | 2.8 | |
| 540 | 20177 | 1.2 | 19.9524 | 4.7 | 0.1974 | 5.1 | 0.0286 | 1.8 | 0.36 | 181.6 | 3.2 | 182.9 | 8.5 | 200.6 | 109.8 | | | 181.6 | 3.2 | |
| 141 | 3129 | 1.4 | 25.0097 | 24.6 | 0.1506 | 24.8 | 0.0273 | 3.0 | 0.12 | 173.7 | 5.2 | 142.4 | 33.0 | -351.9 | 643.9 | | | 173.7 | 5.2 | |
| 398 | 10817 | 1.3 | 20.1216 | 9.2 | 0.1941 | 9.3 | 0.0283 | 1.3 | 0.14 | 180.1 | 2.3 | 180.1 | 15.4 | 180.9 | 215.3 | | | 180.1 | 2.3 | |
| 303 | 6828 | 2.8 | 19.3842 | 6.0 | 0.2070 | 6.4 | 0.0291 | 2.0 | 0.32 | 185.0 | 3.7 | 191.1 | 11.1 | 267.2 | 138.4 | | | 185.0 | 3.7 | |
| 328 | 9749 | 1.4 | 20.7953 | 7.7 | 0.1885 | 8.0 | 0.0284 | 2.2 | 0.27 | 180.7 | 3.9 | 175.3 | 12.9 | 103.6 | 182.1 | | | 180.7 | 3.9 | |
| 593 | 40903 | 2.3 | 19.9360 | 6.3 | 0.1945 | 6.6 | 0.0281 | 2.1 | 0.32 | 178.8 | 3.7 | 180.5 | 10.9 | 202.4 | 145.4 | | | 178.8 | 3.7 | |
| 214 | 6145 | 1.5 | 19.9003 | 11.2 | 0.1993 | 11.3 | 0.0288 | 1.6 | 0.14 | 182.8 | 2.8 | 184.5 | 19.1 | 206.6 | 260.5 | | | 182.8 | 2.8 | |
| 322 | 8367 | 1.2 | 21.6634 | 8.2 | 0.1836 | 8.8 | 0.0288 | 3.2 | 0.37 | 183.3 | 5.9 | 171.1 | 13.8 | 6.0 | 196.9 | | | 183.3 | 5.9 | |
| 270 | 8305 | 1.7 | 20.4995 | 7.0 | 0.1855 | 7.6 | 0.0276 | 3.0 | 0.39 | 175.4 | 5.1 | 172.8 | 12.0 | 137.4 | 164.0 | | | 175.4 | 5.1 | |
| 352 | 11473 | 1.3 | 20.9299 | 13.6 | 0.1872 | 13.7 | 0.0284 | 1.6 | 0.12 | 180.7 | 2.9 | 174.3 | 22.0 | 88.3 | 324.2 | | | 180.7 | 2.9 | |
| 211 | 2887 | 1.0 | 17.7421 | 15.1 | 0.2247 | 15.3 | 0.0289 | 2.9 | 0.19 | 183.8 | 5.2 | 205.8 | 28.6 | 466.7 | 335.0 | | | 183.8 | 5.2 | |
| 317 | 6694 | 1.7 | 21.8917 | 18.2 | 0.1744 | 18.3 | 0.0277 | 2.1 | 0.11 | 176.1 | 3.6 | 163.2 | 27.6 | -19.3 | 443.3 | | | 176.1 | 3.6 | |
| 184 | 6393 | 2.0 | 24.3358 | 22.7 | 0.1584 | 22.8 | 0.0280 | 2.2 | 0.10 | 177.8 | 3.9 | 149.3 | 31.7 | -281.9 | 584.5 | | | 177.8 | 3.9 | |
| 233 | 23478 | 2.9 | 9.6848 | 0.7 | 3.9112 | 2.7 | 0.2747 | 2.6 | 0.96 | 1564.7 | 35.6 | 1616.0 | 21.5 | 1683.4 | 13.1 | | | 1683.4 | 13.1 | |
| 149 | 41763 | 1.1 | 8.2773 | 0.4 | 5.8138 | 1.4 | 0.3490 | 1.3 | 0.95 | 1929.9 | 22.0 | 1948.5 | 12.0 | 1968.2 | 7.5 | | | 1968.2 | 7.5 | |
| 469 | 12394 | 1.1 | 19.4889 | 5.2 | 0.2023 | 5.5 | 0.0286 | 1.7 | 0.31 | 181.8 | 3.0 | 187.1 | 9.4 | 254.8 | 119.8 | | | 181.8 | 3.0 | |
| 261 | 6321 | 1.4 | 19.8404 | 5.7 | 0.1982 | 5.8 | 0.0285 | 1.0 | 0.18 | 181.3 | 1.8 | 183.6 | 9.7 | 213.6 | 132.2 | | | 181.3 | 1.8 | |
| 1574 | 50396 | 2.1 | 20.3176 | 2.5 | 0.1933 | 3.4 | 0.0285 | 2.3 | 0.67 | 181.0 | 4.1 | 179.4 | 5.6 | 158.2 | 59.5 | | | 181.0 | 4.1 | |
| 731 | 22633 | 2.0 | 20.0821 | 3.7 | 0.1952 | 3.8 | 0.0284 | 1.0 | 0.27 | 180.7 | 1.8 | 181.1 | 6.3 | 185.4 | 85.8 | | | 180.7 | 1.8 | |
| 236 | 5617 | 1.8 | 20.6930 | 15.6 | 0.1866 | 15.7 | 0.0280 | 2.0 | 0.12 | 178.1 | 3.4 | 173.8 | 25.1 | 115.3 | 369.1 | | | 178.1 | 3.4 | |
| 285 | 15722 | 1.3 | 23.7057 | 20.8 | 0.1612 | 20.9 | 0.0277 | 2.5 | 0.12 | 176.2 | 4.3 | 151.7 | 29.5 | -215.5 | 527.4 | | | 176.2 | 4.3 | |
| 302 | 6497 | 2.6 | 21.6567 | 14.2 | 0.1775 | 14.2 | 0.0279 | 1.0 | 0.07 | 177.3 | 1.8 | 165.9 | 21.8 | 6.7 | 342.5 | | | 177.3 | 1.8 | |
| 108 | 29811 | 2.3 | 9.5291 | 1.7 | 4.4422 | 2.3 | 0.3070 | 1.5 | 0.66 | 1726.0 | 22.8 | 1720.3 | 19.0 | 1713.3 | 31.7 | | | 1713.3 | 31.7 | |
| 1380 | 41521 | 1.7 | 19.9243 | 2.5 | 0.1999 | 3.2 | 0.0289 | 2.0 | 0.62 | 183.5 | 3.6 | 185.0 | 5.4 | 203.8 | 58.5 | | | 183.5 | 3.6 | |
| 293 | 9732 | 1.7 | 21.2711 | 13.8 | 0.1777 | 13.9 | 0.0274 | 2.1 | 0.15 | 174.4 | 3.6 | 166.1 | 21.4 | 49.9 | 330.3 | | | 174.4 | 3.6 | |
| 305 | 9213 | 1.6 | 21.0135 | 7.7 | 0.1908 | 7.8 | 0.0291 | 1.3 | 0.16 | 184.7 | 2.3 | 177.3 | 12.6 | 78.8 | 182.1 | | | 184.7 | 2.3 | |
| 275 | 6449 | 1.5 | 21.1070 | 14.1 | 0.1839 | 14.4 | 0.0281 | 2.9 | 0.20 | 178.9 | 5.2 | 171.4 | 22.7 | 68.3 | 337.4 | | | 178.9 | 5.2 | |
| 351 | 11261 | 1.5 | 21.1134 | 7.7 | 0.1857 | 8.2 | 0.0284 | 2.7 | 0.33 | 180.7 | 4.8 | 172.9 | 13.0 | 67.6 | 184.0 | | | 180.7 | 4.8 | |
| 290 | 5840 | 1.2 | 20.9307 | 9.3 | 0.1852 | 9.3 | 0.0281 | 1.3 | 0.14 | 178.8 | 2.3 | 172.6 | 14.8 | 88.2 | 219.8 | | | 178.8 | 2.3 | |
| 98 | 2735 | 1.2 | 20.4287 | 24.2 | 0.1833 | 24.3 | 0.0272 | 1.7 | 0.07 | 172.7 | 3.0 | 170.9 | 38.3 | 145.5 | 576.1 | | | 172.7 | 3.0 | |
| 347 | 10864 | 1.1 | 20.7604 | 9.8 | 0.1882 | 9.9 | 0.0283 | 1.3 | 0.13 | 180.1 | 2.3 | 175.1 | 15.8 | 107.6 | 231.2 | | | 180.1 | 2.3 | |
| 187 | 15355 | 3.8 | 7.9851 | 1.0 | 5.1738 | 2.8 | 0.2996 | 2.7 | 0.93 | 1689.5 | 39.4 | 1848.3 | 24.2 | 2032.1 | 17.9 | | | 2032.1 | 17.9 | |

TABLE A3. Analytical Results for Detrital U-Pb Geochronology of Sample EM-2

| U (ppm) | 206Pb 204Pb | U/Th | Isotopic Ratios | | | | | | Apparent Ages (Ma) | | | | | | Best Age (Ma) | | |
|------------|----------------|------|-----------------|--------|---------|--------|--------|-----|--------------------|--------|------|--------|-------|--------|---------------|----------|------|
| | | | 206Pb* | ± | 207Pb* | ± | 206Pb* | ± | error | 206Pb* | ± | 207Pb* | ± | 206Pb* | ± | Best age | ± |
| | | | 207Pb* | (%) | 235U* | (%) | 238U | (%) | corr. | 238U* | (%) | 235U | (%) | 207Pb* | | | |
| 205 | 8829 | 1.6 | 21.3068 | 10.8 | 0.1710 | 11.1 | 0.0264 | 2.4 | 0.22 | 168.2 | 4.0 | 160.3 | 16.5 | 45.8 | 259.4 | 168.2 | 4.0 |
| 147 | 4729 | 1.8 | 18.3883 | 15.5 | 0.1985 | 15.7 | 0.0265 | 2.6 | 0.17 | 168.4 | 4.4 | 183.8 | 26.5 | 386.9 | 350.1 | 168.4 | 4.4 |
| 110 | 5611 | 1.8 | 24.4495 | 23.1 | 0.1494 | 23.2 | 0.0265 | 1.8 | 0.08 | 168.6 | 3.0 | 141.4 | 30.7 | -293.8 | 597.5 | 168.6 | 3.0 |
| 697 | 21481 | 2.3 | 19.9555 | 3.2 | 0.1852 | 4.0 | 0.0268 | 2.5 | 0.62 | 170.5 | 4.2 | 172.5 | 6.4 | 200.1 | 73.3 | 170.5 | 4.2 |
| 205 | 4640 | 2.3 | 18.9416 | 5.9 | 0.1945 | 6.1 | 0.0267 | 1.5 | 0.25 | 170.0 | 2.5 | 180.5 | 10.1 | 320.0 | 134.7 | 170.0 | 2.5 |
| 143 | 1463 | 3.0 | 15.2541 | 22.9 | 0.2246 | 23.2 | 0.0248 | 3.1 | 0.13 | 158.2 | 4.9 | 205.7 | 43.1 | 792.2 | 487.3 | 158.2 | 4.9 |
| 202 | 3943 | 2.2 | 20.3109 | 10.9 | 0.1821 | 11.0 | 0.0268 | 1.4 | 0.13 | 170.6 | 2.4 | 169.8 | 17.3 | 159.0 | 256.7 | 170.6 | 2.4 |
| 201 | 5354 | 1.2 | 20.6140 | 17.6 | 0.1805 | 17.6 | 0.0270 | 1.2 | 0.07 | 171.6 | 2.0 | 168.5 | 27.4 | 124.2 | 417.0 | 171.6 | 2.0 |
| 118 | 19259 | 2.4 | 13.0996 | 2.3 | 1.8711 | 2.7 | 0.1778 | 1.4 | 0.51 | 1054.8 | 13.2 | 1070.9 | 17.7 | 1104.0 | 46.1 | 1104.0 | 46.1 |
| 1122 | 47048 | 1.7 | 19.6427 | 2.3 | 0.1999 | 2.9 | 0.0285 | 1.8 | 0.62 | 181.0 | 3.2 | 185.0 | 5.0 | 236.7 | 53.3 | 181.0 | 3.2 |
| 162 | 5697 | 1.7 | 21.1931 | 16.9 | 0.1819 | 17.0 | 0.0280 | 1.9 | 0.11 | 177.7 | 3.4 | 169.7 | 26.6 | 58.6 | 405.0 | 177.7 | 3.4 |
| 280 | 10172 | 1.3 | 20.1503 | 6.2 | 0.1854 | 6.4 | 0.0271 | 1.6 | 0.25 | 172.3 | 2.7 | 172.7 | 10.2 | 177.5 | 144.8 | 172.3 | 2.7 |
| 186 | 6273 | 2.2 | 20.5597 | 6.8 | 0.1885 | 6.8 | 0.0281 | 0.8 | 0.11 | 178.7 | 1.3 | 175.3 | 11.0 | 130.5 | 159.6 | 178.7 | 1.3 |
| 336 | 9581 | 1.9 | 20.0778 | 6.2 | 0.1852 | 6.2 | 0.0270 | 0.6 | 0.10 | 171.6 | 1.1 | 172.6 | 9.9 | 185.9 | 144.7 | 171.6 | 1.1 |
| 552 | 8931 | 1.4 | 19.3433 | 7.4 | 0.1890 | 8.7 | 0.0265 | 4.5 | 0.52 | 168.7 | 7.5 | 175.7 | 14.0 | 272.0 | 170.4 | 168.7 | 7.5 |
| 1536 | 16287 | 2.2 | 19.5382 | 4.2 | 0.1998 | 4.6 | 0.0283 | 1.9 | 0.41 | 179.9 | 3.3 | 184.9 | 7.7 | 249.0 | 96.1 | 179.9 | 3.3 |
| 166 | 18716 | 2.0 | 11.2995 | 0.8 | 2.8319 | 1.9 | 0.2321 | 1.7 | 0.90 | 1345.4 | 20.7 | 1364.0 | 14.2 | 1393.3 | 15.8 | 1393.3 | 15.8 |
| 1550 | 2128 | 1.5 | 21.6749 | 23.6 | 0.0141 | 23.7 | 0.0022 | 1.4 | 0.06 | 14.2 | 0.2 | 14.2 | 3.3 | 4.7 | 575.6 | 14.2 | 0.2 |
| 2311 | 50830 | 1.9 | 19.8914 | 1.0 | 0.1962 | 1.5 | 0.0283 | 1.2 | 0.77 | 180.0 | 2.1 | 181.9 | 2.5 | 207.6 | 22.5 | 180.0 | 2.1 |
| 222 | 3236 | 1.5 | 20.8737 | 15.7 | 0.0958 | 15.8 | 0.0145 | 1.1 | 0.07 | 92.8 | 1.0 | 92.9 | 14.0 | 94.7 | 374.5 | 92.8 | 1.0 |
| 654 | 10186 | 1.7 | 18.9908 | 3.7 | 0.1844 | 6.4 | 0.0254 | 5.2 | 0.81 | 161.7 | 8.2 | 171.8 | 10.1 | 314.1 | 85.0 | 161.7 | 8.2 |
| 233 | 4490 | 3.1 | 19.9308 | 15.2 | 0.1785 | 15.2 | 0.0258 | 1.2 | 0.08 | 164.2 | 2.0 | 166.8 | 23.4 | 203.1 | 354.0 | 164.2 | 2.0 |
| 143 | 2561 | 1.0 | 19.1700 | 13.5 | 0.2009 | 13.5 | 0.0279 | 1.2 | 0.09 | 177.6 | 2.1 | 185.9 | 23.0 | 292.6 | 308.5 | 177.6 | 2.1 |
| 360 | 6158 | 1.9 | 18.2055 | 6.0 | 0.1928 | 6.5 | 0.0255 | 2.5 | 0.39 | 162.1 | 4.1 | 179.1 | 10.7 | 409.3 | 133.6 | 162.1 | 4.1 |
| 363 | 7842 | 1.8 | 20.0506 | 6.9 | 0.1922 | 7.1 | 0.0279 | 1.9 | 0.26 | 177.7 | 3.3 | 178.5 | 11.7 | 189.1 | 160.4 | 177.7 | 3.3 |
| 485 | 8074 | 1.6 | 20.1136 | 4.7 | 0.1792 | 4.8 | 0.0261 | 1.0 | 0.20 | 166.3 | 1.6 | 167.4 | 7.4 | 181.8 | 110.1 | 166.3 | 1.6 |
| 219 | 45001 | 1.1 | 9.1605 | 0.5 | 4.5476 | 1.1 | 0.3021 | 1.0 | 0.89 | 1701.9 | 15.0 | 1739.7 | 9.4 | 1785.5 | 9.3 | 1785.5 | 9.3 |
| 216 | 2372 | 2.9 | 16.7708 | 22.9 | 0.2375 | 23.0 | 0.0289 | 1.7 | 0.08 | 183.6 | 3.2 | 216.4 | 44.8 | 590.1 | 503.1 | 183.6 | 3.2 |
| 152 | 5683 | 2.3 | 21.9320 | 15.2 | 0.1881 | 15.3 | 0.0299 | 2.4 | 0.16 | 190.1 | 4.5 | 175.0 | 24.7 | -23.7 | 368.7 | 190.1 | 4.5 |
| 107 | 27485 | 0.8 | 11.1448 | 0.6 | 2.7549 | 1.8 | 0.2227 | 1.7 | 0.94 | 1296.0 | 19.5 | 1343.4 | 13.2 | 1419.7 | 11.6 | 1419.7 | 11.6 |
| 238 | 7436 | 2.7 | 19.4619 | 8.8 | 0.1935 | 8.9 | 0.0273 | 1.6 | 0.18 | 173.7 | 2.8 | 179.6 | 14.7 | 258.0 | 202.4 | 173.7 | 2.8 |
| 231 | 8147 | 1.7 | 19.5995 | 4.7 | 0.1895 | 4.8 | 0.0269 | 1.3 | 0.26 | 171.3 | 2.2 | 176.2 | 7.8 | 241.8 | 107.3 | 171.3 | 2.2 |
| 195 | 3742 | 1.8 | 20.1200 | 10.9 | 0.1986 | 11.2 | 0.0290 | 2.2 | 0.20 | 184.1 | 4.0 | 183.9 | 18.8 | 181.0 | 255.5 | 184.1 | 4.0 |
| 285 | 5570 | 1.5 | 19.2254 | 6.1 | 0.1998 | 6.2 | 0.0279 | 1.4 | 0.22 | 177.1 | 2.4 | 185.0 | 10.5 | 286.1 | 138.9 | 177.1 | 2.4 |
| 333 | 84663 | 1.2 | 5.5338 | 0.2 | 12.6941 | 0.9 | 0.5095 | 0.8 | 0.97 | 2654.4 | 18.2 | 2657.2 | 8.1 | 2659.4 | 3.5 | 2659.4 | 3.5 |
| 243 | 6106 | 1.9 | 21.1302 | 16.5 | 0.1753 | 16.9 | 0.0269 | 3.8 | 0.23 | 170.9 | 6.4 | 164.0 | 25.6 | 65.7 | 394.4 | 170.9 | 6.4 |
| 397 | 669 | 0.5 | 10.5798 | 113.1 | 0.0262 | 113.3 | 0.0020 | 7.0 | 0.06 | 12.9 | 0.9 | 26.2 | 29.3 | 1518.5 | 45.3 | 12.9 | 0.9 |
| 370 | 5661 | 1.9 | 19.9859 | 6.1 | 0.1835 | 6.2 | 0.0266 | 1.0 | 0.17 | 169.2 | 1.7 | 171.1 | 9.8 | 196.7 | 142.3 | 169.2 | 1.7 |
| 219 | 4410 | 4.4 | 21.1247 | 7.6 | 0.1880 | 7.9 | 0.0288 | 2.1 | 0.26 | 183.0 | 3.7 | 174.9 | 12.7 | 66.3 | 181.8 | 183.0 | 3.7 |
| 213 | 2958 | 2.6 | 18.7779 | 10.1 | 0.1868 | 10.5 | 0.0254 | 2.9 | 0.28 | 161.9 | 4.6 | 173.9 | 16.7 | 339.7 | 228.5 | 161.9 | 4.6 |
| 169 | 2999 | 1.2 | 21.3400 | 11.9 | 0.1751 | 12.0 | 0.0271 | 1.1 | 0.09 | 172.4 | 1.9 | 163.9 | 18.1 | 42.1 | 285.5 | 172.4 | 1.9 |
| 206 | 4022 | 1.3 | 18.7143 | 11.4 | 0.1935 | 12.2 | 0.0263 | 4.4 | 0.36 | 167.1 | 7.3 | 179.6 | 20.1 | 347.3 | 257.7 | 167.1 | 7.3 |
| 298 | 6946 | 2.0 | 20.3883 | 6.7 | 0.1815 | 6.9 | 0.0268 | 1.4 | 0.21 | 170.7 | 2.4 | 169.3 | 10.7 | 150.1 | 157.7 | 170.7 | 2.4 |
| 381 | 8634 | 1.3 | 19.6933 | 2.6 | 0.1917 | 3.4 | 0.0274 | 2.2 | 0.64 | 174.1 | 3.7 | 178.1 | 5.5 | 230.8 | 59.6 | 174.1 | 3.7 |
| 364 | 876 | 1.1 | 9.7907 | 127.5 | 0.0305 | 127.7 | 0.0022 | 8.5 | 0.07 | 13.9 | 1.2 | 30.5 | 38.3 | 1663.3 | 30.4 | 13.9 | 1.2 |
| 89 | 3900 | 1.5 | 17.3752 | 5.6 | 0.5174 | 5.8 | 0.0652 | 1.5 | 0.26 | 407.2 | 6.0 | 423.4 | 20.2 | 512.8 | 124.0 | 407.2 | 6.0 |
| 162 | 435 | 0.5 | -0.7019 | 2135.3 | -0.3867 | 2135.3 | 0.0020 | 8.5 | 0.00 | 12.7 | 1.1 | -496.4 | #NUM! | 0.0 | 464.1 | 12.7 | 1.1 |
| 76 | 12777 | 3.4 | 12.8582 | 3.1 | 1.9801 | 3.2 | 0.1847 | 0.9 | 0.29 | 1092.4 | 9.4 | 1108.8 | 21.7 | 1141.0 | 61.3 | 1141.0 | 61.3 |
| 276 | 8533 | 2.4 | 20.8753 | 5.5 | 0.1800 | 5.9 | 0.0273 | 2.0 | 0.35 | 173.3 | 3.5 | 168.1 | 9.1 | 94.5 | 130.0 | 173.3 | 3.5 |
| 298 | 633 | 1.4 | 11.4880 | 19.8 | 0.0207 | 21.9 | 0.0017 | 9.4 | 0.43 | 11.1 | 1.0 | 20.8 | 4.5 | 1361.5 | 384.8 | 11.1 | 1.0 |

TABLE A3. Analytical Results for Detrital U-Pb Geochronology of Sample EM-2

| U (ppm) | 206Pb 204Pb | U/Th | Isotopic Ratios | | | | | | Apparent Ages (Ma) | | | | | | Best Age (Ma) | | |
|------------|----------------|------|-----------------|------|--------|------|--------|-----|--------------------|--------|------|--------|------|--------|---------------|----------|-------|
| | | | 206Pb* | ± | 207Pb* | ± | 206Pb* | ± | error | 206Pb* | ± | 207Pb* | ± | 206Pb* | ± | Best age | ± |
| | | | 207Pb* | (%) | 235U* | (%) | 238U | (%) | corr. | 238U* | (%) | 235U | (%) | 207Pb* | (%) | | |
| 90 | 2298 | 2.7 | 22.4808 | 18.3 | 0.1704 | 19.0 | 0.0278 | 5.0 | 0.26 | 176.6 | 8.7 | 159.8 | 28.1 | -83.9 | 451.7 | 176.6 | 8.7 |
| 89 | 1645 | 1.7 | 18.4575 | 13.1 | 0.1823 | 13.2 | 0.0244 | 1.4 | 0.11 | 155.4 | 2.1 | 170.0 | 20.6 | 378.5 | 295.8 | 155.4 | 2.1 |
| 143 | 3970 | 1.6 | 19.8276 | 18.5 | 0.1896 | 18.5 | 0.0273 | 1.2 | 0.06 | 173.4 | 2.0 | 176.3 | 29.9 | 215.1 | 430.5 | 173.4 | 2.0 |
| 1950 | 30783 | 2.0 | 19.9553 | 1.6 | 0.1964 | 2.9 | 0.0284 | 2.4 | 0.83 | 180.7 | 4.3 | 182.1 | 4.9 | 200.2 | 38.3 | 180.7 | 4.3 |
| 223 | 213 | 0.7 | 7.7352 | 32.7 | 0.0364 | 33.8 | 0.0020 | 8.6 | 0.26 | 13.2 | 1.1 | 36.3 | 12.1 | 2088.2 | 591.5 | 2088.2 | 591.5 |
| 161 | 3491 | 1.6 | 19.2452 | 15.4 | 0.1892 | 15.4 | 0.0264 | 0.6 | 0.04 | 168.1 | 1.0 | 176.0 | 24.9 | 283.7 | 353.7 | 168.1 | 1.0 |
| 246 | 7260 | 1.9 | 21.0062 | 8.0 | 0.1851 | 8.0 | 0.0282 | 0.6 | 0.08 | 179.3 | 1.1 | 172.4 | 12.7 | 79.7 | 189.5 | 179.3 | 1.1 |
| 207 | 57438 | 3.5 | 13.3190 | 1.0 | 1.8903 | 1.5 | 0.1826 | 1.1 | 0.74 | 1081.2 | 10.9 | 1077.7 | 9.9 | 1070.7 | 20.3 | 1070.7 | 20.3 |
| 348 | 10011 | 1.9 | 19.2397 | 5.6 | 0.2043 | 5.8 | 0.0285 | 1.1 | 0.20 | 181.2 | 2.0 | 188.8 | 9.9 | 284.3 | 129.2 | 181.2 | 2.0 |
| 342 | 11972 | 1.9 | 20.2641 | 7.8 | 0.1942 | 8.0 | 0.0285 | 1.5 | 0.18 | 181.4 | 2.6 | 180.2 | 13.2 | 164.4 | 183.3 | 181.4 | 2.6 |
| 157 | 1439 | 1.7 | 12.7889 | 43.3 | 0.2854 | 43.6 | 0.0265 | 4.9 | 0.11 | 168.4 | 8.2 | 254.9 | 98.6 | 1151.8 | 903.7 | 168.4 | 8.2 |
| 333 | 7387 | 1.6 | 19.6551 | 3.7 | 0.2003 | 4.1 | 0.0286 | 1.8 | 0.43 | 181.5 | 3.2 | 185.4 | 7.0 | 235.3 | 86.0 | 181.5 | 3.2 |
| 133 | 2842 | 1.5 | 18.9990 | 19.0 | 0.2448 | 19.1 | 0.0337 | 2.1 | 0.11 | 213.9 | 4.3 | 222.4 | 38.2 | 313.1 | 435.4 | 213.9 | 4.3 |
| 252 | 358 | 0.4 | 10.5641 | 42.1 | 0.0291 | 42.3 | 0.0022 | 4.3 | 0.10 | 14.3 | 0.6 | 29.1 | 12.1 | 1521.3 | 832.3 | 14.3 | 0.6 |
| 517 | 13805 | 2.3 | 19.2258 | 3.3 | 0.2081 | 3.9 | 0.0290 | 2.2 | 0.55 | 184.4 | 3.9 | 192.0 | 6.8 | 286.0 | 74.5 | 184.4 | 3.9 |
| 406 | 5634 | 2.7 | 22.5873 | 7.2 | 0.0851 | 9.1 | 0.0139 | 5.5 | 0.61 | 89.2 | 4.9 | 82.9 | 7.2 | -95.5 | 177.3 | 89.2 | 4.9 |
| 162 | 5526 | 1.6 | 20.9340 | 13.9 | 0.1871 | 14.0 | 0.0284 | 1.4 | 0.10 | 180.6 | 2.5 | 174.2 | 22.4 | 87.9 | 330.7 | 180.6 | 2.5 |
| 182 | 5369 | 1.7 | 17.8669 | 9.8 | 0.2192 | 9.9 | 0.0284 | 1.5 | 0.15 | 180.5 | 2.7 | 201.2 | 18.1 | 451.1 | 218.1 | 180.5 | 2.7 |
| 133 | 3606 | 1.8 | 20.6098 | 19.2 | 0.1861 | 19.5 | 0.0278 | 3.5 | 0.18 | 176.9 | 6.1 | 173.3 | 31.0 | 124.7 | 454.8 | 176.9 | 6.1 |
| 235 | 7330 | 1.7 | 17.7784 | 5.7 | 0.2262 | 5.8 | 0.0292 | 1.0 | 0.18 | 185.3 | 1.9 | 207.1 | 10.9 | 462.2 | 126.8 | 185.3 | 1.9 |
| 446 | 12559 | 1.4 | 19.6219 | 4.2 | 0.2032 | 4.4 | 0.0289 | 1.1 | 0.26 | 183.8 | 2.0 | 187.8 | 7.5 | 239.2 | 97.7 | 183.8 | 2.0 |
| 344 | 9883 | 1.5 | 19.2087 | 3.8 | 0.2062 | 4.3 | 0.0287 | 2.1 | 0.47 | 182.5 | 3.7 | 190.3 | 7.5 | 288.0 | 87.1 | 182.5 | 3.7 |
| 401 | 10880 | 1.9 | 20.9426 | 7.6 | 0.1902 | 7.8 | 0.0289 | 1.5 | 0.20 | 183.6 | 2.8 | 176.8 | 12.6 | 86.9 | 181.2 | 183.6 | 2.8 |
| 599 | 14452 | 3.0 | 19.3701 | 2.9 | 0.2086 | 3.1 | 0.0293 | 1.2 | 0.39 | 186.2 | 2.3 | 192.3 | 5.5 | 268.9 | 66.1 | 186.2 | 2.3 |
| 186 | 4936 | 1.7 | 18.7275 | 10.7 | 0.2108 | 10.8 | 0.0286 | 1.4 | 0.13 | 182.0 | 2.5 | 194.3 | 19.1 | 345.7 | 242.8 | 182.0 | 2.5 |
| 229 | 621 | 0.6 | 9.8167 | 30.5 | 0.0370 | 30.7 | 0.0026 | 3.3 | 0.11 | 17.0 | 0.6 | 36.9 | 11.1 | 1658.4 | 579.3 | 17.0 | 0.6 |
| 133 | 3650 | 1.6 | 19.8193 | 16.5 | 0.1926 | 16.7 | 0.0277 | 2.0 | 0.12 | 176.0 | 3.5 | 178.8 | 27.3 | 216.0 | 385.3 | 176.0 | 3.5 |
| 236 | 5930 | 1.2 | 21.0898 | 13.4 | 0.1839 | 13.5 | 0.0281 | 1.2 | 0.09 | 178.8 | 2.0 | 171.4 | 21.3 | 70.2 | 320.5 | 178.8 | 2.0 |
| 219 | 6378 | 1.7 | 20.2410 | 8.3 | 0.1987 | 8.4 | 0.0292 | 1.3 | 0.15 | 185.3 | 2.3 | 184.0 | 14.1 | 167.1 | 193.7 | 185.3 | 2.3 |
| 104 | 451 | 2.8 | 8.9939 | 16.4 | 0.3914 | 16.5 | 0.0255 | 2.2 | 0.13 | 162.5 | 3.5 | 335.4 | 47.3 | 1818.9 | 299.7 | 1818.9 | 299.7 |
| 229 | 6529 | 1.7 | 19.5518 | 6.0 | 0.1988 | 6.0 | 0.0282 | 0.5 | 0.09 | 179.2 | 0.9 | 184.1 | 10.1 | 247.4 | 137.4 | 179.2 | 0.9 |
| 166 | 2863 | 1.5 | 21.1903 | 28.3 | 0.0902 | 28.4 | 0.0139 | 1.6 | 0.06 | 88.7 | 1.4 | 87.7 | 23.9 | 58.9 | 687.6 | 88.7 | 1.4 |
| 519 | 10080 | 0.7 | 20.2018 | 3.4 | 0.1645 | 3.5 | 0.0241 | 0.7 | 0.20 | 153.5 | 1.1 | 154.6 | 5.0 | 171.6 | 80.2 | 153.5 | 1.1 |
| 145 | 3875 | 2.8 | 21.1321 | 11.8 | 0.1838 | 12.0 | 0.0282 | 1.9 | 0.16 | 179.1 | 3.3 | 171.4 | 18.9 | 65.5 | 282.4 | 179.1 | 3.3 |
| 153 | 4642 | 1.9 | 23.1998 | 13.9 | 0.1618 | 14.0 | 0.0272 | 1.7 | 0.12 | 173.2 | 3.0 | 152.3 | 19.8 | -161.6 | 346.2 | 173.2 | 3.0 |
| 254 | 5786 | 2.3 | 19.3175 | 7.0 | 0.1969 | 7.0 | 0.0276 | 0.9 | 0.13 | 175.4 | 1.6 | 182.5 | 11.8 | 275.1 | 160.0 | 175.4 | 1.6 |
| 214 | 6448 | 1.0 | 21.1312 | 9.5 | 0.1801 | 9.6 | 0.0276 | 1.2 | 0.12 | 175.5 | 2.1 | 168.1 | 14.8 | 65.6 | 226.6 | 175.5 | 2.1 |
| 383 | 845 | 0.5 | 16.0969 | 24.4 | 0.0188 | 25.4 | 0.0022 | 7.2 | 0.28 | 14.1 | 1.0 | 18.9 | 4.8 | 678.3 | 527.9 | 14.1 | 1.0 |
| 238 | 7331 | 1.2 | 22.1357 | 7.7 | 0.1737 | 8.0 | 0.0279 | 2.0 | 0.25 | 177.3 | 3.4 | 162.7 | 12.0 | -46.1 | 188.7 | 177.3 | 3.4 |
| 172 | 4041 | 1.7 | 19.6791 | 8.0 | 0.1964 | 8.1 | 0.0280 | 1.4 | 0.18 | 178.2 | 2.5 | 182.0 | 13.6 | 232.4 | 185.0 | 178.2 | 2.5 |
| 268 | 10196 | 1.6 | 19.9143 | 5.9 | 0.1888 | 7.3 | 0.0273 | 4.3 | 0.59 | 173.4 | 7.4 | 175.6 | 11.8 | 205.0 | 137.1 | 173.4 | 7.4 |
| 234 | 6236 | 3.2 | 20.2307 | 12.9 | 0.1958 | 13.0 | 0.0287 | 1.3 | 0.10 | 182.6 | 2.3 | 181.5 | 21.6 | 168.2 | 303.5 | 182.6 | 2.3 |
| 141 | 3647 | 1.6 | 18.4693 | 8.9 | 0.2132 | 9.0 | 0.0286 | 1.1 | 0.12 | 181.5 | 2.0 | 196.2 | 16.0 | 377.0 | 200.6 | 181.5 | 2.0 |
| 307 | 29666 | 1.4 | 17.7701 | 2.8 | 0.5299 | 3.4 | 0.0683 | 1.9 | 0.57 | 425.9 | 7.9 | 431.7 | 11.9 | 463.2 | 61.8 | 425.9 | 7.9 |
| 108 | 7413 | 1.3 | 18.4720 | 9.1 | 0.4988 | 9.2 | 0.0668 | 0.8 | 0.09 | 417.0 | 3.3 | 410.9 | 31.0 | 376.7 | 205.9 | 417.0 | 3.3 |

TABLE A4. Analytical Results for Detrital U-Pb Geochronology of Sample NE-1

| U (ppm) | 206Pb 204Pb | U/Th | Isotopic Ratios | | | | | | Apparent Ages (Ma) | | | | | | Best Age (Ma) | | | | | | | | | |
|------------|----------------|------|------------------|------|----------|------|-----------------|-----|--------------------|-------|-----------------|-------|----------|--------|----------------|-------|----------|--|------------------|--|----------|--|---------------|--|
| | | | 206Pb* 207Pb* | | ± (%) | | 207Pb* 235U* | | ± (%) | | 206Pb* 238U* | | ± (%) | | 207Pb* 235U | | ± (%) | | 206Pb* 207Pb* | | ± (%) | | Best age ± | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 476 | 9463 | 1.5 | 20.4060 | 4.2 | 0.1937 | 4.3 | 0.0287 | 0.9 | 0.20 | 182.2 | 1.6 | 179.8 | 7.1 | 148.1 | 99.3 | 182.2 | 1.6 | | | | | | | |
| 256 | 5135 | 1.3 | 20.2959 | 2.9 | 0.1852 | 4.3 | 0.0273 | 3.2 | 0.75 | 173.4 | 5.6 | 172.5 | 6.9 | 160.7 | 67.2 | 173.4 | 5.6 | | | | | | | |
| 168 | 3644 | 1.6 | 23.2210 | 10.2 | 0.1615 | 10.3 | 0.0272 | 1.7 | 0.16 | 173.0 | 2.8 | 152.0 | 14.6 | -163.9 | 253.9 | 173.0 | 2.8 | | | | | | | |
| 151 | 3435 | 1.0 | 21.8091 | 16.3 | 0.1828 | 16.4 | 0.0289 | 1.9 | 0.11 | 183.7 | 3.4 | 170.4 | 25.8 | -10.1 | 396.2 | 183.7 | 3.4 | | | | | | | |
| 148 | 2956 | 1.3 | 23.8516 | 11.1 | 0.1507 | 11.4 | 0.0261 | 2.8 | 0.25 | 165.9 | 4.6 | 142.6 | 15.2 | -231.0 | 279.3 | 165.9 | 4.6 | | | | | | | |
| 204 | 3893 | 1.1 | 22.1481 | 11.2 | 0.1791 | 12.4 | 0.0288 | 5.2 | 0.42 | 182.9 | 9.4 | 167.3 | 19.1 | -47.5 | 273.4 | 182.9 | 9.4 | | | | | | | |
| 239 | 7297 | 2.0 | 23.4277 | 11.8 | 0.1594 | 12.4 | 0.0271 | 3.9 | 0.32 | 172.3 | 6.7 | 150.2 | 17.4 | -186.0 | 295.3 | 172.3 | 6.7 | | | | | | | |
| 422 | 9416 | 1.5 | 20.3881 | 3.4 | 0.1956 | 4.2 | 0.0289 | 2.5 | 0.59 | 183.8 | 4.5 | 181.4 | 7.0 | 150.1 | 79.6 | 183.8 | 4.5 | | | | | | | |
| 300 | 6621 | 2.0 | 20.6714 | 7.7 | 0.1815 | 8.0 | 0.0272 | 2.1 | 0.26 | 173.0 | 3.6 | 169.3 | 12.5 | 117.7 | 182.0 | 173.0 | 3.6 | | | | | | | |
| 182 | 4165 | 1.7 | 21.5774 | 7.7 | 0.1694 | 8.0 | 0.0265 | 2.4 | 0.30 | 168.7 | 4.0 | 158.9 | 11.8 | 15.6 | 184.1 | 168.7 | 4.0 | | | | | | | |
| 250 | 5727 | 1.8 | 21.2823 | 13.0 | 0.1731 | 13.2 | 0.0267 | 2.6 | 0.20 | 170.0 | 4.4 | 162.1 | 19.8 | 48.6 | 311.0 | 170.0 | 4.4 | | | | | | | |
| 160 | 4356 | 1.3 | 19.9138 | 12.1 | 0.1878 | 12.3 | 0.0271 | 2.4 | 0.20 | 172.5 | 4.1 | 174.7 | 19.8 | 205.0 | 281.3 | 172.5 | 4.1 | | | | | | | |
| 616 | 15191 | 1.9 | 20.3099 | 5.0 | 0.1978 | 6.2 | 0.0291 | 3.8 | 0.60 | 185.1 | 6.9 | 183.2 | 10.5 | 159.2 | 116.7 | 185.1 | 6.9 | | | | | | | |
| 434 | 11046 | 1.9 | 20.4632 | 6.5 | 0.1869 | 6.8 | 0.0277 | 1.7 | 0.25 | 176.4 | 3.0 | 174.0 | 10.8 | 141.5 | 153.8 | 176.4 | 3.0 | | | | | | | |
| 718 | 17169 | 27.2 | 20.5282 | 2.6 | 0.1853 | 3.7 | 0.0276 | 2.5 | 0.69 | 175.4 | 4.4 | 172.6 | 5.8 | 134.1 | 62.0 | 175.4 | 4.4 | | | | | | | |
| 207 | 5774 | 1.9 | 20.2716 | 6.2 | 0.1836 | 6.4 | 0.0270 | 1.3 | 0.20 | 171.7 | 2.2 | 171.1 | 10.0 | 163.5 | 146.1 | 171.7 | 2.2 | | | | | | | |
| 309 | 8471 | 1.6 | 19.9273 | 3.4 | 0.1909 | 3.9 | 0.0276 | 2.0 | 0.52 | 175.4 | 3.5 | 177.4 | 6.4 | 203.4 | 78.4 | 175.4 | 3.5 | | | | | | | |
| 314 | 8524 | 2.0 | 21.1587 | 4.9 | 0.1798 | 5.2 | 0.0276 | 1.6 | 0.31 | 175.5 | 2.7 | 167.9 | 8.0 | 62.5 | 117.4 | 175.5 | 2.7 | | | | | | | |
| 382 | 8561 | 1.5 | 20.9334 | 8.4 | 0.1814 | 8.5 | 0.0275 | 1.1 | 0.13 | 175.1 | 1.8 | 169.2 | 13.2 | 87.9 | 199.7 | 175.1 | 1.8 | | | | | | | |
| 231 | 4837 | 1.9 | 23.0170 | 21.6 | 0.1614 | 21.6 | 0.0269 | 1.6 | 0.08 | 171.4 | 2.8 | 151.9 | 30.6 | -142.0 | 539.8 | 171.4 | 2.8 | | | | | | | |
| 456 | 10479 | 1.5 | 20.3727 | 4.3 | 0.1864 | 4.6 | 0.0275 | 1.6 | 0.35 | 175.1 | 2.8 | 173.5 | 7.3 | 151.9 | 100.8 | 175.1 | 2.8 | | | | | | | |
| 337 | 10194 | 1.5 | 19.0837 | 5.9 | 0.1992 | 6.1 | 0.0276 | 1.7 | 0.27 | 175.3 | 2.9 | 184.4 | 10.3 | 302.9 | 133.5 | 175.3 | 2.9 | | | | | | | |
| 191 | 3030 | 1.5 | 21.5374 | 7.9 | 0.1707 | 9.0 | 0.0267 | 4.3 | 0.48 | 169.6 | 7.2 | 160.0 | 13.4 | 20.0 | 190.4 | 169.6 | 7.2 | | | | | | | |
| 211 | 4910 | 2.5 | 22.1114 | 11.4 | 0.1758 | 11.6 | 0.0282 | 2.5 | 0.22 | 179.2 | 4.5 | 164.4 | 17.7 | -43.5 | 277.1 | 179.2 | 4.5 | | | | | | | |
| 338 | 7487 | 1.3 | 20.4205 | 5.3 | 0.1874 | 5.4 | 0.0278 | 0.9 | 0.16 | 176.5 | 1.5 | 174.4 | 8.6 | 146.4 | 124.7 | 176.5 | 1.5 | | | | | | | |
| 190 | 4255 | 1.9 | 23.2341 | 7.4 | 0.1627 | 7.5 | 0.0274 | 0.8 | 0.11 | 174.4 | 1.4 | 153.1 | 10.6 | -165.3 | 185.0 | 174.4 | 1.4 | | | | | | | |
| 278 | 7672 | 1.3 | 21.7072 | 10.6 | 0.1673 | 10.8 | 0.0263 | 1.7 | 0.16 | 167.6 | 2.9 | 157.0 | 15.7 | 1.2 | 257.3 | 167.6 | 2.9 | | | | | | | |
| 223 | 4292 | 1.2 | 22.1902 | 7.1 | 0.1738 | 7.3 | 0.0280 | 1.6 | 0.21 | 177.8 | 2.7 | 162.7 | 10.9 | -52.1 | 172.8 | 177.8 | 2.7 | | | | | | | |
| 148 | 3526 | 1.6 | 22.7052 | 9.5 | 0.1642 | 10.1 | 0.0270 | 3.4 | 0.33 | 172.0 | 5.7 | 154.4 | 14.5 | -108.3 | 235.2 | 172.0 | 5.7 | | | | | | | |
| 160 | 3934 | 1.5 | 23.1372 | 17.4 | 0.1719 | 17.5 | 0.0288 | 1.6 | 0.09 | 183.3 | 2.8 | 161.0 | 26.0 | -154.9 | 434.7 | 183.3 | 2.8 | | | | | | | |
| 311 | 6717 | 2.1 | 20.8136 | 4.3 | 0.1768 | 5.0 | 0.0267 | 2.5 | 0.50 | 169.8 | 4.1 | 165.3 | 7.6 | 101.5 | 102.0 | 169.8 | 4.1 | | | | | | | |
| 152 | 4100 | 1.7 | 21.2280 | 15.8 | 0.1779 | 15.9 | 0.0274 | 2.1 | 0.13 | 174.2 | 3.5 | 166.2 | 24.4 | 54.7 | 379.0 | 174.2 | 3.5 | | | | | | | |
| 259 | 6604 | 1.7 | 20.5024 | 10.1 | 0.1814 | 10.3 | 0.0270 | 1.9 | 0.18 | 171.6 | 3.2 | 169.3 | 16.0 | 137.0 | 238.1 | 171.6 | 3.2 | | | | | | | |
| 210 | 4263 | 1.6 | 20.5088 | 6.6 | 0.1890 | 6.7 | 0.0281 | 1.2 | 0.18 | 178.8 | 2.1 | 175.8 | 10.8 | 136.3 | 155.0 | 178.8 | 2.1 | | | | | | | |
| 249 | 5843 | 2.0 | 21.1138 | 5.2 | 0.2013 | 6.9 | 0.0308 | 4.6 | 0.66 | 195.7 | 8.8 | 186.2 | 11.8 | 67.6 | 123.6 | 195.7 | 8.8 | | | | | | | |
| 184 | 6984 | 2.2 | 22.3913 | 9.9 | 0.1717 | 10.1 | 0.0279 | 1.9 | 0.18 | 177.3 | 3.3 | 160.9 | 15.0 | -74.1 | 243.3 | 177.3 | 3.3 | | | | | | | |
| 585 | 14240 | 2.1 | 20.5423 | 2.3 | 0.1958 | 3.2 | 0.0292 | 2.3 | 0.71 | 185.4 | 4.2 | 181.6 | 5.3 | 132.5 | 53.0 | 185.4 | 4.2 | | | | | | | |
| 144 | 3372 | 1.7 | 22.0962 | 11.4 | 0.1693 | 11.5 | 0.0271 | 1.3 | 0.12 | 172.6 | 2.3 | 158.8 | 16.9 | -41.8 | 278.0 | 172.6 | 2.3 | | | | | | | |
| 204 | 6245 | 1.9 | 21.7961 | 13.0 | 0.1792 | 13.3 | 0.0283 | 2.8 | 0.21 | 180.1 | 4.9 | 167.4 | 20.5 | -8.7 | 315.5 | 180.1 | 4.9 | | | | | | | |
| 163 | 4443 | 1.8 | 20.7026 | 11.4 | 0.1794 | 11.6 | 0.0269 | 2.4 | 0.21 | 171.4 | 4.1 | 167.5 | 18.0 | 114.1 | 269.2 | 171.4 | 4.1 | | | | | | | |
| 251 | 6309 | 1.3 | 20.4317 | 7.8 | 0.1855 | 7.9 | 0.0275 | 1.2 | 0.15 | 174.8 | 2.0 | 172.8 | 12.6 | 145.1 | 183.6 | 174.8 | 2.0 | | | | | | | |
| 184 | 3772 | 1.0 | 21.2067 | 8.3 | 0.1805 | 8.5 | 0.0278 | 2.2 | 0.26 | 176.5 | 3.8 | 168.5 | 13.3 | 57.1 | 197.1 | 176.5 | 3.8 | | | | | | | |
| 128 | 4984 | 1.5 | 23.1042 | 18.7 | 0.1745 | 19.0 | 0.0292 | 3.4 | 0.18 | 185.8 | 6.3 | 163.3 | 28.7 | -151.3 | 466.8 | 185.8 | 6.3 | | | | | | | |
| 388 | 13930 | 1.4 | 20.4224 | 4.6 | 0.1815 | 5.3 | 0.0269 | 2.7 | 0.50 | 171.0 | 4.5 | 169.3 | 8.3 | 146.2 | 108.6 | 171.0 | 4.5 | | | | | | | |
| 169 | 5196 | 1.3 | 22.6863 | 12.8 | 0.1600 | 14.8 | 0.0263 | 7.5 | 0.50 | 167.6 | 12.3 | 150.7 | 20.7 | -106.2 | 315.3 | 167.6 | 12.3 | | | | | | | |
| 176 | 3705 | 1.7 | 20.1042 | 9.1 | 0.1824 | 9.3 | 0.0266 | 2.0 | 0.22 | 169.2 | 3.4 | 170.1 | 14.6 | 182.9 | 212.7 | 169.2 | 3.4 | | | | | | | |
| 239 | 5984 | 1.5 | 22.1526 | 7.6 | 0.1714 | 8.0 | 0.0275 | 2.4 | 0.30 | 175.2 | 4.2 | 160.7 | 11.9 | -48.0 | 185.3 | 175.2 | 4.2 | | | | | | | |
| 261 | 7508 | 2.4 | 20.9923 | 9.5 | 0.1782 | 9.6 | 0.0271 | 1.7 | 0.18 | 172.6 | 3.0 | 166.5 | 14.8 | 81.2 | 225.6 | 172.6 | 3.0 | | | | | | | |
| 172 | 5123 | 1.3 | 22.2311 | 12.3 | 0.1707 | 12.5 | 0.0275 | 2.5 | 0.20 | 175.0 | 4.4 | 160.0 | 18.6 | -56.6 | 300.3 | 175.0 | 4.4 | | | | | | | |
| 242 | 5651 | 3.5 | 19.4748 | 7.5 | 0.2002 | 7.7 | 0.0283 | 1.8 | 0.23 | 179.7 | 3.1 | 185.3 | 13.0 | 256.5 | 171.5 | 179.7 | 3.1 | | | | | | | |

TABLE A4. Analytical Results for Detrital U-Pb Geochronology of Sample NE-1

| U (ppm) | 206Pb 204Pb | U/Th | Isotopic Ratios | | | | | | Apparent Ages (Ma) | | | | | | Best Age (Ma) | | | | | | | | | |
|------------|----------------|------|------------------|------|----------|------|-----------------|-----|--------------------|-------|----------------|-------|----------|--------|----------------|-------|----------|--|------------------|--|----------|--|---------------|--|
| | | | 206Pb* 207Pb* | | ± (%) | | 207Pb* 235U* | | ± (%) | | 206Pb* 238U | | ± (%) | | 207Pb* 235U | | ± (%) | | 206Pb* 207Pb* | | ± (%) | | Best age ± | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 195 | 4456 | 1.7 | 23.6228 | 14.5 | 0.1552 | 14.7 | 0.0266 | 2.1 | 0.15 | 169.2 | 3.6 | 146.5 | 20.0 | -206.7 | 365.3 | 169.2 | 3.6 | | | | | | | |
| 179 | 3868 | 1.4 | 23.6454 | 12.3 | 0.1605 | 12.4 | 0.0275 | 1.7 | 0.14 | 175.0 | 3.0 | 151.1 | 17.4 | -209.1 | 309.3 | 175.0 | 3.0 | | | | | | | |
| 316 | 7810 | 1.8 | 20.9833 | 6.8 | 0.1850 | 7.5 | 0.0282 | 3.1 | 0.41 | 179.0 | 5.4 | 172.4 | 11.9 | 82.2 | 162.5 | 179.0 | 5.4 | | | | | | | |
| 351 | 8458 | 2.0 | 20.0934 | 4.6 | 0.1838 | 6.2 | 0.0268 | 4.1 | 0.67 | 170.4 | 6.9 | 171.3 | 9.7 | 184.1 | 106.6 | 170.4 | 6.9 | | | | | | | |
| 242 | 5858 | 2.0 | 22.3433 | 3.8 | 0.1695 | 4.4 | 0.0275 | 2.2 | 0.51 | 174.7 | 3.8 | 159.0 | 6.5 | -68.9 | 92.9 | 174.7 | 3.8 | | | | | | | |
| 168 | 3480 | 1.1 | 22.4848 | 11.2 | 0.1725 | 11.4 | 0.0281 | 1.9 | 0.17 | 178.8 | 3.4 | 161.6 | 17.0 | -84.3 | 274.8 | 178.8 | 3.4 | | | | | | | |
| 282 | 5795 | 1.3 | 20.7164 | 10.0 | 0.1812 | 10.5 | 0.0272 | 3.4 | 0.32 | 173.2 | 5.8 | 169.1 | 16.4 | 112.6 | 235.5 | 173.2 | 5.8 | | | | | | | |
| 365 | 9155 | 1.7 | 20.8061 | 10.1 | 0.1811 | 10.3 | 0.0273 | 2.1 | 0.20 | 173.8 | 3.6 | 169.0 | 16.0 | 102.4 | 238.3 | 173.8 | 3.6 | | | | | | | |
| 162 | 3666 | 1.1 | 21.8641 | 12.4 | 0.1714 | 12.7 | 0.0272 | 2.4 | 0.19 | 172.9 | 4.2 | 160.7 | 18.8 | -16.2 | 301.8 | 172.9 | 4.2 | | | | | | | |
| 138 | 2973 | 1.6 | 20.7693 | 9.7 | 0.1775 | 9.8 | 0.0267 | 1.2 | 0.13 | 170.1 | 2.1 | 165.9 | 15.0 | 106.5 | 230.0 | 170.1 | 2.1 | | | | | | | |
| 220 | 5638 | 1.4 | 21.9339 | 11.8 | 0.1688 | 12.0 | 0.0269 | 1.8 | 0.15 | 170.8 | 3.1 | 158.4 | 17.6 | -23.9 | 287.3 | 170.8 | 3.1 | | | | | | | |
| 224 | 4559 | 2.1 | 20.7542 | 12.4 | 0.1794 | 12.7 | 0.0270 | 2.6 | 0.21 | 171.8 | 4.5 | 167.6 | 19.7 | 108.3 | 295.0 | 171.8 | 4.5 | | | | | | | |
| 160 | 5197 | 1.2 | 20.6723 | 12.0 | 0.1860 | 12.2 | 0.0279 | 2.3 | 0.19 | 177.3 | 4.0 | 173.2 | 19.4 | 117.6 | 283.7 | 177.3 | 4.0 | | | | | | | |
| 789 | 15317 | 2.1 | 20.6265 | 3.3 | 0.1840 | 3.7 | 0.0275 | 1.6 | 0.43 | 175.1 | 2.8 | 171.5 | 5.9 | 122.8 | 78.9 | 175.1 | 2.8 | | | | | | | |
| 173 | 4351 | 1.4 | 21.2538 | 11.8 | 0.1706 | 12.0 | 0.0263 | 2.4 | 0.20 | 167.3 | 3.9 | 159.9 | 17.7 | 51.8 | 281.5 | 167.3 | 3.9 | | | | | | | |
| 190 | 4601 | 1.9 | 20.7715 | 11.6 | 0.1778 | 11.8 | 0.0268 | 1.7 | 0.15 | 170.4 | 2.9 | 166.2 | 18.0 | 106.3 | 275.8 | 170.4 | 2.9 | | | | | | | |
| 247 | 5513 | 1.6 | 22.3527 | 6.2 | 0.1623 | 7.4 | 0.0263 | 4.0 | 0.54 | 167.5 | 6.6 | 152.8 | 10.5 | -69.9 | 151.8 | 167.5 | 6.6 | | | | | | | |
| 243 | 8109 | 1.0 | 21.1600 | 5.4 | 0.1802 | 5.6 | 0.0277 | 1.7 | 0.30 | 175.8 | 2.9 | 168.2 | 8.8 | 62.4 | 128.5 | 175.8 | 2.9 | | | | | | | |
| 142 | 3766 | 1.7 | 22.7101 | 14.8 | 0.1658 | 15.0 | 0.0273 | 2.0 | 0.13 | 173.7 | 3.4 | 155.8 | 21.6 | -108.8 | 366.9 | 173.7 | 3.4 | | | | | | | |
| 264 | 6718 | 1.9 | 20.8327 | 5.5 | 0.1814 | 5.6 | 0.0274 | 1.0 | 0.18 | 174.3 | 1.8 | 169.3 | 8.8 | 99.3 | 131.2 | 174.3 | 1.8 | | | | | | | |
| 377 | 10374 | 1.2 | 22.0962 | 5.1 | 0.1715 | 5.3 | 0.0275 | 1.6 | 0.31 | 174.8 | 2.8 | 160.7 | 7.9 | -41.8 | 123.7 | 174.8 | 2.8 | | | | | | | |
| 313 | 12945 | 1.7 | 21.3339 | 3.9 | 0.1770 | 4.6 | 0.0274 | 2.4 | 0.53 | 174.1 | 4.2 | 165.5 | 7.0 | 42.8 | 93.4 | 174.1 | 4.2 | | | | | | | |
| 714 | 26747 | 1.4 | 19.8383 | 2.3 | 0.1964 | 4.1 | 0.0283 | 3.4 | 0.82 | 179.6 | 6.0 | 182.1 | 6.8 | 213.8 | 53.9 | 179.6 | 6.0 | | | | | | | |
| 170 | 4136 | 1.8 | 22.0513 | 12.9 | 0.1720 | 13.0 | 0.0275 | 1.6 | 0.12 | 174.9 | 2.7 | 161.1 | 19.3 | -36.9 | 313.5 | 174.9 | 2.7 | | | | | | | |
| 172 | 5348 | 1.3 | 19.6521 | 14.0 | 0.1892 | 14.2 | 0.0270 | 2.6 | 0.19 | 171.5 | 4.5 | 175.9 | 23.0 | 235.6 | 323.8 | 171.5 | 4.5 | | | | | | | |
| 175 | 4322 | 1.2 | 21.8584 | 11.8 | 0.1733 | 11.9 | 0.0275 | 1.8 | 0.15 | 174.7 | 3.2 | 162.3 | 17.9 | -15.6 | 285.1 | 174.7 | 3.2 | | | | | | | |
| 174 | 5189 | 1.7 | 20.4207 | 8.0 | 0.1782 | 8.6 | 0.0264 | 3.2 | 0.37 | 167.9 | 5.3 | 166.5 | 13.2 | 146.4 | 187.1 | 167.9 | 5.3 | | | | | | | |
| 368 | 8682 | 1.7 | 21.1008 | 6.0 | 0.1764 | 6.0 | 0.0270 | 0.9 | 0.16 | 171.7 | 1.6 | 164.9 | 9.2 | 69.0 | 142.0 | 171.7 | 1.6 | | | | | | | |
| 140 | 3188 | 1.4 | 23.0264 | 13.9 | 0.1652 | 14.1 | 0.0276 | 2.4 | 0.17 | 175.5 | 4.1 | 155.3 | 20.3 | -143.0 | 346.4 | 175.5 | 4.1 | | | | | | | |
| 169 | 3299 | 1.3 | 19.7563 | 15.8 | 0.2060 | 16.5 | 0.0295 | 4.7 | 0.28 | 187.6 | 8.7 | 190.2 | 28.7 | 223.4 | 368.1 | 187.6 | 8.7 | | | | | | | |
| 945 | 11608 | 1.3 | 19.8695 | 4.0 | 0.1879 | 4.3 | 0.0271 | 1.5 | 0.36 | 172.3 | 2.6 | 174.9 | 6.8 | 210.2 | 92.3 | 172.3 | 2.6 | | | | | | | |
| 130 | 3866 | 1.8 | 21.3339 | 9.5 | 0.1753 | 9.6 | 0.0271 | 1.3 | 0.13 | 172.5 | 2.2 | 164.0 | 14.5 | 42.8 | 228.1 | 172.5 | 2.2 | | | | | | | |
| 161 | 5507 | 2.7 | 18.9815 | 11.1 | 0.1971 | 11.4 | 0.0271 | 2.4 | 0.21 | 172.6 | 4.0 | 182.7 | 19.0 | 315.2 | 254.2 | 172.6 | 4.0 | | | | | | | |
| 129 | 2904 | 1.4 | 24.8565 | 23.7 | 0.1539 | 23.8 | 0.0277 | 1.5 | 0.06 | 176.4 | 2.7 | 145.3 | 32.2 | -336.1 | 617.7 | 176.4 | 2.7 | | | | | | | |
| 148 | 4335 | 1.5 | 21.9090 | 18.6 | 0.1765 | 18.9 | 0.0281 | 3.2 | 0.17 | 178.3 | 5.6 | 165.1 | 28.8 | -21.2 | 454.2 | 178.3 | 5.6 | | | | | | | |
| 268 | 6363 | 0.9 | 21.2847 | 9.1 | 0.1759 | 9.3 | 0.0272 | 1.8 | 0.19 | 172.7 | 3.0 | 164.5 | 14.1 | 48.3 | 217.3 | 172.7 | 3.0 | | | | | | | |
| 819 | 21505 | 10.7 | 20.2062 | 2.4 | 0.1939 | 2.9 | 0.0284 | 1.7 | 0.59 | 180.6 | 3.1 | 180.0 | 4.8 | 171.1 | 55.1 | 180.6 | 3.1 | | | | | | | |
| 164 | 3516 | 1.4 | 20.6597 | 11.2 | 0.1809 | 11.5 | 0.0271 | 2.7 | 0.24 | 172.4 | 4.6 | 168.9 | 17.9 | 119.0 | 263.9 | 172.4 | 4.6 | | | | | | | |
| 255 | 8016 | 1.0 | 21.2775 | 6.4 | 0.1944 | 6.7 | 0.0300 | 2.2 | 0.33 | 190.5 | 4.1 | 180.4 | 11.1 | 49.1 | 152.3 | 190.5 | 4.1 | | | | | | | |
| 165 | 4186 | 1.9 | 19.5705 | 7.2 | 0.1919 | 7.4 | 0.0272 | 1.9 | 0.25 | 173.2 | 3.2 | 178.2 | 12.1 | 245.2 | 165.2 | 173.2 | 3.2 | | | | | | | |
| 221 | 5378 | 1.3 | 21.4061 | 8.1 | 0.1780 | 8.5 | 0.0276 | 2.6 | 0.30 | 175.7 | 4.4 | 166.3 | 13.0 | 34.7 | 194.5 | 175.7 | 4.4 | | | | | | | |
| 192 | 4729 | 1.0 | 21.7979 | 5.9 | 0.1764 | 6.2 | 0.0279 | 1.9 | 0.30 | 177.3 | 3.3 | 164.9 | 9.4 | -8.9 | 142.9 | 177.3 | 3.3 | | | | | | | |
| 133 | 3314 | 1.1 | 26.0519 | 24.7 | 0.1462 | 24.7 | 0.0276 | 1.3 | 0.05 | 175.7 | 2.2 | 138.5 | 32.0 | -458.5 | 659.8 | 175.7 | 2.2 | | | | | | | |
| 248 | 6518 | 1.2 | 19.8510 | 3.2 | 0.1954 | 3.2 | 0.0281 | 0.7 | 0.21 | 178.9 | 1.2 | 181.2 | 5.4 | 212.3 | 73.4 | 178.9 | 1.2 | | | | | | | |
| 380 | 8819 | 2.3 | 20.5480 | 3.6 | 0.1922 | 5.1 | 0.0286 | 3.6 | 0.71 | 182.0 | 6.5 | 178.5 | 8.4 | 131.8 | 84.7 | 182.0 | 6.5 | | | | | | | |
| 425 | 10761 | 1.4 | 20.8303 | 4.6 | 0.1915 | 5.4 | 0.0289 | 2.9 | 0.53 | 183.9 | 5.2 | 177.9 | 8.9 | 99.6 | 109.2 | 183.9 | 5.2 | | | | | | | |
| 165 | 5031 | 1.6 | 19.8910 | 11.0 | 0.1922 | 11.3 | 0.0277 | 2.3 | 0.20 | 176.3 | 4.0 | 178.5 | 18.5 | 207.7 | 256.6 | 176.3 | 4.0 | | | | | | | |
| 378 | 10269 | 1.9 | 20.3901 | 5.8 | 0.1873 | 7.0 | 0.0277 | 4.0 | 0.57 | 176.1 | 6.9 | 174.3 | 11.2 | 149.9 | 135.2 | 176.1 | 6.9 | | | | | | | |
| 390 | 9244 | 1.2 | 20.2887 | 4.3 | 0.1950 | 5.0 | 0.0287 | 2.6 | 0.51 | 182.3 | 4.6 | 180.9 | 8.2 | 161.6 | 99.6 | 182.3 | 4.6 | | | | | | | |
| 255 | 5797 | 1.2 | 20.8822 | 11.6 | 0.1820 | 11.7 | 0.0276 | 1.7 | 0.15 | 175.3 | 3.0 | 169.8 | 18.3 | 93.7 | 275.7 | 175.3 | 3.0 | | | | | | | |

TABLE A5. Analytical Results for Detrital U-Pb Geochronology of Sample NE-2

| U (ppm) | 206Pb 204Pb | U/Th | Isotopic Ratios | | | | | | Apparent Ages (Ma) | | | | | | Best Age (Ma) | | |
|------------|----------------|------|-----------------|--------|--------|--------|--------|------|--------------------|-------|-------|--------|------|--------|---------------|--------|--------|
| | | | 206Pb* | | ± | 207Pb* | | ± | 206Pb* | | ± | 207Pb* | | ± | 206Pb* | | ± |
| | | | 206Pb* | 207Pb* | (%) | 235U* | (%) | 238U | (%) | error | corr. | 238U* | (%) | 235U | (%) | 206Pb* | 207Pb* |
| 204 | 3463 | 1.2 | 21.8482 | 8.7 | 0.1745 | 9.0 | 0.0277 | 2.4 | 0.27 | 175.9 | 4.2 | 163.4 | 13.6 | -14.4 | 210.5 | 175.9 | 4.2 |
| 157 | 2944 | 1.1 | 23.3684 | 24.5 | 0.1604 | 24.6 | 0.0272 | 1.8 | 0.07 | 172.9 | 3.1 | 151.0 | 34.5 | -179.6 | 619.1 | 172.9 | 3.1 |
| 182 | 3994 | 1.1 | 22.2647 | 9.0 | 0.1632 | 9.3 | 0.0263 | 2.3 | 0.25 | 167.6 | 3.8 | 153.5 | 13.3 | -60.3 | 220.6 | 167.6 | 3.8 |
| 672 | 15191 | 2.3 | 20.0417 | 1.9 | 0.1914 | 3.2 | 0.0278 | 2.6 | 0.80 | 176.9 | 4.5 | 177.8 | 5.3 | 190.2 | 45.2 | 176.9 | 4.5 |
| 201 | 4243 | 1.5 | 25.0004 | 16.4 | 0.1483 | 16.4 | 0.0269 | 1.1 | 0.06 | 171.0 | 1.8 | 140.4 | 21.5 | -351.0 | 425.0 | 171.0 | 1.8 |
| 227 | 3431 | 1.2 | 22.6887 | 8.0 | 0.1576 | 8.0 | 0.0259 | 0.7 | 0.09 | 165.1 | 1.2 | 148.6 | 11.1 | -106.5 | 196.3 | 165.1 | 1.2 |
| 249 | 5480 | 1.8 | 19.1636 | 8.2 | 0.1991 | 8.5 | 0.0277 | 2.4 | 0.28 | 176.0 | 4.1 | 184.4 | 14.4 | 293.4 | 187.3 | 176.0 | 4.1 |
| 235 | 4150 | 1.7 | 21.2297 | 13.7 | 0.1783 | 13.9 | 0.0275 | 1.9 | 0.13 | 174.6 | 3.2 | 166.6 | 21.3 | 54.5 | 329.1 | 174.6 | 3.2 |
| 181 | 4034 | 1.4 | 21.1937 | 8.8 | 0.1833 | 8.9 | 0.0282 | 1.0 | 0.12 | 179.2 | 1.8 | 170.9 | 14.0 | 58.6 | 210.9 | 179.2 | 1.8 |
| 373 | 9515 | 1.3 | 20.3827 | 7.1 | 0.1894 | 7.2 | 0.0280 | 1.2 | 0.16 | 178.0 | 2.1 | 176.1 | 11.7 | 150.8 | 167.5 | 178.0 | 2.1 |
| 231 | 4926 | 1.4 | 20.4702 | 5.7 | 0.1867 | 6.3 | 0.0277 | 2.6 | 0.42 | 176.3 | 4.6 | 173.8 | 10.1 | 140.7 | 134.2 | 176.3 | 4.6 |
| 405 | 7303 | 1.9 | 19.6871 | 5.1 | 0.1952 | 5.6 | 0.0279 | 2.3 | 0.41 | 177.2 | 4.1 | 181.0 | 9.4 | 231.5 | 118.8 | 177.2 | 4.1 |
| 358 | 7119 | 2.0 | 20.5260 | 5.7 | 0.1827 | 6.4 | 0.0272 | 2.8 | 0.43 | 173.0 | 4.7 | 170.4 | 10.0 | 134.3 | 135.0 | 173.0 | 4.7 |
| 281 | 4296 | 2.3 | 21.7575 | 6.3 | 0.1694 | 6.4 | 0.0267 | 1.0 | 0.16 | 170.0 | 1.7 | 158.9 | 9.4 | -4.4 | 152.7 | 170.0 | 1.7 |
| 169 | 1768 | 2.3 | 19.9049 | 9.9 | 0.1928 | 10.0 | 0.0278 | 1.1 | 0.11 | 177.0 | 1.9 | 179.0 | 16.4 | 206.0 | 231.2 | 177.0 | 1.9 |
| 172 | 4114 | 1.4 | 22.8317 | 13.0 | 0.1651 | 13.2 | 0.0273 | 2.4 | 0.18 | 173.9 | 4.1 | 155.2 | 19.0 | -122.0 | 320.8 | 173.9 | 4.1 |
| 698 | 16751 | 0.8 | 20.4791 | 3.0 | 0.1865 | 3.5 | 0.0277 | 1.8 | 0.51 | 176.2 | 3.1 | 173.7 | 5.5 | 139.7 | 70.0 | 176.2 | 3.1 |
| 172 | 3366 | 1.6 | 23.4370 | 13.9 | 0.1586 | 14.0 | 0.0270 | 1.4 | 0.10 | 171.5 | 2.4 | 149.5 | 19.4 | -187.0 | 348.4 | 171.5 | 2.4 |
| 395 | 10625 | 1.4 | 20.4316 | 9.4 | 0.1890 | 9.9 | 0.0280 | 3.1 | 0.31 | 178.0 | 5.4 | 175.8 | 16.0 | 145.1 | 221.1 | 178.0 | 5.4 |
| 342 | 6541 | 1.8 | 20.4019 | 4.7 | 0.1917 | 4.9 | 0.0284 | 1.2 | 0.25 | 180.3 | 2.2 | 178.1 | 8.0 | 148.5 | 111.4 | 180.3 | 2.2 |
| 332 | 6621 | 2.0 | 20.7279 | 7.0 | 0.1727 | 7.1 | 0.0260 | 1.2 | 0.17 | 165.2 | 2.0 | 161.8 | 10.6 | 111.2 | 165.0 | 165.2 | 2.0 |
| 289 | 4418 | 1.7 | 21.5499 | 5.8 | 0.1696 | 5.8 | 0.0265 | 0.8 | 0.14 | 168.7 | 1.3 | 159.1 | 8.6 | 18.7 | 139.0 | 168.7 | 1.3 |
| 242 | 5316 | 2.2 | 20.4153 | 6.7 | 0.1968 | 6.9 | 0.0291 | 1.8 | 0.27 | 185.2 | 3.4 | 182.4 | 11.6 | 147.0 | 157.3 | 185.2 | 3.4 |
| 269 | 4743 | 1.7 | 22.8880 | 12.2 | 0.1641 | 12.3 | 0.0272 | 1.0 | 0.08 | 173.3 | 1.7 | 154.3 | 17.5 | -128.1 | 302.6 | 173.3 | 1.7 |
| 107 | 2168 | 3.0 | 21.3704 | 11.6 | 0.1734 | 11.7 | 0.0269 | 1.6 | 0.14 | 170.9 | 2.7 | 162.3 | 17.6 | 38.7 | 278.7 | 170.9 | 2.7 |
| 440 | 9401 | 1.7 | 20.5026 | 4.7 | 0.1839 | 5.1 | 0.0273 | 2.0 | 0.39 | 173.9 | 3.4 | 171.4 | 8.0 | 137.0 | 109.6 | 173.9 | 3.4 |
| 157 | 3855 | 1.9 | 19.5567 | 11.7 | 0.1912 | 11.7 | 0.0271 | 1.3 | 0.11 | 172.5 | 2.2 | 177.7 | 19.1 | 246.9 | 269.1 | 172.5 | 2.2 |
| 209 | 4863 | 1.5 | 20.7880 | 6.8 | 0.1843 | 7.1 | 0.0278 | 2.2 | 0.31 | 176.7 | 3.9 | 171.7 | 11.3 | 104.4 | 160.4 | 176.7 | 3.9 |
| 227 | 5895 | 1.8 | 20.8695 | 8.1 | 0.1763 | 8.4 | 0.0267 | 2.1 | 0.25 | 169.8 | 3.5 | 164.9 | 12.8 | 95.2 | 192.7 | 169.8 | 3.5 |
| 201 | 4957 | 1.9 | 21.3468 | 6.8 | 0.1821 | 7.1 | 0.0282 | 2.1 | 0.29 | 179.2 | 3.7 | 169.9 | 11.2 | 41.4 | 163.1 | 179.2 | 3.7 |
| 222 | 5095 | 1.4 | 20.4078 | 7.8 | 0.1810 | 7.9 | 0.0268 | 1.4 | 0.18 | 170.4 | 2.4 | 168.9 | 12.3 | 147.9 | 182.5 | 170.4 | 2.4 |
| 494 | 12653 | 1.8 | 20.1205 | 3.0 | 0.1928 | 3.3 | 0.0281 | 1.4 | 0.42 | 178.8 | 2.5 | 179.0 | 5.4 | 181.0 | 70.0 | 178.8 | 2.5 |
| 327 | 7573 | 2.8 | 20.5301 | 3.8 | 0.1966 | 4.0 | 0.0293 | 1.1 | 0.27 | 186.0 | 2.0 | 182.3 | 6.7 | 133.8 | 90.3 | 186.0 | 2.0 |
| 1218 | 24693 | 1.4 | 20.1390 | 2.2 | 0.1924 | 2.4 | 0.0281 | 1.1 | 0.46 | 178.6 | 2.0 | 178.6 | 4.0 | 178.9 | 50.7 | 178.6 | 2.0 |
| 303 | 7060 | 1.7 | 20.7191 | 4.6 | 0.1818 | 4.9 | 0.0273 | 1.6 | 0.33 | 173.8 | 2.8 | 169.6 | 7.6 | 112.3 | 108.8 | 173.8 | 2.8 |
| 426 | 9410 | 1.7 | 21.4161 | 6.9 | 0.1725 | 7.3 | 0.0268 | 2.3 | 0.31 | 170.5 | 3.8 | 161.6 | 10.9 | 33.6 | 166.6 | 170.5 | 3.8 |
| 339 | 7571 | 1.3 | 21.3898 | 7.8 | 0.1803 | 8.0 | 0.0280 | 1.6 | 0.21 | 177.8 | 2.9 | 168.3 | 12.4 | 36.5 | 187.3 | 177.8 | 2.9 |
| 168 | 4825 | 1.6 | 20.7358 | 10.4 | 0.1828 | 10.7 | 0.0275 | 2.5 | 0.23 | 174.8 | 4.3 | 170.4 | 16.8 | 110.3 | 245.9 | 174.8 | 4.3 |
| 161 | 2790 | 1.6 | 21.9401 | 12.6 | 0.1719 | 12.7 | 0.0273 | 1.2 | 0.10 | 173.9 | 2.1 | 161.0 | 18.9 | -24.6 | 307.0 | 173.9 | 2.1 |
| 213 | 4302 | 1.4 | 21.3583 | 11.3 | 0.1776 | 11.3 | 0.0275 | 0.9 | 0.08 | 175.0 | 1.6 | 166.0 | 17.4 | 40.1 | 270.9 | 175.0 | 1.6 |
| 192 | 5049 | 2.7 | 19.3011 | 12.7 | 0.2006 | 12.9 | 0.0281 | 2.3 | 0.18 | 178.5 | 4.1 | 185.7 | 21.9 | 277.1 | 292.3 | 178.5 | 4.1 |
| 236 | 5319 | 2.1 | 21.1199 | 12.2 | 0.1794 | 12.3 | 0.0275 | 1.3 | 0.10 | 174.8 | 2.2 | 167.6 | 19.0 | 66.8 | 292.0 | 174.8 | 2.2 |
| 384 | 9290 | 2.0 | 21.2697 | 5.8 | 0.1806 | 6.0 | 0.0279 | 1.4 | 0.24 | 177.2 | 2.5 | 168.6 | 9.3 | 50.0 | 138.3 | 177.2 | 2.5 |
| 302 | 6696 | 1.5 | 20.3546 | 6.9 | 0.1944 | 7.3 | 0.0287 | 2.3 | 0.32 | 182.4 | 4.1 | 180.4 | 12.0 | 154.0 | 161.5 | 182.4 | 4.1 |
| 314 | 7983 | 1.4 | 21.2489 | 9.5 | 0.1798 | 9.8 | 0.0277 | 2.5 | 0.26 | 176.2 | 4.4 | 167.9 | 15.2 | 52.3 | 227.6 | 176.2 | 4.4 |
| 147 | 2754 | 1.2 | 22.8464 | 18.7 | 0.1594 | 18.9 | 0.0264 | 2.3 | 0.12 | 168.1 | 3.8 | 150.2 | 26.3 | -123.6 | 465.7 | 168.1 | 3.8 |
| 274 | 5581 | 1.2 | 23.2095 | 13.9 | 0.1672 | 14.3 | 0.0281 | 3.2 | 0.23 | 178.9 | 5.7 | 157.0 | 20.8 | -162.6 | 347.4 | 178.9 | 5.7 |
| 400 | 8891 | 2.2 | 20.9280 | 6.8 | 0.1852 | 7.1 | 0.0281 | 2.0 | 0.28 | 178.7 | 3.5 | 172.5 | 11.3 | 88.6 | 162.3 | 178.7 | 3.5 |
| 115 | 2674 | 2.5 | 24.6679 | 23.5 | 0.1494 | 23.6 | 0.0267 | 2.2 | 0.09 | 170.1 | 3.7 | 141.4 | 31.1 | -316.5 | 609.1 | 170.1 | 3.7 |
| 111 | 2115 | 2.1 | 25.0706 | 16.6 | 0.1475 | 16.8 | 0.0268 | 2.2 | 0.13 | 170.6 | 3.7 | 139.7 | 21.9 | -358.2 | 432.0 | 170.6 | 3.7 |

TABLE A5. Analytical Results for Detrital U-Pb Geochronology of Sample NE-2

| U (ppm) | 206Pb 204Pb | U/Th | Isotopic Ratios | | | | | | Apparent Ages (Ma) | | | | | | Best Age (Ma) | | |
|------------|----------------|------|-----------------|--------|--------|--------|--------|------|--------------------|--------|-------|--------|------|--------|---------------|--------|--------|
| | | | 206Pb* | | ± | 207Pb* | | ± | 206Pb* | | ± | 207Pb* | | ± | 206Pb* | | ± |
| | | | 206Pb* | 207Pb* | (%) | 235U* | (%) | 238U | (%) | error | corr. | 238U* | (%) | 235U | (%) | 206Pb* | 207Pb* |
| 401 | 883 | 1.1 | 20.2597 | 11.5 | 0.1923 | 11.7 | 0.0283 | 2.4 | 0.21 | 179.6 | 4.3 | 178.6 | 19.2 | 164.9 | 268.7 | 179.6 | 4.3 |
| 849 | 10231 | 2.5 | 20.1739 | 2.3 | 0.1798 | 3.0 | 0.0263 | 1.9 | 0.65 | 167.4 | 3.2 | 167.9 | 4.6 | 174.8 | 53.2 | 167.4 | 3.2 |
| 154 | 3258 | 1.3 | 20.2526 | 8.2 | 0.1885 | 8.3 | 0.0277 | 1.7 | 0.20 | 176.0 | 2.9 | 175.3 | 13.4 | 165.7 | 191.0 | 176.0 | 2.9 |
| 148 | 1285 | 1.7 | 19.0030 | 35.5 | 0.1963 | 35.5 | 0.0271 | 2.0 | 0.06 | 172.1 | 3.4 | 182.0 | 59.3 | 312.6 | 831.2 | 172.1 | 3.4 |
| 218 | 4875 | 1.5 | 20.4426 | 11.6 | 0.1826 | 11.8 | 0.0271 | 2.5 | 0.21 | 172.2 | 4.3 | 170.3 | 18.5 | 143.9 | 271.8 | 172.2 | 4.3 |
| 215 | 3621 | 2.2 | 21.7882 | 9.1 | 0.1766 | 9.2 | 0.0279 | 1.1 | 0.12 | 177.5 | 1.9 | 165.2 | 14.0 | -7.8 | 219.7 | 177.5 | 1.9 |
| 196 | 4421 | 1.1 | 23.1712 | 11.8 | 0.1640 | 11.9 | 0.0276 | 1.5 | 0.13 | 175.3 | 2.6 | 154.2 | 17.1 | -158.5 | 295.2 | 175.3 | 2.6 |
| 319 | 45728 | 4.9 | 11.1708 | 6.1 | 2.3682 | 7.3 | 0.1919 | 4.1 | 0.55 | 1131.5 | 42.0 | 1233.1 | 52.5 | 1415.3 | 117.4 | 1415.3 | 117.4 |
| 146 | 3141 | 2.3 | 19.6076 | 5.6 | 0.1959 | 5.8 | 0.0279 | 1.4 | 0.25 | 177.1 | 2.5 | 181.6 | 9.6 | 240.9 | 128.8 | 177.1 | 2.5 |
| 491 | 7137 | 1.3 | 20.3286 | 2.7 | 0.1855 | 3.1 | 0.0273 | 1.6 | 0.53 | 173.9 | 2.8 | 172.8 | 5.0 | 157.0 | 62.3 | 173.9 | 2.8 |
| 239 | 4802 | 1.9 | 22.0391 | 9.0 | 0.1666 | 9.1 | 0.0266 | 1.1 | 0.12 | 169.4 | 1.8 | 156.5 | 13.2 | -35.5 | 219.4 | 169.4 | 1.8 |
| 379 | 7986 | 3.4 | 20.0111 | 6.8 | 0.1907 | 6.9 | 0.0277 | 1.2 | 0.18 | 176.0 | 2.1 | 177.2 | 11.2 | 193.7 | 158.1 | 176.0 | 2.1 |
| 576 | 11843 | 2.0 | 21.0943 | 1.8 | 0.1799 | 2.7 | 0.0275 | 2.0 | 0.75 | 175.0 | 3.4 | 168.0 | 4.1 | 69.8 | 42.2 | 175.0 | 3.4 |
| 307 | 8495 | 1.1 | 20.6455 | 8.5 | 0.1916 | 8.5 | 0.0287 | 0.9 | 0.10 | 182.4 | 1.6 | 178.0 | 13.9 | 120.7 | 200.5 | 182.4 | 1.6 |
| 88 | 1877 | 1.3 | 26.1521 | 15.9 | 0.1438 | 16.0 | 0.0273 | 2.4 | 0.15 | 173.4 | 4.2 | 136.4 | 20.5 | -468.7 | 421.6 | 173.4 | 4.2 |
| 67 | 1696 | 1.6 | 26.0702 | 30.4 | 0.1357 | 30.5 | 0.0257 | 2.9 | 0.09 | 163.3 | 4.6 | 129.2 | 37.0 | -460.4 | 817.7 | 163.3 | 4.6 |
| 1306 | 25708 | 1.5 | 19.9551 | 1.4 | 0.1950 | 2.3 | 0.0282 | 1.8 | 0.80 | 179.4 | 3.3 | 180.9 | 3.8 | 200.2 | 31.9 | 179.4 | 3.3 |
| 282 | 7129 | 2.1 | 21.0988 | 4.3 | 0.1847 | 4.8 | 0.0283 | 2.2 | 0.45 | 179.7 | 3.9 | 172.1 | 7.6 | 69.2 | 102.0 | 179.7 | 3.9 |
| 209 | 5264 | 1.9 | 21.9182 | 14.0 | 0.1739 | 14.0 | 0.0276 | 0.8 | 0.06 | 175.8 | 1.4 | 162.8 | 21.1 | -22.2 | 340.8 | 175.8 | 1.4 |
| 463 | 11003 | 1.6 | 20.5109 | 4.2 | 0.1893 | 4.4 | 0.0282 | 1.2 | 0.28 | 179.0 | 2.1 | 176.0 | 7.1 | 136.1 | 99.6 | 179.0 | 2.1 |
| 158 | 3593 | 2.2 | 21.7790 | 7.2 | 0.1781 | 7.6 | 0.0281 | 2.6 | 0.35 | 178.8 | 4.7 | 166.4 | 11.7 | -6.8 | 173.3 | 178.8 | 4.7 |
| 573 | 10735 | 1.2 | 20.6742 | 3.2 | 0.1847 | 3.4 | 0.0277 | 1.3 | 0.37 | 176.1 | 2.2 | 172.1 | 5.5 | 117.4 | 75.7 | 176.1 | 2.2 |
| 1014 | 22526 | 23.7 | 20.1386 | 2.4 | 0.1905 | 2.9 | 0.0278 | 1.5 | 0.52 | 177.0 | 2.6 | 177.1 | 4.6 | 178.9 | 57.0 | 177.0 | 2.6 |
| 193 | 4930 | 1.8 | 22.8285 | 15.3 | 0.1655 | 15.4 | 0.0274 | 1.1 | 0.07 | 174.3 | 2.0 | 155.5 | 22.1 | -121.6 | 379.6 | 174.3 | 2.0 |
| 478 | 10078 | 1.9 | 20.6605 | 4.3 | 0.1685 | 4.5 | 0.0252 | 1.3 | 0.29 | 160.7 | 2.0 | 158.1 | 6.6 | 118.9 | 101.2 | 160.7 | 2.0 |
| 222 | 5134 | 1.1 | 21.1006 | 5.7 | 0.1803 | 5.7 | 0.0276 | 1.0 | 0.18 | 175.4 | 1.8 | 168.3 | 8.9 | 69.0 | 134.5 | 175.4 | 1.8 |
| 166 | 3292 | 2.8 | 21.6204 | 10.5 | 0.1771 | 10.6 | 0.0278 | 1.6 | 0.15 | 176.6 | 2.7 | 165.6 | 16.2 | 10.8 | 253.2 | 176.6 | 2.7 |
| 355 | 4272 | 1.3 | 20.2938 | 9.4 | 0.1893 | 9.4 | 0.0279 | 0.7 | 0.07 | 177.2 | 1.2 | 176.1 | 15.2 | 161.0 | 220.0 | 177.2 | 1.2 |
| 320 | 6551 | 1.2 | 20.8690 | 4.5 | 0.1811 | 4.6 | 0.0274 | 1.0 | 0.22 | 174.3 | 1.7 | 169.0 | 7.1 | 95.2 | 105.8 | 174.3 | 1.7 |
| 217 | 5074 | 1.6 | 20.5675 | 5.8 | 0.1864 | 6.2 | 0.0278 | 2.1 | 0.34 | 176.8 | 3.6 | 173.6 | 9.8 | 129.6 | 136.7 | 176.8 | 3.6 |
| 150 | 1915 | 2.3 | 20.9496 | 17.8 | 0.1850 | 17.9 | 0.0281 | 0.5 | 0.03 | 178.7 | 0.9 | 172.3 | 28.3 | 86.1 | 426.2 | 178.7 | 0.9 |
| 428 | 5377 | 1.1 | 20.9467 | 7.3 | 0.1696 | 7.5 | 0.0258 | 1.9 | 0.26 | 164.0 | 3.1 | 159.0 | 11.1 | 86.4 | 173.1 | 164.0 | 3.1 |
| 422 | 4631 | 4.9 | 20.9917 | 10.0 | 0.1908 | 12.1 | 0.0290 | 6.9 | 0.56 | 184.5 | 12.5 | 177.3 | 19.8 | 81.3 | 238.3 | 184.5 | 12.5 |
| 441 | 3821 | 2.1 | 18.9729 | 8.3 | 0.1971 | 8.5 | 0.0271 | 1.9 | 0.22 | 172.5 | 3.2 | 182.7 | 14.2 | 316.2 | 188.3 | 172.5 | 3.2 |
| 139 | 2058 | 1.2 | 21.8013 | 15.4 | 0.1734 | 15.4 | 0.0274 | 1.1 | 0.07 | 174.4 | 1.9 | 162.4 | 23.1 | -9.3 | 372.6 | 174.4 | 1.9 |
| 214 | 4264 | 2.2 | 21.3586 | 8.8 | 0.1783 | 8.8 | 0.0276 | 1.2 | 0.14 | 175.7 | 2.1 | 166.6 | 13.6 | 40.1 | 210.0 | 175.7 | 2.1 |
| 344 | 7462 | 1.7 | 21.0263 | 5.6 | 0.1785 | 5.7 | 0.0272 | 1.0 | 0.17 | 173.2 | 1.6 | 166.8 | 8.8 | 77.4 | 133.9 | 173.2 | 1.6 |
| 244 | 4725 | 1.9 | 22.2729 | 8.6 | 0.1715 | 8.6 | 0.0277 | 0.8 | 0.09 | 176.1 | 1.4 | 160.7 | 12.8 | -61.2 | 209.6 | 176.1 | 1.4 |
| 160 | 2707 | 2.2 | 20.9081 | 12.8 | 0.1791 | 13.1 | 0.0272 | 2.4 | 0.18 | 172.7 | 4.1 | 167.3 | 20.1 | 90.8 | 305.3 | 172.7 | 4.1 |
| 172 | 4054 | 1.0 | 22.2082 | 24.1 | 0.1888 | 24.1 | 0.0304 | 1.4 | 0.06 | 193.1 | 2.6 | 175.6 | 38.9 | -54.1 | 593.6 | 193.1 | 2.6 |
| 227 | 1962 | 1.3 | 22.1676 | 13.4 | 0.1672 | 14.3 | 0.0269 | 4.8 | 0.34 | 171.0 | 8.2 | 156.9 | 20.8 | -49.6 | 328.2 | 171.0 | 8.2 |
| 360 | 8422 | 1.5 | 20.5225 | 4.4 | 0.1844 | 4.6 | 0.0274 | 1.6 | 0.34 | 174.5 | 2.7 | 171.8 | 7.3 | 134.7 | 102.6 | 174.5 | 2.7 |
| 162 | 4342 | 1.3 | 22.5342 | 14.5 | 0.1684 | 14.5 | 0.0275 | 0.6 | 0.04 | 175.1 | 1.0 | 158.1 | 21.3 | -89.7 | 357.9 | 175.1 | 1.0 |